

**IMPLICATION OF RIGHT ISSUE CUM AND EX-DATE ANNOUNCEMENT TO THE
STOCK RETURN (EMPIRICAL STUDY ON INDONESIA STOCK EXCHANGE
PERIOD:2009-2012)**

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Abstract-- Rights issue is one of corporate actions conducted by the company in order to increase the new funds through issuance of new shares. The common purposes from issuing right issue are to improve company's capital structure in pursuance of expanding their business as well as meet the need for a new stream of funds in terms of the debt repayment. Therefore, right issue is a signal that may be good or bad news for investor's investment decision depending on the company's objectives. This study aimed to test market efficiency by analyzing the right issue cum and ex-date event in Indonesia Stock Exchange. The object of this research is the content of information by observing changes in stock prices and return around observation period. To examine the object, the populations used in this study are all publicly traded companies in the Indonesian Stock Exchange (IDX) which are performed corporate action in right issue during 2009-2012 periods. The period consisting 74 events of right issues captured in the 30-days of observation. Scopes of the research covers the analysis using the event study conducted to capture market reaction reflected by the changes of abnormal return. The estimation used to test information content which implicated to the stocks return by the events in order to test the semistrong form of market efficiency using form of public information available as an object of study and selecting performance of stock that generates the best return during the event using Jensen's Rules analysis. In the further analysis of the market reaction, company is divided into two categories which are growing and not growing companies conducted by proxy investment opportunity set (IOS) MVE/BVE. From the analysis shows that the market reacted negatively before and after the event both for growing and not growing companies by its significant abnormal return.

Keywords: Right issue, Ex-date event, Abnormal Return, Event Study, Market Efficiency, Investment Opportunity Set (IOS) MVE/BVE, Jensen's Rule.

1. Introduction

According to the Random Walk Theory (Maurice: 1953), stock price patterns are unpredictable because it's moving randomly. The price of a stock exchange is influenced by several factors, one of which is a particular event that relates to the performance of listed company on the stock exchange and the psychology of market implying the changes in stock price, where such events can be predictable and unpredictable. Right issue is one of the events that can be predicted in the time of occurrence.¹

Rights issue is one of corporate actions that aim to increase the flow of new funds for the company through the issuance of the shares to investors through certain schemes which has been approved by the *General Meeting of Shareholders*. The right issue may be a good news or bad news for investors depending on the function and purpose of the right issue itself for the company. The purpose that often is done by company when issuing right issue is to improve their capital structure in order to

¹ Samsul, M. 2002, Pasar Modal dan Manajemen Portofolio: 269

expand business and meet the need for a new stream of fund in terms of the debt repayment. Hence, right issue is a signal that can be positive or negative for investors implicated on investment decision, and stock prices can also be corrected by the presence news. Besides the influence of stock price affected by an event that becomes a cornerstone of information, changes in stock prices may also be influenced by the sophistication of the investors in analyzing the stock that also becomes investment decisions. The incorporation of an event and investor analysis in addressing it in the exchanges would establish forms of market efficiency such as weak, semistrong, and strong form.

In this final project, the stock prices have been influenced by the right issue either in positive or negative way. In addition it's also affected by the economic cycle (the time of crisis, as well as the recovery). This research aims to analyze an event (event study) at the time of economic recovery after the crisis of 2008 to 2012 through the right issue event, whether these events are affecting stock's return before or after the cum and ex-date (ex-date means rights issue is no longer valid and stock prices would be corrected in the market, and cum is the last date of stock transaction and list of shareholders that have a right to exercise right issue few day before the ex-date). The impact of an event for each company is not similar, but how much and how long the effect is depend on the condition, and how the reaction of investors in response to the event may be concluded from their decision regarding the information based on their return expectation.

2. Business Issue Exploration

A. Conceptual Framework

This final project is set to capture the issue of market efficiency in the form of semistrong market efficiency. According to Fama (1970), the efficiency can be further developed into market efficiency in form of semistrong market efficiency in information (informational efficient market) and in decision (decisional efficient market). Market efficiency in form of semistrong information stresses to fully reflect the available information, but does not take into account investor's sophistication in processing information. Sophisticated investors who can analyze and interpret information could be distinguishing information whether it's economical (valued economically) or not. On the other hand, the semistrong forms market efficiency in decision includes fully reflect the availability of information and the sophistication of the market. The testing of information content is conducted to see the reaction occurred as a result of an event.²

Investors generally use a benchmark of return in any investment decisions. Therefore, this research uses the event study method to examine the market reaction to an event where the information is published. Event study can be used to test the information content in the event and can also be used to test the stock price fluctuation in the semistrong form market efficiency due to public information. The changes in the stock prices fluctuation are measured using abnormal return as a method to test the information content. The framework of this research aims to analyze the efficiency of the market (market efficiency) using market model analysis. In order to capture the influence of an event, this final project also uses AR (abnormal return) as a method by using windows period (day -15 before the event of right issue ex-date up to day 15 after the event). Abnormal return is calculated to see the reaction about the events in the period of observation. The data used in this study are the close price data of individual stocks, stock index data (IHSG) and the issuer's financial statements gathered from their annual report in 2009 until 2012.

The companies can be divided into two categories, growing companies and not-growing companies. The classification is obtained from a proxy Investment Opportunity Set (IOS) MVE/BVE. The ratio of market-to-book value of equity is a proxy based on the company's capital. Company valuation in obtaining capital and managing their capital is essential. If the company could manage their capital well, the company is expected to grow.

² Samsul, M. 2002, *Pasar Modal dan Manajemen Portofolio*

After testing the efficiency of the market, the next step is to choose which stock are provides the maximum return using a calculation from Jensen's Measure. This compares the average return with the expected return derived from the CAPM model where the model represents the minimum rate of return earned by the investor based on its variable-constituent such as *risk free*, *market return* and β of the stock. The difference between the average return with a minimum rate of return is the α and the α value is used as guidelines for selecting performance estimation of stock or portfolio that generates the best return.

B. Method of Data Collection and Analysis

The object of this research is the content of information by observing changes in stock prices and return around the right issue cum and ex-date event. To examine the object, the populations used in this study are all publicly traded companies in the Indonesian Stock Exchange (IDX) who perform corporate actions such as rights issues during the 2009-2012 periods. The number of events during the period 2009-2012 is 74 events of right issue.

C. Analysis of Business Situation

Business situation in this paper is referring to the information announced which is affecting the stock prices and return due to the market response and captured the result of market efficiency identification. The studies are conducted for testing the information content, the efficiency of semistrong form market information, and the efficiency of a semistrong market as an investor's decision, as well as to find the best strategy implementation to maximize investor's return or minimize the loss according to the event.

1) Market Efficiency Identification

In general, an efficient market occurs when prices respond quickly to new information, when each successive trade is made at a price close to the preceding price, and when the market can absorb large amounts of securities or assets without changing the price significantly. The more efficient the market, the faster prices react to new information. For market to be efficient in this context, they must be liquid. Liquidity is a measure of the speed with which an asset can be converted into cash at its fair market value. Liquid market exist when continues trading occurs, and as the number of participants in the market becomes larger, price continuity increases along with liquidity. Transaction cost also affects liquidity. The lower cost of buying and selling, the more likely it is that people will be able to enter the market.³

The forms of market efficiency can be reviewed in terms of the availability of information that is related to the efficiency of market information or from the investor's sophistication in making decisions based on the analysis of available information. In the competitive market, equilibrium price is determined by supply and demand. The price equilibrium reflects the consensus in the market based on the information available. According to Professor Eugene Fama, the market efficiency divided by three forms⁴: The weak efficient market hypothesis, The semistrong efficient market hypothesis, The strong efficient market hypothesis.

2) Economic Cycle

Investor begins the valuation process with an economic analysis. The purpose is to find an accurate forecast, and examination of economic activity can provide the basis for accurate stock market predictions and may indicate which industries would prosper. Each industry may be affected by the business cycle differently. Industries where the underlying demand for the product is consumer-oriented will quite likely be sensitive to a short-term swing in the business cycle.⁵ Distinguishing the industry from its characteristic (durable and not durable goods) is important in the analysis of economic cycle.

³Hirt and Block. 2006. Fundamental of Investment Management: 29

⁴Jogiyanto, H.M. 2003. Teori Portofolio dan Analisis Investasi: 369-370

⁵Hirt and Block. 2006. Fundamental of Investment Management: 115

Economic cycle changes and is repeated over time. Early signs of the transition in the economic cycle called the leading indicators. Economic cycle transition from depression to recovery is a positive leading indicator which is reflected by healthy price of the stock exchange. On the contrary, the economic cycle transition from prosperity to recession cycle is a negative indicator that can be reflected from the declining exchange trading.

3) Right Issue Overview

Companies that have already gone public can issue new shares when additional funding is required. The principles adopted in many countries, including Indonesia, concerning the issuance of new shares are preemptive right, simplified as "right", meaning that the current shareholders have a right to buy the new stocks. So if a company issues new shares, they must be offered first to its current shareholders.

Right issue is a limited activity of public offering to the current shareholder to give them the right to order first. When there is this limited offering, the current shareholders have three options related respect to their right. The three options; holder of the right can buy the new shares offered in accordance with the right offered, holder of the right can choose not to buy new shares offered but to sell it at the value of the right, and holder of the right does not buy or sell new shares offered. The first and second options do not financially affect their wealth or prosperity, because for the first option, investors need additional funds to purchase new shares but the total shares owned would increase, so their wealth would remain the same. Financially, limited offering has no effect on the wealth of the shareholders, but if they do not buy new shares offered, the proportion of their holdings would decline after the new shares are sold. This is because of the increasing the number of shares available.

4) Event Study

Event study is a study about the market reaction against an event that information regarding it is published as an announcement. Event study can be used to test the information content of an announcement and also to test the efficiency of a semistrong form of market. A certain event would affect the stock price, and with this analysis, investors can act more quickly in making decisions of a stock if similar conditions happen again. Market reaction is indicated by a change in the price of the related securities. This reaction can be measured using the return of the price change. An event that has the content of the information would cause abnormal returns on the market. Vice versa, one that does not contain information would not provide abnormal returns to the market.

5) Stock Return

According to Jones (2004), return is a motivation in the investment process. Return is the profit from an investment made by the investor. Return on an investment consists of two components, namely yield and capital gain (loss). Yield is the cash inflow received periodically by investor from an investment in the forms of interest and dividend. Capital gain occurs if security's sale price is higher than the purchase price, while the capital loss occurs if it is lower.

6) Actual Return

Actual return is a return that has occurred or been realized and is obtained from variable past price of individual stock based on historical data. Actual return is important because it is used as one of the measures for investors to see how well the investments are made. Actual return is also useful as a basis for determining the estimated return in the future (Jones, 2004). Stock Return is calculated by equation (Ross et al 2003), which is formulated as follows:

$$R_{i,t} = \frac{P_{i,t} - P_{i,t-1} + D_{i,t}}{P_{i,t-1}}$$

Where: $R_{i,t}$ (return of i stock on event period t), $P_{i,t}$ (price of i stock on event period t), $P_{i,t-1}$ (price of i stock on event period t-1)

7) *Expected Return*

According to Ross (2006), the expected return is "the return on a risky asset expected in the future". Expected return is the return that is expected to be earned by investors in the future. Unlike the actual return that has happened, expected return has not happened because it is a prediction of return. Calculation of expected return by using historical data in this study is conducted using market model to get the minimum rate of return based on the calculation of CAPM (capital asset pricing model). In calculating the expected return using CAPM, the required variables are beta stocks, risk-free rate, and the market return.

$$E(R_i) = R_f + \beta_i (R_m - R_f)$$

Where: $E(R_i)$ (Expected Return), R_f (Risk Free), β_i (Stock's Beta), R_m (Market Return)

To estimate the expected return using CAPM, the first step of calculation is determining the market return using historical IDX's Composite Stock Index with the formula as follows:

$$R_{m,t} = \frac{IHSG_t - IHSG_{t-1}}{IHSG_{t-1}}$$

Where: $E(R_i)$ Expected Return, $R_{m,t}$ (Market return at the period t), IHSG (*Indeks Harga Saham Gabungan*), IHSG (IHSG at the period t), $IHSG_{t-1}$ (IHSG at the period t-1).

Risk free (R_f) in this expected return calculation uses SBI (*Sertifikat Bank Indonesia*) in each year of observation and transformed from annually into day by dividing with 360 days assumption per year. The premium of each type of share depends on the level of *beta* risk of each stock. Theoretically, the amount of expected return from each type of stock follows the magnitude of beta risk. The beta of individual stock indicates how large or small the change of return is compared to stock market return. Beta is obtained using the following equation (Husnan et.al: 1994):

$$\beta_i = \frac{\sum_{t=1}^n (R_{it} - R_{ft}) (\sum_{t=1}^n (R_{mt} - R_{ft}))}{\sum_{t=1}^n (R_{mt} - R_{ft})^2}$$

Where: β_i (Systematic Risk (*beta*)), R_f (Risk Free), $R_{mt} - R_{ft}$ (Excess Return of Market Portfolio), $\sum_{t=1}^n (R_{mt} - R_{ft})$ (Average Excess Market Return), $R_{it} - R_{ft}$ (Excess Return of Stock), $\sum_{t=1}^n (R_{it} - R_{ft})$ (Average Excess Return of Stock).

8) *Abnormal Return*

Abnormal return occurs daily in every kind of stocks in the period of observation. Observation period or the window period of event study testing is a specified period of observation to notice whether there is any significant difference in abnormal return or not. As it is calculated daily, in a window period the highest and lowest abnormal returns can be found, and the days when the most significant reactions occur on each stock can also be detected. Abnormal return is the difference between actual return and expected return, and the following is the abnormal return equation:

$$AR_t = R_{it} - E(R_{it})$$

Where: AR_t (Abnormal Return), R_{it} (Actual Return), $E(R_{it})$ Expected Return.

Average abnormal return (AAR) is the average of the abnormal return, calculated to show the strongest reaction, both positive and negative, from overall stock types on certain days during certain window period. AAR for day t can be calculated based on the arithmetic mean as follows:

$$AAR_t = \frac{\sum_{i=1}^n AR_{it}}{n}$$

Where: AAR (Average Abnormal Return), AR (Abnormal Return), n (Number of Sample).

Cumulative average abnormal return (CAAR) is an accumulated average abnormal return from the previous days until the time of observation for each stock. Daily CAAR movement can be used to see the trend of increase or decrease that occurs during the window period.

$$CAAR = \sum_{t=1}^n AAR_t$$

Where: CAAR (Cumulative average abnormal return), AAR (Average abnormal return).

Abnormal return signification test using t-stat. this test is conducted to determine the estimated value of abnormal returns that has significant effect during the estimation period (window period).

$$t = \frac{\sum_{i=1}^n AAR_i}{\frac{S}{\sqrt{n}}}$$

$$S = \frac{S}{\sqrt{n}}$$

Where: S (Standard Deviation), AR (Abnormal Return), AAR (Average Abnormal Return), n (Number of Samples), t (t-stat).

9) Investment Opportunity Set

Price-based IOS proxy is a proxy that states about the company's prospects of growth are partly expressed in market prices. According to Smith and Watts (1992) taken from Jgdiyanto Hartono (2003), IOS is the combination of asset in place towards allocation in the future investment. On the previous research, the IOS estimation derived into a proxy in order to determine company's growth which reflected by the stock price. Market valued the growing company by its book value, one of tool to estimate the company's growth is using proxy MBV/BVE. Jgdiyanto Hartono (2003) estimated that there is some positive correlation between the proxy to the growth of asset, thus the proxy MVE/BVE reflected that market estimates return from the company's infestations in the future will be greater than the expected return taken from the equity. This proxy is based on the assumption that the company's prospects are partially expressed in stock prices, and growing companies will have a higher value of the stock relative to the not-growing company. IOS based on the price would take the form of a ratio as a measure of assets owned and the market value of the company. This study uses a proxy IOS MVE/BVE (market to book value of equity) which is the ratio of book value of equity to market value of equity by Kallapur and Trombley (1999).

$$MVE/BE = (Total\ Listed\ Shares \times Close\ Price) : (Total\ Equity)$$

10) Jensen's Measure

Jensen's model is used in this study to select the stocks that have positive return towards its expected return. The Jensen's model used because it's has a similar model in estimated minimum rate of return in the event study calculation in order to capture risk contained and systematic conclusion by its variables, for which the past average actual return exceeds the expected return or the minimum rate of return adjusted by market risk (β) and risk free (R_f). The difference between the average actual return and the expected return is alpha (α), and the higher this α ratio, the greater the return that would be obtained as the value of the difference between the average actual return and the expected return is positive.⁶ The α value is used as guidelines for selecting performance of stocks that generates most preferable actual return comparing with expected return which adjusted by its market return and risk free.

$$Jensen's\ Model = \alpha = \bar{R}_i - R_f - \beta(R_m - R_f)$$

Where: \bar{R}_i (Average Actual Return), R_f (Average Expected Return), α (Differences between Average Actual Return and Average Expected Return).

⁶ Samsul, M. 2006, Pasar Modal dan Manajemen Portofolio: 366

11) Root of Problem

One important thing to be considered by investor is the corporate action. Usually, the stock price drop due to the information content in the corporate action following by its return. The cum and ex-date are the essential date that stock price will reacts from the corporate action whether its influenced by a number of new share issued, theoretical price or investor sentiment. This study aims to give an information to investors how the stock prices and return dropped due to the corporate action especially in the right issue ex-date event, and what decisions that could generate best return or minimizing loss when the same condition happen again in the future.

This research is conducted to analyze the influence of right issue cum and ex-date event to the return before and after the period. Investors generally use a benchmark of return in any investment decision, therefore, this research uses the event study method, and event study can be used to test the information content in the event based on its stocks return and test the stock price fluctuation in the semistrong form market efficiency due to public information. The changes in the stock prices fluctuation are measured using abnormal return as a method to test the information content.

The implementation plan suggests investor whether to stay at the market or leave the market in the current economic cycle. This research is also giving a reflection to the investor about market efficiency identification due to the right issue event in particular economic condition, so that investors can react quickly in the decision to maximize return or to reduce loss if the same condition happens again in the future

3. Business Solution

D. Analysis of Business Solution

The content of the information is determined by event studies to see whether there is any significant abnormal return occurred around of the event; if the calculation of event study found a significant abnormal return, it can be concluded the market was informational efficient. The next test, is to see whether investors' reaction to the event has been efficient or not, is seen from its abnormal return from a growing and not-growing company. The significant abnormal return from both companies may be concluded that the market reacts to the event for each type of companies.

Calculations of the actual return and the expected return are performed for both categories of companies. The conclusions are derived from how the market reacts to the each category based on the return obtained. The next test is to classify the growing and not-growing companies with IOS proxy, and then calculate the performance of stocks that generate a positive return for the two types of companies using Jensen's Measure. The final conclusions are obtained by looking at the conditions occurred based on the above test: From both company categories, which stocks are still giving positive returns and what should be done by the investor based on the current economic cycle conditions.

1) Event Studies Analysis

Abnormal return (AR) testing is performed to see whether there is any significant change in returns caused by the effect of the information content from the announcement of the cum and ex-date. Abnormal return calculations are conducted during the windows period (15 days before and 15 days after the day of the ex-date) for each company. Next average abnormal return (AAR) is calculated, which is the average of the abnormal returns obtained from all companies. CAAR calculation is done to see the tendency of impact from the information, whether it is negative or positive.

Testing the information content in this study is by observing the changes in the daily stock price of the companies that do the right issue during window period. Significance level (α) is set at 0.05, using a t-test of two parties (Sig.2-tailed). With the number of samples (n) = 74, $df = 72$ is obtained. t_{table} for $df = 72$ with a significance level of 5% is equal to 1.9934. From the result of data processing, (t) for

each day during the observation period are obtained, which then are compared with the value of t_{table} . The test results are as follows:

From the results given (see appendix 1), the t-test of two parties, it can be concluded that negative abnormal return occurs as a measure of significant changes in stock prices in the window period. Significant negative abnormal returns occur on day -14, -12, -11, -9, -8, and -2 days before the ex-date events. Abnormal returns also occur on the day of the event took place and the ex-date (day 3, 4, 5, 6, 9, 10, and 12 days) after the events took place due to the adjustment in theoretical prices and investors sentiment. Significant abnormal returns that take place before, during, and after the events have negative value, so it can be concluded that the right issue ex-date is bad news for investors where the event brings negative impact on stock returns. With the information content of the rights issue event, this research can be continued to the next stage: testing the informational efficiency of semistrong form of market.

2) Analysis of Right Issue cum and ex-date Information Content

The test results in appendix 1 shows that during the observation period, market reacts significantly negative on day -14, -12, -11, -9, -8, and -2 days before the ex-date events. Abnormal return also occurred on the day of the event took place and the ex-date (day 3, 4, 5, 6, 9, 10, and 12 days) after the events took place; although outside of those days abnormal return is going negative or positive, the decrease and increase in abnormal returns that occur are not statistically significant. This means that the market reacts quickly according to the event. Actually, investors can use the information of right issue cum and ex-date event, but based on the negative abnormal return occurred during the event, investors in general did not consider about right issue cum and ex-date event as information announced. This means, when the stock price decreased, investors bought the stock in expensive price, thus the negative abnormal return occurred during the event. Information about the cum and ex-date rights issue event has not been used by investors for their investment decisions, which is evidenced by the significant negative abnormal return in the range of observation.

Therefore, the cum and ex-date events in the rights issue have information content, the stock price is corrected not only on the day of the event, but on the days before and after the event. In the other hand, the market has been in the semistrong form market efficiency where such information is public information which can be accessed by investors, but investor did not maximize their investment decision reflected from its significant negative abnormal return during the event observation. From the above summary, according to a study during 2009-2012, the cum and ex-date rights issue events have information content, and the Indonesian stock market may concluded as semistrong efficient (semistrong form market efficiency) where public information can be used as a reference of investing activities by investors, but investors in general did not consider about right issue cum and ex-date event as information announced.

Next analysis is looking at the tendency of cumulative average abnormal return (CAAR) (see appendix 1, figure 1), which is daily accumulation of average abnormal return (AAR) days before the event starts until the day after the event. From the daily CAAR chart, the trend of inclining or declining occurs during the window period can be seen. Looking at the CAAR graph, return's downward trend occurs before and after the event; the graph shows that the returns fall dramatically when the ex-date day took place, as do the next day showed decreasing returns. This indicates that the cum and ex-date day is a bad news for investors to invest in the companies that do the right issue, concluded from the downward trend of the return on the event period.

3) Analysis of right issue cum and ex-date Information Content for Not Growing and Growing Companies

Testing the market reaction is divided into two categories, namely testing the right issue event to the growing companies and the not-growing companies. This is done to see the market reaction to the information based on the company categories. A growing company is assumed would generate a positive return to investors because investors believe that the rights issue will be used as capital to

expand and improve the company's return; on the other hand, not-growing companies is assumed inversely.

Testing is conducted with the samples of 74 companies categorized into two types of companies: 45 growing companies and 29 not-growing companies. Classification of companies uses Investment Opportunity Set (IOS) proxy which is measured by the ratio of the market price and the book value of the stock. By using proxy of $MVE/BVE = (\text{number of shares outstanding} \times \text{stock's closing price}) / (\text{total equity})$, the company is classified as growing if the value of MVE/BVE (market to book value of equity) is greater (\geq) than 1 and the company is not-growing if the value of MVE/BVE (market to book value of equity) is smaller (\leq) than 1 (see appendix 6 and 7). The results of the rights issue cum and ex-date event given by growing and not-growing companies (see appendix 2 and 3).

The analysis showed (see appendix 2) that negative investors' reaction is statistically significant with t value (2.01669) obtained from $df = 43$ for the rights issue event given by a company that is growing significantly. Significant negative abnormal returns occur on the days of -14, -9, -3, ex-date day, +3, +4, +9, +11, and +12 this indicates that market reacted to the growing companies. This reaction is different from the initial assumptions that rights issue would result in a positive return in which investors assume that the additional capital from the rights issue will be used as additional capital for business expansion by the growing companies and would provide a positive return by the cum and ex-date event. This is not in accordance with the expectation that the market would respond positively to the ex-date events of the right issue from growing companies because the market reacted reversely by its negative significant abnormal return.

For not-growing companies (see appendix 3), the analysis shows that negative investors' reaction is statistically significant with t value (2.05183) obtained from $df = 27$ for the rights issue cum and ex-date event given by not-growing companies has a significant negative abnormal return occurs on days -14, -13, -11, ex-date, +3, +4, +5, and +9, this indicates that market reacted to the not-growing companies. This reaction is in accordance to the initial assumptions on which the ex-date event the rights issue would result in a negative return in which investors assume that the additional capital from the rights issue will be used to pay company's liabilities and not for business expansion. Therefore, not-growing companies would give negative returns during the cum and ex-date events. This is consistent with the assumption that the market would respond negatively to right issue events of not-growing companies reflected by its significant abnormal return.

From the charts of daily CAAR of growing and not-growing companies (see appendix 2 figure 2, and appendix 3 figure 3), it is known that the tendency to increase or decrease that occurred during the window period for both categories has decreased. Seen from the CAAR graph, the returns' downward trends occurrence is similar to the overall return given by all company categories doing the right issues before and after the event. Chart shows that the returns fall dramatically at a time when the ex-date takes place, as do the next day showed a decrease returns. It indicates the cum and ex-date day as a whole is a bad news for investors to invest in growing or not-growing companies that do the right issue because of the downward trend seen in the returns before and after the event period.

4) Jensen's Measure Analysis

In Jensen's Rule calculation, stock investment is considered good if the average actual return of the stock exceeds the minimum rate of return or expected return. The difference between the past actual return data and the minimum rate of return is an indicator of the performance of stocks whether they are worth buying or not. Based on the rank of ratio of alpha (α), the higher the alpha ratio is, the greater its opportunity to serve as an investment option.

Appendix 4 and 5 shows the stock performance of companies based on the growing/not-growing category, in which the stocks may generate positive alpha ratio. These stocks produce an average

actual return that exceeds the expected return. This positive alpha ratio can be used as an indicator that the stock is worth buying by investors.

For the category of growing companies, there are 8 companies from 45 companies that generate positive alpha. These companies are as follow: Indospring Tbk (*Manufacturing Industry*) (alpha 0.04009), Bank CIMB Niaga Tbk (*Financial Institution*) (alpha 0.02452), Ancora Indonesia Resources (*Coal Company*) (alpha 0.01089), Inovisi Infracom Tbk (*Information Technology Company*) (alpha 0.00870), Bank Mandiri Tbk (*Financial Institution*) (alpha 0.00522), Clipan Finance Indonesia Tbk (*Financial Institution*) (alpha 0.00425), IndoMobil Sukses Makmur Tbk (*Automotive Industry*) (alpha 0.00154), and United Tractors Tbk (*Heavy Weight Automotive Industry*) (alpha 0.00066).

In 2009, of five growing companies that undertake right issues, only one company generates a positive alpha, PT. Ancora Indonesia Tbk. This company is engaged in the coal mining industry (non-durable goods). In 2010, of the 21 growing companies that do the right issue, there are only two companies that have positive alpha, namely PT. Inovisi Infracom Tbk and PT. Bank CIMB Niaga Tbk. PT. Inovisi Infracom Tbk is in the telecommunications infrastructure industry, and PT. Bank CIMB Niaga Tbk is a financial institution. Judging from the type of business, the telecommunications infrastructure industry in Indonesia is still providing good performance and is not affected by the crisis in 2010, as well as PT. Bank CIMB Niaga Tbk, which continues to provide a positive signal to investors, because both companies are focused on meeting the demand of domestic market that continues to grow and is backed by the percentage increase in economic growth in Indonesia each year, which can indirectly provide positive sentiment for the domestic investment world.

In 2011, there were 14 growing companies undertaking the right issue. Of the 23 companies, there are five companies that provide positive alpha value. The five companies are: PT. Bank Mandiri Tbk, PT. Indospring Tbk, PT. United Tractors Tbk, PT. Clipan Finance Indonesia Tbk, and PT. Indomobil Sukses Makmur Tbk. Three companies engaged in the automotive industry as providers of vehicle for public sector and for production factors; other two companies are a national financial institution and consumer-credit provider institution. The five companies are still growing because of their good performance in financial management and the support of economic growth which leads to the consumption of tertiary goods, triggering positive public sentiment on the company's stock.

In 2012 the economy as a whole still gives a positive impact on the market, but of the four growing companies doing the right issue, none has a positive alpha ratio. On the average, companies that undertake right issue in 2012 are in land and development industry. Positive alpha does not only happen for growing companies, but some not-growing companies can provide positive alpha and are appropriated to be selected. For the not-growing category, there are 6 from 29 companies that generate positive alpha. Companies that provide positive alpha are the following: Myoh Technology Tbk (*Information Technology*) (alpha 0.02331), Modern Land Reality Tbk (*Property*) (alpha 0.01527), Kawasan Industri Jababeka Tbk (*Property*) (alpha 0.01091), Asuransi Multi Arthra Guna Tbk (*Insurance*) (alpha 0.00697), Berlian Laju Tanker Tbk (*Logistic*) (alpha 0.00610) Hotel Mandarin Regency Tbk (*Property*) (alpha 0.00270).

In 2009, there were five companies that fell into the category of not growing companies, and none provides a positive alpha. In 2010, of the 14 not-growing companies, one provides positive alpha, PT. Berlian Laju Tanker which engaged in the field of logistics. In 2011, there were 4 not growing companies with positive alpha, which are: PT. Insurance Multi Arthra Guna Tbk, PT. Kawasan Industri Jababeka Tbk, PT. Myoh Technology Tbk, and PT. Modern Reality Land Tbk. Of those companies, PT. Myoh Technology Tbk that is in the field of information technology has a higher alpha than other companies, which are engaged in property and insurance industries.

In 2012 only one company included in the not-growing category, and it possesses good performance compared to four other companies that do the right issue. The company is PT. Hotel Mandarin Regency Tbk, engaged in the property industry. The company's stock performance is better than

other stocks because it has a positive alpha ratio, or in other word, the actual return of the company has a better performance than its expected return.

B) Conclusion of Business Solution

In overall, the effect of the right issue cum and ex-date events is lowering stock prices and returns for investors. Judging from the fluctuating movement of actual and expected returns, declining trend of returns is clearly seen in the events; the effect of such events lowers stock prices following a drastic decrease in returns at the time the events took place. The reduction applies to both categories of companies (growing and not-growing). Based on event study analysis during the observation period (window period), there are significant abnormal returns before and after the event. The abnormal return has negative value, reflecting that the rights issue cum and ex-date event has particular information content for investors. The information is public information and investors have been using it as a reference for investing. Because there is information content in an event, the market can be categorized as informational efficient.

For both categories of companies (growing and not growing), conditions of decline also happen when the cum and ex-date events take place. Downward trend illustrated by the CAAR graph shows that for both categories, the effects of the events lower the stock returns, evidenced by the significant negative abnormal return in the observation period. The assumption stating that the market reacts positively to the right issue for growing companies is statistically rejected, because before and after the cum and ex-date events there are significantly negative abnormal returns. Testing the assumption for not-growing companies that states that market would react negatively to the rights issue is statistically acceptable, because similarly to the growing companies, there is a significant negative abnormal return in which the decline occurs in before and after the events.

In summary, market react negatively and there is a tendency of decreasing returns due to the cum and ex-date events, but there are some types of stocks from growing and not-growing company that have good performance. Jensen's Measure calculation shows that in certain economic conditions, these companies are valued well as the average actual return exceeds the minimum rate of return or expected return producing positive alpha values. Such good performance is also supported by the investors' positive sentiment so the stock prices of these companies are not overly affected by the decline in returns caused by the ex-date events. These stocks that have positive alpha value can be used as a reference for investors in the decision of whether or not the company's stocks are well enough to be bought.

4. Conclusion and Implementation Plan

One important thing to be considered in the rights issue's stock trading is to understand the information content contained from the announcement. The cum-date and ex-date has an information content that would affect the price and stock returns, thus its important information. Rights issue will usually decreasing the stock price due to the information content in the corporate action following by its return. The cum and ex-date are the essential date that stock price will reacts from the corporate action whether its influenced by a number of new share issued, theoretical price or investor sentiment. However, if the investors use the analysis of events (event study), then the investor can predict the tendency of prices and stock returns, whether the cum-date and ex-date information content could benefit investors in either long-term or short-term.

Event study analysis is one of important step to figure out the information content in the right issue event, because each event has a particular information content that can be result in price changes and stock returns. The events which analyzed in this research is events of right issue's cum and ex-date, the estimation of event studies conducted to see the trend in price changes as well as stock returns trends, whether the event of ex-date could benefit investors either in the long term or short term

based on the significance of the abnormal return occurred during the windows period. The following steps in the event study analysis are:

- i. Set the windows period before and after the event.
- ii. Calculate the actual return of each stock to estimate return from the resulting company in the windows period.
- iii. Calculate the expected return obtained by the capital asset pricing model to estimate the performance of the stock towards market return.
- iv. Calculate abnormal returns by subtracting the actual return with the expected return, as well as testing the significance of the abnormal return in windows period to obtain an overview of market reaction to the event.
- v. In addition, categorize firms into two types of companies (growing and not growing companies) by using IOSproxy (investment opportunity set), in order to get a reflection of the return from each type of company.
- vi. Another method to complete the additional estimation is conducting Jensen's Rules calculations in order to choose which company having a good performance and worthy to be chosen (having positive alpha) by reducing the average actual return and expected return to estimate alpha ratio of each individual stock.

After obtained information about market's reaction to the events, the subsequent analysis is to assess individual stocks. In practical, investor's analysis includes fundamental and technical analysis. These analyzes can be used as a starting point in making investment decision if stock value are already based on the analysis of all available public information, it may be assumed that gained from additional fundamental analysis. In the first step of conducting fundamental analysis, investors have to consider valuation about theoretical price. The valuation of theoretical price conducted to see whether the exercise price of the rights issue is overvalued or undervalued. the theoretical price which can be used by investors as a basis of analysis in the next stage of estimation using valuation methods such as (PER, PBV, etc.), so it can be concluded whether the price is overvalued or undervalued, because at the cum and ex-date event, stock price will dramatically drop influenced by its theoretical price and investor's sentiment.

For the investor purpose, the most significant items to note are the assumption that stock prices tend to move in trends that persist in the long periods, and this trend can be detected in charts. The basic premise is that past trends in market movements can be used to forecast and understand the future.⁷ By analyzing the fluctuation of trend shown by the chart (price, IHSG, actual return, expected return and abnormal return) in the estimation period, investors may construct a decision to sell or buy at the right time, either at particular period (before or after the event), as well as investors may prevent a wrong decision or timing when unfavorable event occurred. The chart given on the analysis shows a drastic reduction in the time of the event, and rose again on the next few days. It can be used as an opportunity for public investors to benefit from the situation, where to make a purchase just before the occurrence of events and sell it back after the events (conducting a short selling). For the shareholders, an overview of fluctuations given by charts may be used as a reflection of stock's movement in order to make a decision whether to buy or sell the 'right issue' at the good timing to keep getting benefits and prevent from losses.

These analyses can give information to the investor objective and decision, whether to invest for long-term according to the company's prospect or short-term in maximizing prices fluctuation. For long-term investment, investor should considered about company's prospect and objective from issuing right issue, because this kind of corporate action will systematically reducing stock prices and return. If investors believe that company's prospect and objective would generate best return in the future, then investor may exercise the right issue without considering the fluctuation although the price drop around the event. For short-term investment, this study gives information which period that generates best return for trading. Investor should consider about the cum and ex-date event

⁷ Hirt and Block. 2006. *Fundamental of Investment Management*: 241

which caused the price drop due to the theoretical price after right issue, thus investor can benefit from capital gain when buy the stock at the ex-date, and sell it after the event when the fluctuation back to normal. The research indicates that around the time observed (15 days before and 15 days after the event), significant negative abnormal return occurred due to market sentiment for both types of companies. Thus, investor must carefully to make some short-term decision, which period could maximizing capital gain according to the return and price fluctuation.

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Appendix 1. Event Study Calculation Summary

Windows Period	AAR	t-Stat	CAAR	T-Table 5% (+/-)					
H-14	-0.01817	-4.07997	-0.41917	1.99346	H+1	0.00588	0.63071	0.00588	1.99346
H-13	-0.00355	-2.74595	-0.02272	1.99346	H+2	-0.00806	-1.07801	-0.00218	1.99346
H-12	-0.00585	-2.25001	-0.03236	1.99346	H+3	-0.02517	-5.29259	-0.02735	1.99346
H-11	-0.00597	-2.06517	-0.04253	1.99346	H+4	-0.03127	-3.61917	-0.05851	1.99346
H-10	-0.00773	-1.96161	-0.05010	1.99346	H+5	-0.01642	-2.21984	-0.07703	1.99346
H-9	-0.01041	-4.27495	-0.06037	1.99346	H+6	-0.01862	-2.01453	-0.09556	1.99346
H-8	-0.01113	-1.09859	-0.07180	1.99346	H+7	-0.00239	-0.26316	-0.09804	1.99346
H-7	-0.00830	-0.06291	-0.07210	1.99346	H+8	-0.00616	-1.38000	-0.10430	1.99346
H-6	0.00525	-3.80249	-0.06635	1.99346	H+9	-0.02259	-3.24725	-0.12739	1.99346
H-5	-0.00261	-0.40950	-0.07045	1.99346	H+10	-0.01363	-2.13149	-0.13962	1.99346
H-4	0.00806	1.08014	-0.06239	1.99346	H+11	-0.00284	-0.31974	-0.14236	1.99346
H-3	-0.00596	-1.94089	-0.07215	1.99346	H+12	-0.01337	-2.69946	-0.15273	1.99346
H-2	-0.01430	-2.21252	-0.08665	1.99346	H+13	-0.00243	0.54184	-0.15816	1.99346
H-1	-0.01163	-1.29900	-0.09828	1.99346	H+14	-0.00485	-0.71871	-0.16311	1.99346
H	-0.09146	-5.43152	-0.18974	1.99346	H+15	-0.00205	-0.31080	-0.16316	1.99346

(Source: Analysis, 2013)

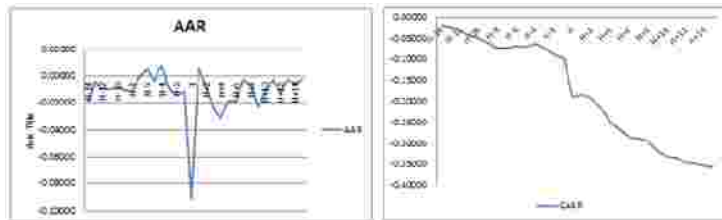


Figure 1. Event Study Summary (Analysis, 2013)

Appendix 2. Summary of Event Study Calculation for Growing Companies

Windows Period	AAR	t-Stat	CAAR	T-Table 5% (+/-)					
H-14	-0.02090	-5.09223	-0.02090	2.01669	H+1	0.01680	1.33725	0.01680	2.01669
H-13	0.00057	0.07635	-0.02993	2.01669	H+2	-0.00958	-0.94031	0.00721	2.01669
H-12	0.00509	1.06750	0.02542	2.01669	H+3	0.02762	4.00240	-0.02943	2.01669
H-11	-0.00429	-0.68451	-0.00000	2.01669	H+4	-0.03259	-3.64567	-0.05345	2.01669
H-10	-0.00769	-1.49931	-0.05799	2.01669	H+5	-0.01547	-1.29848	-0.06967	2.01669
H-9	-0.01585	-5.40741	-0.05384	2.01669	H+6	-0.01999	-1.38244	-0.08967	2.01669
H-8	-0.01019	-1.25882	-0.06403	2.01669	H+7	0.00293	0.24126	-0.08959	2.01669
H-7	-0.00355	-0.07821	-0.06458	2.01669	H+8	-0.00018	-0.04521	-0.08722	2.01669
H-6	0.00910	0.96867	-0.05547	2.01669	H+9	-0.02417	-2.27810	-0.11144	2.01669
H-5	-0.00247	-0.23306	-0.05795	2.01669	H+10	0.00778	-1.11122	-0.11922	2.01669
H-4	0.00604	0.62643	-0.05191	2.01669	H+11	-0.01302	-2.16847	-0.10224	2.01669
H-3	-0.01153	-1.11104	-0.06344	2.01669	H+12	-0.01491	-2.39523	-0.14685	2.01669
H-2	-0.01521	-1.78926	-0.07865	2.01669	H+13	-0.00151	0.22954	-0.14836	2.01669
H-1	-0.01340	-1.99184	-0.09204	2.01669	H+14	-0.01274	-1.59066	-0.16130	2.01669
H	-0.03845	-3.83859	-0.19050	2.01669	H+15	-0.00740	-1.13805	-0.16849	2.01669

(Source: Analysis, 2013)

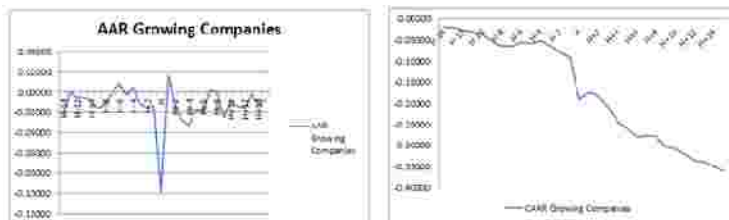


Figure 2. Summary of Event Study Calculation for Growing Companies (Analysis, 2013)

Appendix 3. Summary of Event Study Calculation for Not Growing Companies

Not Growing Companies									
Windows Period	AAR	t-Stat	CAAR	T-Table 5% (+/-)					
H+1	0.01548	2.76830	0.01648	2.05183	H+1	0.01106	0.87888	0.01106	2.05183
H+2	-0.00995	-2.67724	-0.02643	2.05183	H+2	-0.00589	-0.52294	-0.01675	2.05183
H+3	-0.01723	-2.93654	-0.04366	2.05183	H+3	-0.02137	-3.64639	-0.93812	2.05183
H+4	-0.01785	-3.27729	-0.06151	2.05183	H+4	-0.02859	-2.71095	-0.06670	2.05183
H+5	-0.00779	-1.25149	-0.06930	2.05183	H+5	-0.02144	-2.73401	-0.08815	2.05183
H+6	-0.00196	-0.45683	-0.07116	2.05183	H+6	-0.01649	-2.13845	-0.10484	2.05183
H+7	-0.01259	-2.40642	-0.08385	2.05183	H+7	-0.01054	-0.77778	-0.11528	2.05183
H+8	0.00008	0.01502	-0.08377	2.05183	H+8	-0.01554	-2.58868	-0.13082	2.05183
H+9	-0.00071	-0.08708	-0.08449	2.05183	H+9	-0.02250	-3.05668	-0.15142	2.05183
H+10	-0.00536	-0.40640	-0.08886	2.05183	H+10	-0.01730	-1.96670	-0.17102	2.05183
H+11	0.01120	0.83359	-0.07866	2.05183	H+11	0.01296	0.62012	-0.15806	2.05183
H+12	-0.00751	-0.74545	-0.08618	2.05183	H+12	-0.01144	-1.16001	-0.16950	2.05183
H+13	-0.01290	-1.31632	-0.09907	2.05183	H+13	-0.00396	-0.73249	-0.17356	2.05183
H+14	-0.00889	-0.79763	-0.10756	2.05183	H+14	0.00713	0.58035	-0.16623	2.05183
H+15	-0.00060	-0.11009	-0.08857	2.05183	H+15	0.00615	0.45618	-0.15998	2.05183

(Source: Analysis, 2013)

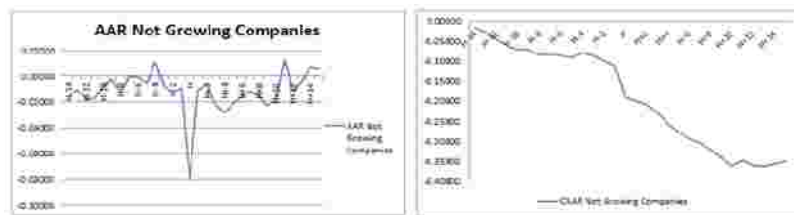


Figure 3. Summary of Event Study Calculation for Not Growing Companies (Analysis, 2013)

Appendix 4. Jensen's Rule Analysis for Growing Companies

Growing Companies	AVG Return	Expected Return	Alpha		AVG Return	Expected Return	Alpha
1 Ancora Indonesia Resources Tbk	3.01506	0.00417	0.51089	24 Bank CIMB Niaga Tbk	-0.30259	-0.02711	0.02452
2 Bank Argonita Tbk	-0.01006	0.05253	-0.07250	25 Mobile 8 Telecom Tbk	0.30000	0.01910	-0.01810
3 Bank Danamon Indonesia Tbk	3.00418	0.03766	-0.00349	26 Bank Kesawan Tbk	0.00197	0.03034	-0.02937
4 Bank Kesawan Tbk	3.00601	0.03449	-0.02649	27 Bank Bukopin Tbk	-0.00120	-0.00120	-0.00296
5 Excelcomindo Pratama Tbk	-3.00410	0.02068	-0.02434	28 Bank Mandiri (Persero) Tbk	0.00200	-0.00323	0.00022
6 Bank Himpunan Saudara Tbk	-0.00524	-0.00168	-0.00416	29 Enseval putra Megatrading Tbk	-0.00434	0.01887	-0.02027
7 Energi Mega Persada Tbk	-0.00397	0.01433	-0.01836	30 Indospring Tbk	-0.00770	-0.04779	0.04305
8 Dharma Henwa Tbk	0.00523	0.02181	-0.01652	31 United Tractors Tbk	0.00110	0.00043	0.00066
9 AKR Corporindo Tbk	-0.00365	0.03002	-0.00357	32 Delta Dunia Makmur Tbk	-0.00338	0.00312	-0.00342
10 Cita Mineral Investindo Tbk	-0.01924	-0.00268	-0.01637	33 Indomobil Sukses Internasional Tbk	0.00958	0.00804	0.00154
11 Sumalindo Lestari Jaya Tbk	3.01282	0.04011	-0.02729	34 Lippo Securities Tbk	-0.00460	0.00892	-0.01352
12 Bank International Indonesia Tbk	0.00306	0.07425	-0.07118	35 Bank Danamon Indonesia Tbk	-0.00277	0.00467	-0.00745
13 Multipolar Tbk	-0.02206	-0.01848	-0.00358	36 Bank Pundi Indonesia Tbk	-0.00784	0.01569	-0.02353
14 First Media Tbk	-1.00311	0.01821	-0.02733	37 Citipin finance Indonesia Tbk	-0.00454	-0.00879	0.00425
15 Inovisi Infracore Tbk	3.00381	-0.03426	0.00807	38 Tiga Pilar Sejahtera Food Tbk	-0.01227	0.00906	-0.01833
16 Nusantara Infrastructure Tbk	0.00286	0.04738	-0.04452	39 Central Omega Resources Tbk	-0.01545	-0.00153	-0.01392
17 Bank Nusantara Parahyangan Tbk	-3.00179	0.01250	-0.01429	40 Pakuwon Jati Tbk	-0.00618	0.00403	-0.01021
18 Bank Mayapada International Tbk	-0.00267	0.02459	-0.02726	41 Multistrada Arah Sarana Tbk	0.00006	0.01914	-0.01808
19 Bank Permata Tbk	0.00079	0.01418	-0.01339	42 Modern International Tbk	0.00075	0.02411	-0.02336
20 Bumi Serpong Damai Tbk	0.00113	0.02368	-0.02256	43 Bank Tabungan Negara (Persero)	0.00027	0.00900	-0.00873
21 Kertas Basuki Rachmat Indonesia	3.00123	0.00749	-0.00626	44 Cowell Development Tbk	-0.00768	0.01095	-0.01862
22 Bank Negara Indonesia Tbk	-0.00064	0.00191	-0.00255	45 Bank Permata Tbk	-0.00783	0.00153	-0.00336
23 Lippo Karawaci Tbk	0.00068	0.03767	-0.00699				

(Source: Analysis, 2013)

Appendix 5. Jensen's Rule Analysis for Not Growing Companies

No. Growing Companies				AVG Return	Expected Return	Alpha			AVG Return	Expected Return	Alpha
1	Bank Capital Indonesia Tbk	-0.00135	0.04008	-0.04143	16	Bank Eksekutif Internasional Tbk	-0.00567	0.04381	-0.04948		
2	Berlian Laju Tanker Tbk	-0.00114	0.00166	-0.00280	17	Berlian Laju Tanker Tbk	-0.00733	-0.01333	-0.00610		
3	Indoexchange Tbk	-0.00137	0.01113	-0.01255	18	Bank Tabungan Pensiunan Nasional Tbk	-0.00403	0.00970	-0.01373		
4	Pool Advista Indonesia Tbk	-0.00473	0.01533	-0.02032	19	Pan Brothers Tbk	0.00616	0.01533	-0.00323		
5	Star Pacific Tbk	-0.01335	0.02587	-0.03728	20	Asuransi Bina Dana Arta Tbk	-0.00234	0.00738	-0.00403		
6	Bank Bukopin Tbk	0.00008	0.03974	-0.03967	21	bank Victoria Internasional Tbk	-0.00415	0.00635	-0.01050		
7	Sentul City Tbk	-0.00216	0.01292	-0.01509	22	Kresna Graha Sekurindo Tbk	-0.00305	0.03113	-0.03419		
8	Bakrie Sumatra Plantation Tbk	-0.00681	0.00077	-0.00751	23	Pacifik Strategic Financial Tbk	-0.00603	-0.00067	-0.00511		
9	Inland Development Tbk	-0.00460	0.03330	-0.03790	24	Asuransi Multi Artha Guna Tbk	-0.00736	-0.01433	-0.00631		
10	Asiaplast Industries Tbk	0.01020	0.02136	-0.01116	25	Kawasan Industri Jababeka Tbk	0.00614	-0.00477	0.01093		
11	Bank ICB Bumiputera Tbk	-0.01066	0.00808	-0.01874	26	Perini Financial Tbk	-0.00545	0.00706	-0.01251		
12	Bank Windu Kentjana int'l Tbk	0.00633	0.01316	-0.00743	27	Myoh Technology Tbk	0.02714	0.00443	0.02331		
13	Bakrisland Development Tbk	-0.00131	0.01301	-0.01432	28	Modernland Realty	0.00835	-0.00651	0.01521		
14	Dayando Resources International Tbk	0.00026	0.02757	-0.02732	29	Hotel Mandarin Regency Tbk	-0.00362	-0.00634	-0.00321		
15	Mahaka Media Tbk	-0.00002	0.00545	-0.00511							

(Source: Analysis, 2013)

Appendix 6. List of Growing Companies estimated by IOS proxy

Growing Companies			
1	Ancora Indonesia Resources Tbk	16	Nusantara Infrastructure Tbk
2	Bank Argopriya Tbk	17	Bank Nusantara Parahyangan Tbk
3	Bank Danamon Indonesia Tbk	18	Bank Mayapada Internasional Tbk
4	Bank Kesawan Tbk	19	Bank Permata Tbk
5	Excelcomindo Pratama Tbk	20	Bumi Serpong damai Tbk
6	Bank Himpunan Saudara Tbk	21	Kertas Basuki Rachmat Indonesia Tbk
7	Energi Mega Persada Tbk	22	Bank Negara Indonesia Tbk
8	Darma Henwa Tbk	23	Lippo Karawari Tbk
9	AKPI Corporindo Tbk	24	Bank CIMB Niaga Tbk
10	Citra Mineral Investindo Tbk	25	Mobile-8 Telecom Tbk
11	Sumalindo Lestari Jaya Tbk	26	Bank Kesawan Tbk
12	Bank International Indonesia Tbk	27	Bank Bukopin Tbk
13	Multipolar Tbk	28	Bank Mandiri (Persero) Tbk
14	First Media Tbk	29	ensevsi putra Negstrading Tbk
15	Inovisi Infracom Tbk	30	Indospring Tbk
31	United Tractors Tbk	32	Warta Dunia Makmur Tbk
33	Indomobil Sukses Internasional Tbk	34	Lippo Securities Tbk
35	Bank Danamon Indonesia Tbk	36	Bank Pundi Indonesia Tbk
37	Clipan Finance Indonesia Tbk	38	Tiga Pilar Sejahtera Food Tbk
39	Central Omega Resources Tbk	40	Fakurwon Jati Tbk
41	Multistrada Arah Sarana Tbk	42	Modern International Tbk
43	Bank Tabungan Negara (Persero) Tbk	44	Cowell Development Tbk
45	Bank Permata Tbk		

(Source: Analysis, 2013)

Appendix 7. Not Growing Companies estimated by IOS proxy

Growing Not Companies	
1	Bank Capital Indonesia Tbk
2	Berlian Laju Tanker Tbk
3	Indoexchange Tbk
4	Pool Advista Indonesia Tbk
5	Star Pacific Tbk
6	Bank Bukopin Tbk
7	Sentul City Tbk
8	Bakrie Sumatra Plantation Tbk
9	Inland Development Tbk
10	Asiaplast Industries Tbk
11	Bank ICB Bumiputera Tbk
12	Bank Windu Kentjana int'l Tbk
13	Bakrisland Development Tbk
14	Dayando Resources International Tbk
15	Mahaka Media Tbk
16	Bank Eksekutif Internasional Tbk
17	Berlian Laju Tanker Tbk
18	Bank Tabungan Pensiunan Nasional Tbk
19	Pan Brothers Tbk
20	Asuransi Bina Dana Arta Tbk
21	bank Victoria Internasional Tbk
22	Kresna Graha Sekurindo Tbk
23	Pacifik Strategic Financial Tbk
24	Asuransi Multi Artha Guna Tbk
25	Kawasan Industri Jababeka Tbk
26	Perini Financial Tbk
27	Myoh Technology Tbk
28	Modernland Realty
29	Hotel Mandarin Regency Tbk

(Source: Analysis, 2013)