

## THE ANALYZE OF RISK-BASED BANK RATING METHOD ON BANK'S PROFITABILITY IN STATE-OWNED BANKS

by:

**David Peter Rotinsulu<sup>1</sup>**

**Paulus Kindangen<sup>2</sup>**

**Merinda Pandowo<sup>3</sup>**

<sup>1,2,3</sup>Faculty of Economics and Business  
International Business Administration (IBA) Program  
University of Sam Ratulangi Manado

e-mail: <sup>1</sup>[davidrotinsulu@yahoo.com](mailto:davidrotinsulu@yahoo.com)

<sup>2</sup>[kindangen\\_p@yahoo.co.id](mailto:kindangen_p@yahoo.co.id)

<sup>3</sup>[iinpan@yahoo.com](mailto:iinpan@yahoo.com)

### ABSTRACT

The rising level of a development implementation results, the productivity in the entire national economic power needs to be more enhanced. Theses development can give an optimal results to increase the prosperity, includes banking services. A bank health shows the bank's ability to maintain its public trust, intermediary functions, and financial traffic. It used by the government to implement the economy wholly to compete in the world free trade liberalization era. The aims of these studies are to determine the influence of Risk-Based Bank Rating on Bank's Profitability Level of State-Owned Banks Listed Indonesian Stocks Exchange in 2007-2013 Period. The research used secondary data in time-series. The samples are 4 banks from 38 banks populations. The data analyzed using a multiple regression model. The results of the research found (1) Risk-Based Bank Rating has significant influence on Bank's Profitability simultaneously, (2) Credit Risk and (3) Liquidity Risk has negative significant influence on Bank Profitability, (4) Market Risk has positive significant influence on Bank Profitability, while (5) Capital has no significant influence on Bank Profitability of State-Owned Banks Listed Indonesian Stocks Exchange in 2007-2013 Period. For State-Owned Banks management parties, should always conducts restudying comprehensively and continuously to create a risk management effectively to avoid the unexpected scenario in the future.

**Keywords:** *risk-based bank rating, profitability*

### INTRODUCTION

The rising level of a development implementation results, the productivity in the entire national economic power needs to be more enhanced. Theses development can give optimal results to increase the prosperity of the society. State-Owned is one of the economic actors in the national economic system. Indonesia as an actively participant in the various regional and multilateral forums has already agreed to participate in these free trade era, through its participation in the various agreements reached at various forums, one of the forms in the field of our national development is the presence of the ASEAN Free Trade Area (AFTA) / ASEAN Economy Community (AEC) 2015. ASEAN Economic Community (AEC) by 2015 as a single market demands the liberalization of the services sector, including banking services. The liberalization of the banking sector is different from the liberalization of trade and other service sectors.

One of the State-Owned is banking sector. State-Owned Banks is a bank that is partially or wholly owned by the Indonesian Government. It consists of 4 banks which are PT. Bank Negara Indonesia, PT. Bank Rakyat Indonesia, PT. Bank Mandiri, and PT. Bank Tabungan Negara. Banking as a part of the economy has an important role in the development and economic growth of a country. However, good or not the soundness of a bank, a crisis of faith can move to the withdrawal of public funds massively, the bank will certainly destroyed. Indonesian banking institutions had felt the loss of public trust in bank. In the 1998, the Indonesian economic be witnessed a sharp decline in the economy as the national currency increased against the dollar, the price index goes to new heights as the result of Asian Financial Crisis.

A ten years after the financial crisis in 1998, Indonesia was re-experiencing the crisis had a negative impact on the economy of the country in 2008. Indonesia was experienced a slowdown in economic growth, which in 2007 the country's economic growth rate reached 6.7% and in 2008 only 6, 1%. Other impacts experienced a reduction in the balance of payments, the pressure of the exchange rate and boost to the inflation rate (Setneg, 2013). The Century's Bank case is one of the cases that occurred in the Indonesian banking. These banks need to be rescued due to the liquidity fall of Century's Bank would negatively affect systemic posture overall of national banks and national liquidity itself (Starbrainindonesia, 2010). Century Bank case is example of a bank that is experiencing in health problems.

The Financial Crisis in 1997 and 2008, Century's Bank case, and the Indonesia preparation faced of the AEC 2015, an overview of the importance of a bank's health system, an obligation and a challenge for all national banking industry in financial infrastructure readiness level to faces competition increasingly in the fight over the fat market segment is still large and this potential in order to compete with foreign banks after 2015 AEC which the Indonesian banking market is now relatively open will be opened. If not, it is feared will happen overbank conditions impacting the liquidity that is not healthy and therefore contributes to the economy.

The challenge will Indonesia faced future, The Bank of Indonesia, as an intention form of bank health has issued a policy bank-rating updated on October 25, 2011 with The Bank of Indonesia issued No.13/PBI/2011. This new rule is a perfected of CAMELS method that previously used. The newest method implemented by Bank Indonesia is the method of approach to the Risk-based Banking Rating. This method consists of four factors namely Risk Profile, Good Corporate Governance (GCG), Earnings, and Capital. Here is the comparison between Return on Assets of State-Owned Banks listed Indonesia Stock Exchange in 2007-2013 (Table 1).

**Table 1. The Return On Assets (ROA) of State-Owned Banks Listed Indonesia Stock Exchange in 2007-2013 Period**

No.	Name of Banks	2007 (%)	2008 (%)	2009 (%)	2010 (%)	2011 (%)	2012 (%)	2013 (%)
1.	Bank Negara Indonesia (Persero). Tbk	0.90	1.10	1.70	2.50	2.94	2.92	3.36
2.	Bank Rakyat Indonesia (Persero). Tbk	4.61	4.18	3.73	4.64	4.93	5.15	5.03
3.	Bank Tabungan Indonesia (Persero). Tbk	1.92	1.80	1.47	2.05	2.03	1.94	1.79
4.	Bank Mandiri (Persero). Tbk	2.30	2.50	3.13	3.50	3.37	3.55	3.66

Source: Indonesian Stock Exchange (idx), 2014

Table 1 shows Bank Rakyat Indonesia (Persero) Tbk and Bank Tabungan Indonesia (Persero) Tbk have decreased in ROA, compared with Bank Negara Indonesia (Persero) Tbk and Bank Mandiri (Persero) Tbk. It indicates there are certain factor affects the level of earnings experienced by a decreased both of the banks. The value of ROA is very small or under the assessment standards by Bank Indonesia, it would seem in terms of the rate of profit is bad condition. It also has an impact on the overall activities of the banks, especially it can be judged by the public as the troubled bank.

### Research Objectives

This research has several objectives are to determine the influence of:

1. RBBR Method on Bank Profitability simultaneously.
2. Credit Risk on Bank Profitability partially.
3. Liquidity Risk on Bank Profitability partially.
4. Market Risk on Bank Profitability partially.
5. Capital on Bank Profitability partially.

## THEORETICAL REVIEW

### State-Owned Enterprises

The Law of the Republic of Indonesia No. 19 Year 2003 about State-Owned stated all business entity and most of the capital are owned by the state in direct participation from state assets set aside.

### Bank & Function of Banks

The Law of The Republic of Indonesia No. 10 Year 1998 stated banking is anything concern about the bank in order to include business activities in the way of its business activities. Akrani (2010) stated there are two functions of bank namely: primary and secondary function. In primary functions, there are accepting deposits, making advances, and credit creation. Secondary function consists of clearance of cheque, sale/purchase of shares/bonds, transfer money, work as trusty, work as representative, and give/accept money.

### Banking Financial Statement

Hornrgren, et.al. (2002:5) stated financial statements are documents reported on a business in monetary amounts to provide the formation as a review for people in order to inform of business decisions making. Hornrgren (2002:17) stated there are three forms of financial statements are commonly used, namely: income statement, balance sheet, and cash flows statement.

### Financial Ratio Analysis

Horne (2005:234) stated the financial ratio is a tools used to analyze the financial condition, especially in company performance.

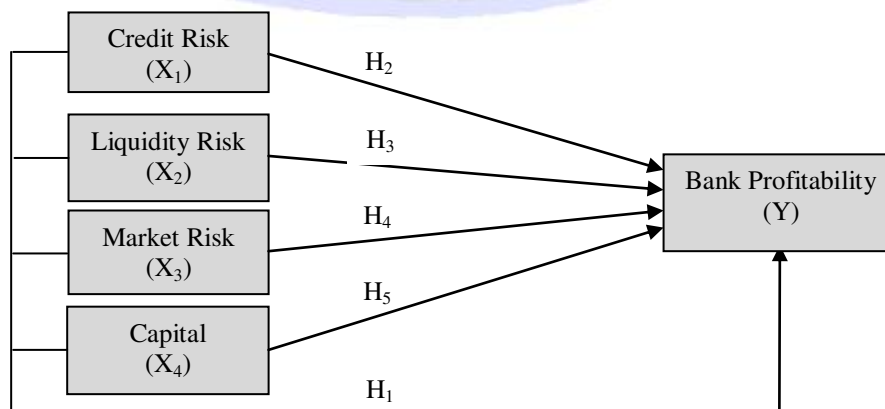
### Risk-Based Bank Rating (Method)

The Central Bank of Indonesia made the Banks' Health Assessment System Number 13/1/PBI/2011 about the banks health assessment system, called Risk-Based Bank Rating (RBRR) Method, to substitutes the Regulation Number 6/10/PBI/2004. This is a perfected of CAMELS method used previously, in order to follow the international standards of bank health assessment. The RBRR consists are risk profile, Good Corporate Governance (GCG), Earnings and Capital.

### Previous Research

Acaravci (2013) conducted the study about Turkish Banking Sector's Profitability Factors and found the bank specific determinants have been more effect than macroeconomic factors on profitability of the banks. Din (2010) conducted the study about "Analyzing Financial Performance of Commercial Banks in India: Application of CAMEL Model and highlighted that the position of the banks under study is sound and satisfactory so far as their capital adequacy, asset quality, Management capability and liquidity is concerned.

### Conceptual Framework



**Figure 1 Conceptual Framework**  
Source: *Theoretical Framework*, 2014



### Research Hypothesis

The hypotheses of this research are:

- H<sub>1</sub> Risk-Based Bank Rating method is assumed to affect Bank Profitability simultaneously,
- H<sub>2</sub> Credit Risk represented the Non-Performing Loan (NPL) is assumed to affect Bank Profitability partially,
- H<sub>3</sub> Liquidity Risk represented the Loan to Deposit Ratio (LDR) is assumed to affect Bank Profitability partially,
- H<sub>4</sub> Market Risk represented the Net Open Position (NOP) is assumed to affect Bank Profitability partially,
- H<sub>5</sub> Capital represented by the Capital Adequacy Ratio (CAR) is assumed to affect Bank Profitability partially.

## RESEARCH METHOD

### Type of Research

The type of research is a causal research to delineate the cause of one or more problems. The independent variables of research are credit risk, market risk, liquidity risk, and capital; and the independent variable is bank profitability.

### Place and Time of Research

This research is conducted on State-Owned Banks listed Indonesian Stock Exchange in 2007 – 2013 period and is conducting between August to November 2014.

### Population and Sample

Population in this research is all banking in Indonesian Stock Exchange. The samples in this research are 4 State-Owned Banks, namely: PT. Bank Negara Indonesia (Persero) Tbk, PT. Bank Rakyat Indonesia (Persero) Tbk, PT. Bank Tabungan Negara (Persero) Tbk, and PT. Bank Mandiri (Persero) Tbk.

### Data Collection Method

This research is used a secondary data obtained from the internet, books and journals.

### Data Analysis Method

#### Multiple Regression Analysis Model

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e$$

Description:

- Y = Profitability
- $\beta_0, \beta_1, \beta_2, \beta_3, \dots, \beta_n$  = Regression Coefficients
- X<sub>1</sub> = Credit Risk
- X<sub>2</sub> = Liquidity Risk
- X<sub>3</sub> = Market Risk
- X<sub>4</sub> = Capital
- e = error

### Normality Test

The most fundamental assumption in multivariate analysis is normality, to shapes the distribution data for an individual metric variable and its correspondence to normal distribution, in order to benchmark for statistical method (Hair et al., 1998; 70). Normality could identify using *Jarque-Bera* test.

### Multicollinearity Test

Hair et al. (1998; 143) found Multicollinearity occurs when any single independent variable is highly correlated by a set of other independent variables. The coefficient of each variables is bigger than 0.8, there is a multicollinearity.

### Heteroscedasticity Test

Heteroscedasticity test aims to test whether regression model have a differences residual variance of an observation period to another observation period (Hanke & Reitsch, 1998: 259).

### Autocorrelation Test

Hanke & Reitsch (1998; 360) assumed autocorrelation appears causes the observed on time series are linked to each other. Autocorrelation could identify used Lagrange Multiplier (LM Test), called *Breusch-Godfrey (BG)* test.

### Hypothesis Test

Hypothesis test is undertaken to explain the variance of the dependent variable to predict the organizational outcomes (Sekaran and Bougie, 2009: 108). The T-test (partially test) and F-test (Simultaneously test) are used to find out the relationship between dependent and independent variables.

### Operational Definition and Measurement of Research Variables

1. Credit Risk is a risk cause of customer / debtor failure in order to fulfill its obligations on banks. It represented by Non Performing Loan (NPL) ratio.

$$\text{Non Performing Loan (NPL)} = \frac{\text{Non Performing Loan}}{\text{Total Loans}}$$

2. Liquidity Risk is a risk faced by bank to fulfill its requirements caused of bank inability on a cash flows risks system in felt of time condition period (< a year). It represented by Loan to Deposit Ratio (LDR).

$$\text{Loan to Deposit Ratio (LDR)} = \frac{\text{Total Loans}}{\text{Third Parties Funds}}$$

3. Market risk is a risk caused of market variable movement, namely interest rate and exchanges in become a bank failure. It represented by Net Open Position (NOP) ratio.

$$\text{Net Open Position (NOP)} = \frac{\text{Net Open Position}}{\text{Total Capital}}$$

4. Capital is a bank capital adequacy assessment to handle the current risks assets in order to anticipate the trend risk supports the bank's growth. It represented by Capital Adequacy Ratio (CAR).

$$\text{CAR} = \frac{\text{Total Capital}}{\text{Risk Weighted Assets}}$$

5. Profitability is a profit received by bank to conducts its activities in order to its life in carry out its functional works. It represented by Return On Assets (ROA).

$$\text{ROA} = \frac{\text{Earnings Before Income Tax}}{\text{Average Total Assets}}$$

## RESULT AND DISCUSSION

### Result

This section describes result and discussion about the analyze of risk-based bank rating (rbbr) method on bank's profitability in State-Owned Banks Listed in Indonesian Stocks Exchange.

**Table 2. The Credit Risk Growth of State-Owned Banks**

BANK	Credit Risk						
	2007	2008	2009	2010	2011	2012	2013
Bank Negara Indonesia (Persero). Tbk	8.2	4.9	4.7	4.3	3.6	2.8	2.2
Bank Rakyat Indonesia (Persero). Tbk	3.44	2.8	3.52	2.78	2.3	1.78	1.55
Bank Tabungan Indonesia (Persero). Tbk	4.05	3.2	3.36	3.26	2.75	4.09	4.05
Bank Mandiri (Persero). Tbk	7.2	4.7	2.62	2.21	2.18	1.74	1.6

Source: Indonesian Stock Exchange (idx), data processed, 2014

Table 2 indicates the Credit Risk of each bank represented by gross NPL has different fluctuations through the period of study. It shows the highest risk is 8.2% of PT. Bank Negara Indonesia (Persero) Tbk in 2007, and the lowest risk is 1.55% of PT. Bank Rakyat Indonesia (Persero) Tbk in 2013.

**Table 3. The Liquidity Risk Growth of State-Owned Banks**

BANK	Liquidity Risk						
	2007	2008	2009	2010	2011	2012	2013
Bank Negara Indonesia (Persero). Tbk	60.6	68.6	64.1	70.2	70.4	77.5	85.3
Bank Rakyat Indonesia (Persero). Tbk	68.8	79.93	80.88	75.17	76.2	79.85	88.54
Bank Tabungan Indonesia (Persero). Tbk	92.38	101.83	101.29	108.42	102.57	100.9	104.42
Bank Mandiri (Persero). Tbk	54.3	59.2	59.15	65.44	71.65	77.66	82.97

Source: Indonesian Stock Exchange (idx), data processed, 2014

Table 3 shows the Liquidity Risk growth of each bank represented by LDR in general increases along the period of the research sample. It shows the highest risk is 8.2% of PT. Bank Negara Indonesia (Persero) Tbk in 2007, and the lowest risk is 1.55% of PT. Bank Rakyat Indonesia (Persero) Tbk in 2013.

**Table 4. The Market Risk Growth of State-Owned Banks**

BANK	Market Risk (X3)						
	2007	2008	2009	2010	2011	2012	2013
Bank Negara Indonesia (Persero). Tbk	6.1	7.6	6.3	4.4	2.8	2.2	3.4
Bank Rakyat Indonesia (Persero). Tbk	7.9	13.55	5.22	4.45	5.49	3	3.15
Bank Tabungan Indonesia (Persero). Tbk	0.99	0.38	1.14	2.18	1.73	0.7	1.01
Bank Mandiri (Persero). Tbk	5.58	9.5	3.44	1.85	1.5	1.27	2.4

Source: Indonesian Stock Exchange (idx), data processed, 2014

Table 4 indicates the Market Risk of each bank represented by NOP have significant fluctuations in the period of 2007-2013. It shows the highest risk is 13.55% of PT. Bank Rakyat Indonesia (Persero) Tbk in 2008, and the lowest risk is 0.99% of PT. Bank Tabungan Negara (Persero) Tbk in 2007.

**Table 5. The Capital Growth of State-Owned Banks**

BANK	Capital (X4)						
	2007	2008	2009	2010	2011	2012	2013
Bank Negara Indonesia (Persero). Tbk	15.7	13.5	13.8	18.6	17.6	16.7	15.4
Bank Rakyat Indonesia (Persero). Tbk	15.84	13.18	13.2	13.76	14.96	16.95	16.99
Bank Tabungan Indonesia (Persero). Tbk	21.86	16.14	21.54	16.74	15.03	17.69	15.62
Bank Mandiri (Persero). Tbk	21.1	15.7	15.43	13.36	15.34	13.36	15.43

Source: Indonesian Stock Exchange (idx), data processed, 2014

Table 5 indicates the Capital represented by CAR have significant fluctuations through the period of study. It shows the highest risk is 21.86% by PT. Bank Tabungan Negara (Persero) Tbk in 2007, and the lowest risk is 13.2% by PT. Bank Rakyat Indonesia (Persero) Tbk in 2009.

**Table 6. The Profitability Growth of State-Owned Banks**

BANK	Profitability (Y)						
	2007	2008	2009	2010	2011	2012	2013
Bank Negara Indonesia (Persero). Tbk	0.9	1.1	1.7	2.5	2.9	2.9	3.36
Bank Rakyat Indonesia (Persero). Tbk	4.61	4.18	3.73	4.64	4.93	5.15	5.03
Bank Tabungan Indonesia (Persero). Tbk	1.92	1.8	1.47	2.05	2.03	1.94	1.79
Bank Mandiri (Persero). Tbk	2.3	2.5	3.13	3.5	3.37	3.55	3.66

Source: Indonesian Stock Exchange (idx), data processed, 2014

Table 6 indicates the Profitability represented by ROA in SOE's Banks have significant fluctuations through the period of study. It shows the highest risk is 5.15% by PT. Bank Rakyat Indonesia (Persero) Tbk in 2012, and the lowest risk is 0.9% by PT. Bank Negara Indonesia (Persero) Tbk in 2007.



**Table 7. The Regression Result**

Variable	Coefficient	Std. Error	t-statistic	Prob.
C	5.724371*	1.500273	3.815553	0.0009
X <sub>1</sub>	-0.729208*	0.114420	-6.373082	0.0000
X <sub>2</sub>	-0.025791*	0.011596	-2.224085	0.0362
X <sub>3</sub>	0.136795*	0.061843	2.211982	0.0372
X <sub>4</sub>	0.077245*	0.072965	1.058653	0.3008
R-squared	0.674304	F-statistic		11.90451
Adjusted R-squared	0.617661	Prob(F-statistic)		0.000022
S.E. of regression	0.761770	Mean dependent var		2.951429
Sum squared resid	13.34674	S.D. dependent var		1.231968
Log likelihood	-29.35722	Akaike info criterion		2.454087
T <sub>table (28-5)</sub>	2.807	Schwarz criterion		2.691981

Notes: \*) significant level in  $\alpha = 5\%$

Source: Data Processed, 2014

Table 7 shows the constant value is 5.72, means Bank's Profitability (Y) is 5.72. All of the independent variables is considered zero. It indicates are:

First, the coefficient regression value of Credit Risk (X<sub>1</sub>) has negative influence on Bank's Profitability;  
 Second, the coefficient regression value of Liquidity Risk (X<sub>2</sub>) has negative influence on Bank's Profitability;  
 Third, the coefficient regression value of Market Risk (X<sub>3</sub>) has positive influence on Bank's Profitability;  
 Fourth, the coefficient regression value of Capital (X<sub>4</sub>) has positive influence on Bank's Profitability.

#### Simultaneously Significant Test (F-Test)

Table 7 shows  $\alpha = 5$  percent is chosen, the  $F_{\text{stat}} = 11.90451$ , obtained  $F_{\text{table}}$  is 2.807. Thus,  $F_{\text{stat}} = 11.90451 \geq F_{\text{table}} = 2.807$ , means  $F_{\text{stat}} \geq F_{\text{table}}$ , then  $H_0$  is rejected or  $H_a$  is accepted. It defined all of the independent variables significantly influence on dependent variable simultaneously.

#### An Individual Parameter Significant Test (t-statistic test)

A trust level in 95% ( $\alpha = 5$  percent), Probability is 0.025 ( $\alpha/2 = 0.05/2$ ), and degree of freedom (df) = 23 ( $n-k = 28 - 5$ ), it obtained "t-table" is 2.069 and  $\alpha = 10$  percent {The Probability on 0.05 ( $\alpha/2 = 0.10/2$ )}, obtained "t-table" is 1.714.

##### 1. The Influence of Credit Risk (X<sub>1</sub>) on Bank's Profitability (Y)

Table 7 shows  $t_{\text{critical}} = -6.373$ , while  $t_{\text{table}} (\alpha = 5 \text{ percent})$  is 2.069. Thus,  $t_{\text{critical}} = -6.373 \leq t_{\text{table}} = 2.069$ , since  $-t_{\text{critical}} \leq t_{\text{table}}$ , then  $H_0$  is rejected or  $H_1$  is accepted. It defined Credit Risk (X<sub>1</sub>) is significant influence on Bank's Profitability (Y) negatively.

##### 2. The Influence of Liquidity Risk (X<sub>2</sub>) on Bank's Profitability (Y)

Table 7 shows  $t_{\text{critical}} = -2.224$ , while  $t_{\text{table}} (\alpha = 5 \text{ percent})$  is 2.069. Thus,  $t_{\text{critical}} = -2.224 \leq t_{\text{table}} = 2.069$ , since  $-t_{\text{critical}} \leq t_{\text{table}}$ , then  $H_0$  is rejected or  $H_2$  is accepted. It defined Liquidity Risk (X<sub>1</sub>) is significant influence on Bank's Profitability (Y) negatively.

##### 3. The Influence of Market Risk (X<sub>3</sub>) on Bank's Profitability (Y)

Table 7 shows  $t_{\text{critical}} = 2.211$ , while  $t_{\text{table}} (\alpha = 5 \text{ percent})$  is 2.069. Thus,  $t_{\text{critical}} = 2.211 \geq t_{\text{table}} = 2.069$ , since  $t_{\text{critical}} \geq t_{\text{table}}$ , then  $H_0$  is accepted or  $H_3$  is rejected. It defined Market Risk (X<sub>3</sub>) is significant influence on Bank's Profitability (Y) positively.

##### 4. The Influence of Capital (X<sub>4</sub>) on Bank's Profitability (Y)

Table 7 shows  $t_{\text{critical}} = 1.058$ , while  $t_{\text{table}} (\alpha = 5 \text{ percent})$  is 2.069. Thus,  $t_{\text{critical}} = 1.058 \leq t_{\text{table}} = 2.069$ , since  $t_{\text{critical}} \leq t_{\text{table}}$ , then  $H_0$  is rejected or  $H_4$  is accepted. It defined Capital (X<sub>4</sub>) is no significantly influence on Bank's Profitability (Y).

### The Determination Coefficient ( $R^2$ )

Table 7 obtained  $R^2$  is 0.674304. It defined  $R^2$  for 67.43% of Bank's Profitability variance can explained by 28 of the independent variables; there are Credit Risk, Liquidity Risk, Market Risk, and Capital of State-Owned Banks Listed Indonesian Stocks Exchange in 2007 – 2013 Period, 32.57% remains can explained by outside the model.

### Multicollinearity Test

Table 8 indicates there is no multicollinearity contains by the correlation matrix, it is lower than 0.8.

**Table 8. Multicollinearity Test Result**

	X1	X2	X3	X4	X5
X1	1.000000	-0.34334	0.306816	0.289758	-0.659902
X2	-0.34334	1.000000	-0.532631	0.200734	-0.159137
X3	0.306816	-0.532631	1.000000	-0.337938	0.179191
X4	0.289758	0.200734	-0.337938	1.000000	-0.295491
Y	-0.659902	-0.159137	0.179191	-0.295491	1.000000

Source: Data Processed, 2014

### Heteroscedasticity Test

Table 9 shows obs\*R-Squared is 13.84034, while chi Squared in  $\alpha = 5$  percent and  $DF_{(23)}$  is 36.41. The obs\*R-Squared is smaller than chi squared ( $\chi^2$ ), it concluded there is no a heteroscedasticity contains.

**Table 9. Heteroscedasticity (White Test)**

White Heteroscedasticity Test:			
F-statistic	2.321442	Probability	0.063021
Obs*R-squared	13.84034	Probability	0.086023

Source: Data Processed, 2014

### Autocorrelation Test

Table 10 shows  $n = 28$  and  $k = 5$ , obtained the degree of freedom ( $df = 23$  ( $n-k$ )), and used  $\alpha = 5$  percent obtained  $\chi^2$  table value is 35.17, while the Obs\*R-Squared value in Breusch-Godfrey test is 5.315102, then Obs\*R-Squared value for Breusch-Godfrey test is smaller than  $\chi^2$  table, it concluded free an autocorrelation.

**Table 10. Breusch-Godfrey (BG) Test Result**

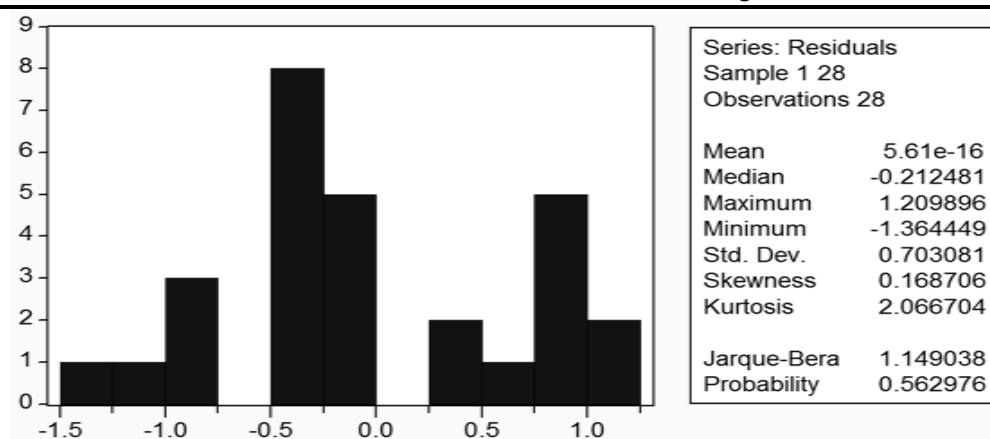
Breusch-Godfrey Serial Correlation LM Test:	
F-statistic	2.460164
Obs*R-squared	5.315102

Source: Data Processed, 2014

### Normality Test

Normality test used the observation is less than 30 observations, it determine whether error term is get near to normality distribution or not. It conducts the Jarque-Bera (J-B) test.





**Figure 2. Jarque-Bera Test Result**

*Source: Data Processed, 2014*

Figure 2 shows  $n = 28$  and  $k = 5$ , obtained the degree of freedom ( $df = 23$  ( $n-k$ )), and used  $\alpha = 10$  percent obtained  $\chi^2$  table value is 32.01, while Jarque-Bera value is 1.149038, it concluded 90 percent confidence level of its  $\mu_1$  interference probability regression are normally distribute because the Jarque-Bera value is smaller than  $\chi^2$  table value.

## Discussion

### The Influence of Credit Risk on Bank's Profitability

These findings are indicates higher of the credit risk, then Bank's Profitability of State-Owned Banks will be small too. The increasing of Non Performing Loan (NPL) will affects on the bank's profitability, because it will get worse a bank's credit quality, and makes the bank must to bear a loss in its operational activities, it will impacts on profitability decrease (ROA) by State-Owned Banks. Many credits financed certainly have a default risks. It causes by a lot of factors, whether intentional or unintentionally. An intentionally means the customer don't want to pay-off his/her credits (human uncertainties). Meanwhile, unintentional means the customer don't have the ability to pay off as a result of disaster losses suffered or called "act of goods". However, the customer can pay off its credit in a various ways, for example by auctioning off guarantees have provided earlier, or An Indonesian Financial Services Authority (OJK) issued a special credit policy given to the debtors who suffered a disaster on all of Indonesian banking such as: (1) A quality credit assessment, (2) A Quality of Restricted Loans, (3) An Enforcement on Sharia Bank (OJK, 2014). And, Economic Uncertainties also can be as one factor, for example there are price changes, demand declines, Purchasing Power Declines on Interest Rate Changes, etc. Therefore, State-Owned Banks parties should and always be considering the risk-taking factors must be borne in order to risk management said to be effectively to avoid unexpected scenario future, especially on State-Owned Bank Profitability improvement annually. These findings are supports the previous research by Garcia-Herrero, Gavila, and Santabarbara (2009) in their journal entitled "What Explains The Low Profitability of Chinese Banks?" indicates Credit Risk is negative significant affects on Bank Profitability.

### The Influence of Liquidity Risk on Bank's Profitability

These findings are indicates the liquidity problem is a dilemma of each banks. Bank wants to have the high liquidity level, then bank will being higher safety level and it will obtain in low profitability level. Bank's essentially don't know exactly how much savings will be withdrawn by customers, so that practically bank's have faced by two possibilities, namely over liquid or under liquid position. Over liquid position is a condition the liquid tools are controlled / maintained, means there is an idle fund, this position bank's should decided a "placement." Contrary, under liquid position is a condition the liquid tools reflects deficiency, this condition indicates a dangerous situation because there are too much lend banks must do borrow. Although the possibility is poorly, but is more dangerous when bank is in under liquid position, it would reduce even possibly eliminates the public trust. These findings supports or in lines with the previous research by Tabari, Ahmadi, and Emami (2013) in their journal entitled "The Effect of Liquidity Risk on The Performance of Commercial Banks" that indicates that Liquidity Risk is negatively significant affects on Bank Profitability.

### **The Influence of Market Risk on Bank's Profitability**

These findings are indicates how the net open position is important for a bank to limit a risk due to the exchange rate fluctuations, in order to create the healthy climate of the State-Owned Banks. A greater of volume and nominal value transactions defined the greater of the State-Owned Bank revenue are proportionally on foreign exchange. However, banks doesn't carefully manage its foreign exchange transactions, the foreign exchange position are exceed its owned capital and at the same time there is an exchange rates movement opposed unexpected by banks, then the expected benefits obtained would turn into disaster, as experienced by our banking when in the 1997-1998 crisis were ultimately dragged national banks were be a patient on Indonesian Banks Restructuring Agency. In order to the Net Open Position being optimally, it is necessary to monitoring continuously its movement and its factor in affects of the exchange rates fluctuations anytime, bank's can determine to deciding when to do "Long" and when to do "Short". To implement these activities, needs a better management and coordinately by banking management information system in its work unit by integrated computer connection, then there is significant transactions influence the Net Open Position level can detects in punctilious and accurately. These findings are supports the previous theory by Loen and Ericson (2008) in their book entitled "*Manajemen Aktiva Pasiva Bank Devisa*" indicates Market Risk is positive significant affects on Bank Profitability.

### **The Influence of Capital on Bank's Profitability**

These findings are indicates capital is no significantly affect on Bank Profitability. Theoretically the higher of bank's capital, then the greater opportunity for State-Owned Bank to gets profit. Although, the influence of capital on bank's profitability statistically hasn't significantly affects, however this variable have a positive coefficient and in theoretically bank's capital have a positive influence on Bank Profitability, then the significant lack doesn't mean these variables can be ignored in capital risk management policy-making for State-Owned Bank as an effort of its banking management development in its profit increases, in order to accommodate its health in the future. With the capital adequacy, allows for the State-Owned Bank management to work efficiently to implement its risk management systems, and to improve State-Owned Bank Profitability in faced the globalization era, especially to preparing State-Owned Bank and other banks to compete in the international market by the presence of AEC (ASEAN Economic Community) in 2015. These findings are supports the findings by Osborne, Fuertes, and Milne (2013) in their journal entitled "Capital and Profitability in Banking: Evidence from US Bank" indicates Capital has no significantly affects on Bank Profitability.

## **CONCLUSION AND RECOMMENDATION**

### **Conclusion**

The result and discussion, several conclusions can be formulated.

1. Risk-Based Bank Rating Method simultaneously and significantly influence Bank Profitability.
2. Credit Risk has negative significant influence on Bank Profitability partially.
3. Liquidity Risk has negative significant influence on Bank Profitability partially.
4. Market Risk has positive significant influence on Bank Profitability partially.
5. Capital has no significant influence on Bank Profitability partially.

### **Recommendation**

These research results can give some of recommendation.

1. For the bank's management parties, SOE's Banks should always conducts restudying comprehensively and continuously to create a risk management effectively in order to avoid the unexpected scenario in the future, namely macro prudential surveillance and makes an instrument of policy design in a mutual agreement of State-Owned Bank to maintains its risk management process.
2. For the investor and bank's customer parties are expected to pay more attention at bank's risk profile assessment factors, its factors are significantly influence on State-Owned Bank Profitability.
3. For the next researcher conducts the research with the same title/topic are expected can completes the bank soundness measurement components predefined by The Bank of Indonesia's used RBBR (Risk-based Bank

Rating) method to ensure the accuracy of research results, especially for all of components such as GCG (Good Corporate Governance), Operational Risk, Law Risk, Strategic Risk, Compliance Risk, and Reputation Risk, and is expected ability to added a references on variables be studied further.

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