



**THE RELATIONSHIP OF  
CR, CATAR, CLTAR, DTAR, ROA AND ROE  
OF 9 PUBLIC LISTED BANKS IN INDONESIA  
(MANDIRI, CIMB NIAGA, PERMATA, BTN, DANAMON, BCA,  
ICB BUMIPUTERA, BNI, BRI)  
PERIOD 2008 - 2012**

**By**

**Ahmad Rafiqi Dalimunthe**

**ID No. 015201000053**

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## **PANEL OF EXAMINERS APPROVAL SHEET**

The Panel of Examiners declare that the skripsi entitled **THE RELATIONSHIP OF CR, CATAR, CLTAR, DTAR, ROA AND ROE OF 9 PUBLIC LISTED BANKS IN INDONESIA (MANDIRI, CIMB NIAGA, PERMATA, BTN, DANAMON, BCA, ICB BUMIPUTERA, BNI, BRI) SINCE 2008 - 2012** that was submitted by **Ahmad Rafiqi Dalimunthe** majoring in Business Administration from the Faculty of Business was assessed and approved to have passed the Oral Examinations on January 30<sup>th</sup>, 2014

**A.B.M. WITONO, Ph.D**  
**Chair - Panel of Examiners**

**Drs. AGUS B. ADIDI, M.A., CCA**  
**Examiner I**

**SURESH KUMAR, S.T., M.Si**  
**Examiner II**

**DECLARATION OF  
ORIGINALITY**

I declare that this skripsi, entitled **“THE RELATIONSHIP OF CR, CATAR, CLTAR, DTAR, ROA AND ROE OF 9 PUBLIC LISTED BANKS IN INDONESIA (MANDIRI, CIMB NIAGA, PERMATA, BTN, DANAMON, BCA, ICB BUMIPUTERA, BNI, BRI) SINCE 2008 - 2012”** is, to the best of my knowledge and belief, an original piece of work that has not been submitted, either in whole or in part, to another university to obtain a degree.

Cikarang, Indonesia, \_\_\_\_\_

Ahmad Rafiqi Dalimunthe

## **ABSTRACT**

This study aims to find out the relationship between liquidity management and working capital management toward profitability of banks. The 2008 financial crisis caused by severe liquidity problem faced by financial institutions had driven notable banks to bankruptcy worldwide. In Indonesia, few banks had gone down because of the crisis, while most of them suffer decreased profit. This study can give pointers to banks to increase their profit by maintaining a good management of liquidity and working capital. Researcher studied 9 public listed banks in Indonesia, using quarterly issued financial statements from 2008 – 2012. Researcher applied multiple regression testing to find out the relationship between current ratio, current asset to total asset ratio, current liabilities to total asset ratio and debt to total asset ratio toward return on asset and return on equity. Researcher found out CR, CLTAR, and DTAR significantly affect ROA, while ROE significantly affected by CLTAR.

Keywords: ROA, ROE, CR, CATAR, CLTAR, DTAR

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# I INTRODUCTION

## 1.1 Research Background

Banking system plays an important role on today's world economy and any serious challenge in banking industry influences the whole economy, significantly. One of financial turmoil goes back in year 2008 where most large banks in United States faced serious disruption. The 2008 financial crisis was so great it was dubbed as the worst financial crisis since The Great Depression by many economists (*Reuters*, 2009).

The 2008 financial crisis deeply impacted financial condition in the USA, and in turn it also affected the financial service worldwide. The 2008 financial crisis eventually brought large financial institutions to the brink of total collapse, which triggered the bailout of banks by national governments, and stock markets were plummeting all around the world (Baily & Elliot, 2009).

In parallel with financial crisis, the housing market also suffered in many areas, resulting in evictions and foreclosures. The crisis played a significant role in the failure of key businesses, with consumer wealth declined as much as trillions of U.S. dollars, triggered the 2008–2012 global recessions and contributing to the European sovereign-debt crisis (Williams, 2012).

As the financial crisis is worsening in 2008, the crisis took another toll, namely the global stock markets, where securities suffered large losses during 2008 and early 2009. Along with decline in global stock markets, economies worldwide slowed during this period, as credit tightened and international trade plummeted (*IMF*, 2009).

Before the financial crisis occurred in 2008, the U.S. stock market saw then all-time-high point, with the Dow Jones Industrial Average index exceeded 14,000 points, peaked in October 2007. After achieved all-time-high in the year before, the Dow Jones Industrial Average index had gradually gone south in 2008. In October, the index was declining in faster pace. Eventually, the Dow Jones Industrial Average hit then all-time-low in March 2009, with index point that had been reduced to 6,600 (Kawamoto, 2009).

Dow (2009) compared what happened during in financial crisis in 2008-2009 to decline of stock market when the Great Depression ravaged the entire financial system in USA in the late

of 1920s. If we look closely at the historical price changes of the Dow Jones Industrial Average, the index had peaked to its high of 14,279.96 on October 11, 2007, and then dropped 52.5 percent to its low point of 6,779.62 in March 2009. Back on September 3, 1929, the Dow Jones Industrial Average hit then all-time-high mark of 381.17. On January 2, 1931, it fell 54.7 percent to 172.36 over a similar period of a year and five months. It's like an exact copy of occurrence compared to what happened in a similar length of time in the late 1920s. The decline of stock price that took place in financial crisis in 2008-2009 happened to be closely resembles the decline in Dow Jones Industrial Average during the Great Depression.

Not only crashing stock market down, 2008 financial crisis also force banking system to suffer loss. According to the International Monetary Fund, substantial banks in U.S. and Europe such as Citibank, Bank of America and HSBC, lost more than \$1 trillion throughout January 2007 to September 2009, because bad investment call on toxic assets and from bad loans (*Reuters*, 2009).

As 2008 financial crisis was triggered by default in subprime mortgage lending, the companies that initially affected were those mortgage lenders, as they were heavily dependent on financing through the credit markets, which they could no longer obtain. There was around 150 mortgage lenders went down and bankrupt during 2007 and 2008. Since these all mortgage lender went down and could not pay their liabilities to much bigger bank, there were growing concerns that investment bank would collapse. The fall of Bear Stearns, and then its acquisition by JP Morgan Chase in March 2008, was arguably the first among many banks that affected by crisis and went down. By the time it reaches September and October, the 2008 crisis finally hit its peak. The 2008 financial crisis was taken down major institution like Lehman Brothers, and institutions like Wachovia, Merrill Lynch, and Washington Mutual was forcedly acquired by other banks or financial institutions. Other institutions like AIG, Citigroup, Fannie Mae and Freddie Mac were subject to government takeover (Altman, 2009).

Due to heavy inter-dependency and quite similarity on bank operation among banks in USA and Western Europe, 2008 financial crisis that started in USA would spreading to its counterparts in Western Europe. 2008 financial crisis in Western Europe distinguished by the recession that befall the Britain. Cohen (2008) reported that Britain's economy was shrinking

during the third quarter of the year, and its GDP would also decline as the effect of the 2008 financial crisis.

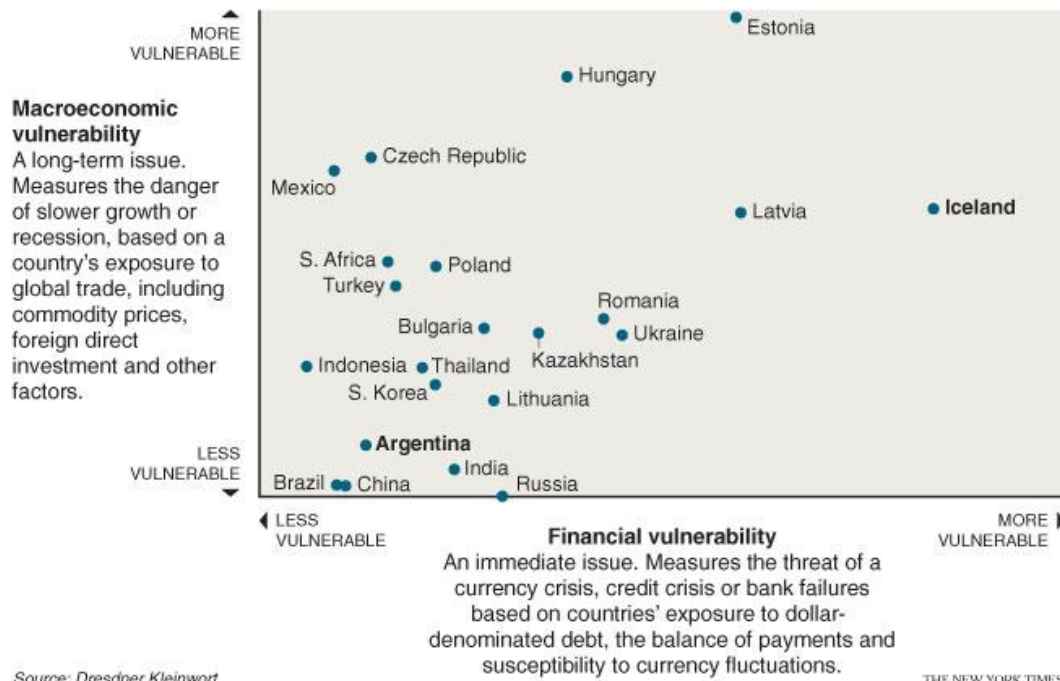
Along with the recession, the financial condition in Europe was not particularly good. The stock markets in the European Union countries were plummeting. The decline among countries were varied. The stock market in countries with strong financial background such as Britain, Germany and France, down 31% - 35%. On the other hand, 2008 financial crisis struck worse on countries like Greece, Poland and Hungary with stock market down 45% - 50% (Norris, 2008).

2008 financial crisis also one of the factors that contributed in Icelandic financial crisis. The economic crisis in Iceland unfolded when three major banks could not afford to pay their debt, rejected for refinancing, and forced government to bailout and take over their assets and operation, just like what happen to banks in USA. Up until now, Icelandic crisis is the largest ever systemic banking collapse in economic history, relative to the size of country's economy (*Economist*, 2008).

Figure 1.1 Emerging Market Vulnerability

## Emerging Market Vulnerability

An analysis by the investment bank Dresdner Kleinwort rated a variety of emerging market countries based on their vulnerability in two categories: macroeconomic, meaning the broad economy, and financial, meaning the stability of the currency and banking system.



Source: New York Times

We can understand better why Icelandic banking collapse happened by looking at Figure 1.1. In Figure 1.1, we can see that Iceland is on the far right end of the graphic, means that the economy of Iceland is vulnerable to fluctuations in currency exchange. The economy in Iceland heavily depended on foreign debt. The amount of debt could easily increase because of fluctuation in currency exchange. In short, Iceland is more prone to crisis – and in fact it really happened – caused by inability to pay foreign debt in dollar.

Even a country like South Korea, whom relatively less vulnerable to fluctuations in currency exchange, worried about financial crisis that struck USA and Europe. One of the problem arose was they could not exchange Korea Won to US Dollar, which they need the latter to pay their foreign debt. As Woori Bank's, one of the country biggest bank, executive vice president financing market business unit Jung Hyun-jin said, "We cannot borrow dollar to pay

our foreign debt, while they (foreign lender) refused to roll over many existing loans that came due. We're facing a liquidity problem." (Fackler, 2008)

It is safe to say that 2008 financial crisis was a long and complex financial crisis that started with a liquidity problem. The active phase of 2008 crisis started with a liquidity problem, dated way back to August 9, 2007. On August 2007, three hedge funds' withdrawal was blocked by BNP Paribas, citing "a complete evaporation of liquidity" (Elliott, 2012).

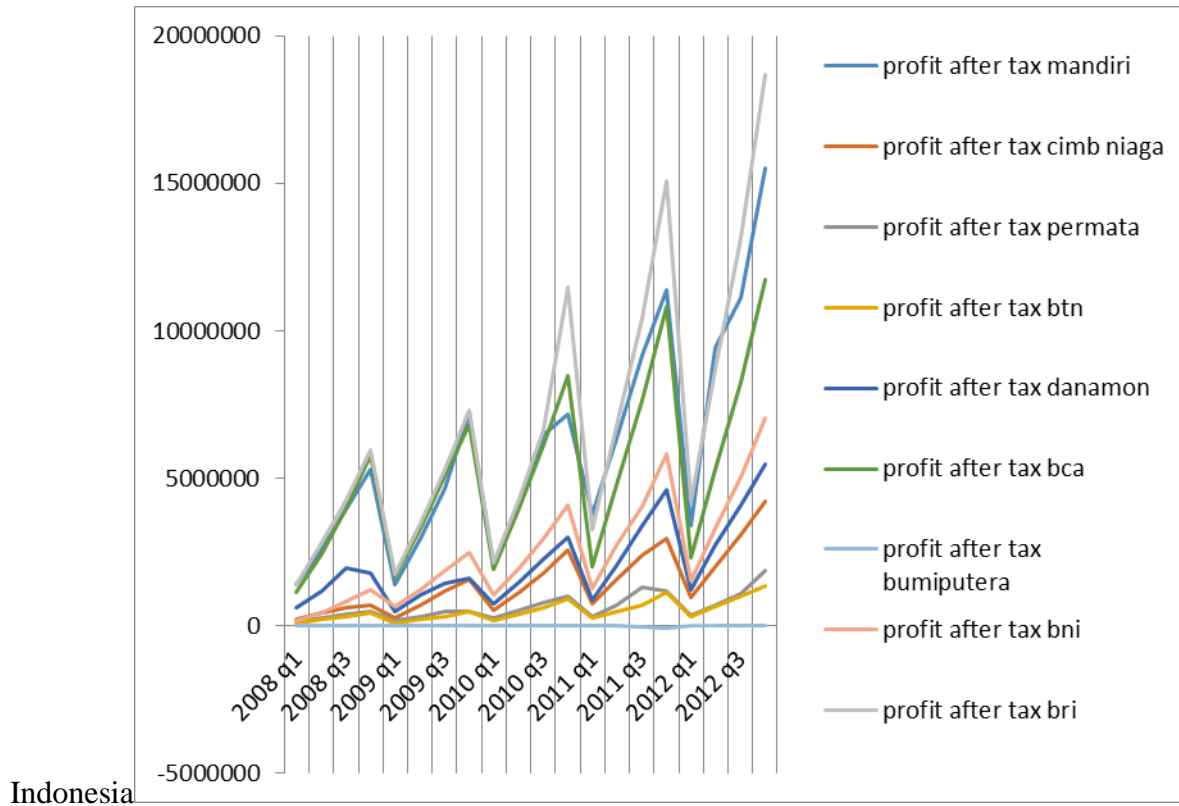
Six weeks after, in succession of what BNP Paribas called "a complete evaporation of liquidity", there was a first bank-run on notable UK bank since mid-19<sup>th</sup> century, where thousands queued outside Northern Rock for three days to cash out their money. A year passed on, an financial crisis unfolded. As Elliot (2012) put it, 2008 financial crisis happened because banks in USA and Western Europe took large gambles with insufficient reserved capital if the bet goes wrong. Banks happily gave credit away, and most of it to subprime borrower, knowing they could sell the credit other investors as credit default swap and made more money from it. They assumed that borrower would not failed to pay, and the housing sector would always booming with rising price.

To make it simple, we can say financial crisis was triggered in USA by federal policies that encouraged home ownership and thus providing easier access to loans for borrowers. The policies was so effective it gave even subprime borrower access to loans on home ownerships. In turn, the subprime mortgages bundled so lenders can sell them to other banks as credit default swap and lenders made more money. The process duplicated all over the country, leading to overvaluation of bundled sub-prime mortgages based on the assumption that housing prices would always continue to rise and cannot go down. Banks continued to lend people money, even though they know for sure they had inadequate capital in reserve to back the financial commitment they made (Ivry, 2008).

As in Indonesia, the 2008 financial crisis made Jakarta Composite Index fell down 50.64%, from opening value in January 2008 as much as 2745.83 point to closing value as much as 1355.41 point in December (1stock1.com). Asides of that, there was the case of the bailout of the Century on November 2008. Worried about bankruptcy that happened to Lehman Brothers,

Indonesian government agreed to bailout Century in order to avoid systemic impact on Indonesian banking system and repeat 1997 financial crisis (*Wall Street Journal*, 2010).

Figure 1.2 Profit After Tax of Selected Banks in

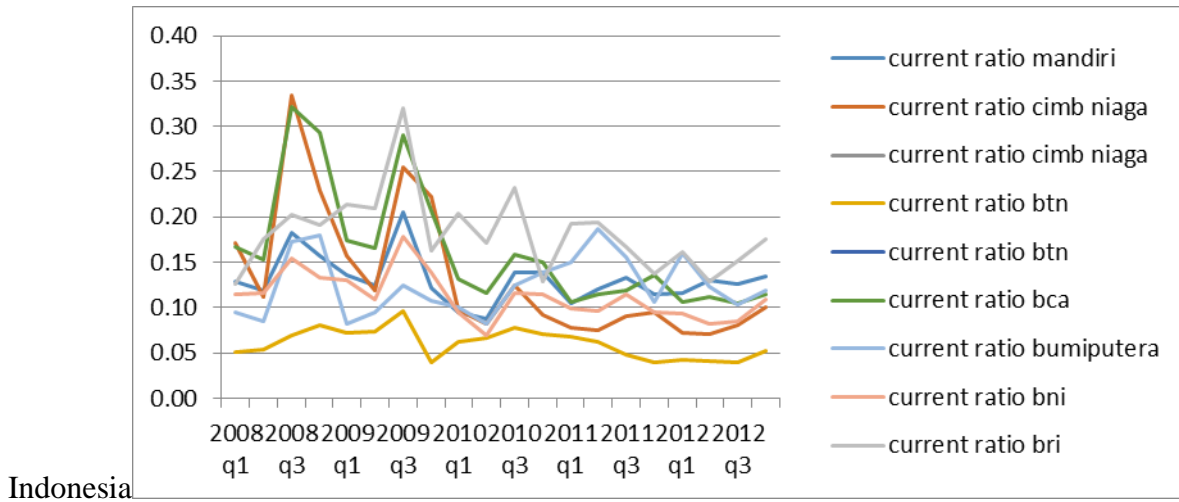


Source: Generated using M. Excel

As for some selected banks in Indonesia, as shown in Figure 1.2, their profit were fluctuating since 2008 financial crisis. It is basically the same phenomenon, but in different level. The liquidity problem drives the profit of banks in USA so low they got bankrupt, here in Indonesia they cause fluctuations in profit. We can check the liquidity of some selected banks in Indonesia in Figure 1.3.



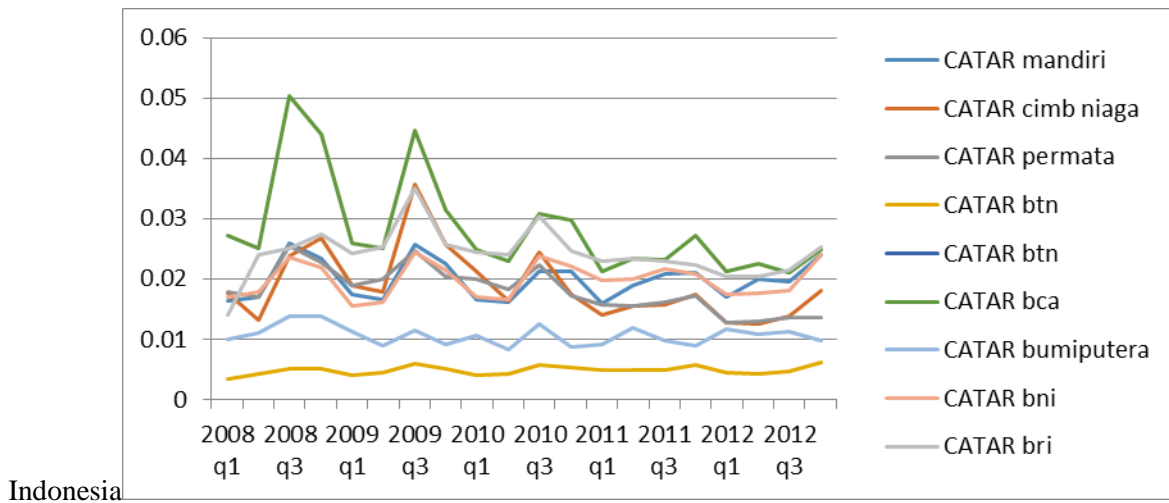
Figure 1.3 Current Ratio of Selected Banks in



Source: Generated using M. Excel

Along with liquidity, there another aspect called working capital. Working capital measures including, but not limited to, how much liquid asset that available, how much short-term loan borrowed, and how much total debt that borrowed. Just like liquidity, poor management on working capital could harm a bank, while on the other hand, good management on working capital generally come along with increase in generated profit. Figure 1.4 shows fluctuation on working capital of some banks in Indonesia.

Figure 1.4 Current Asset to Total Asset Ratio of Selected Banks in



Source: Generated using M. Excel

## **1.2 Problem Identification**

Throughout 2008-2012, banks in Indonesia experience fluctuation in profit they generate, as well as fluctuation in their liquidity and working capital. Thus, researcher proposed a study named the relationship of CR, CATAR, CLTAR, DTAR, ROA and ROE of 9 public listed banks in Indonesia (Mandiri, CIMB Niaga, Permata, BTN, Danamon, BCA, ICB BUMIPUTERA, BNI, and BRI) since 2008 - 2012. The purpose of the study is to find out if there is relation among banks' generated profit and their liquidity and their working capital management.

## **1.3 Statement of Problem**

From the background, the researcher find out some questions that are needed to be answered based on the analysis of this research. They are:

- Is there any significant relationship between current ratio towards return on asset?
- Is there any significant relationship between current assets to total asset ratio towards return on asset?
- Is there any significant relationship between current liabilities to total asset ratio towards return on asset?
- Is there any significant relationship between total debts to total asset ratio towards return on asset?
- Is there any significant relationship between current ratio towards return on equity?
- Is there any significant relationship between current assets to total asset return on equity?
- Is there any significant relationship between current liabilities to total asset ratio towards return on equity?
- Is there any significant relationship between total debts to total asset ratio towards return on equity?

## **1.4 Research Objectives**

Based on the statement of problems above, the main objective of this research are:

- To find out the relationship between current ratio towards return on asset.
- To find out the relationship between current asset to total asset ratio towards return on asset.

- To find out the relationship between current liabilities to total asset ratio towards return on asset.
- To find out the relationship between total debt to total asset ratio towards return on asset.
- To find out the relationship between current ratio towards return on equity.
- To find out the relationship between current asset to total asset ratio towards return on equity.
- To find out the relationship between current liabilities to total asset ratio towards return on equity.
- To find out the relationship between total debt to total asset ratio towards return on equity.

## **1.5 Research Scope and Limitation**

The researcher did the observation (collecting data) during September-November 2013.

### **1.5.1 Research Scope**

This research scope is only financial ratio calculation of public listed banks in Jakarta Composite Index from year 2008-2012.

### **1.5.2 Research Limitation**

The researcher only will analyze about current ratio (CR), current asset to total asset ratio (CATAR), current liabilities to total asset ratio (CLTAR), and debt to asset ratio (DTAR) as the independent variables and its relationship with return on asset (ROA) and return on equity (ROE) as the dependent variables.

## **1.6 Definition of Terms**

- **Dependent Variable** : The Y-variable in a regression model in which the element that is predicted.
- **Independent Variable** : The X-variable in a regression model which is used to help predict the dependent variable.
- **Financial Ratio** : The calculation between two types of bank financial data which is used to explain the relation

between both of the data.

- JCI : Jakarta Composite Index
- ROA : Shows how much revenue generated by a company's assets.
- ROE : Measures a firm's efficiency at generating profits from every unit of shareholders' equity.
- CR : Measures a company's ability to pay short-term obligations.
- CATAR : The ratio of current asset to total assets.
- CLTAR : Financial ratio that indicates the percentage of a company's assets that are provided via short-term debt.
- DTAR : The ratio of total debt to total assets.

## **1.7 Significance of the Study**

### **1.7.1 To public listed banks in JCI**

- a) To provide useful information to public listed banks in JCI
- b) As the consideration for public listed banks in JCI to increase their current ROA and ROE by determining the factors that can influence the value of ROA and ROE.

### **1.7.2 To academic community**

- a) To be a contribution of thought specialized in the field of financial ratios analysis study.
- b) To provide a study of relationship between CR, CATAR, CLTAR, DTAR, towards ROA and ROE value.
- c) To provide a reference for conducting a related research topic.

### **1.7.3 To Researcher**

- a) To have more in-depth understanding about financial ratios analysis in public listed banks in Indonesia.

## **II. LITERATURE REVIEW**

### **2.1 Theoretical Review**

#### **2.1.1 Bank Financial Ratios**

Financial ratio is the calculation between two types of bank financial data which is used to explain the relation between both of the data. In general, this type of analysis is used numerically based on percentage or a multiply. The final result of this calculation can be used to

determine the financial performance of the bank for a specific period and can be used as the tool to forecast what will be happened to the financial performance in the future.

To calculate financial ratios, values used are taken from the balance sheet, income statement, statement of cash flows or the statement of retained earnings. These comprise the firm's financial statements. The statements' data is based on the accounting method and accounting standards used by the organization.

There are many standard ratios used to try to evaluate the overall financial condition of a corporation or other organization. For productivity ratio, ratio that are normally used are gross margin, operating margin, profit margin, return on asset, return on equity and return on capital. As for liquidity ratio, there are current ratio, acid-test ratio, cash ratio and operation cash flow ratio. Ratio that normally used in working capital management are debt ratio, debt to equity ratio, current asset to total asset ratio and current liabilities to total asset ratio.

#### **2.1.1.1 ROA**

Profitability is ability for the company to gain profits in the certain periods of time. Profitability of the company determines the ratio between profits with capital that needed to gain that profit. Profitability is calculated by ROA which determines performance of the bank management in gaining the profits generally. ROA is a ratio that is been used to calculate the bank performance to gain income relatively compared with its total assets. This ratio is used to calculate the net profit based on the certain level of assets (Crosson *et al.*, 2008).

ROA is a multiply of Net Profit Margin with the production activity. Net Profit Margin shows the ability to gain profits in every sale that the company made. Production activity determines how well the company can enhance every possible resource they have to increase their sales. If both factors are increased, ROA will also be increased. If the ROA goes up, the profitability income of the company is also increased so their net profits can be split to the shares holders.

$$ROA = \frac{\text{Profit After Tax}}{\text{Total Assets}} \dots\dots\dots \text{Equation 2.1}$$

#### **2.1.1.2 ROE**

Return on equity (ROE), is a financial ratio that measures the return generated on stockholders'/shareholders' equity. It measures a firm's efficiency at generating profits relative to every dollar of shareholder's equity invested in company. ROE shows how well a company promotes earnings growth using funds invested in company (Siegel, 2009).

ROE gives us a glimpse into how efficiently company management is producing a return for the owners of the company---based on the amount of equity in the company. The ROE is useful for comparing the profitability of a company to that of other firms in the same industry. Everything else being equal, a higher ROE is better as it means that the company is efficient about using its equity.

$$ROE = \frac{\text{Profit after Tax}}{\text{Average Stockholders' Equity}} \dots\dots\dots \text{Equation 2.2}$$

### 2.1.1.3 CR

The current ratio is a financial ratio that measures whether or not a firm has enough resources to pay its short term debts that usually due over the next 12 months. It compares a firm's current assets to its current liabilities (Crosson *et al.*, 2008).

Siegel (2009) stated that current ratio is an indication of a firm's market liquidity and ability to meet creditor's demands. The company may have problems meeting its short-term obligations if the company's current assets are fewer than its current liabilities. If the current ratio is too high, then the company may not be efficiently using its current assets or its short-term financing facilities. This may also indicate problems in working capital management. The company need to maintain the current ratio position so that it would not be too low, which may cause problem of short term loan payment, nor too high, which means there is a problem in managing capital.

Less than 1 values for the current or quick ratios indicate that a firm has available cash fewer than its short term loans. Low values, however, do not always indicate a critical problem. Based on organization's long-term prospects, other investors may lend money to the firm in order to help it meet current obligations. Some types of businesses usually operate with a current ratio less than one. For example, if inventory turns over much more rapidly than the accounts

payable become due, then the current ratio will be less than one. This can allow a firm to operate with a low current ratio (Loth, 2009).

If all other things were equal, a creditor, who is expecting to be paid in the next 12 months, would consider a high current ratio to be better than a low current ratio, because a high current ratio means that the company is more likely to meet its liabilities which fall due in the next 12 months.

$$CR = \frac{\text{Current Asset}}{\text{Current Liabilities}} \dots\dots\dots \text{Equation 2.3}$$

#### **2.1.1.4 CATAR**

This ratio represents the structure of assets and the amount in form of current assets per each pound invested in assets (Jan, 2011).

$$CATAR = \frac{\text{Current Asset}}{\text{Total Asset}} \dots\dots\dots \text{Equation 2.4}$$

#### **2.1.1.5 CLTAR**

CLTAR is a financial ratio that indicates the percentage of a company's assets that are provided via short term loan. It is the ratio of total current liabilities compared to total assets (the sum of current assets, fixed assets, and other assets such as 'goodwill'). The higher the ratio, the greater risk will be associated with the firm's operation. In addition, high CLTAR may indicate low borrowing capacity of a firm, which in turn will lower the firm's financial flexibility (Siegel, 2009).

$$CLTAR = \frac{\text{Current Liability}}{\text{Total Asset}} \dots\dots\dots \text{Equation 2.5}$$

#### **2.1.1.6 DTAR**

DTAR, or simply called debt ratio, is a ratio that defines the total amount of debt relative to assets. This enables comparisons of leverage made across different companies. The higher the ratio means the higher the degree of leverage, and consequently, financial risk. This is a broad ratio that includes long-term and short-term debt (borrowings maturing within one year), as well as all assets – tangible and intangible (Loth, 2009).



$$DTAR = \frac{\text{Total Debt}}{\text{Total Asset}} \dots \dots \dots \text{Equation 2.6}$$

## **2.2 Previous Research**

### **2.2.1 Liquidity Management**

Liquidity is having enough money in form of cash, to meet your financial obligations. Profitability is measure of the amount by which a company`s revenue exceeds its relevant expenses. Liquidity and profitability are placed in the each end of straight line, facing each other off. You are most likely cannot be on both end in the same time. In other words, there is a trade – off between liquidity and profitability (Puneet & Parmil, 2012).

Eljelly (as cited in Gill, Biger & Mathur, 2010) evaluated the relation between profitability and liquidity, with measurement using current ratio and cash gap (cash conversion cycle) on a sample of joint stock companies in Saudi Arabia. The study found significant negative relation between the firm`s profitability and its liquidity level, as measured by current ratio. The negative relationship is even more noticeable if the firms have higher current ratio.

Walt (2009) investigated that profitability is more important because profit can usually be turned into a liquid asset, while in the other hand, a company may be unprofitable although it has good liquidity position.

Ekanem (2010) examined to focus on liquidity management in small firms. Ekanem found that liquidity management is not based on actions that affect firm`s profit such as the calculation of costs and benefits of particular causes of action, but rather based on owner-manager past experiences, experiences of others or is strongly influenced by industry norms, which are shared rules within the industry.

Ajanthan (2013) investigated the relationship between liquidity and profitability of trading companies in Sri Lanka. Ajanthan used correlation, regression analysis and descriptive statistics and find out that there is a significant relationship exists between liquidity and profitability among the listed trading companies in Sri Lanka.

### **2.2.2 Working Capital Management**

According to Van Horne (as cited in Yeboah & Agyei, 2012), working capital management is the administration of current assets in the name of cash, marketable securities, receivables, and inventories.

Siddiquee and Khan (2009) indicate that the inefficient management of WC not only reduces profitability but ultimately may also lead a concern to financial crisis.

Garcia-Teruel and Martinez-Solano (as cited in Dong & Su, 2010) studied the effects of working capital management on the profitability of a sample of small and medium sized Spanish firms. Those managers generate more profit by reducing their inventories and shortening the due date of their account receivable. In addition, shortening the cash conversion cycle also improves the firm's profitability.

Singh and Pandey (2008) held an examination on Hindalco Industries Limited and found that the management of working capital is essential as it has a direct impact on profitability.

Mahmood and Qayyum (2010) pointed out that to increase profitability of a company is the main objectives of working capital management.

Filbeck and Thomas (as cited in Raheman, Afza, Qayyum and Bodla, 2010) investigated the data of 26 industries by taking the data of 970 companies during 1996 to 1999. They found out that firms are able to decrease financing cost and generate more profit with good working capital management.

Irene & Lee (as cited in Mohamad & Saad, 2010) explore the prevailing working capital management practices of some well-performed Malaysian public firms listed on Bursa Malaysia. They examine the correlation between profitability and the level of working capital of the sample firms and finds that profitability and working capital are linearly related positively to a certain extent.

Banos-Caballero, Garcia-Teruel and Martinez-Solano (2012) analyzes the relationship between working capital management and profitability for small and medium-sized enterprises (SMEs) by controlling for unobservable heterogeneity and possible endogeneity. Unlike previous studies, they have examined a non-linear relation between these two variables. Their results show that SMEs have an optimal working capital level that maximizes their profitability.

Fama and French (as cited in Lins, Servaes, Tufano, 2010) studies efficiency of working capital management and its relation with profitability using net profit cycle. They concluded that there is a strong relationship between net profit cycle and profitability of companies.

Alipour (2011) took a sample of 1063 top firms listed in Tehran stock exchange and found a positive significant relation between days payables outstanding with profitability and hence concluded that working capital management significantly affects the profitability of the firms.

In contrast, there are also some previous research that revealed negative relationship between working capital and profitability. Ching, Novazi, and Geerab (2011) conducted a study to find out the relationship between working capital management and profitability in Brazilian public-listed companies. The objectives of their study were to identify the variables that affect the profitability most. Multiple linear regression used in their study identified that there exists a negative relationship between CCC (equal to days of working capital), debt ratio and profitability.

Deloof (as cited in Talha, Christopher, & Kamalavalli, 2010) conducted a study to find out relationship between working capital management and profitability among Belgium firms. He used the cash conversion cycle (CCC) as a measure for working capital management. His research found strong evidence of a negative relation between profitability and cash conversion cycle, meaning that the shorter the days of working capital, the higher the profitability.

Mathuva (2009) studied the impact of working capital management on the firm's performance. He took public listed firms in Nairobi stock exchange as sample. All the data was taken from 1993 to 2008. The study found there is a negative relationship between the time when the cash is collected from the customers and the firm's productivity. This depicts firms with shorter account payable due date are more profitable compared to firms with longer account payable due date.

Ganesan (as cited in Ching, Novazi, & Geerab, 2011) analyze the relationship between working capital management and profitability of telecommunication firms. Ganesan used days working capital variable to represent the working capital, while return to total assets ratio used as

variable for profitability. This study found that even though day's working capital is negatively related to the profitability, it is not significantly impacting the profitability of firms.

Narware (as cited in Mohamad & Saad, 2010) in his study of relationship between working capital management and profitability on Indian National Fertilizer Limited disclosed evidence that increment in company's profit led to decrement in working capital, but not in equal proportion.

Raheman and Nasr (as cited in Banos-Caballero *et al.*, 2010) conducted a study in Pakistan. Their study shows there are a strong negative relationship between profitability of the firms with variables of the working capital management.

Afza and Nazir (as cited in Mohamad & Saad, 2010) found existing negative relationship between degree of aggressiveness on working capital investment and the firms' profitability through cross-sectional regression models on working capital policies and profitability of the firms. Their study on 208 public limited companies listed at Karachi Stock Exchange for a period of 1998-2005 resulted evidence stated that the firms yield negative profit if they follow an aggressive working capital policy.

Padachi (as cited in Banos-Caballero *et al.*, 2010) finds that high investment in inventories and receivables is associated with lower profitability. He took sample of 58 small manufacturing firms in Mauritius for the period 1998 –2003 and calculated companies' profitability using return on total assets ratio.

Christopher and Kamalavalli (2009) conduct a study in India on 14 corporate hospitals for the period 1996-97 to 2005-06. Correlations and regression analysis signifying that working capital component namely cash turnover ratio, current assets to operating income and leverage negatively influence profitability.

Uyar (2009) found a significant negative correlation between the CCC with profitability measured by return on asset, but not significant with return on equity. He indicates that the firms with shorter CCC are more likely to be more profitable than the firms with longer CCC. He concluded this result after utilizing ANOVA and Pearson correlation analyses of the corporations listed in the Istanbul Stock Exchange (ISE) for the year 2007.

Izadinia and Taki (2010) examined the effects of working capital management on capability of profitability, measured by return on total asset, for listed companies on Tehran Stock Exchange for the period of 2001-2008. The results indicate that return on assets negatively, strong-related to cash conversion cycle.

Mohammadi (2009) examined listed companies in Tehran Stock Exchange to know how profitability will be impacted by the working capital management. The study analyses a sample of 92 companies for the period of 1996-2005. Research findings show that there exist negative relationship between cash conversion cycle and profitability.

Yaghoobnejad, Vaklifard & Babae (2010) examined the relationship between working capital management and profitability. For this purpose, they selected a sample of 86 active companies on Tehran stock exchange for the period of 2002-2007. This study has used regression and Pearson correlation for analyzing the data. The results show that there is a negative relationship between variables of working capital management and profitability. Also, the results indicate that increase in number of days accounts receivable, number of days accounts payable, number of days inventories and cash conversion cycle leads to decrease in profitability of companies.

Soenen (as cited in Banos-Caballero *et al.*, 2010) examined the relationship between working capital represented by net trade cycle and investment return in American companies. Chi-Square Test results showed a negative relationship between net trade cycle time and properties return.

Soenen and Shin (as cited in Ching, Novazi, & Geerab, 2011) investigated the relation between working capital management measured by the cash conversion cycle and corporate profitability for a large sample of listed American firms for the 1975-1994 period. They found a strong negative relation. This result indicates that more profit can be generated by managers if they choose to reduce the cash conversion cycle to a reasonable minimum.

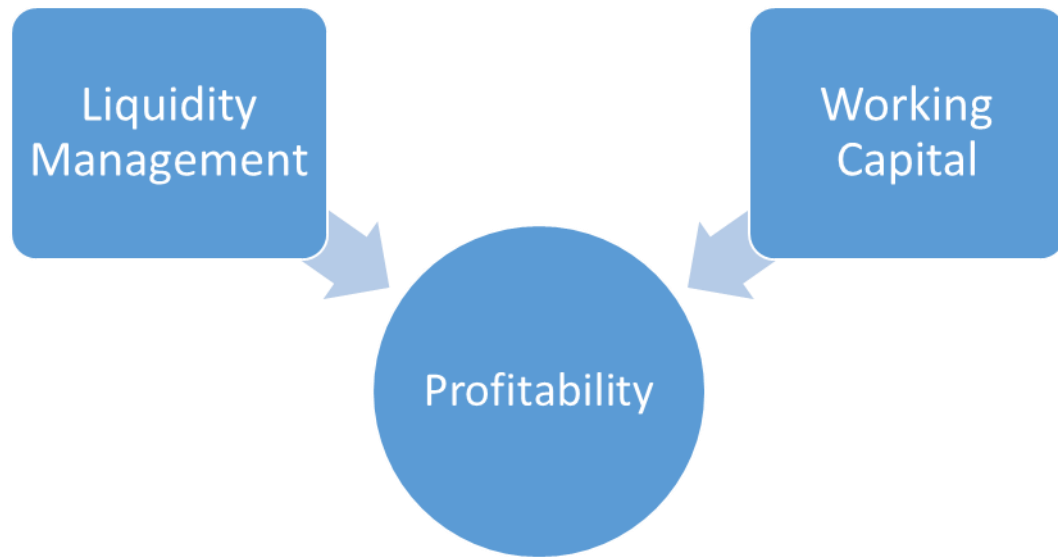
Samiloglu and Demirgunes (2008) examined the effect of working capital management on profitability for a sample of Turkish companies, for the period of 1998-2007. Empirical findings show that firms' profitability negatively affected by accounts receivables period, inventory period and leverage.

Vahid, Elham & Mohammadreza (2012) investigated the impact of working capital management on the performance of some selected companies listed in Tehran Stock Exchange (TSE). They collected average collection period, inventory turnover in days, average payment period, cash conversion cycle, and net trading cycle to evaluate working capital management, and net operating profitability was chosen to assess their performance. They reported that there was a negative and significant relationship between the variables of average collection period, inventory turnover in day, average payment period, net trading cycle and the performance of the companies. However, they did not find any evidence to support the existence of any significant relationship between cash conversion cycle and the company's performances. Their results demonstrated that the increase in collection period, payment period, and net trading could lead towards the reduction of profitability in the firm.

Ardekanian (2009) studies the relation between working capital management and profitability. The researcher applied different financial ratios such as Account Collection Period (ACP), average inventory period, Average Payment Period (APP) and Cash Conversion Cycle (CCC) to analyze working capital management. Return on asset used to measure firms' profitability. 110 companies in 17 industries from Tehran Stock Exchange were selected using screening method and were studied in 6 years. Researcher analyze data using Pearson correlation coefficient and regression analysis, resulting in indication that there was a negative relation between working capital management and profitability.

## **2.3 Theoretical Framework**

Figure 2.1 Theoretical



Framework

## 2.4 Statement of Hypothesis

H<sub>01</sub>: CR is not a significant determinant of ROA

H<sub>a1</sub>: CR is a significant determinant of ROA

H<sub>02</sub>: CATAR is not a significant determinant of ROA

H<sub>a2</sub>: CATAR is a significant determinant of ROA

H<sub>03</sub>: CLTAR is not a significant determinant of ROA

H<sub>a3</sub>: CLTAR is a significant determinant of ROA

H<sub>04</sub>: DTAR is not a significant determinant of ROA

H<sub>a4</sub>: DTAR is a significant determinant of ROA

H<sub>05</sub>: CR is not a significant determinant of ROE

H<sub>a5</sub>: CR is a significant determinant of ROE

H<sub>06</sub>: CATAR is not a significant determinant of ROE

H<sub>a6</sub>: CATAR is a significant determinant of ROE

H<sub>07</sub>: CLTAR is not a significant determinant of ROE

H<sub>a7</sub>: CLTAR is a significant determinant of ROE

H<sub>08</sub>: DTAR is not a significant determinant of ROE

H<sub>a8</sub>: DTAR is a significant determinant of ROE

### **III. METHODOLOGY**

#### **3.1 Research Design**



This research was an explanatory studies. The emphasis here is on studying a situation or a problem in order to explain to what extent does the independent variables influence dependent variable.

This study categorized as incremental association, a study that use regression tool in order to investigate impact of independent variables toward dependent variables. It has relevancy if the regression coefficient is not zero.

This research used secondary data, which is the financial statement of public listed banks in Indonesia. Banks' financial statement is disclosed quarterly and researcher retrieved it from banks' website. Data collected from financial statement computed and then used for determining dependent and independent variables: ROA, ROE, CR, CATAR, CLTAR and DTAR. Subsequently, researcher used SPSS to determine the relationship between dependent and independent variables.

### **3.2 Sampling Design**

The population of this study composed of listed banks from Finance Sector – Banking Subsector of JCI for the period of 2008-2012. Thirty three companies are listed under banking subsectors. Method used in samples taking was purposive sampling method. The criterion of sampling method was the banks must be listed in JCI since 2008 until 2012. Nine of thirty three passed the criterion.

### **3.3 Research Instrument**

This study used Microsoft Excel to compute data from financial statement in order to determine ROA, ROE, CR, CATAR, CLTAR and DTAR.

This study used multi regression tool provided by SPSS in order to evaluate the relationship between liquidity management and working capital towards profitability.

### **3.4 Data Collection**

This study used documentation method, where data collected from secondary data consist of annual report and financial statement issued by public listed banks in Indonesia in the period of 2008 – 2012.

### **3.5 Testing the Hypothesis**

Hypothesis testing done in three steps, which are:

#### **3.5.1 Classical Assumptions Testing**

Classical assumptions testing purpose is to obtain regression model that shows significant and representative relationship. There are four classic assumptions testing, they are:

##### **3.5.1.1 Normality Testing**

The purpose of this test is to determine if a data sample from a population produce a specified probability distribution, depart from a normal distribution; and to compute how likely it is for two or more variables with relationship to be normally distributed (Ul-Islam, 2011).

##### **3.5.1.2 Multicollinearity Testing**

The purpose of this test is to determine if two or more explanatory variables in a multiple regression model are highly linearly related. The multicollinearity testing administered by investigating the correlation between independent variables. If multicollinearity is perfect, the regression coefficients are indeterminate and if it is less than perfect, their standard errors are infinite (El-Dereny, 2011).

##### **3.5.1.3 Autocorrelation Testing**

The purpose of this test is to determine if there is correlation between values of the process at different times, as a function of the two times or of the time lag.

##### **3.5.1.4 Heteroscedasticity Testing**

The purpose of this test is to determine if there are sub-populations that have different variability from others.

### **3.5.2 t-Test**

The purpose of this test is to examine the relationship and impact of an independent variables data set partially toward dependent variables.

### **3.5.3 F-Test**

The purpose of this test is to examine the relationship and impact of independent variables data set toward dependent variables.

### **3.5.4 Multi Regression Testing**

The purpose of this test is to examine the proposed hypothesis. This test done in two part, which are:

#### **3.5.4.1 Correlation Coefficient**

The quantity  $r$ , called the linear correlation coefficient, measures the strength and the direction of a linear relationship between two variables. The value of  $r$  is such that  $-1 < r < +1$ . The  $+$  and  $-$  signs are used for positive linear correlations and negative linear correlations, respectively. A correlation greater than 0.8 is generally described as strong, whereas a correlation less than 0.5 is generally described as weak.

#### **3.5.4.2 Coefficient of Determination (R-Square Test)**

The purpose of this test is to determine a measure of how well observed outcomes are replicated by the model, as the proportion of total variation of outcomes explained by the model.

The coefficient of determination,  $r$ -squared, is useful because it gives the proportion of the variance (fluctuation) of one variable that is predictable from the other variable. It is a measure that allows us to determine how certain one can be in making predictions from a certain model/graph.

The coefficient of determination is a measure of how well the regression line represents the data. If the regression line passes exactly through every point on the scatter plot, it would be able to explain all of the variation. The further the line is away from the points, the less it is able to explain.

The following models are formulated and presented here:

$$Y_1 = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon \dots \dots \dots \text{Equation 3.1}$$

$$Y_2 = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon \dots \dots \dots \text{Equation 3.2}$$

$Y_1$  = Return On Asset

$Y_2$  = Return On Equity

$\beta_0$  = Intercept or constant (value of Y when X is 0)

$\beta_i$  = Regression coefficient of the  $i^{\text{th}}$  independent variable

$X_1$  = Current Ratio

$X_2$  = Current Asset to Total Asset Ratio

$X_3$  = Current Liabilities to Total Asset Ratio

$X_4$  = Debt to Total Asset Ratio

$\varepsilon$  = Random error

## **IV. ANALYSIS AND INTERPRETATION**

### **4.1 Company Profile**

#### **4.1.1 Mandiri**

##### **4.1.1.1 History of Bank Mandiri**

Bank Mandiri was formed on October 2, 1998 as part of the Government of Indonesia's bank restructuring program. In July 1999, four state-owned banks - Bank Bumi Daya, Bank

Dagang Negara, Bank Ekspor Impor Indonesia and Bank Pembangunan Indonesia – amalgamated to become Bank Mandiri. Each of the four legacy banks played an integral and essential role in the development of the Indonesian economy. Today, Bank Mandiri continues the more than 140-year tradition of contributing to the banking industry and the Indonesian economy.

Immediately following the merger, Bank Mandiri embarked on a comprehensive process of consolidation. Among the first steps were to close 194 branches that were in proximity to each other, and to reduce the number of Mandiri employees from 26,600 to 17,620. The Bank Mandiri brand was rolled out across the entire network through an advertising and promotional campaign. In addition, Bank Mandiri successfully implemented its new, integrated core banking system to replace the core banking systems of the four legacy banks.

From the year 2000 through 2004, Bank Mandiri's performance remained on a continuously upward trajectory, as shown by an increase in profit from Rp 1.18 trillion in 2000 to Rp 5.3 trillion in 2004. In addition, Bank Mandiri also marked an important milestone on July 14, 2003 by successfully conducting an initial public offering of 20% of its shares (4 billion shares).

In 2005, Bank Mandiri encountered a number of setbacks that resulted in a decline in profitability. One of these setbacks was a rise in non-performing loans, as shown by an increase in the net consolidated Non Performing Loan (NPL) ratio from 1.60% in 2004 to 15.34% in 2005. This had a direct and dramatic impact on the bank's profit, which slumped by 80% from Rp 5.3 trillion in 2004 to Rp 603 billion in 2005. In response, the bank's share price slid from Rp 2,050 in January 2005 to Rp 1,110 in November 2005.

#### **4.1.1.2. Transformation – Stage I**

The year 2005 marked a turning point for Bank Mandiri when it resolved to focus on becoming a Regional Champion Bank. To do so, the Bank formulated a comprehensive Transformation Program consisting of four principal strategies, namely:

1. The inculcation of a new corporate culture through performance-based organizational restructuring, overhaul of the existing performance-based evaluation system, development of leadership and talent, and training and hiring staff to meet strategic needs.

2. Aggressive containment of Non-Performing Loans, with emphasis on the resolution of toxic loans and strengthening of the risk management system.

3. Accelerating business expansion so as to exceed average market growth through distinctive strategies and value propositions in each segment.

4. Developing alliances between directorates and business units so as to optimize customer service, and explore all available business opportunities related to existing customers and their value chains.

In order to achieve its goal of becoming a Regional Champion Bank, Bank Mandiri conducted its Transformation Program in three phases, namely:

1. Phase One – "Back on Track" (2006-2007): During this phase, the focus was placed on restructuring and laying the foundations for Bank Mandiri's future growth;

2. Phase Two – "Outperform the Market" (2008-2009): During this period, the emphasis was on expanding the Bank's business to ensure significant growth in all segments and a level of profitability that exceeded the market average;

3. Phase Three – "Shaping the End Game" (2010): During this phase, Bank Mandiri aims to become a Regional Champion Bank, through the consolidation of the financial services business and emphasis on strategic non-organic growth opportunities. This includes the strengthening of subsidiaries' performance and acquisition of a bank or other financial company that can create added-value to Bank Mandiri.

The changes brought about by the Transformation Program between 2005 and 2010 have resulted in a consistent strengthening of Bank Mandiri's performance, as reflected by various financial parameters. Non-performing loans fell significantly, as shown by a decline in the net consolidated NPL ratio from 15.34% in 2005 to 0.62% in 2010, while the Bank's net profit soared from Rp 0.6 trillion in 2005 to Rp 9.2 trillion in 2010.

In line with the transformation of its business, Bank Mandiri has also undergone a cultural transformation based on a reformulation and reinvigoration of its key values. In doing so, the Bank identified five core corporate cultural values, which are conveniently referred to by the acronym "TIPCE", which stands for Trust, Integrity, Professionalism, Customer Focus and Excellence.

Bank Mandiri significantly improved its level of quality in providing service to its customers. For five consecutive years (2007, 2008, 2009, 2010 and 2011), Bank Mandiri has been named a service leader among domestic banks based on a Marketing Research Indonesia (MRI) survey. In addition, the Bank's achievements in instituting good corporate governance have also been widely recognized.

Bank Mandiri's consistently improving performance has elicited a positive response from investors, as shown by a significant increase in the Bank's share price from a nadir of Rp 1,110 on November 16, 2005 to Rp 8,100 at December 31, 2012. Within a period of less than seven years, Bank Mandiri's market capitalization soared seven-fold from only Rp 21.8 trillion to Rp 190.4 trillion.

#### **4.1.1.3 Transformation – Stage II**

Bank Mandiri is now embarked on the second stage of its transformation process for the 2010-2014 period, during which time the Bank has revitalized its vision "To be Indonesia's most admired and progressive financial institution." Based on this vision, by 2014 Bank Mandiri intends to achieve a market capitalization of Rp 225 trillion, a market revenue share of 16%, a ROA of around 2.5%, and an ROE of around 25%, while at the same time maintaining asset quality as reflected in a gross NPL ratio of under 4%. By the end of 2014, Bank Mandiri is determined to be among the Top 5 banks in ASEAN, while by 2020 Bank Mandiri expects to be among the Top 3 in ASEAN in terms of market capitalization, and to be a major regional player.

In order to realize this vision, Bank Mandiri's business transformation during the 2010-2014 period will focus on the following three business areas:

1. Wholesale Transaction: Bank Mandiri is consolidating its leadership position by offering comprehensive financial transaction solutions and developing a holistic relationship approach in serving its corporate and commercial customers in Indonesia.

2. Retail Deposit & Payment: Bank Mandiri is determined to become the consumer's bank of choice in the retail deposit market by providing a unique and superior banking experience.

3. Retail Financing: Bank Mandiri's goal is to become the No. 1 or 2 bank in the retail financing segment by leading in the mortgage, personal loan, and credit card markets, and by becoming a major player in the micro banking segment.

Besides focusing on these three strategic areas, Bank Mandiri is also strengthening its organizational structure and infrastructure (branch, IT, operations, risk management) to provide more integrated service solutions. In seeking to achieve its goals, Bank Mandiri benefits from the support of its human resources, technology, prudential risk management, and good corporate governance.

One of the key milestones towards realizing Bank Mandiri's vision during the second stage of the transformation process was the successful completion of a rights issue in February 2011 to strengthen our capital base. As of the first quarter of 2012, the Bank's total equity has reached Rp 66.3 trillion to become the first bank in Indonesia to win the title of International Bank according to the Indonesian Banking Architecture criteria. Mandiri is the largest financial institutions in Indonesia with assets of Rp 546.9 trillion, the largest lender with loans outstanding of Rp 327.2 trillion, and the largest depository with Rp 403.5 trillion in third party funds. Bank Mandiri maintains strong asset quality, as the gross and net NPL ratio's stand at 2.22% and 0.51% respectively.

As of the year 2012, Bank Mandiri employed 30,762 employees and operates 1,810 branches across Indonesia and 7 overseas branches/representatives offices/subsidiaries. In addition, Bank Mandiri has a network of more than 180,000 Electronic Data Capture units as well as various and comprehensive electronic channels which include Mandiri Mobile, Internet Banking, SMS Banking and Call Center 14000. Bank Mandiri is well supported by its six



subsidiaries operating in shariah banking, capital market, multi finance, life insurance, general insurance, as well as a niche bank focusing in the micro lending segment.

#### **4.1.2 CIMB Niaga**

Bank CIMB Niaga was incorporated on 26 September 1955 under the name of Bank Niaga. During the initial decades of its operations, the Bank's focus was on building core values and developing professionalism in banking. As a result, Bank CIMB Niaga soon came to be recognized as a trusted provider of quality products and services. In 1987, Bank Niaga distinguished itself in the local marketplace by becoming the first Indonesian bank to provide customers with access to their accounts through ATM access. In many ways this came to be recognized as Indonesia's entry into the modern banking era. Bank CIMB Niaga's leadership in the application of technology was further enhanced in 1991 when it became the first bank to provide on-line banking facilities.

Bank Niaga was listed on the Jakarta and Surabaya Stock Exchange (now the Indonesia Stock Exchange/IDX) in 1989. The decision to become a publicly listed company was a key milestone for the Bank which enabled greater access to capital financing. In many respects this was the key catalyst that launched the Bank's nationwide expansion.

The Government of Indonesia would temporarily secure a majority shareholding of Bank CIMB Niaga in the wake of the Financial Crisis in the late 1990s. In November 2002 Commerce Asset-Holding Berhad (CAHB), now known as CIMB Group Holdings Berhad (CIMB Group Holdings), acquired a majority control of Bank Niaga from the Indonesia Bank Restructuring Agency (IBRA). It subsequently transferred its shares in the Bank to CIMB Group in August 2007 as part of an internal reorganization to consolidate all its operating subsidiaries under CIMB Group as the universal banking platform.

In an entirely separate transaction, Khazanah the majority shareholder of CIMB Group Holdings acquired majority ownership of LippoBank on 30 September 2005. It would subsequently transfer its shares to CIMB Group on 28 October 2008 as part of the same internal reorganization.

Since 2007, Khazanah as the ultimate shareholder of Bank Niaga (via CIMB Group) and of LippoBank, had envisaged the merger as a means to secure the majority shareholders' obligations toward Bank Indonesia's Single Presence Policy. The union is the first merger to specifically fulfill these conditions. In May 2008, Bank Niaga changed its name to become Bank CIMB Niaga. Bank CIMB Niaga's and LippoBank's Merger Plan Agreement was signed in June 2008. This was subsequently followed by Merger Plan Approval from Bank Indonesia and the issuance of a Merger Notification's Acceptance Letter from the Ministry of Justice and Human Rights in October 2008. LippoBank officially merged into Bank CIMB Niaga on November 1, 2008 (Legal day 1 or LD1) and launched the Bank's new logo in recognition.

The merger of LippoBank into Bank CIMB Niaga represents the single greatest leap forward to occur in Southeast Asia's banking sector in recent times. Bank CIMB Niaga now offers its customer the most comprehensive portfolio of universal banking services available in Indonesia, combining its strengths in retail, SME and corporate banking as well as payment services. The merger makes Bank CIMB Niaga the 5th largest bank in terms of assets, deposits, lending and branch distribution network. Through its commitment to Integrity, perseverance to always place Customers first and passion for Excellence, Bank CIMB Niaga will continue to leverage its strengths to fully realize all of the synergies which the merger has to offer. These are the core values of Bank CIMB Niaga and are its obligations for the dynamic and promising road ahead.

#### **4.1.3 Permata**

PermataBank was formed by a merger of five banks under the oversight of IBRA (Indonesian Banking Restructuring Agency), i.e. PT Bank Bali Tbk, PT Bank Universal Tbk, PT Bank Prima Express, PT Bank Artamedia, and PT Bank Patriot in 2002. In 2004, Standard Chartered Bank and PT Astra International Tbk took over PermataBank and started a major transformation of the organization. Subsequently, as a manifestation of their commitment to PermataBank, these major shareholders increased their joint ownership to 89.01% in 2006.

The unique combination of our strategic shareholders has become one of our core strengths. PT Astra International Tbk is a large-scale Indonesian company with extensive

experience in the domestic market, while Standard Chartered Bank is a well-respected international bank with market leading expertise and global experience.

PermataBank today has grown into a major private bank that offers products and services, innovative and comprehensive delivery channels including Internet Banking and Mobile Banking. PermataBank has aspirations to become a leading financial services provider in Indonesia, with a focus on Consumer and Commercial segment. Serving approximately 2 million customers in 58 cities in Indonesia, the Bank has 302 branches (14 sharia & 288 conventional branches), 18 Mobile Branches, tree Payment Point, 868 ATM with additional access at more than 50.000 ATMs (VisaPlus, Visa Electron, MasterCard, Alto, ATM Bersama and ATM Prima) and millions of ATMs around the world are connected to the network Visa, Mastercard, Cirrus.

The recognition of recent achievements PermataBank are 3 Awards from 2013 Asiamoney Cash Management Poll is Indonesia's Best Local Currency Cash Management Services, Indonesia's Best Local Cash Management Bank for Small Size of Annual Sales Turnover and Indonesia's Best Overall Domestic Cash Management Services for Medium Size of Annual Sales turnover, Bank with best SMS Banking and ATM Banking Service Excellence in 2012-2013 and ranked third overall best Performance as well as the top ranking Islamic Bank best in service excellence three consecutive times, the Gold Award for Priority Banking service Quality Award in 2013, the Islamic Bank best with category of assets > 500 Billion of Karim award, 2013, three awards Stevie award in The 9th International Business awards (IBA) 2012 for ELT Forum as the "Internal Communications Campaign / Program of the Year" (Silver award), Unite for Education (UFE ) as the "Public Service Campaign of the Year" (Silver Award) and Life Skills Development through Soccer School - CSR Program as the "Community Relations Campaign of the Year" (Bronze Award).

#### **4.1.4 Bank Tabungan Negara**

BTN embryo begins with the establishment of Postspaarbank in Batavia in 1897. In 1942, at the time of the Japanese occupation of Indonesia, the bank is frozen and replaced with Tyokin Kyoku. After the proclamation of Indonesian independence bank was taken over by the Indonesian government and converted into a Post Office Savings. The name and corporate form

further changed several times until finally in 1998 changed to the name and official forms that occur at this time.

BTN History:

1897: Stand by name Postpaar Bank

1942-1945: Changed name to Chokin Kyoku

1950: Became the Postal Savings Bank

1963: Becomes National Savings Bank

1968: The Official Government owned (SOE)

1974: Serving more focused

1989: Getting permission for commercial banks and bond issues

1992: Becomes Persero

1994: Getting permission bank foreign exchange

2000: Follow the program recapitulation

2002: Loan Without Subsidy

2003: Restructuring

2005: Launch of BTN Syariah

2008: Asset Securitisation

#### **4.1.5 Danamon**

PT Bank Danamon Indonesia Tbk. was established in 1956. The name Bank Danamon, which was derived from 'dana moneter', meaning monetary fund, was first used in 1976 in place of its original name, Bank Kopra.

In 1988, Bank Indonesia enacted a package of major banking reforms known as the ‘October 1988 Package’ or PAKTO 88. The main aim of PAKTO 88 was to encourage competition in the banking sector by lowering the barrier to entry, including the liberalization of the requirements for the establishment of new private domestic banks and joint-venture banks. As a result of this, Bank Danamon became among the first foreign exchange banks in Indonesia, and became a public company listed on the Jakarta Stock Exchange.

Today, ‘Danamon’ is the brand name of Indonesia’s largest financial institution by number of employees – approximately 72,000 permanent and non permanent employees (including subsidiaries) at the end of December 2012; one which focuses on realizing its vision: “We Care and Enable Millions to Prosper”.

In pursuing this vision, Danamon has set its sights on being ‘The Leading Financial Institution in Indonesia’ with a significant market presence. It aims to achieve this position by being a customer centric organization covering all customer segments, each with a unique value proposition, centred on sales and service excellence and supported by world class technology. In line with this effort, Danamon aspires to be an employer of choice, respected by all of its stakeholders, while embracing 5 of its values: caring, honesty, passion to excel, teamwork and disciplined professionalism.

Danamon’s focus on fulfilling all of its customers’ needs is reflected in its business approach. Implemented in 2003, a universal banking focus pivoted Danamon’s business expansion ahead. By the end of 2004, Danamon had completed its array of business segments, spanning from mass market, SME & Commercial banking, retail banking, cards business, syariah banking, corporate banking, treasury, capital markets & financial institutions, in addition to Adira Finance. 2004 also marked Danamon establishing a solid entry into the insurance and household financing businesses through Adira Insurance and Adira Kredit (formerly Adira Quantum). Danamon’s acquisition of American Express card business in Indonesia in 2006 made the bank one of the largest card issuers in the country.

A surviving entity in a merger of 9 Bank Taken Over (BTO) during the Asian financial crisis which began in the late 1990s, Danamon has emerged as one of the largest and strongest financial institutions in the region. With over 50 years of experience, Danamon continues to

strive to be a bank that 'make things happen' for its customers – it's brand promise. Danamon currently ranks as the sixth largest bank by asset size in Indonesia, and operates a network of around 3,350, including among others conventional branches, Danamon Simpan Pinjam (DSP) outlets and subsidiary units. Danamon is also supported by a comprehensive array of electronic banking conveniences.

#### **4.1.6 Bank Central Asia**

Bank Central Asia (BCA) is an Indonesian bank founded on August 10, 1955.

The Asian financial crisis in 1997 had a tremendous impact on Indonesia's entire banking system. In particular, it affected BCA's cash flow and even threatened its survival. Panic rush forced the bank to seek assistance from the Indonesian government. The Indonesian Bank Restructuring Agency took over control of the bank in 1998.

Somehow full recovery was accomplished later in the same year. In December 1998, third-party funds were back at the pre-crisis level. BCA's assets stood at Rp 67.93 trillion, as opposed to Rp 53.36 trillion in December 1997. Public confidence in BCA was fully restored, and BCA was released by IBRA to BI in 2001

Subsequently, BCA took a major step by going public. The IPO took place in 2000, selling 22.55% of BCA's shares that were being divested by IBRA. After the IPO, the agency still controlled 70.3% of BCA's total shares. The second Public Offering took place in June and July 2001, with IBRA divesting an additional 10% of its interest in BCA.

In 2002, IBRA divested 51% of its BCA shares through a strategic private placement tender. The Mauritius-based Farindo Investment won the tender.

#### **4.1.7 ICB Bumiputera**

Bank ICB Bumiputera, formerly Bank Bumiputera, was formed in 12 January 1990 as public Bank by AJB Bumiputera 1912, the oldest life insurance company in Indonesia.

Bank had successfully surviving the fluctuation in Indonesia economy. At the height of 1990's monetary crisis, Bank managed to stay as a healthy A category Bank without the need for

recapitalization. This is due to Bank's ability to manage healthy banking operations based on its good corporate governance.

In 2002, the Bank went public and listed its shares at Indonesia Stock Exchange (IDX) with share abbreviation code "BABP".

During 2004-2007, after series of share transfer, ICB Financial Group Holdings (ICBFGH), the holding company of several Banks with global operation in 14 countries, become the major shareholder.

In 2009, with new vision to become Premier Retail Bank, Bank Bumiputera, formally change its name to "Bank ICB Bumiputera" with new corporate logo and identity.

Bank ICB Bumiputera today continue to grow into a major commercial Bank with aspiration to become the premier retail Bank in Indonesia. With comprehensive products and services catering customer from business to consumer segmen, Bank ICB Bumiputera has nationwide branch network with operation in major cities across Indonesia and with access to the global network of Banks under ICBFGH.

Bank ICB Bumiputera had received several award and recognition such as Trusted Company on Corporate Governance Perception Index in 2010 and the Most Attractive Bank from Warta Ekonomi Magazine in 2011.

#### **4.1.8 Bank Negara Indonesia**

Initially referred to by its unabbreviated name of Bank Negara Indonesia when it was established in 1946, BNI is the first bank formed and owned by the Indonesian Government.

Historical records indicate that on the eve of the 30th of October 1946, or merely a few months after its formal establishment, the Bank distributed the first currency bills ever issued by Indonesia's Government popularly known at the time as ORI, or 'Oeang Republik Indonesia' (Currency of the Republic of Indonesia). In fact, this day is commemorated annually as the National Finance Day while the date of the Bank's establishment - the 5th of July - was designated as National Bank Day.

Bank Negara Indonesia's role as the circulation and central bank was duly terminated in 1949 following the government's appointment of the former Dutch-controlled bank, De Javasche Bank, as Indonesia's Central Bank. The Bank, subsequently designated as a development bank, was later granted the rights to provide foreign reserve services that allowed it access to direct foreign transactions.

Enhanced by increased capitalization, the Bank's legal status was formally changed to that of a state-owned commercial Bank in 1995. This provided the Bank with the foundation to provide better and wider range of both access and services for the country's business sectors.

In its quest to competitively differentiate itself from its competitors, the Bank decided, towards the end of 1968, to attach its year of establishment to its corporate name to become Bank Negara Indonesia 1946. The Bank was therefore popularly referred to, for decades, as 'BNI 46'. The simpler name of 'Bank BNI' was adopted in 1988 along with the change of the corporate identity.

BNI's legal status was upgraded in 1992 to that of a state-owned limited corporation under the name of PT Bank Negara Indonesia (Persero) and the bank decided to become a public company through its initial public offering of its shares in 1996.

BNI's ability to adapt to environmental, socio-cultural and technological advances is reflected through the continuous refinement of its corporate identity which is carried out to suit the changing demands and trends of the times. This adaptability signifies the Bank's dedication and commitment towards continuous improvement of its performance.

A refined corporate identity was introduced in 2004 that reflects the positive prospects for the future after a year of struggle characterized by a period of hardship. A shorter name of 'BNI' subsequently replaced the former 'Bank BNI', while the year of its establishment - '46' - was exposed through the logomark to reinforce the pride and distinction that the Bank had in being the country's first national bank.

At the end of 2012, the Government of Republic of Indonesia held 60% of the shares of BNI with the remaining 40% held by individual and institutional shareholders, both domestic and overseas.



At present, BNI ranks fourth in the Indonesian banking sector based on assets, lending and thirdparty deposits. BNI offers integrated financial services to its customers, supported by its subsidiaries: Bank BNI Syariah, BNI Multi Finance, BNI Securities and BNI Life Insurance.

At the end of 2012, BNI had total assets of Rp333.3 trillion and employed more than 24,861 employees. To serve its customers, BNI leverages on its wide ranging service network, comprising 1,585 domestic outlets and 5 overseas branches in New York, London, Tokyo, Hong Kong and Singapore, 8,227 proprietary ATMs, 42,000 EDC as well as Internet banking and SMS banking facilities. BNI always strives to be the bank of choice by providing excellent service and value added solutions to all of its customers.

In keeping with the spirit of the heroic national struggle that is rooted in its history, BNI strives to provide the best services for the country and to ultimately become the Pride of the Nation, today and always.

#### **4.1.9 Bank Rakyat Indonesia**

PT Bank Rakyat Indonesia (Persero) Tbk. is the oldest bank in Indonesia. Its history was started back on 16 December 1895, when Raden Bei Aria Wiraatmaja founded a small financial institution with the name of De Poerwokertosche Hulp en Spaarbank der Inlandsche Hoofden. The institution was a mosque-based association, which function was to manage and disburse trusted fund to community in a very simple scheme.

Over the years, the institution went through name changes and evolve with the surrounding condition. In 1912, it's name changed to Centrale Kas Voor Volkscredietwezen, and in 1942 – by Japanese ruling it was changed to Syomin Ginko. In the independence era, Syomin Ginko was replaced by the name of Bank Rakyat Indonesia. Still going through some name changes, finally in 1992 the official name of the institution was PT Bank Rakyat Indonesia (Persero), being one of the state owned enterprises. In 2003, BRI became a publicly listed with 30% of its share listed on Jakarta Stock Exchange (now Indonesia Stock Exchange/IDX) with the ticker code of BBRI. Currently, BBRI is part of LQ45 equity index, one of blue chips shares in IDX

##### **4.1.9.1 Vision and Mission**

The vision of the Bank is being the leading commercial bank that always prioritize customer satisfaction. To accomplish the Company's vision, BRI has set itself with three missions. First, to conduct the best banking practice with a priority given to services the Micro, Small and Medium Enterprises (MSMEs) in order to support the economy of the people. Second, to provide its customers with excellent services delivered through its vast network and supported by professional human resources, while adhering to the practices of Good Corporate Governance. Third, to create optimal values and benefits for its stakeholders.

#### **4.1.9.2 Business Focus**

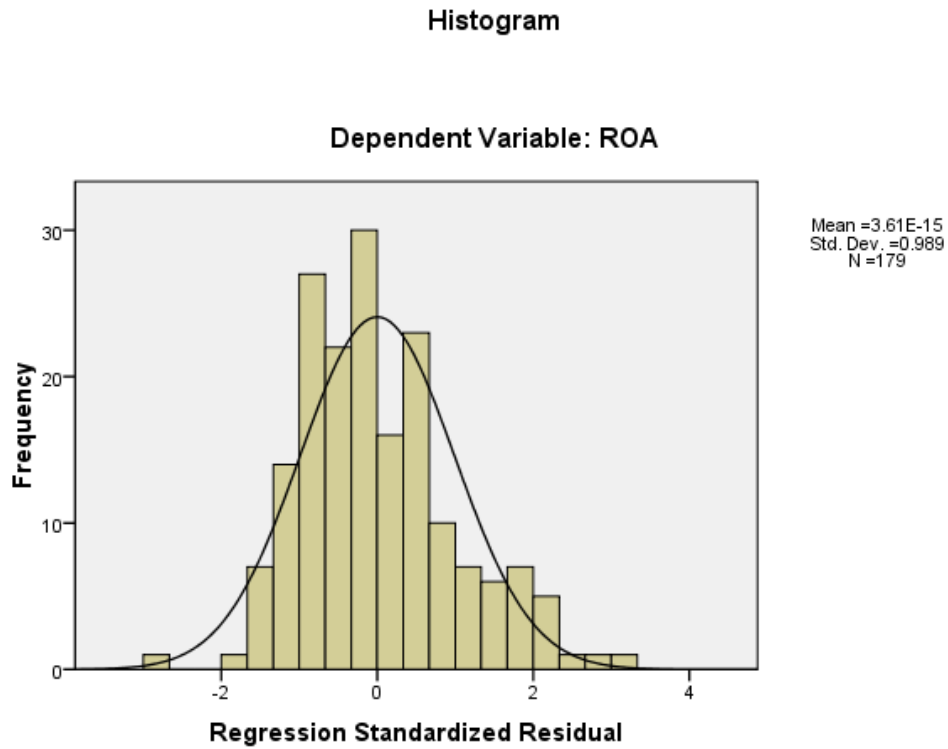
Since its inception, BRI has commitment to focus on banking services in micro, small, and medium enterprises (MSME's). This commitment is reflected in the allocation of loans for the sectors that affect the livelihood of the population and other financial services that the Bank offers to the community.

## **4.2 Data Result Analysis**

### **4.2.1 Normality Testing**

#### **4.2.1.1 ROA**

Figure 4.1 Histogram of Residual of



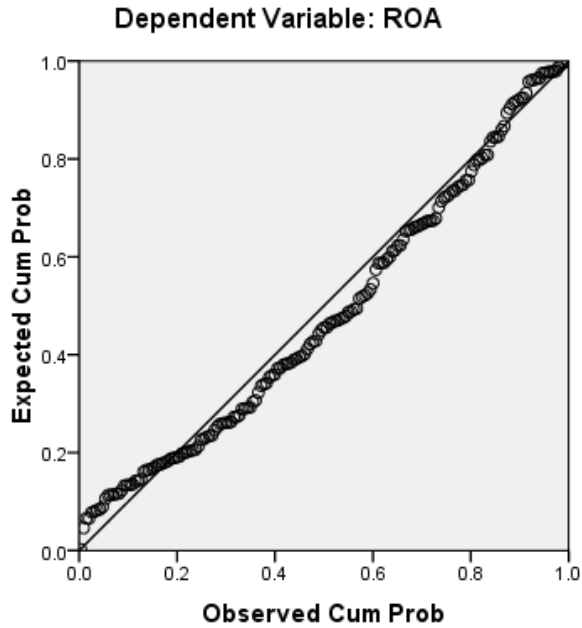
ROA

Source: Generated using SPSS

The normality of the data can be detected by looking at the histogram graph shaped like a bell curve indicates that the data normally distributed. Based on Figure 4.1, the graph is shows that the data that were normally distributed or as close to normal with dependent variable ROA since the shape of the histogram represents as it forms a bell shaped.

Figure 4.2 P-Plot of Residual of

**Normal P-P Plot of Regression Standardized Residual**



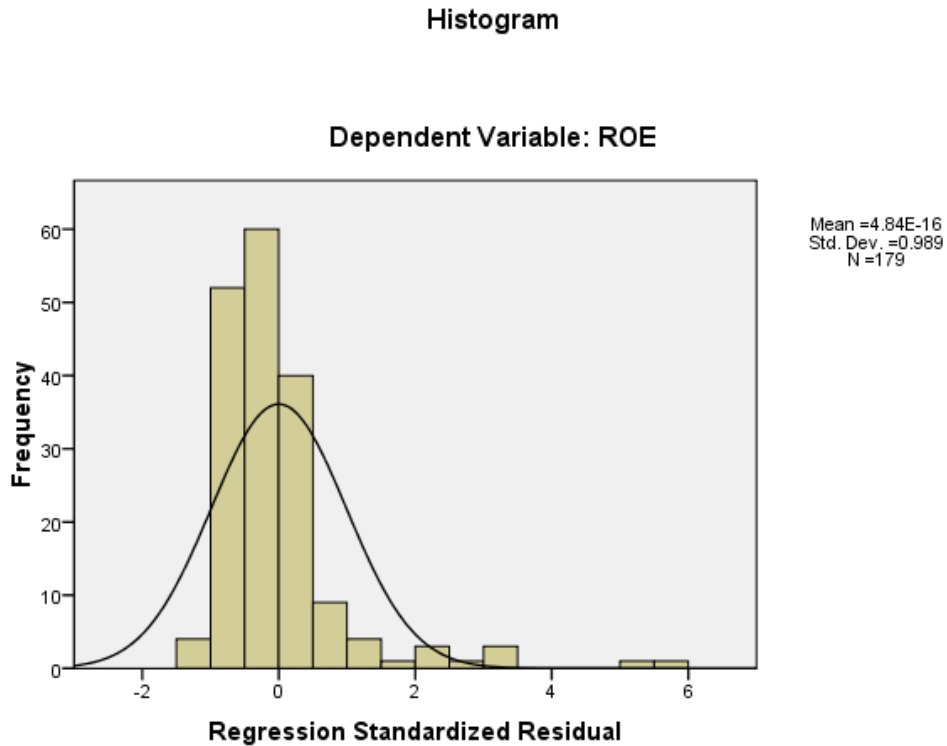
ROA

Source: Generated using SPSS

The normality of the data can be detected by looking at the distribution of data that follow trend line shape like diagonal line indicates that the data normally distributed. Based on Figure 4.2, the graph is shows that the data that were normally distributed or as close to normal with dependent variable ROA since data distributed around the trend line and make a pattern of diagonal line.

### 4.2.1.2 ROE

Figure 4.3 Histogram of Residual of



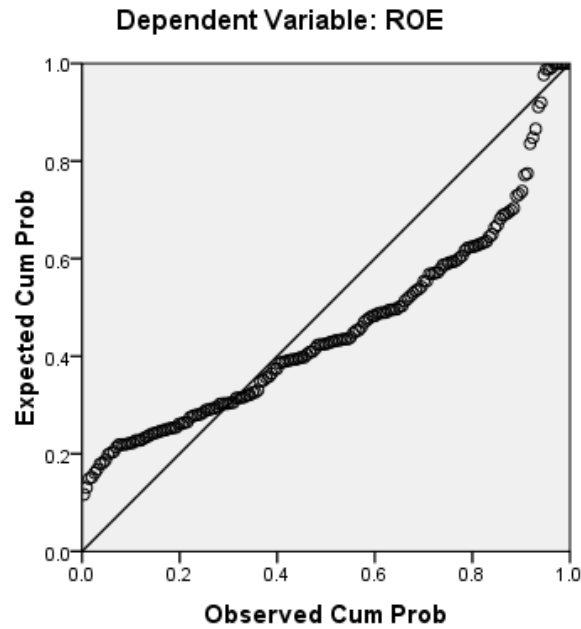
ROE

Source: Generated using SPSS

The normality of the data can be detected by looking at the histogram graph shaped like a bell curve indicates that the data normally distributed. Based on Figure 4.3, the graph is shows that the data that were normally distributed or as close to normal with dependent variable ROE since the shape of the histogram represents as it forms a bell shaped.

Figure 4.4 P-Plot of Residual of

**Normal P-P Plot of Regression Standardized Residual**



ROE

Source: Generated using SPSS

The normality of the data can be detected by looking at the distribution of data that follow trend line shape like diagonal line indicates that the data normally distributed. Based on Figure 4.4, the graph is shows that the data that were normally distributed or as close to normal with dependent variable ROE since data distributed around the trend line and make a pattern of diagonal line.

## 4.2.2 Multicollinearity Testing

### 4.2.2.1 ROA

Table 4.1 Collinearity Statistic of ROA

Source: Generated using SPSS

O'Brien (as cited in York, 2012) stated there are two "rule of thumb" of multicollinearity,

#### Coefficients<sup>a</sup>

Model	Collinearity Statistics	
	Tolerance	VIF
1 (Constant)		
CR	.206	4.861
CATAR	.277	3.613
CLTAR	.662	1.511
DTAR	.768	1.303

a. Dependent Variable: ROA

tolerance value that more than 0.1 and Variance Inflation Factor (VIF) less than 10. Based on Table 4.1, it explains that there is no evidence that the multicollinearity exist within the independent variables of this research with dependent variable ROA because the tolerance values are above 10% and VIF values less than 10. Since this result shows there is noexistence of multicollinearity, there will not be any multicollinearity among independent variable in this study.

### 4.2.2.2 ROE

Table 4.2 Collinearity Statistic of ROE

**Coefficients<sup>a</sup>**

Model	Collinearity Statistics	
	Tolerance	VIF
1 (Constant)		
CR	.206	4.861
CATAR	.277	3.613
CLTAR	.662	1.511
DTAR	.768	1.303

a. Dependent Variable: ROE

Source: Generated using SPSS

Based on Table 4.2, it explains that there is no evidence that the multicollinearity exist within the independent variables of this research with dependent variable ROE because the tolerance values are above 10 % and VIF values were less than 10. Since this result shows there is noexistence of multicollinearity, there will not be any multicollinearity among independent variable in this study.

**4.2.3 Autocorrelation Testing**



### 4.2.3.1 ROA

Table 4.3 Durbin-Watson Statistic of ROA

**Model Summary<sup>b</sup>**

Durbin-Watson
1.361

a. Predictors: (Constant), DTAR, CLTAR, CATAR, CR

b. Dependent Variable: ROA

Source: Generated using SPSS

Based on Table 4.3, the value of Durbin Watson is 1.361 with dependent variable ROA while the standard value used for model to detect free of autocorrelation is between -2 to +2. Therefore, there is no autocorrelation problem happen in this research.

### 4.2.3.2 ROE

Table 4.4 Durbin-Watson Statistic of ROE

### Model Summary<sup>b</sup>

Durbin-Watson
.854

a. Predictors: (Constant), DTAR, CLTAR, CATAR, CR

b. Dependent Variable: ROE

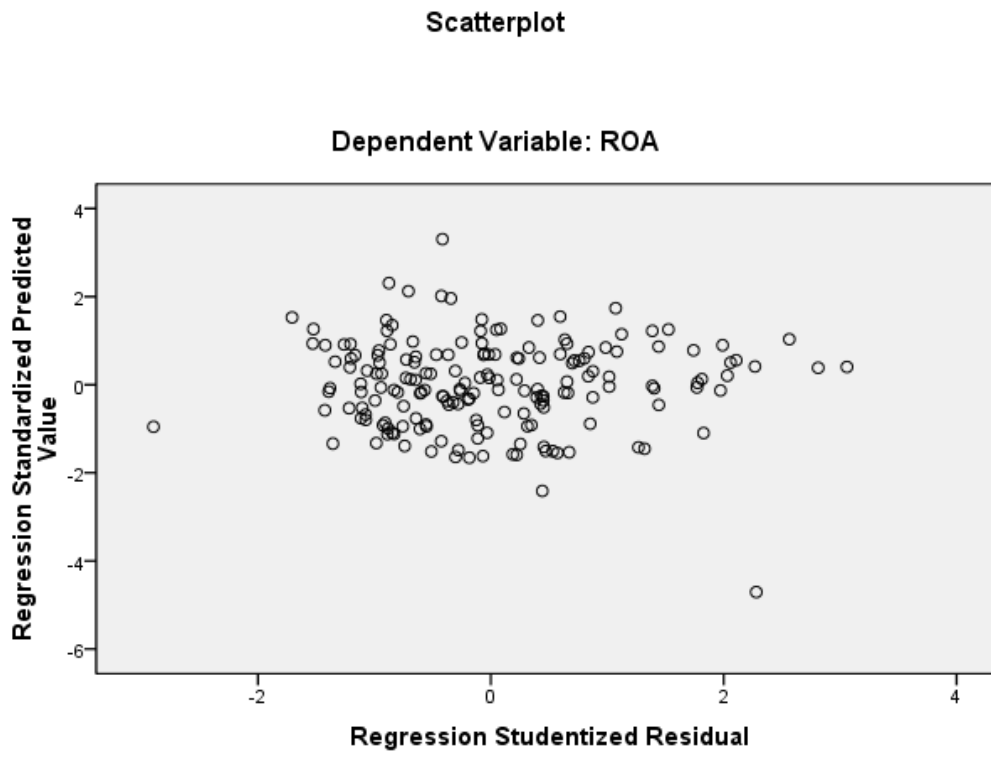
Source: Generated using SPSS

Based on Table 4.4, the value of Durbin Watson is 1.361 with dependent variable ROA while the standard value used for model to detect free of autocorrelation is between -2 to +2. Therefore, there is no autocorrelation problem happen in this research.

## 4.2.4 Heteroscedasticity Testing

### 4.2.4.1 ROA

Figure 4.5 Scatterplot of Residual of

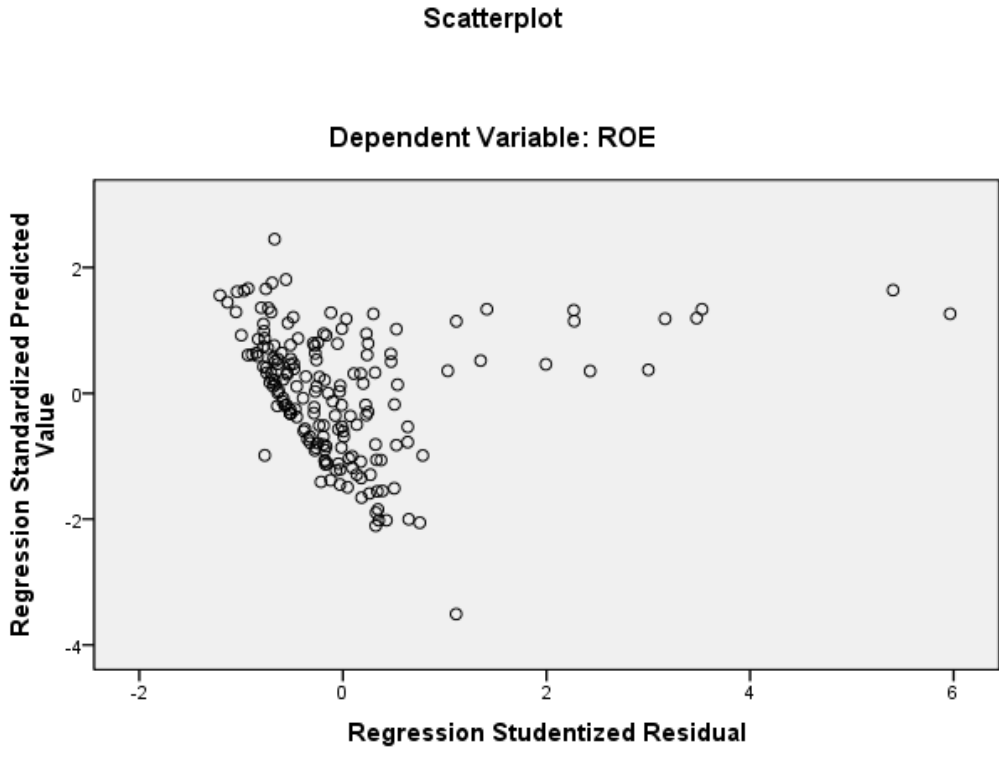


Source: Generated using SPSS

Based on Figure 4.5, it shows that the dots are scattered above and under zero spot. It can be concluded that there is no heteroscedasticity happened and it means all independent variables (CR, CATAR, CLTAR and DTAR) of samples that being used don't affect its residual and the regression model can be used.

#### 4.2.4.2 ROE

Figure 4.6 Scatterplot of Residual of



ROE

Source: Generated using SPSS

Based on Figure 4.6, it shows that the dots are scattered above and under zero spot. It can be concluded that there is no heteroscedasticity happened and it means all independent variables (CR, CATAR, CLTAR and DTAR) of samples that being used don't affect its residual and the regression model can be used.

**4.2.5 t-Test**

### 4.2.5.1 ROA

Table 4.5 t-Test Statistic of ROA

Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.074	.017		4.274	.000
CR	.001	.000	.290	1.994	.048
CATAR	.001	.009	.009	.070	.944
CLTAR	.046	.010	.378	4.668	.000
DTAR	-.078	.019	-.308	-4.087	.000

a. Dependent Variable: ROA

Source: Generated using SPSS

Based on Table 4.5, the equation of regression can be seen as follows:

$$Y_1 = 0.074 + 0.001X_1 + 0.046X_3 - 0.078X_4 + \varepsilon \dots \dots \dots \text{Equation 4.1}$$

From the Equation 4.1, it can be explained that the Constant is 0.074 which means if the value of Current Ratio ( $X_1$ ), Current Liabilities to Total Asset Ratio ( $X_3$ ) and Debt to Total Asset Ratio ( $X_4$ ) is 0 then the Return on Asset ( $Y_1$ ) of samples of selected public banks listed in Indonesia will be 0.074.

The regression coefficient of Current Ratio ( $X_1$ ) variable is 0.001. Positive value means that direction between CR with ROA is positive, this indicates if CR increase then ROA will increase. The meaning of regression coefficient of CR = 0.001 which means if the other independent variable is constant and CR ( $X_1$ ) was increased for one point then the ROA ( $Y_1$ ) would be increased by 0.001 point.

According to the result of t-test in table 5 above, the sig. value of CR is 0.048 which is lower than  $\alpha = 0.1$ . It means that on partially, CR significantly affects ROA. Therefore, it can conclude to reject the Null Hypothesis ( $H_{01}$ ) and accept the Alternate Hypothesis ( $H_{a1}$ ) in 90% significance level which states there is a significant effect of CR to ROA.

The regression coefficient of Current Liabilities to Total Asset Ratio ( $X_3$ ) variable is 0.046. Positive value means that direction between CLTAR with ROA is positive, this indicates if CLTAR increase then ROA will increase. The meaning of regression coefficient of CLTAR = 0.046 which means if the other independent variable is constant and CLTAR ( $X_3$ ) was increased for one point then the ROA ( $Y_1$ ) would be increased by 0.046 point.

According to the result of t-test in Table 4.5, the sig. value of CLTAR is 0.000 which is lower than  $\alpha = 0.01$ . It means that on partially, CLTAR significantly affects ROA. Therefore, it can conclude to reject the Null Hypothesis ( $H_{03}$ ) and accept the Alternate Hypothesis ( $H_{a3}$ ) in 99% significance level which states there is a significant effect of CLTAR to ROA.

The regression coefficient of Debt to Total Asset Ratio ( $X_4$ ) variable is -0.078. Negative value means that direction between DTAR with ROA is negative, this indicates if DTAR increase then ROA will decrease. The meaning of regression coefficient of DTAR = -0.078 which means if the other independent variable is constant and DTAR ( $X_4$ ) was increased for one point then the ROA ( $Y_1$ ) would be decreased by 0.078 point.

According to the result of t-test in Table 4.5, the sig. value of DTAR is 0.000 which is lower than  $\alpha = 0.01$ . It means that on partially, DTAR significantly affects ROA. Therefore, it can conclude to reject the Null Hypothesis ( $H_{04}$ ) and accept the Alternate Hypothesis ( $H_{a4}$ ) in 99% significance level which states there is a significant effect of DLTAR to ROA.

From the Table 4.5, it can be concluded that CLTAR and DTAR are strongly affect ROA with value of sig. = 0.000, while CR affects ROA with value of sig. = 0.048 which is less than threshold of  $\alpha = 0.05$ , contrast to CATAR that does not affect ROA with the value of sig. = 0.944 which is above the threshold of  $\alpha = 0.1$ .

#### **4.2.5.2 ROE**

Table 4.6 t-Test Statistic of ROE

**Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.153	.809		1.425	.156
CR	.008	.012	.104	.683	.496
CATAR	.469	.440	.141	1.066	.288
CLTAR	2.410	.463	.444	5.207	.000
DTAR	-1.399	.885	-.125	-1.581	.116

a. Dependent Variable: ROE

Source: Generated using SPSS

Based on Table 4.6, the equation of regression can be seen as follows:

$$Y_2 = 2.410X_3 + \varepsilon \dots\dots\dots \text{Equation 4.2}$$

From the Equation 4.2, it can be explained that the Constant, X<sub>1</sub>, X<sub>2</sub> and X<sub>4</sub> are omitted from the equation because they all have no significant relationship toward dependent variable, ROE.

The regression coefficient of Current Liabilities to Total Asset Ratio (X<sub>3</sub>) variable is 2.410. Positive value means that direction between CLTAR with ROE is positive, this indicates if CLTAR increase then ROE will increase. The meaning of regression coefficient of CLTAR = 2.410 which means if the other independent variable is constant and CLTAR (X<sub>3</sub>) was increased for one point then the ROE (Y<sub>2</sub>) would be increased by 2.410 point.

According to the result of t-test in table 6 above, the sig. value of CLTAR is 0.000 which is lower than  $\alpha = 0.01$ . It means that on partially, CLTAR significantly affects ROE. Therefore, it can conclude to reject the Null Hypothesis (H<sub>07</sub>) and accept the Alternate Hypothesis (H<sub>a7</sub>) in 99% significance level which states there is a significant effect of CLTAR to ROE.

From the Table 4.6, it can be concluded that CLTAR is strongly affect ROE with value of sig. = 0.000, contrast to CR with value of sig. = 0.496, CATAR with the value of sig. = 0.288 and DTAR with value of sig. = 0.116, which all of them are above the threshold of  $\alpha = 0.1$ .

#### 4.2.6 F-Test

##### 4.2.6.1 ROA

Table 4.7 F-Test Statistic of ROA

ANOVA<sup>b</sup>

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	.003	4	.001	14.006	.000 <sup>a</sup>
Residual	.009	174	.000		
Total	.011	178			

a. Predictors: (Constant), DTAR, CLTAR, CATAR, CR

b. Dependent Variable: ROA

Source: Generated using SPSS

According to the result of F-test in Table 4.7 above, F evaluate is 14.006 with a Sig. value (the significant level) of 0.000. The significant value of the model's F-test is 0.000, which is lower than the significant level  $\alpha = 0.01$ . Overall, the null hypothesis is rejected which stated that there is effect of independent variables altogether to the ROA.

In conclusion, based on the result of F-test, it can be stated that there is entirely effect of CR, CATAR, CLTAR, and DTAR to ROA of samples of public listed banks in Indonesia Stock exchange (IDX) during period of 2008 until 2012

##### 4.2.6.2 ROE

Table 4.8 F-Test Statistic of ROE



**ANOVA<sup>b</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.635	4	.909	8.493	.000 <sup>a</sup>
	Residual	18.618	174	.107		
	Total	22.254	178			

a. Predictors: (Constant), DTAR, CLTAR, CATAR, CR

b. Dependent Variable: ROE

Source: Generated using SPSS

According to the result of F-test in Table 4.8 above, F evaluate is 8.493 with a Sig. value (the significant level) of 0.000. The significant value of the model's F-test is 0.000, which is lower than the significant level  $\alpha = 0.01$ . Overall, the null hypothesis is rejected which stated that there is effect of independent variables altogether to the ROE.

In conclusion, based on the result of F-test, it can be stated that there is entirely effect of CR, CATAR, CLTAR, and DTAR to ROE of samples of public listed banks in Indonesia Stock exchange (IDX) during period of 2008 until 2012.

## 4.2.7 Multi Regression Testing

### 4.2.7.1 ROA

Table 4.9 Multi Regression Statistic of ROA

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.494 <sup>a</sup>	.244	.226	.00702124649

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.494 <sup>a</sup>	.244	.226	.00702124649

a. Predictors: (Constant), DTAR, CLTAR, CATAR, CR

b. Dependent Variable: ROA

Source: Generated using SPSS

According to the regression analysis results in Table 4.9 above, it shows that the coefficient of correlation (R) is 0.494. It means that there is a relationship among independent variables of CR, CATAR, CLTAR and DTAR to dependent variable for ROA.

In this research, Adjusted R<sup>2</sup> is 0.226, which means that the 22.6% of dependent variable ROA is influenced by combination of independent variables which are CR, CATAR, CLTAR and DTAR. The rest which is 77.4% (100 % - 22.6 %) will be explained by other factors which will not be discussed in this research.

#### **4.2.7.2 ROE**

Table 4.10 Multi Regression Statistic of ROE

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.404 <sup>a</sup>	.163	.144	.32711213005

a. Predictors: (Constant), DTAR, CLTAR, CATAR, CR

b. Dependent Variable: ROE

Source: Generated using SPSS

According to the regression analysis results in Table 4.10, it shows that the coefficient of correlation (R) is 0.404. It means that there is a relationship among independent variables of CR, CATAR, CLTAR and DTAR to dependent variable for ROE.

In this research, Adjusted  $R^2$  is 0.144, which means 14.4% that the dependent variable ROE is influenced by combination of independent variables which are CR, CATAR, CLTAR and DTAR. The rest which is 85.6% (100% - 14.4%) will be explained by other factors which will not be discussed in this research

### 4.3 Interpretation of Results

Based on calculation of several statistical methods by using SPSS 16.0 software, there are several results that can be used to test and examine the hypothesis. The first result is there is a weak positive linear correlation between independent variables (CR, CATAR, CLTAR and DTAR) with dependent variable (ROA) of samples of public listed banks in Indonesia because the result of Coefficient of Correlation (R) is equal to 0.494 and these independent variables can explain about 22.6% to the dependent variable and the other 77.4% will be explained by other factors outside the model.

The second result is there is a weak positive correlation between independent variables (CR, CATAR, CLTAR and DTAR) with dependent variable (ROE) of samples of public listed banks in Indonesia because the result of Coefficient of Correlation (R) is equal to 0.404 and these independent variables can explain about 14.4% to the dependent variable and the other 85.6% will be explained by other factors outside the model.

The F-Test results show that the independent variables (CR, CATAR, CLTAR and DTAR) of the samples of public listed banks in Indonesia have a strong linear regression with the dependent variables (ROA and ROE). In conclusion, the combinations of independent variables significantly affect the dependent variables. The F value of samples of public listed banks in Indonesia is 0.000, both of the result are below 0.01 so it can be concluded that the independent variables in combination have significant effect toward the dependent variables.

The most differences between the two dependent variables happened because of the results of t-test. With dependent variable ROA, CR, CATAR and CLTAR has positive relationship with Return on Asset but only CLTAR that significantly affect it where significant is 0.000 (less than 0.01) and DTAR has negative correlation with Return on Asset but has affect it significantly with the significant 0.000 (less than 0.01). With dependent variable ROE, only CLTAR that has positive relationship and significantly affect the ROE with significant value 0.000 (less than 0.01) while CR and CATAR have positive relationship but does not affect significantly and DTAR has negative relationship with ROE but no significant relationship.

These results show that the significant level of each independent variable for each dependent variable is different one and another. One thing in common is the only CLTAR that has positive relationship and significantly affect the dependent variables (ROA and ROE) with the significant value 0.000 for the samples of public listed banks in Indonesia.

## **V. CONCLUSION AND RECOMMENDATION**

### **5.1 Conclusions**

This study entitled Liquidity Management, Working Capital And Profitability: A Case Of Public Listed Banks In Indonesia From 2008 – 2012. In this study, the researcher examine the relationship between liquidity management, working capital management and profitability of companies. Firms examined is nine public banks that listed in Indonesia stock market (IDX) in period of 2008 – 2012. The researcher uses Current Ratio (CR) as liquidity management variable. For working capital management variables, researcher uses Current Asset to Total Asset Ratio (CATAR), Current Liabilities to Total Asset Ratio (CLTAR) and Debt to Total Asset Ratio (DTAR). As profitability variables, researcher uses Return on Asset (ROA) and

Return on Equity (ROE). Based on the analysis result and discussion on Chapter IV, data analysis and interpretation of result, the conclusion could be drawn as follows:

1. Based on the coefficient of correlation for ROA and ROE, respectively, 0.494 and 0.404, the combination of independent variables which are CR, CATAR, CLTAR and DTAR of nine public listed banks in Indonesia have a weak relationship to the dependent variables ROA and ROE.
2. Based on T-test result, CR of nine public listed banks in Indonesia has positive correlation and significantly affect the ROA in 95% significance level with the significant value of 0.048, therefore  $H_{01}$  is rejected. On the other hand, while CR has positive correlation, it does not affects ROE with the significant value of 0.496, so  $H_{05}$  is accepted..
3. Based on T-test result, CATAR of nine public listed banks in Indonesia has positive relationship but does not have a significant affect toward ROA with the significant value of 0.944, therefore accept  $H_{02}$ .  $H_{08}$  is accepted with the significant value of CATAR toward ROE of 0.288, while CATAR positively correlated to ROE.
4. Based on T-test result, CLTAR of nine public listed banks in Indonesia has positive relationship with both ROA and ROE, and significantly affected both of variables in 99% significance level, thus reject  $H_{03}$  and  $H_{07}$ .
5. Based on T-test result, DTAR of nine public listed banks in Indonesia has negative correlation with both profitability variables, ROA and ROE. With the significant value of 0.001, DTAR significantly affects ROA, therefore reject  $H_{04}$ . On the other hand, significant value of DTAR toward ROE is 0.116, thus accept  $H_{08}$ .

## **5.2 Recommendations**

1. To Investors

The investors should analyze the financial performance of the company for them to understand the condition of the company. Bank may be one of business that has most profit but bank also has big risk. High risk, high returns. The investors should analyze the

performance of banks, if they invest their money in a bad condition of business, they may suffer loss.

2. To Banks

It is important to banks to pay attention on the factors that affecting the rise and fall of their business. The researcher would like to recommend that banks should pay attention on their CLTAR value since this ratio is significantly affects both ROA and ROE.

3. To Future Researcher

For future researcher, since the model proposed only explain 22 and 14 percent of variation of ROA and ROE, the researcher would like to recommend to utilize more independent variables and employ other financial ratios. It can help a lot in understanding this topic deeper and clearer.

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