THE INFLUENCE OF CAPITAL ADEQUACY RATIO (CAR), RETURN ON EQUITY (ROE), AND RETURN ON ASSETS (ROA) TOWARDS A STATED OWNED BANK STOCK PRICE. (A STUDY CASE OF PT. BNI 46)

By

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THESIS ADVISER
RECOMMENDATION LETTER

This Thesis entitled “THE INFLUENCE OF CAPITAL ADEQUACY RATIO (CAR), RETURN ON EQUITY (ROE), AND RETURN ON ASSETS (ROA) TOWARDS A STATED OWNED BANK STOCK PRICE (A CASE STUDY OF BNI 46).” prepared and submitted by Sabrina in partial fulfillment of the requirements for the degree of Bachelor of Economy majoring in Management with a concentration of Banking and Finance has been reviewed and found to have satisfied the requirements for a thesis fit to be examined. I therefore recommend this thesis for Oral Defense.

Cikarang, Indonesia, January 30th, 2013

Acknowledged by,  Recommended by,

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Head of Management Study Program  Thesis Adviser
The Panel of Examiners declare that the Thesis entitled “THE INFLUENCE OF CAPITAL ADEQUACY RATIO (CAR), RETURN ON EQUITY (ROE), AND RETURN ON ASSETS (ROA) TOWARDS A STATED OWNED BANK STOCK PRICE (A CASE STUDY OF BNI 46)” that was submitted by Sabrina majoring in Management from the Faculty of Economics was assessed and approved to have passed the Oral Examination on March 7, 2013.

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Irfan Habsjah, MBA, CMA

Examiner II
DECLARATION OF ORIGINALITY

This Thesis entitled “THE INFLUENCE OF CAPITAL ADEQUACY RATIO (CAR), RETURN ON EQUITY (ROE), AND RETURN ON ASSETS (ROA) TOWARDS A STATED OWNED BANK STOCK PRICE (A CASE STUDY OF BNI 46).” Is, to the best of my knowledge and belief, an original piece of work that has not submitted, either in whole or in part, to another university to obtain a degree.

Cikarang, Indonesia, January 30th, 2013

The Researcher,

Sabrina
ABSTRACT

This study is performed to examine the influence of Capital Adequacy Ratio (CAR), Return on Equity (ROE) and Return on Assets (ROA), towards a stated owned bank stock price (a case study of BNI 46). The objective of this study is to analyze if there is any significant influences of the independent variables individually and simultaneously towards the BNI’s stock price. Research methodology that used here is quantitative analysis with multiple regressions. While the type of data used is secondary data which taken monthly from January 2007 until September 2012. Based on the result of this study found that, all variables; CAR, ROE, and ROA simultaneously have a significant influence towards the BNI’s stock price. The three variables used in this study have 51.7% influence on the BNI stock price, while the other 48.3% is explained by other factor that not discussed in this study. Partially, only Return on Equity (ROE) that has no significant influence towards BNI’s stock price. Variable that has the most dominant influence towards BNI stock price is ROA. In this study ROE doesn’t give a significant impact because the average ROE has a lower value than the minimum standard declared by Bank Indonesia which is 12% and mostly ROE is counted yearly.

Keywords: Capital Adequacy Ratio (CAR), Return on Equity (ROE), Return on Assets (ROA), Stock Price.
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CHAPTER I
INTRODUCTION

1.1. **Background of the study**

Many companies need funds to support their operations and maintain their existence in the competitive business environment. One contributing factor to support the survival of a company is the availability of funds. There is one of the ways to withdraw funds is from sources outside the company. A fund from outside the company means the sale of shares to the public in the capital market.

Capital market is a place where those who need funds and those who offer funds meet. Objects that are traded in the stock market are long-term financial instruments such as stocks, bonds, derivatives and mutual funds. One of the instruments in the capital markets which are in a great demand is stock. The investor invests their fund by purchasing of shares offer.

From the capital market activity, stock price is a factor that is very important and should be considered by investors in making investment. If the issuer has a good performance, then the benefits would be good too. So there is a symbiotic mutualism here, companies get cash injection from investors and investors benefit from the difference between purchase price and selling price of the stock.

In the capital market, companies must compete to attract the investors’ attention. Therefore, investors should have a benchmark for evaluating the stock price of a company before investing in the company. This analysis needs to be done so that investors can determine whether investors will get
benefit or loss when they sell the shares and also to see the expectations of the company's ability to make a profit.

By using financial statements, the company can analyze financial performance through financial ratios to determine the level of profitability of the level of risk or the health of a company and to assist management in assessing past performance and prospects of the company in the future. Stock prices should not be too high but not too low. Because if the stock price is too low often means that the company performance is not good, but if the stock price is too high, the ability of investors to buy the company's stock are decrease so the impact is on the stock prices. It will be difficult to increase again.

Factors that affect the stock price are still very varied and can be analyzed using fundamental analysis and technical analysis. Based on the fundamental analysis we can analyze by looking at the financial statement of the company. There are some ratios in the financial statement, there are four major ratios in the fundamental analysis; profitability, leverage, liquidity and activity ratios.

By analyzing the company's financial performance using financial ratios, the company also saw its ability to generate profits. If the stock price increases, the value of the company will also increase. If the value of the company increases, the investor wealth will also increase. Since the stock price increases, the rate of return that investors will obtain higher.

Using the financial statements of the company, investors can obtain data concerning in the Capital Adequacy Ratio (CAR), Return on Equity (ROE), and Return on Asset (ROA) so that they can analyze his stock before they decide to invest their funds for the company.

However there are some problems that arise in maximizing the value of the company as the company's stock price changes. This happens
continuously throughout the shares listed in the Indonesia Stock Exchange. It can only stop if the company delisting from Indonesia Stock Exchange.

Researcher decided to conduct the investment research on banking sector that listed in the top 10 biggest banks based on the total assets in 2011 issued by Bank Indonesia as the population and BNI as the sample. BNI is chosen because it is the first bank that established and owned by Indonesian Government and it is also the fourth biggest bank based on the total assets, total loans and the total deposits in 2011. The following are the list of the 10 biggest banks based on the total assets in Indonesia 2011 issued by Bank Indonesia:

1. PT Bank Mandiri Tbk with assets of Rp 493.05 trillion (13.5% of total banking assets)
2. PT Bank Rakyat Indonesia Tbk (BRI) with assets of Rp 456.382 trillion (12.49%)
3. PT Bank Central Asia Tbk (BCA) with assets of Rp 380,927 billion (10.43%)
4. PT Bank Negara Indonesia (BNI) with assets of Rp 289,458 trillion (7.92%)
5. PT Bank CIMB Niaga Tbk with assets of Rp 164,247 trillion (4.5%)
6. PT Bank Danamon Indonesia Tbk with assets of Rp 127,128 trillion (3.48%)
7. PT Bank Pan Indonesia Tbk (Panin) with assets of Rp 118,991 trillion (3.26%)
8. PT Bank Permata Tbk with assets of Rp 101,54 trillion (2.78%)
9. PT Bank International Indonesia Tbk (BII) with assets of Rp 91,335 trillion (2.5%)
10. PT Bank Tabungan Negara Tbk (BTN) with assets of Rp 89,277 trillion (2.44%).
Based on the numbers of variables in the financial ratios that can affect stock prices, the authors intend to conduct research entitled “THE INFLUENCE OF CAPITAL ADEQUACY RATIO (CAR), RETURN ON EQUITY (ROE), AND RETURN ON ASSETS (ROA) TOWARDS A STATED OWNED BANK STOCK PRICE (A CASE STUDY OF BNI 46).”

1.2. **Company profile**

Below is some information about the sample that used in this research, and all the information is taken from the BNI official website.

1.2.1. **History**

Bank Negara Indonesia established since 1946. BNI is the first bank formed and owned by the Indonesian government.

Only a few months after its formal establishment, on the eve of October 30, 1946, Bank Negara Indonesia (BNI) began to circulate first official payment instrument issued by the government of Indonesia that ORI / Oeang Republic of Indonesia. Until now we celebrated October 30 as the Day of National Finance and July 5, the day the establishment of Bank Negara Indonesia celebrated as the National Bank.

In 1949, De Javsche Bank was appointed as the Central Bank; this is a legacy of the Dutch government that impact on limiting the role of Bank Negara Indonesia as the circulation and central bank. Then BNI defined as development banks and have the right to act as a bank with direct access to foreign exchange transactions abroad.

With the capital increase in 1955, the status of Bank Negara Indonesia transformed into state-owned commercial banks.
In line with the decision of its year of establishment as part of the corporate identity, we used name of “Bank Negara Indonesia 1946” starting from late 1968. This change makes the Bank Negara Indonesia is better known as 'BNI 46'. The use of nicknames is easier to remember - 'Bank BNI' - set along with the change of corporate identity in 1988.

In 1992, legal status and the name changed to PT BNI Bank Negara Indonesia (Persero) and became a public company through an initial public offering on the stock market in 1996.

In 2004, an updated corporate identity began to be used to describe the prospect of a better future, after the success of wading through a difficult period. The term 'Bank BNI' shortened to 'BNI', while the year of establishment - '46'- used in the company's logo to reinforce the pride as the first national bank that was born in the era of the Republic of Indonesia.

In late 2004, the Indonesian government holds a 60% stake in BNI while the remaining 40% of shares held by public shareholders of both individuals and institutions, domestic and foreign.

BNI is also the fourth largest bank by total assets, total loans and total deposits. BNI also provides comprehensive financial services firm backed by a child in Islamic banking (Bank BNI Syariah), financing (BNI Multi Finance), capital markets (BNI Securities) and insurance (BNI Life Insurance).

With total assets worth Rp 299.1 trillion and more than 23,639 employees at the end of 2011, BNI operates an extensive service network includes 1364 domestic outlets and 5 overseas branches in New York, London, Tokyo, Hong Kong and Singapore, 6227 ATMs one's own, as well as Internet banking facility and SMS banking that provides easy access for customers.
1.2.2. Vision, Mission, Values

**BNI vision**

Being a leading bank that prominent and advanced in service and performance.

**BNI mission**

1. Provide excellent service and value-added solutions to all our customers and partners as the main option (the bank's choice).
2. Increase the value of a superior investment for investors.
3. Creating the best conditions to work as a place of pride and achievement.
4. Increase awareness and environmental responsibility and social.
5. Being the reference implementation of compliance and good corporate governance.

**Values**

1. Convenience.
   BNI want their customers to feel comfort with their services.
2. Satisfaction.
   Not only want to make the customer feel comfort with their services, BNI also want to make the customers satisfied with their products.
1.2.3. Organizations Structure

Source: BNI’s official website
1.2.4. Awards

BNI has been received many awards:


2. Best Cash Management Solution of the Year 2011 in Southeast Asia, Alpha Southeast Asia.


4. Penghargaan Utama PKBL BUMN Award, BUMN Mitra Pembina Teladan, Menteri Badan Usaha Milik Negara.

5. Category Employment, ASEAN Business Award 2011, ASEAN Business and Investment Summit.

6. Best Trade Finance Bank in Indonesia, Alpha Southeast Asia.


11. The Best Right of Shareholders, Corporate Governance Award 2011, Indonesian Institute for Corporate Directorship.


1.3. Problem identified

From the description contained in the background, problem can be identified:
1. To know the factors that influences the BNI’s stock price.

1.4. Statement of the problem

Based on the discussion that has been identified from the background, and then do restrictions on these issues. The formulation of the problem in this research is:
1. How does the influence of Capital Adequacy Ratio (CAR) towards BNI’s stock prices period January 2007 – September 2012?
2. How does the influence of Return on Equity (ROE) towards BNI’s stock prices period January 2007 – September 2012?
3. How does the influence of Return on Asset (ROA) towards BNI’s stock prices period January 2007 – September 2012?
4. How do the influence of CAR, ROE, and ROA towards stock prices of BNI period January 2007 – September 2012?

1.5. Research objectives

The purpose of the study:
1. To know the influence of variables used partially on BNI’s stock prices in the period January 2007 – September 2012.
2. To know the influence of variables used simultaneously on BNI’s stock prices in the period January 2007 – September 2012.

1.6. Significance of the study

1. to the researcher
   a. To add insight about the investment bank's shares.
   b. As an addition to knowledge in the field of financial analysis based on financial ratios.
2. to institutions
   a. As an input to correct the deficiencies in financial institutions so as to increase their profits.

3. to investors
   a. consideration for investors and prospective investors who will invest in the capital market in particular in the banking industry to measure a company's financial performance through analysis of financial ratios that have an impact on stock prices.

4. to the public
   a. To increase public knowledge about investing.
   b. As an input for the future research on the effect of changes in CAR, ROE, and ROA on stock prices.

1.7. Theoretical framework

The following diagram will be presented theoretical framework of the influence of CAR, ROE, and ROA on BNI stock prices in the period January 2007 – September 2012

![Theoretical Framework Diagram]

Source: Constructed by Researcher
1.8. **Scope and limitations of the study**

There are many factors that affect the bank's performance towards bank’s stock price; this research will limit these factors only:

1. Capital Adequacy Ratio (CAR)
2. Return on Equity (ROE)
3. Return on Asset (ROA)

This study uses the stock price as the dependent variable and restricting the three variables mentioned above as independent variables to be used in this research. Restriction made based on the limitations of the data availability and the time that given.

For the object, this research will be conducted to banking sector that listed in top 10 biggest banks based on the total assets in 2011 issued by Bank Indonesia as the population and Bank Negara Indonesia (BNI) as the sample.

Sources of data for all variables in this study were drawn from the Monthly Financial Report period January 2007 – September 2012 that available in bi.go.id.

1.9. **Assumptions and hypothesis**

Based on the theoretical framework above, this study aims to determine whether there is a correlation between CAR, ROE, and ROA to the changes in stock prices. Thus, the hypothesis made by the authors is as follows:

The first hypothesis

$H_0$: $\beta_1 = 0$

(There is no significant effect of the Capital Adequacy Ratio to the BNI stock prices)

$H_1$: $\beta_1 \neq 0$
(There was a significant effect of the Capital Adequacy Ratio to the BNI stock prices)

The second hypothesis

$H_0$: $\beta_2 = 0$

(There is no significant effect of Return on Equity to the BNI stock prices)

$H_2$: $\beta_2 \neq 0$

(There is a significant effect of Return on Equity to the BNI stock prices)

The third hypothesis

$H_0$: $\beta_3 = 0$

(There is no significant effect of Return on Assets to the BNI stock prices)

$H_3$: $\beta_3 \neq 0$

(There is a significant effect of Return on Assets to the BNI stock prices)

The fourth hypothesis

$H_0$: $\beta_1 = \beta_2 = \beta_3 = 0$

(There is no significant effect of CAR, ROE, and ROA to the BNI stock prices)

$H_4$: $\beta_k \neq 0$

(At least one variable from CAR, ROE, and ROA that effecting BNI stock prices)

1.10. Definition of terms

   Capital divided by risk weighted asset, in order to know how well the bank provides funds to anticipate the credit, market and operational risk.

2. Return on Assets (ROA)
   Earnings before interest and tax (EBIT) divided by total asset, to know how well the bank uses their assets to produce profit.
3. **Return on Equity (ROE)**
   Net income after tax divided by shareholder’s equity, to know how well the bank uses investment funds to increase their earnings growth.

4. **Stock Price**
   Value or a price they were willing incurred to acquire a stake.

5. **Capital**
   Capital is owned by a basic component to starting a business as well as the basis for generating profit.

6. **Population**
   Collection of data or object that used for a research.

7. **Sample**
   A small amount or part of something.

8. **Variable**
   Attributes used in a research which will be concluded.

9. **Dependent Variable**
   The variable (Y) in a regression model in which the element that is being predicted.

10. **Independent Variable**
    The variable (X) in a regression model that is used to help predict the dependent variable.

11. **Regression**
    Equation that describes the relationship between a dependent variable (Y) and independent variable (X)
12. Multiple Regression
   A statistic model to find the relationship of more than one independent variables toward dependent variables.

13. Multicollinearity
   To analyzed if there is a relationship between independent variables in the regression model.

14. Autocorrelation
   The correlations that happens between the variables from the observations data in time series.

15. Heteroskedascity
   To analyzed the influence significant between independent variable with its residual value.

16. $R^2$
   Coefficient of determination, the percent of the variability in the dependent variable (Y) that is explained by the regression model.

17. Adjusted $R^2$
   A measurement of the explanatory power of a regression model that takes into consideration the number of independent variables in the model.

18. T-Test
   To analyze whether there is a partial correlation between each independent variable with the dependent variable.

19. F-Test
   To analyze whether there is a relationship between the set of independent variables on the dependent variables simultaneously
2.1. Bank

Based on Law No. 10 in 1998 concerning of banking, definition of the bank is:

A business entity which collects funds from the public in the form of savings and distributes them to the public in the form of credit and or other forms is in order to improve the living standard of the people.

Meanwhile, according to Kuncoro (2002: 68) in his book titled “Manajemen Perbankan, Teori dan Aplikasi.” Said that:

Bank is a financial institution whose main business is to collect funds and distribute those funds back into the community in the form of credit and to provide services in payment traffic and circulation of money."

According to financial experts and banking from developed countries, bank is an institution oriented to profit or gain.

Regarding to "finance minister of Indonesia decree No. 792, year 1990" Banks is:

An entity whose activities are in the areas of finance did the collection and distribution of funds to the community, especially to finance the company's investment.

From some definitions of banks that have written above, it can be concluded that bank is an entity or institution engaged in financial, profit from goods and services, and can function as a place to save and borrow money as well as a mediator that can channel funds from savers to borrower.
2.2. The capital market

2.2.1. Understanding Capital Markets

According to Husnan (2003) definition of the capital market are:

The market for a variety of long-term financial instruments which can be traded, either in the form of debt and equity, both published by the government, public authorities, and private companies.

According to Usman (1990: 62), generally securities that are traded in the capital market can be divided into two types, namely Debt securities (bonds) and bonds which are ownership (stock). The bond is also a proof of the company regarding the recognition of debt, and the stock is evidence of the company's investments.

In general, the stock market is an organized financial system, which includes commercial banks and all institutions for financial intermediaries, as well as the overall securities outstanding. In a narrow sense, the stock market is a market (place;building) prepared to trade stocks, bonds and other types of securities using broker services (Sunariyah, 2002: 4)

Of all the terms of the capital market by the experts mentioned above, it can be concluded that the stock market is a place or facility that brings the parties who have capital with those who need funds (company or institution) by trading-instrument trade long-term instruments such as shares, bonds, derivatives and mutual funds.

2.2.2. Capital Market Instruments

2.2.2.1. Stock

Stock is a proof of ownership of a company that the shareholders are entitled to the profits or earnings and assets of the company.

By type, the stock can be divided into 2, namely:

1. Common Stock (the most popular in capital market)

   Characteristics of common stock are:
a. Have the last claim on assets of the company if the company goes bankrupt or in liquidation.
b. Have a proportional voting in the election of directors or decision-making set out in the General Meeting of Shareholders.
c. The right to receive dividends if the company make a profit and have been approved in the General Meeting of Shareholders.
d. Have the right to pre-emptive offer securities to the public.

2. Preferred stock
   Characteristics of preferred stock are:
   a. Payment of dividends made in a fixed amount.
   b. Have the first company claims assets than common stockholders in the event of liquidation or bankruptcy.
   c. Can be converted into common stock.

2.2.2.2. Bond

Bonds are debt acknowledgment of a company. Companies that issue bonds shall pay interest on a regular basis in accordance with a predetermined time period and principal when due.

A characteristic of bond is worth always moves in the opposite direction to changes in interest rates. If interest rates go down, the value of bonds go up and vice versa. So when a decline in the value of interest rates, investors is more likely to invest their money in the bank.

There are three types of bonds:

1. Corporate Bond is a bond issued by the company.
2. Government Bond is a bond issued by the government.
3. Municipal Bond is a bond issued by local governments to finance a specific project in the area.

There is also a convertible bond in which the bonds can be exchanged into common stock at a specified price.
2.2.2.3. Other types of securities

There are several other types of securities, namely:

1. Warrants are securities that are attached to the issuance of stocks or bonds, which entitles the owner to buy the company's stock price and within a specified period.

2. Stock Index Futures Contract is a futures contract or agreement with a variable index underlying stock index.

3. Mutual funds are shares, bonds or other securities purchased by a number of investors and managed by a professional investment company.

2.2.3. Benefits and Risks of Investing in Stocks

2.2.3.1. Advantages of Stock Investment

There are 2 types of gains from equity investments:

1. Dividend
   Dividend is the result of corporate profits to be distributed to the shareholders in accordance with the agreement that has been agreed upon and approved by the General Meeting of Shareholders.

   Dividends are divided into 2 types; cash dividends and stock dividends. Dividends are cash dividends distributed to shareholders in the form of cash for every share held. While stock dividends are dividends distributed to shareholders in the form of new shares of the company so that the number of shares owned by the shareholders increases.

2. Capital Gain
   Capital gain is the profit earned by investors from the difference between the selling and purchase price when selling the shares exceeds the value of the stock purchase.
2.2.3.2. Shares Investment Risks

1. No dividend

There are several factors that lead to dividend omitted; companies (issuers) do not make a profit or a loss it can be said, the General Meeting of Shareholders decided not to distribute dividends to shareholders as profits will be used for business expansion.

2. Capital Loss

Capital loss occurs if the difference between the buying price and the selling price of the shares resulting from the purchase price exceeds the selling price of these shares.

3. Risk Liquidation

Liquidation risk occurs when a company (issuer) bankruptcy or liquidation, the shareholders are entitled to claim the company's remaining assets after the issuer pays its liabilities.

4. Delisting of Shares

Listing of shares in the stock can be removed for some reason, which resulted in these shares cannot be traded.

2.3. Stock Price

The share price is a value established by the market (demand and supply) contained within a specific time in the stock market. (Hartono, 1998:69).

Meanwhile, according to Widiatmodjo (2000:45), the stock is a value or a price they were willing incurred to acquire a stake.

It can be concluded that the stock price is a value that has been agreed upon by market participants in accordance with the forces of demand and supply of shares that were occurred in the stock market at any given time.
2.4. **Factors affecting the stock price**

Bargaining power between the investor will determine the company's stock price, if the enterprise is in good condition by the market, usually the value of the company's stock will rise, but if the company considered less good condition, it is usually the company's stock price to decline.

Factors that influence share prices in Weston and Brigham (2001: 26):

1. **Earnings per share (Earning Per Share / EPS)**
   
   The higher the value of Earning Per Share, the higher the returns provided by the company. This will encourage investors to make larger investments because investors who invest in a company expect a return on the shares he owned.

2. **Interest Rate**

   The interest rate can affect the stock price by the way:
   
   a. Interest rates also influence investors in deciding the purchase of stocks or bonds. Typically investors will swap their shares to bonds when the interest rate increases and redeem the bonds into equity if interest rates decline.
   
   b. Interest rates can affect economic activity, so it can affect revenues / profits. The higher the interest rate, the lower the profit earned by the company.

3. **Given the amount of Cash Dividend**

   How to attract the attention of investors is to increase that dividend if dividend increases the investor confidence in the company increases. If that is the case then a lot of investors who are interested to invest in the company, the stock price can be increased.
4. The amount of profit the company earned
   In general, prospective investors will be looking for a company that has a profit both to invest their money. Since the company with a pretty good profit has good prospect that could affect the future value of shares.

5. Level of Risk and Return
   The higher the risks faced, the higher the returns received that could affect stock prices.

Meanwhile, according to Alwi (2003, 87), there are several factors that affect the stock price or stock price index, among others:

1. Internal Factors (microenvironment)
   a. Notice on the marketing, production, sales as advertising, details of the contract, price changes, new product recall, report production, product safety reports, and sales reports.
   b. Announcement of funding (financing announcements), such as announcements relating to equity and debt.
   c. Announcement agency management directors (management board of director-announcements) as a change and a change of directors, management, and organizational structure.
   d. The announcement of the takeover of diversification, such as reports of mergers, equity investments, takes a report over the acquisition and acquisition, divestiture and other reports.
   e. The announcement of the investment (investment announcements), such as plant expansion, research and development, closure of other businesses.
   f. Announcement of employment (labor announcements), as new negotiations, new contracts, and other strikes.
   g. The announcement of the company's financial statements, such as forecasting earnings before the end of the fiscal year and after the end of the fiscal year, earnings per share (EPS) and dividends per share.
(DPS), price earnings ratio, net profit margin, return on assets (ROA), and others more.

In other words it can be said that the factors that influence stock price fluctuations from internal and external company. Factor is the internal performance of the company, the company's cash flow, dividends, profits and sales, while external factors are interest rates, inflation, government policy and economic conditions.

Important things that are macro or market factors that may cause fluctuations in the stock price is inflation and interest rates, financial and fiscal policies, the economic situation and the situation of international business. While the factors that can micro enterprises cause fluctuations in stock prices are corporate earnings, dividend share, cash flow, fundamental changes in the industry or company and changes in investment behavior such as changing investment of stocks into bonds.

2. External factors (macro environment)
   a. The announcement of the government, such as changes in interest rates and savings deposits, foreign exchange rates, inflation, and other economic regulation and deregulation issued by the government.
   b. Announcement of law (legal announcements), such as employee claims against the company or the company's manager and demands to the manager.
   c. The announcement of the securities industry (securities announcements), such as the annual meeting reports, insider trading, stock trading volume or price, capping / trading delays.
   d. Domestic political turmoil and fluctuations in the exchange rate is also a significant factor in the movement of stock prices on the stock exchange of a country.
   e. Various issue both domestically and abroad.
2.5. **Stock Analysis**

Investors will only be speculating if they do not analyze a particular stock before purchase. There are two kinds of methods for finding the value of stock in the size of the investment, namely fundamental analysis and technical analysis.

2.5.1. **Fundamental analysis**

According Husnan (1996) estimate the fundamental analysis is the analysis of stock prices in the future by estimating the fundamental factors that affect stock prices in the future and enhance the relationship of these variables in order to obtain the estimated stock price. So the analysis is usually performed in stages ranging from economic analysis / market, industry analysis, and analysis of the company itself.

In other words, the fundamental analysis methods related to the financial health of the company so that potential investors are expected to know the operational health of the company's shares to be purchased. (Panji dan Piji, 2003; 109)

Jones (2004) states that the “fundamental analysis is based on the premise that any security (and the market as the whole) has an intrinsic value, or the true value as estimated by investors. This value is a function of the firm's underlying variables; which combine to produce an expected return and an accompanying risk. By assessing these fundamental determinants of the value of a security, an estimate of its intrinsic value can be determined. This estimated intrinsic value can then be compared to the current market price of the security”

Fundamental analysis is actually focused on the company's financial statements to assess whether the company's share price is appropriate in other words; the stock price is not underpriced or overpriced. Usually the object in fundamental analysis is liquidity, profitability, and leverage activities to measure financial performance.
Underpriced is a condition where the share price in the stock market is lower than the intrinsic value or fair price nor vice versa if the share price in the stock market is higher than the intrinsic value called overpriced.

1. Financial performance

The performance is a reflection of the company in allocating and managing their resources. Measuring performance by Munawir (2002) is a data analysis and control for the company. Performance measurement can also be used to improve operations in order to compete with other companies for investors, while the performance of the company to decide whether to retain the investment in the company or find another alternative sera people to know the health of the company.

Meanwhile, the bank's performance under Jumingan (2008) is a picture of good overall bank performance achievements in bank operations, including financial aspects, marketing, collection and disbursement of funds, technology and human resources.

Bank financial performance measurement typically assess the overall health of banks in a given period are nice views of the collection and disbursement of funds is usually measured by the indicator of liquidity, capital adequacy and profitability of the bank.

Ratio analysis of a general nature can be applied to three (3) important areas include:

1. Liquidity. It describes the company's ability to pay their short-term debt. Some ratios are included in the liquidity ratios are:
   a. Current Ratio
      This ratio is calculated as current assets divided by current liabilities. This ratio shows how far current assets can cover current liabilities. The higher the value of current assets ratio means the higher company's ability to cover the short-term liabilities. Common standard used to measure the ideal current ratio is 200% or 2:1.
b. Quick Ratio / Acid Test Ratio

This ratio indicates the ability of current assets to cover the current liabilities. The greater the value of this ratio is better. Formula for calculating this ratio is current assets minus inventories divided by current liabilities.

c. Cash Ratio

This ratio indicates a company's ability to pay short-term obligations that must be paid by cash and securities in companies that can immediately redeemable.

2. Capital and solvency. To assess the ability of the company to pay their long-term debt or can be said to compare the funds provided by the owner with the funds borrowed from the lender. Ratio of which is included in solvency ratios are:

a. Total Debt to Equity Ratio

This ratio compares the total debt to owner’s equity. The lower the value of this ratio is the better. This ratio can be calculated as total debt divided by total equity.

b. Total Debt to Asset Ratio

This ratio compares total debt to total assets owned by the company. Usually, the lenders prefer low debt ratios because the lower the company's debt ratio will be greater. This ratio can be calculated by divided total liabilities with total assets.

3. Profitability analysis is to measure the company's ability to generate maximum profit and effectiveness in utilizing existing resources. Ratios that included in the profitability ratios are:

a. Net Profit Margin

Net profit margin is a ratio that compares the net profit after tax with sales. The higher the value of this ratio is the better because the company's net profit will be increases.

b. Return On Investment
Return on investment is one of the profitability ratios that are intended to measure the ability of companies with total funds invested in assets used for operations to produce a profit. Thus, this ratio linking profits derived from operations with total investment of assets used to generate operation’s profit.

c. Operating Income Ratio

This ratio compares the profit before tax to sales. The higher this ratio indicates higher profits obtained by the firm.

d. Return On Equity

ROE is a ratio that compares the net profit after tax by the amount of their own capital. This ratio indicates the ability of the capital that invested by the owner or investor to generate net income. The higher the value of this ratio means the higher the investor’s profit. Thus, the ratio is get the attention of investors.

From the investors' point of view, an important indicator to assess the company's prospects in the future is to look at the extent of the company's profitability. This indicator is very important note to determine the extent of the investments to provide returns that correspond to the required level of investor.

For banking companies, it can be seen from some of the following indicators:

1. Capital Adequacy Ratio (CAR)

Capital Adequacy Ratio is the ratio of capital to risk-weighted assets. This ratio shows how much all risky assets financed joined the bank in addition to its own capital to obtain funding from sources outside the bank as public funds, loans and etc. In other words, CAR is a ratio to measure the capital adequacy owned banks to support risky assets. The formula for calculating the CAR in accordance with Bank Indonesia Circular Letter No. 3/30/DPNP dated December 14, 2001: is by dividing capital with risk-weighted assets.
Bank Indonesia specifically provides that a bank must have minimum 8% of CAR towards the risk-weighted assets. Bank Indonesia Regulation on the procedure for entering bank soundness rating CAR as one of the main indicators.

2. Non Performing Loan (NPL)

Non-performing loans, often called credit risk ratio, it shows the ability of banks to fulfill the liquidity by holding the shift or withdrawal outstanding credits to complete the demand for other credit. Loans are generally considered as non-performing loans when the loan principal or interest has matured and unpaid for 90 days or more (this period may vary according to regulations). Bank Indonesia set a limit of 5% NPL as one of the indicators to see the level of the health of the banking firm. The lower the NPL is the better.

3. Return on Assets (ROA)

Return on assets is a measure of the company's ability to generate earnings with all the assets owned company. In this case the resulting profit is profit before tax. The formula can be used to calculate ROA is Earnings before interest and tax (EBIT) divided by total assets. Bank Indonesia indicated a good level of ROA minimum is 1.5%.

4. Return on Equity (ROE)

Return on Equity aims to measure the profitability from the equity investor point of view, by linking the corporate profits to the capital. This ratio can be calculated by dividing net income with total equity after tax. ROE ratio is widely used by investors who want to invest in a company. The higher the value of ROE means the higher the ability of the company to generate profit. Bank Indonesia indicated a good level of ROA minimum is 12%.
5. Net Interest Margin (NIM)

Net Interest Margin is a financial ratio used to measure the ability of bank management in managing its productive assets to generate net interest income. NIM can be calculated by reducing the Interest Received with Interest Paid then divided by Average Invested Assets.

This ratio can be useful to evaluate the ability of banks to manage interest rate risk. Changes in interest rates would result in changes in interest income and interest expense. NIM in its development indicates whether the position of bank’s assets and liabilities can get profit from the interest rate changes. Prospective investors view that banks that have a high NIM demonstrate the ability of banks to generate higher interest income.

6. Biaya Operasional / Pendapatan Operasional (BOPO)

Biaya Operasional / Pendapatan Operasional are financial ratios used to measure the ability of bank management in controlling operating expenses to operating income. This ratio can be calculated by dividing total operating expenses with total operating income. Investors tend to like BOPO ratio is small, because the smaller numbers of BOPO ratio, the better the condition of the bank.

7. Loan to Deposit Ratio (LDR)

Loan to Deposit Ratio is the ratio between the total numbers of credits or financing provided banks with funds received bank. LDR values can be calculated by dividing the loan with a third of the funds. The higher the value of this ratio is the better. This ratio is very important to portrait of the intensity of the intermediary function of banks in giving loan to the public.
Prospective Investors tend to like companies that have a high LDR, because beside it showing the bank in providing loans to borrowers with existing depositors' funds, it also showed the bank's ability to pay its obligations.

2.5.2. Technical analysis

Technical analysis by Husnan (1996) analysis is done by observing the stock price disclosures. Technical analysis also does not take into account the fundamental factors that exist.

Usually the objects in technical research are the interest rate, dollar exchange rate and inflation. Besides the stock price is also very vulnerable to the issues and cases that occur outside the company.

2.6. CAR towards stock price

CAR calculation is using capital divided by total risk-weighted assets. Car was used to measure the capital adequacy of a bank. Theoretically, the higher the CAR, the higher is the price of the stock, because the bank has a higher CAR means that the bank has sufficient capital to conduct its business and also enough to bear the risk if the bank is liquidated.

Prospective investors tend to choose a bank that has a high value of CAR. Due to the high CAR shows that banks have enough capital to cover risky assets. So the bank has a high CAR can increase investor confidence to buy the shares of the bank. If investors have high confidence to the return on the shares purchased, the demand for these shares will be increased so that the share price will also increase.

2.7. ROA towards stock price

In the calculation of ROA only uses Earnings before interest and tax (EBIT) divided by total assets of the bank. ROA is used to measured how far
the bank’s ability to generate profit from the invested capital. If we connect stock price with ROA, it can be seen by determining the size of the bank’s performance whether if the bank is good. So when the ROA of the bank is high, the bank's stock price will be increase, because investors will tend to favor high profits. If the bank have a high profit, it will give the investor higher dividends, and the risks of loss or no gain will be smaller.

ROA can be viewed in terms if the bank is able to obtain good reputation from public, the stock price will be increase.

2.8. **ROE towards stock price**

ROE is measured by comparing the net income after tax with shareholder's equity. ROE is used to measure the company's ability to generate net income that is associated with shareholders' equity.

The higher the ROE ratio indicates more efficient performance of the company, the value of bank equity will increase, with the increase in ROE company's ability to generate net income associated to the dividend payments are increasing and tend to increase the stock price (Riyanto, 2000).

2.9. **Previous Research**

Based on previous research conducted by Ardin Sianipar in 2005, entitled “Pengaruh Faktor Fundamental terhadap Harga Saham Industri Perbankan di Indonesia” (The Influence of The Fundamental Factor Towards The Stock Price of The Banking Industry in Indonesia) By using the independent variables ROA, CAR, EPS, ROE, Net Interest Margin Simultaneously concluded that all fundamental factors significantly influence stock prices. ROA is only partially that does not affect the stock price.

While research conducted by Hadi in 2004 with the title of the study “Pengaruh ROE, ROA, NIM , DER, dan PER terhadap harga saham di Bursa Efek Indonesia” using a multiple regression analysis with the t test and F test
says that the ROE, ROA, NIM, DER, and PER simultaneously not significantly affect the company's stock price and partially banks ROE, ROA, NIM, DER, and PER did not significantly affect the banking company's stock price. Hadi recommended for future studies to examine the different objects and different periods.

In a study titled “pengaruh profitabilitas terhadap return saham pada bank yang go public di bursa efek Jakarta” (The Influence of Profitability Ratio Towards the Stock Return of The Banks that Listed in Indonesia Stock Exchange) by Detak Prapanca Jakarta (2006), ROA and ROE has a positive influence on stock returns while the ROA negative influence on stock returns. However, ROA, ROE and ROA is partially not have a significant impact on stock returns.

In this thesis entitled “pengaruh DER, BOPO, ROA dan EPS terhadap harga saham di bursa efek Indonesia (BEI) pada bank devisa” (The Influences of DER, BOPO, ROA and EPS towards the Stock Price of the Foreign Exchange Bank that Listed in Indonesia Stock Exchange (IDX)) owned by Novi Indriana ROA and EPS has a positive correlation to the stock price while the DER and pkorelasi ROA has a negative effect on stock prices and have significant effect on stock prices when all variables done together.

In this thesis, entitled “Analisis pengaruh rasio keuangan (CAR, ROA, ROE, NPL dan BOPO) terhadap harga saham pada bank persero (Bank Mandiri, BRI dan BNI)” (The Analysis of The Influence of Financial Ratios (CAR, ROA, ROE, and ROA NPL) Towards The Stock Price at The State owned banks (Bank Mandiri, BRI and BNI)) owned by Nurhayati, Diamond (2012) CAR variable, ROA, ROE, and ROA NPL no significant effect on stock prices in the two state owned banks, namely Bank Mandiri and BNI. While the Bank BRI, variable CAR, ROA, ROE and NPL significant effect on stock prices, only variables no significant ROA.
CHAPTER III
METHODOLOGY

3.1. Research method

Based on the methodology used, the research can be divided into 2; qualitatively and quantitatively. The qualitative method uses mathematical data collection and statistical methods used in arriving at solutions from managerial and decision-making problems.

This research uses quantitative as the research method. Data used in this research is secondary data obtained from Indonesia Stock Exchange, yahoo finance, website of Bank Indonesia and the official website of BNI. Secondary data is data that has been published or collected by another party. After that we then observed to solve the problems in this research. According to the source data can be divided into 2; internal data and external data. Internal data is data that describes the circumstances of an organization internally. External data is data that describes the situation and the conditions that exist outside the organization. The types of data used in this research is the internal data in the form of monthly financial reports of Bank Negara Indonesia (BNI) as samples in this study period January 2007 – September 2012.

This research will explain about the significance of the relationship between independent variables and the dependent variable. The end result of this research is that we can predict significant relationships between some variables Capital Adequacy Ratio (CAR), Return on Equity (ROE), and Return on Assets (ROA) toward the BNI stock prices.
In this research, the hypothesis will be proved by using regression analysis. Regression analysis is used to determine the relationship of two variables and to predict how much the value of influence between each other. According to the variables used in this research is more than two, we will use multiple regression analysis.

This study will also use Microsoft Excel and SPSS 19 for statistical tools, which will make a statistical analysis of a non-mathematical and can be done effectively and efficiently. Both contribute a lot in research productivity associated with multiple working papers which are linked each other.

3.2. Research instruments

Based on the framework and the hypothesis, variables used in this study are:

1. Dependent Variable

   Dependent variable that will be used in this research is BNI’s stock price, which is included in the list of 10 top banks in Indonesia in terms of assets in 2011 which are listed in the Indonesia Stock Exchange. The stock price used is from the monthly adjusted stock price. The data for the dependent variable was taken from yahoo finance.

2. Independent variables


      The higher the CAR value, the better the ability of the bank to assume the risk of any credit / productive assets at risk. If the value is higher than the bank’s CAR able to finance operations and contributed significantly to profitability.
CAR = \frac{(Tier 1 Capital + Tier 2 Capital)}{Risk Weighted Assets}

They provide the CAR value from the published Capital Adequacy (Kewajiban Penyediaan Modal Minimum) report.

b. Return on Equity (ROE). The increase of ROE means there is an increase in the net profit of the bank so that it causes an increase in the bank's share price.

\text{ROE} = \frac{\text{Net Income after Tax}}{\text{Shareholders’ Equity}}

Net income after tax was taken from the income statement and shareholders’ equity was taken from Tier II in the capital adequacy (kewajiban penyediaan modal minimum) report.

c. Return on Assets (ROA). The higher the value of ROA means the higher the level of profit achieved and assets are used effectively. This formula of ROA was taken from Bank Indonesia

\text{ROA} = \frac{\text{Earnings before Interest and Tax (EBIT)}}{\text{Total Asset}}

Earnings before interest and tax were taken from the income statement and total asset was taken from the balance sheet.
3.3. **Sampling design**

Sampling is a process used in statistical analysis in a predetermined number of observations will be taken from a larger population. The methodology used to sample from a larger population will depend on the type of analysis being performed, but will include simple random sampling, systematic sampling and observational sampling.

The population is a region consisting of generalization objects/subjects that have certain qualities and characteristics are determined by the researchers to learn and drawn the conclusions. Sample is part of the number and characteristics possessed by the population (Sugiono, 2006:90). The population used in this study is the top 10 biggest bank based on the assets in 2011 which are listed banking industry in Indonesia stock exchange, and the sample is BNI. Here is a list of the banks that listed in Indonesia Stock Exchange:

<table>
<thead>
<tr>
<th>No</th>
<th>Kode</th>
<th>Nama</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Saham</td>
<td>Emiten</td>
</tr>
<tr>
<td>1</td>
<td>AGRO</td>
<td>Bank Agro Niaga Tbk</td>
</tr>
<tr>
<td>2</td>
<td>BABP</td>
<td>Bank ICB Bumi Putra Tbk</td>
</tr>
<tr>
<td>3</td>
<td>BACA</td>
<td>Bank Capital Indonesia Tbk</td>
</tr>
<tr>
<td>4</td>
<td>BAEK</td>
<td>Bank Ekonomi Raharja Tbk</td>
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</tr>
<tr>
<td>5</td>
<td>BBCA</td>
<td>Bank Central Asia Tbk</td>
</tr>
<tr>
<td>6</td>
<td>BBKP</td>
<td>Bank Bukopin Tbk</td>
</tr>
<tr>
<td>7</td>
<td>BBNI</td>
<td>Bank Negara Indonesia (Persero)  Tbk</td>
</tr>
<tr>
<td>8</td>
<td>BBNP</td>
<td>Bank Nusantara Parahyangan Tbk</td>
</tr>
<tr>
<td>9</td>
<td>BBRI</td>
<td>Bank Rakyat Indonesia (Persero)  Tbk</td>
</tr>
<tr>
<td>10</td>
<td>BBTN</td>
<td>Bank Tabungan Negara (Persero)   Tbk</td>
</tr>
<tr>
<td>1</td>
<td>BCIC</td>
<td>Bank Mutiara Tbk</td>
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<tr>
<td>2</td>
<td>BDMN</td>
<td>Bank Danamon Indonesia Tbk</td>
</tr>
<tr>
<td>3</td>
<td>BEKS</td>
<td>BEKS Bank Pundi Indonesia Tbk</td>
</tr>
<tr>
<td>4</td>
<td>BJBR</td>
<td>BJBR Bank Jabar Banten Tbk</td>
</tr>
<tr>
<td>5</td>
<td>BJTM</td>
<td>Bank Pembangunan Daerah Jawa Timur Tbk</td>
</tr>
<tr>
<td>6</td>
<td>BKSW</td>
<td>BKSW Bank Kesawan Tbk</td>
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<tr>
<td>7</td>
<td>BMRI</td>
<td>BMRI Bank Mandiri (Persero) Tbk</td>
</tr>
<tr>
<td>No</td>
<td>Code</td>
<td>Bank Name</td>
</tr>
<tr>
<td>----</td>
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<td>BNBA Bank</td>
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<td></td>
</tr>
<tr>
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<td>BNLI Bank</td>
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<td></td>
</tr>
<tr>
<td>2</td>
<td>BSIM</td>
<td>BSIM Bank</td>
</tr>
<tr>
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<td></td>
<td></td>
</tr>
<tr>
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<td>BSWD</td>
<td>BSWD Bank</td>
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<td>BTPN</td>
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<tr>
<td>2</td>
<td>BVIC</td>
<td>BVIC Bank</td>
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<td></td>
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<td>INPC</td>
<td>INPC Bank Artha Graha</td>
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<td>2</td>
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<td>MAYA Bank</td>
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<td>MCOR Bank</td>
</tr>
<tr>
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<td></td>
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<tr>
<td>2</td>
<td>MEGA</td>
<td>MEGA Bank</td>
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<tr>
<td>9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The sample chosen for this research is BNI which is included in the top 10 biggest banks in Indonesia based on its assets. Here is a list of 10 biggest banks based on asset 2011:

**Table 3.2**

<table>
<thead>
<tr>
<th>No</th>
<th>Bank</th>
<th>Jumlah Aset yang dimiliki</th>
<th>Persentase Total Aset Perbankan</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PT Bank Mandiri Tbk</td>
<td>Rp 493,05 triliun</td>
<td>13.5%</td>
</tr>
<tr>
<td>2</td>
<td>PT Bank Rakyat Indonesia Tbk (BRI)</td>
<td>Rp 456,382 triliun</td>
<td>12.49%</td>
</tr>
<tr>
<td>3</td>
<td>PT Bank Central Asia Tbk (BCA)</td>
<td>Rp 380,927 triliun</td>
<td>10.43%</td>
</tr>
<tr>
<td>4</td>
<td>PT Bank Negara</td>
<td>Rp 289,458 triliun</td>
<td>7.92%</td>
</tr>
</tbody>
</table>

Source: Sahamok.com
<table>
<thead>
<tr>
<th></th>
<th><strong>Indonesia</strong>&lt;br&gt;<strong>a Tbk (BNI)</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>PT Bank CIMB Niaga Tbk</td>
<td>Rp 164,247 triliun</td>
</tr>
<tr>
<td>6</td>
<td>PT Bank Danamon Tbk</td>
<td>Rp 127,128 triliun</td>
</tr>
<tr>
<td>7</td>
<td>PT Pan Indonesia Bank Tbk (Panin)</td>
<td>Rp 118,991 triliun</td>
</tr>
<tr>
<td>8</td>
<td>PT Bank Permata Tbk</td>
<td>Rp 101,54 triliun</td>
</tr>
<tr>
<td>9</td>
<td>PT Bank International Indonesia Tbk (BII)</td>
<td>Rp 91,335 triliun</td>
</tr>
<tr>
<td>10</td>
<td>PT Bank Tabungan Negara Tbk (BTN)</td>
<td>Rp 89,277 triliun</td>
</tr>
</tbody>
</table>

*Source: Bank Indonesia*
The following is a chart of the top 10 largest banks assets percentage in Indonesia based that issued by Bank Indonesia:

**Figure 3.1 Percentage of banking total assets 2011**

*Source: Bank Indonesia*
3.4. Testing the hypothesis

3.4.1. Regression Method

Regression analysis is a statistical tool for the investigation of relationships between variables. There are two types of regression analysis; simple regression analysis and multiple regression analysis. Simple regression is also known as linear regressions its use only one independent variable to predict the outcome of $Y$ while multiple regression use more than one independent variable to predict the outcome of $Y$. In this research I will use multiple regression. The formula of multiple regressions is:

$$ Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon $$

Where:

$Y = \text{BNI stock price}$

$X_1 = \text{Capital Adequacy Ratio (CAR)}$

$X_2 = \text{Return on Equity (ROE)}$

$X_3 = \text{Return on Asset (ROA)}$

$\beta_0 = \text{Intercept/ Constant (value of } Y \text{ when } X = 0)$

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

$\epsilon = \text{Random Error}$

3.4.2. Classic Assumption Test

Classical assumption test is testing statistical assumptions that must be met in multiple linear regression analysis based on ordinary least squares (OLS). It says that not all of the tests performed on the classical assumptions of linear regression analysis. As multicollinearity test cannot be used in simple linear
regression analysis and autocorrelation test no need to be applied in cross-sectional data. (Statsdata, 2011).

1. Normality test

The purpose of the normality test is to determine whether there is a normal distribution of dependent variable and independent variable. This test can be done by creating a histogram of residual diagrams as well as the normal probability plots, with the aim to analyze the spread of residual values in a diagonal line or normal graphic as stated below:

a. If the data is spreading around the diagonal lines or following its line as a condition of normal distribution pattern. It can be assumed that the regression model has met the normality test.

b. If the data is scattered away from the diagonal lines or change the line. It can be assumed this model has failed to meet the normality test.

Normality test can also be measured using the SPSS statistical software that can be seen in the graph of the probability plots of regression standardized residual. The plot is used to estimate how well the data while approaching a normal distribution.

2. Multicollinearity test

Multicollinearity is the relationship between the independent variable (Mason, 2003: 515). In some cases, multiple regression results may seem paradoxical. For instance, the models may fit the data well the (high F-test), even though none of the X variables has a statistically
significant impact on explaining Y. How is this possible? When two variables are highly correlated, they both convey essentially the same information. When this happens, the X variables are collinear and the results show multicollinearity.

Multicollinearity increases the standard errors of the coefficients. Increased standard errors in turn means that coefficients for some independent variables may be found not to be significantly different from 0, whereas without multicollinearity and with lower standard errors, these same coefficients might have been found to be significant and the researcher may not have come to null findings in the first place.

3. **Autocorrelation test**

   Autocorrelation is the relationship between the members of a time series of observations (Mason, 2003:511). Autocorrelation usually happens when we use the time series data instead of cross sections of data in observation. If this occurs in the regression model, the sample will not show the variants of population.

   Consequently the results of the regression model cannot be used to predict the value of the dependent variable given towards a certain independent variable. Based on Drs. Danang Sunyoto, SE., SH., MM on his book “Analisis Regresi dan Uji Hipotesis” One of the measurer in determining the presence or absence of autocorrelation problem by using the Durbin-Watson test, with the following conditions:
a. positive autocorrelation occurs when the value of DW under -2 (DW ≤ 2)
b. Autocorrelation doesn’t exist if DW value is between -2 and +2 or -2 ≤ DW ≤ +2
c. Negative autocorrelation occurs when the value of DW above +2 or DW > +2

4. Heteroscedasticity test

Heteroscedasticity problem will often appear in the cross-sectional data rather than time series data. Nachrowi and Usman (2006) explain that the cross section data often raises heteroscedasticity error variance; however, it does not mean the time series has no variants error.

Heteroscedasticity test is a test that is used to analyze whether there is a disturbance or error (e) owned by the same variant from one observation to the other observations. This test will use a scatter plot. In this plot, we can see the spread of the data, if it does not form a specific pattern and spread randomly above and below the zero spot it can be assumed that the heteroscedasticity doesn’t exist in this regression model.

3.4.3. Variability test

1. Coefficients of Determination ($R^2$)

Coefficient of determination written as $R^2$, it is a percentage of variation explained by regression (Mason, 2003:512). This will ensure how strong correlation exists between the independent variable on the dependent variable X as well as Y and kindness in the test. $R^2$ values are out of range high low 0 to 1 (0 ≤ $R^2$ ≥ 1) as follows:
a. If $R^2 = 0$, it states if X as the independent variable explained 0% of the variability in Y as the dependent variable, or it can be said that there is a correlation between X and Y is low. (In this study means CAR, ROA, ROE cannot explain the variability of stock price).

b. If $R^2 = 1$, it states that all points contained in the sample have been in the regression line and do not have the error ($e = 0$). Moreover, it stated that X has a strong correlation to the Y and can explain the variability of Y using the regression equation. Here it is best to have the most value close to 1.

2. **Testing the model for significance**

   To analyze whether there is a linear relation to the independent variables and the dependent variable, it is necessary to have a statistical test (T-Test and F-Test). Null hypothesis would state that there is no linear relationship between two variables (i.e., $\beta = 0$), and vice versa if there is a linear relationship between two variables (i.e., $\beta \neq 0$). If the null hypothesis can be rejected, then a linear relationship exists.

3. **T-Test**

   T-Test was first discovered by William Gosset in 1915 Seely (4shared, assessed 2012). T-Test will analyze whether there is a partial correlation between each independent variable with the dependent variable (Supranto, 2004: 63). Null hypothesis is that when the coefficient of the independent variable is 0. We can conclude that there is a linear relationship, and Ho is rejected as a result of the
significant levels of low T-Test (α used is 0.05) and vice versa.

1. a. \( H_0: \beta_1 = 0 \) or if significant \( T > \alpha \), accept \( H_0 \)
   b. \( H_1: \beta_1 \neq 0 \) or if significant \( F < \alpha \), reject \( H_0 \)

2. a. \( H_0: \beta_2 = 0 \) or if significant \( T > \alpha \), accept \( H_0 \)
   b. \( H_2: \beta_2 \neq 0 \) or if significant \( F < \alpha \), reject \( H_0 \)

3. a. \( H_0: \beta_3 = 0 \) or if significant \( T > \alpha \), accept \( H_0 \)
   b. \( H_3: \beta_3 \neq 0 \) or if significant \( F < \alpha \), reject \( H_0 \)

4. **F-Test**

   F-Test will analyze whether there is a relationship between the set of independent variables on the dependent variables simultaneously (Supranto, 2004: 64) test is performed to determine the statistical results of the null hypothesis as it has been said that there is no linear relationship between the independent variables with the dependent variable (ie, \( \beta \neq 0 \)). The result will be significant at the 5% significant level (α is 0.05). if the results of the significance level of the F-Test low, then \( H_0 \) is rejected and it was concluded that there is a linear relationship, and vice versa.

   a. \( H_0: \beta_1 = \beta_2 = \beta_3 = 0 \) or if a significant \( F > \alpha \), accept \( H_0 \)
   b. \( H_4: \beta_k \neq 0 \) or if significant \( F < \alpha \), reject \( H_0 \)
3.5. Limitations

There are many factors that affect the bank's stock price towards bank’s performance; this research will limit these factors only:

1. Capital Adequacy Ratio (CAR)
2. Return on Equity (ROE)
3. Return on Asset (ROA)

This study uses the stock price as the dependent variable and restricting the three variables mentioned above as independent variables to be used in this research. Restriction made based on the limitations of the data availability and the time that given.

For the object, this research will be conducted to banking sector that listed in the top 10 biggest banks based on total asset in 2011 as the population and Bank Negara Indonesia (BNI) as the sample.

Sources of data for all variables in this study were drawn from the Monthly Financial Report period January 2007 – September 2012 that available in bi.go.id.
CHAPTER IV
ANALYSIS OF DATA AND INTERPRETATION OF RESULTS

4.1. Descriptive Analysis

1. Sample Selection Result

The subject populations in this research are in the banks’ that listed in Indonesia stock exchanges from period January 2007 to September 2012. There are 32 banks listed in the Indonesia Stock Exchange (table 3.1). And the sample taken is BNI because BNI is the first bank that established and owned by Indonesian Government and BNI also include in the 10 biggest banks in Indonesia.

Objects in this study are the effect of CAR, ROE and ROA of the stock price BNI period January 2007 - September 2012. The data used in this study is secondary data, and analyze monthly financial report from the January 2007 – December 2012 and the BNI stock prices sourced from yahoo finance.

Table 4.1 Descriptive Statistic of Research Variable

<table>
<thead>
<tr>
<th>Descriptive Statistics</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>BNI stock price</td>
<td>69</td>
<td>487.00</td>
<td>4391.00</td>
<td>2463.1449</td>
<td>1129.86550</td>
</tr>
<tr>
<td>Capital Adequacy Ratio (CAR)</td>
<td>69</td>
<td>10.39</td>
<td>19.97</td>
<td>15.5355</td>
<td>2.14751</td>
</tr>
<tr>
<td>Return on Equity (ROE)</td>
<td>69</td>
<td>.75</td>
<td>48.11</td>
<td>6.1442</td>
<td>8.34985</td>
</tr>
<tr>
<td>Return on Asset (ROA)</td>
<td>69</td>
<td>.13</td>
<td>2.48</td>
<td>1.0014</td>
<td>.63598</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>69</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Appendix
Descriptive statistics provide an explanation of the central tendency of the data observations. From the data calculation using SPSS 19 program, we can get the data description of the sample used. Table descriptive statistics will describe the minimum and maximum values, the mean or average, and standard deviation of the data distribution. Standard deviation will explain how far the data value away from the average of the data value. Evaluate descriptive statistics is needed to be able to ensure that the data are normally distributed.

Table 4.1 shows that three independent variables; CAR, ROE and ROA with 69 data observation, which will be used to predict the change of BNI’s stock price.

Table 4.1 also shows the description of the research variables. The first independent variable is CAR which has a minimum value 10.39 and a maximum value 19.97. The average value of CAR is 15.5355 with a standard deviation 2.14751.

The second independent variable is ROE which has a minimum value 0.75 and a maximum value 48.11. The average value of ROE is 6.1442 with a standard deviation 8.34985.

The third independent variable is ROA. ROA has a minimum value 0.13 and a maximum value of 2.48. And the average value of ROA is 1.0014 with a standard deviation 0.63598.
4.2. Classic Assumption Test Result

4.2.1. Normality test

A good regression model should have a normal distribution among the dependent variables and independent variables. There are several ways to measure the normality of the data; deployment plot data and statistical tests. The research will use the normal plot spread of data that can be measured in figure 4.1 below.

Based on the above histogram curve (figure 4.1), it is shown that the data are normally spread. However, the histogram is considered less effective and uncertain in determining whether the data has been normally distributed especially when the number of data samples is small. A better Measurer to determine if data has been normally distributed can be viewed in the graph of normal P-Plot of Regression Standardized Residual by using SPSS statistical

**Figure 4.1 histogram of dependent variable: Stock price**

Source: Appendix
software. This plot can estimate how well the empirical data specific approximate particular theoretical distribution.

![Normal P-P Plot of Regression Standardized Residual](image)

**Figure 4.2 Normal P-Plot of Regression Standardized Residual**

*Source: Appendix*

Based on figure 4.2, the normal probability plot (P-Plot) indicates the points spread around the diagonal coincide this suggests that the data follow the diagonal line, so it can be concluded that data were normally distributed. This also is supported by the test results Kolmogorof Smirnov where a significance value of 0.776 > 0.05 thus concluded that the data used is normally distributed.
Table 4.2 Kolmgorov-Smirnov Test

<table>
<thead>
<tr>
<th></th>
<th>Unstandardized Residual</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>69</td>
</tr>
<tr>
<td>Normal Parameters&lt;sup&gt;a,b&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>.0000000</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>784.93764093</td>
</tr>
<tr>
<td>Most Extreme Differences</td>
<td></td>
</tr>
<tr>
<td>Absolute</td>
<td>.079</td>
</tr>
<tr>
<td>Positive</td>
<td>.079</td>
</tr>
<tr>
<td>Negative</td>
<td>-.063</td>
</tr>
<tr>
<td>Kolmgorov-Smirnov Z</td>
<td>.660</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.776</td>
</tr>
</tbody>
</table>

<sup>a</sup> Test distribution is Normal.

<sup>b</sup> Calculated from data.

Source: Appendix

4.2.2. Multicollinearity test

Multicollinearity test aims to determine whether there is a relationship between one variable with another variable. To detect the multicollinearity there are several methods offered including: Correlation Method, methods Frisch and Farrar-Glauber method. But the simplest way to detect multicollinearity is to look at the value of the Tolerance and VIF (Variance Inflation Factor).

Simple analysis for the presence of multicollinearity in the regression model is used VIF (Variance Inflation Factor) and Tolerance (Ghozali, 2005:92).

Magnitude VIF (Variance Inflation Factor) and Tolerance, assuming:
1). Tolerance has a number above (> 0.1
2). Has a value of VIF in below (< 10

Multicollinearity test results in this study can be seen in the following table:
From the results of processing data in the table shows that no independent variables (Capital Adequacy Ratio (CAR), Return on Equity (ROE) and Return on Assets (ROA)) having a VIF value greater than 10. It can be concluded that there is no multicollinearity between the independent variables in the regression model, thus regression model can be use to see the effect of Capital Adequacy Ratio (CAR), Return on Equity (ROE) and Return on Assets (ROA) of the stock price.

4.2.3. Autocorrelation test

Autocorrelation test performed to analyze whether there is a correlation in the disturbances variable (e) among other variables in observation. Usually autocorrelation test can be done by using the Durbin-Watson statistic, the results of the Durbin-Watson calculated value contained in the SPSS output, especially in the model summary table.
Table 4.4 Result Durbin Watson

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.719&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.517</td>
<td>.495</td>
<td>802.84727</td>
<td>1.702</td>
</tr>
</tbody>
</table>

- Predictors: (Constant), Return on Asset (ROA), Capital Adequacy Ratio (CAR), Return on Equity (ROE)
- Dependent Variable: BNI stock price

Source: Appendix

According to Drs. Danang Sunyoto, SE., SH., MM on his book, there is no autocorrelation when the value of the Durbin-Watson (DW) is greater than -2 and less than 2. (-2 ≤ DW ≤ 2)

From the data in table 4.4 above, we can see that the value of DW is 0.541, so it is mean that the autocorrelations is not exist in this research.

4.2.4. Heteroscedasticity test

Heteroscedasticity Test is a test that is used to analyze whether there are disturbances error (e), which is owned by the same variants in an observation to another observation. In this study, the heteroscedasticity test was performed using Scatter Plot Residual dependent value which is stock price.
According to figure 4.3 above, it can be conclude that there will not be heteroscedasticity problems that occur in this research. This can be seen from the dissemination of the data. Plot the data obtained do not form a certain patterns and spread randomly above and below the zero spot. In conclusion it can be concluded that there is no heteroscedasticity in this regression analysis model.

4.3. Regression Analysis Result

4.3.1. Coefficient of determination ($R^2$)

Determination coefficient used to see how much free variable contribution Capital Adequacy Ratio (CAR), Return on Equity (ROE) and Return on Assets (ROA) of the stock price. The higher the value of $R^2$ the better the
regression model as significant independent variables to explain the dependent variable. 

Here is a table of test results coefficient of determination:

Table 4.5 Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.719a</td>
<td>.517</td>
<td>.495</td>
<td>802.84727</td>
<td>1.702</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Return on Asset (ROA), Capital Adequacy Ratio (CAR), Return on Equity (ROE)
b. Dependent Variable: BNI stock price

Source: Appendix

Based on the results of the regression analysis are contained in Table 4.5, indicated that the coefficient of correlation R is 0.719. This shows that there is a relationship between the independent variables; capital adequacy ratio (CAR), return on equity (ROE) and return on assets (ROA) of the stock price.

The number of coefficient of determination (R²) is 0.517. which means that 51.7% variability in the dependent variable of the stock price can be explained by the variability of the combination of independent variables; CAR, ROE, ROA. The remaining 48.3% is another factor that will not be addressed in this study. The adjusted R² is 0.495 with a standard error of estimate 802.84727. Adjusted R² is the value of R² with regard the standard error of estimate.
4.3.2. Regression models result

This study examined and tested several variables that can affect the BNI’s stock price. Because the researchers will conduct studies using more than one variable, then the regression analysis is used multiple regression analysis. Regression analysis is used to determine the effect of independent variables on the dependent variable. In this study there are two regression models:

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>-2448.641</td>
<td>728.242</td>
<td>-3.362</td>
<td>.001</td>
</tr>
<tr>
<td>Capital Adequacy Ratio (CAR)</td>
<td>249.838</td>
<td>45.764</td>
<td>.475</td>
<td>5.459</td>
</tr>
<tr>
<td>Return on Equity (ROE)</td>
<td>9.119</td>
<td>14.178</td>
<td>.067</td>
<td>.643</td>
</tr>
<tr>
<td>Return on Asset (ROA)</td>
<td>972.995</td>
<td>185.718</td>
<td>.548</td>
<td>5.239</td>
</tr>
</tbody>
</table>

Based on the above analysis, the regression equation is as follows:

\[ Y = -2448.641 + 249.838 X_1 + 9.119 X_2 + 972.995 X_3 + \epsilon \]

Where:

- \( Y \) = BNI stock price
- \( X_1 \) = Capital Adequacy Ratio (CAR)
- \( X_2 \) = Return on Equity (ROE)
- \( X_3 \) = Return on Assets (ROA)
- \( \beta_0 \) = Intercept / Constant (value of \( Y \) when \( X = 0 \))
- \( \beta_i \) = Regression coefficient of the \( i^{th} \) independent variable
- \( \epsilon \) = Random Error
From the analysis above it can be seen that the independent variables that have the most affect on the change of stock price is the ROA with the coefficient of 972.995 followed by CAR with coefficient of 249.838. While the ROE is a variable that affects the lowest the stock price changes. From the equation above we can conclude that CAR and ROA have a significant effect on stock price changes, while ROE no significant influence on stock price changes. Which means if there is an increase in CAR and ROA, the stock price will also increase.

4.3.3. Significant of the Model

1. T-test

T-test performed to analyze the partial regression coefficients, to test whether there is a significant effect of the independent variable on the dependent variable when the other independent variables held constant. The significant level of T for a given hypothesis test is value for which a P-value (sig.T) less than or equal to $\alpha$ is considered statistically significant. (Significance level $\alpha$ used is 0.05). Individual effects can be seen through the significant value of T-test. If the value of significant T-test is less than $\alpha$ (0.05), it can be said the significant independent variables individually have a significant effect on the dependent variable.

Based on the results of T-test in table 4.6 above, P-value in the variable CAR is 0.000 where the value is less than $\alpha$ (0.05). CAR means partial variable has a significant effect on changes in the value of BNI’s stock price. In addition, the standardized beta coefficient indicates the mean value 249.838 signaling a positive influence in connection with the CAR stock price. For that, it can be concluded to reject Null hypothesis ($H_0$) and accept the alternative hypothesis ($H_1$) which says that there is a significant effect between the CAR and stock price (positive relationship).

P-values for ROA are 0.000 where the value is less than $\alpha$ (0.05). Means a partial variable ROA has a significant effect on changes in the value of BNI’s
stock price. In addition, the standardized beta coefficient indicates the mean value 972.995 signaling a positive influence in connection with the CAR stock price. For that, it can be concluded to reject Null hypothesis (H₀) and accept the alternative hypothesis (H₂) which says that there is a significant effect between the CAR and stock price (positive relationship).

P-value in variable ROE is 0.522 where the value is greater than α (0.05). ROE means partial variable has no significant effect on change in value of BNI’s stock price. In addition, the standardized beta coefficient indicates a mean value of 9.119. For that, it can be concluded there is no evidence to reject the null hypothesis (H₀) which means there is no significant correlation between ROE with BNI stock.

According to table 4.6, it can be concluded that the Capital Adequacy Ratio (CAR), and Return on Assets (ROA) has a more significant relationship to the stock price BNI compared with Return on Equity (ROE). This is evidenced by the P-value that is owned by the CAR and ROA is less than α (0.05) compared to the value P-value ROE greater than α (0.05).

2. **F-Test**

F-test was conducted to test the regression coefficients together, to test whether there is a significant effect of all the independent variables together on the dependent variable. The results of the F test can be seen in the table ANOVA (Analysis of Variance). The significant level of F for a given hypothesis is a value for which a P-value (sig.F) less than or equal to α (0.05) is considered statistically significant.
According to F-test results in table 4.7 above, obtained by F evaluate is 23.226 with P-value (significant level) 0.000. Due to the significant level which is smaller than α, then the regression model can be used to predict the stock price.

Overall, this study can reject Null Hypothesis (H₀) which states that there is no significant effect on the variable CAR, ROA and ROE towards BNI’s stock prices simultaneously.

In conclusion, based on the results of the F-test, it can be stated that there is a significant effect on the variable CAR, ROA and ROE towards BNI’s stock prices simultaneously.

4.4. Interpretation of Data

1. Capital Adequacy Ratio (CAR) partially effect towards BNI’s stock price.

   Based on the analysis result in Table 4.6 above, result of t for CAR is 5.459 with the value of significance is 0.000 and β is 249.838. Terms of decision-making hypothesis is accepted or rejected based on the value of significance. If the significance is less than or equal to 0.05 (≤ 0.05) then it can be concluded to reject the Null hypothesis (H₀) and accept the alternative hypothesis (H₁) which says that there is a significant effect between the CAR and stock price. Based on the
result, we can see that there will be an increase in the stock price if the CAR value increase. Because the higher the value of the CAR means the better the conditions of the bank and CAR ratio can increase investors’ confidence to invest their money.

Based on the data, investors tend to consider the ratio of CAR to know the capital adequacy of the bank itself to cover any risks that might occur and if there is a case of bank liquidation. According to Bank Indonesia, CAR of banking company should not be less than 8%.

2. \textbf{Return on Equity (ROE) partially effect towards BNI’s stock price.}

Variable ROE has a result of \( t \) is 0.643 with a significance value of 0.522 and \( \beta \) is 9.119. Terms of decision-making hypothesis is accepted or rejected based on the value of significance. since 0.522 > 0.05 then it can be concluded there is no evidence to reject the null hypothesis (H\(_0\)) which means there is no significant correlation between ROE with BNI stock. As we can see that there is also a positive relationship here, means that an increase in ROE will also increase the stock price. Based on the data, the mean of the ROE of BNI is under the minimum value that stated by bank Indonesia which is 12%. In this case investors think that by looking at ROA is enough to know the bank’s ability to generate profit.

3. \textbf{Return on Assets (ROA) partially effect towards BNI’s stock price.}

ROA has has a result of \( t \) is of 5.239 with a significance value of 0.000 and \( \beta \) is 972.995. Terms of decision-making hypothesis is accepted or rejected based on the value of significance. Since 0.000 < 0.05 then it can be concluded to reject the Null hypothesis (H\(_0\)) and accept the alternative hypothesis (H\(_2\)) which says that there is a significant effect between the ROA and stock price. In here we can
said that an increase in ROA will also increase the stock price. Because ROA is used to measured how well the bank could use their assets effectively and generate their profit well. If the bank can generate their profit well means that investors will get a good return from their investment. It can give the bank good reputation and there will be many investors want to buy their share. If there will be a lot of demand of the share, the stock price will be increase.

4. **Capital Adequacy Ratio (CAR), Return on Assets (ROA) and Return on Equity (ROE) simultaneously effect towards BNI’s stock price.**

   According to the result of multiple regression statistical data above, the coefficient of determination ($R^2$) of the stock price is 0.517. Its means that 51.7% of the BNI’s stock price changes is explained by variability of independent variables taken that consist of Capital Adequacy Ratio (CAR), Return on Assets (ROA) and Return on Equity (ROE). The rest of 48.3% are explained by other variable that researcher will not discuss in this study.

   As simultaneously, from the p-value of F-test statistic is 0.000 which is lower than $\alpha = 0.05$, it can conclude that variables Capital Adequacy Ratio (CAR), Return on Assets (ROA) and Return on Equity (ROE) all together influences the stock price. It means that every change in the value of Capital Adequacy Ratio (CAR), Return on Assets (ROA) and Return on Equity (ROE) will cause the stock price change. Although, on further results, one of the independent Return on Equity (ROE) partially doesn’t affect stock price.
CHAPTER V
CONCLUSIONS AND RECOMMENDATIONS

5.1. Conclusions

Based on the analysis and discussion in this study, it can be concluded as follows:

1. Capital Adequacy Ratio (CAR) with a value of 249.838, Coefficient beta and p-values is 0.000 which is lower than $\alpha = 0.05$. Partially has a significant effect on the stock price. Which means every movement in CAR will change the stock price.

2. Return on Equity (ROE) with a value of 9.119 Coefficient beta and p-value 0.522 which is higher than $\alpha = 0.05$ even it has a positive correlations to the BNI’s stock price. But it doesn’t have a significant effect to the stock price because beside ROE and ROA are both a profitability ratio. The average ROE in this study is 6% which also lower than the standard of the minimum value declared by Bank Indonesia which is 12%.

3. Return on Assets (ROA) with Coefficient beta value p-value 972.995 and 0.000 which is lower than $\alpha = 0.05$. Partially has a significant effect on the stock price. ROA also become the most dominant variable that affecting the stock price. This because Assets also plays an important role in considering whether the investor want to invest or not because if there are a lot of investor want to invest, the stock price will be increase and vice versa.

4. Based on the results obtained from the analysis of the F test, the results obtained is 0.000 which is where the value is less than $\alpha = 0.05$ means it is all the independent variables simultaneously influence the BNI’s stock price changes. Capital Adequacy Ratio (CAR), Return on Assets (ROA) and Return on Equity (ROE) together give a significant effect to the change in BNI’s stock price period January 2007 - September 2012. The coefficient of determination ($R^2$) of the stock price is 0.517. It means that
all the independent variable give 51.7% in influencing the stock price and the rest 48.3% is from the other factor that will not be discussed in this study.

5.2. Recommendations

Based on the conclusion above, it can be seen how important CAR, ROA and ROE have a relation and influence the stock price. There are some recommendations, as follows:

1. Since CAR and ROA have a significant influence on BNI stock price, researcher suggested that BNI should maintain and increase the CAR and ROA

2. For the investors who tend to make an investment on BNI 46 are recommended to consider well about the CAR and ROA which have been proven have a significantly influence towards the change of the stock price
References

Books


Journal & Research


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## Appendix

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Variables Entered/Removed\textsuperscript{b}

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\textsuperscript{a} All requested variables entered.

\textsuperscript{b} Dependent Variable: BNI stock price

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b. Dependent Variable: BNI stock price

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a. Predictors: (Constant), Return on Asset (ROA), Capital Adequacy Ratio (CAR), Return on Equity (ROE)

b. Dependent Variable: BNI stock price
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\(^a\) Dependent Variable: BNI stock price

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Collinearity Diagnostics

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<th>Return on Equity (ROE)</th>
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a. Dependent Variable: BNI stock price
### Residuals Statistics

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<th>Mean</th>
<th>Std. Deviation</th>
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<td>488,6588</td>
<td>4465,8853</td>
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a. Dependent Variable: BNI stock price
Normal P-P Plot of Regression Standardized Residual

Dependent Variable: BNI stock price
Histogram

Dependent Variable: BNI stock price

Mean = -1.30E-15
Std. Dev. = 0.978
N = 69
Scatterplot

Dependent Variable: BNI stock price

Regression Standardized Predicted Value

Regression Studentized Deleted (Press) Residual