The Comparative Analysis of the Stocks Price before and After the Announcement of Inauguration Indonesian Cabinet Onward (Event study on Index Stocks on Kompas 100 August 2019 until January 2020)

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Abstract: *This research aims to see the market efficiency Indonesian stock exchange. The population of this research was all the companies merged in Kompas 100 Index on August 2019 until January 2020. There were 90 companies stocks became as the object of the research. This research used event study with the data of stocks price daily. The hypothesis of this research tested with parametric statistical tool one sample t-test and paired samples t-test.The result of this research found that Indonesian stocks exchange was efficient in the form of semi-strong market by the information. The announcement of the inauguration Indonesian cabinet onward had an impact on stock prices with the presence of a positive and significant average excessreturn in the event period, there were difference of the average of excess return before–the day the announcement, the day - after the announcement and before - after the announcement of inauguration Indonesian cabinet onward.*
Keywords: *event study, investors reaction, excess return, inauguration Indonesian cabinet onward*

I. Introduction

Capital market is a media for the investors who want to invest by buying the valuable letters in the form of stocks or bond directly or indirectly (Mulanto, 2008). The investment in the capital market except giving the advantages also containing the risks. Big or little risks influenced by situation of the country, especially in economic, politic and social area (Yuliana, 2012). Political event is a part of non-economic risk that can affect on the investors decision in allocating the fund in stocks exchange, because basically the situation of the country can effect toward the economical condition of that country itself (Katti, 2018). An event or a situation which appear can be said as the information if it can change or can be the consideration for the market player (Sjahrir, 2005).

The announcement of inauguration Indonesian cabinet onward by Jokowi-ma'aruf Amin was the political event that was interesting to be tested the effects toward the activity in Indonesian stocks exchange. That announcement of course brought impacts on economic area especially the investment activity in Indonesian stocks exchange. After that announcement, the capital market moved strengthen up. composite index closed then raised up to 32,31 points or 0,52 percents to the level of 6.257,8. The transaction value reached up to Rp 9,66 billion, with the traded volume 17,75 billion stocks, 198 green stocks and 190 decreased stocks, while the rupiah exchange rate strengthen up 0,06 percents to the position Rp 14.032 per dollar USA (KOMPAS.Com 23-10-2019).

The testing toward the excess return aims to see the significant excess return on the event period of the announcement of inauguration Indonesian cabinet onward. If that announcement has the content information, the investors will react on that day of the announcement that accepted by the investors. The investors' reaction showed by the price change from the relevant securities. This reaction can be measured by using excess return as the price change value. An announcement that has the content information will give excess return toward the investors. Otherwise if there is no information content, it will not give excess return to the investors. Hartono (2016) explained that a study event is a study that learn about the market reactions toward the event that the information published as an announcement. A study event can be used to test the content information from an announcement. The content information testing aims to see the Indonesian capital market efficiency.

The results of the event study of political domestic that has been done before, Hasanah and Utiyati (2015) approved that the announcement of inauguration Indonesian cabinet onward Jokowi-JK found that there was no excess return that was positive and significant on the event period. On the other side Kati (2018) found the evidence that the announcement of cabinet arrangement Jokowi-JK, there was the excessreturn which was positive and significant on the event period. There was difference research results with the previous research in some cases there were similarity and differences on the research results. The difference of this research results

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toward the previous research, generally on the normality test, inauguration cabinet year, index that was inspected.

Inconsistency that research results became the background that it needs retest whether the political event will influence toward the traded reaction in Indonesian capital market or not. This research tested the announcement of inauguration Indonesian cabinet toward the stocks priceof kompas 100 index on the period of August 2019 until January 2020.

Hypothesis Development
Event Study
The event study is the study that learns about the market reaction toward an event which the information published as an announcement (Hartono, 2016). Event study used to test the information content and also to test the semi-strong market efficiency which have two different tests. Market reaction showed by the changing price from the security involved which can be measured using return as the changing price value or using excess return. If using excess return, it can be said that an announcement which has content information will give excess return to the market.

Signaling theory
According to Hartono (2016) the information which is published will give signal to the investors in making investment decision. If the information contain positive value, it is expected that the market will react on the time when the announcement accepted by the market. The signaling theory in this study emphasizes on the signal which can be gained by the investors from the announcement of inauguration Indonesian cabinet onward on October 23rd 2019 and that signal refers to the company that registered in Kompas 100 index. On the day of the event and all the market players have received that information, the market players first interpret and analyze that information as good signal or bad signal. If that information interpreted as good signal for investors, so there is change on the stocks price measured by excess return.

Capital Market Efficiency
Efficient market is a market where traded that showed all the information provided (Tadelilin, 2007). According to Husnan (2005), efficient capital market is a market which all the securities prices have reflected all the relevant information. The faster new information reflected on the securities price, the more efficient on that capital market.
According to Hartono (2016), capital market efficiency can be differentiated as two forms, market efficiency by information and efficient market by decision.
Information market efficiency by Fama (1970), can be classified into three forms,
1. Market efficiency weak
The market can be said as market efficiency weak if the past information. If the market efficiency like this, the values at the past can not be used to predict the price now, so that with the past information the investors can not get excessreturn.
2. Market efficiency semi-strong
The market can be said as market efficiency semi-strong if all the securities prices reflected fully all the information published. If the market efficiency like this, there is no investor or group who can use the information published to gain the excess return for the long period.
3. Market efficiency strong
The market can be said as market efficiency strong if the securities price fully reflected the information provided include the private information. If the market efficiency like this, so there was no individual or group of investors who get excess return because it has private information.
This research used efficiency approach semi-strong, if there is abnormal return so that the market must react fast to absorb abnormal return and go to new balance price. Market efficiency semi-strong only reviewed from the information published which is called as market efficiency by information.

Excess Return
Excessreturn is the excess between the real return with the expected return (Hartono, 2016). Normal return is the return expected by the investors. Excess return is the deviation from the real return that happens from the expected return by the investors. The real return is the return on the time -t which is the deviation of the now price toward the previous price. Expected return is the return which estimated, to estimate the return expected use market-adjusted model.
These are hypothesis of this research
H$_1$: There is average excess return positive and significant on the event period of
theannouncement of inauguration Indonesian cabinet onward.

H$_2$: There is difference on the average of excess return stocks before and on the day of the event announcement of inauguration Indonesian cabinet onward.

H$_3$: There is difference on the average of excess return stocks on the day of the event and after the announcement of inauguration Indonesian cabinet onward.

H$_4$: There is difference on the average of excess return stocks before and after the announcement of inauguration Indonesian cabinet onward.

For further explanation, the research design used in this research can be drawn as this framework below:
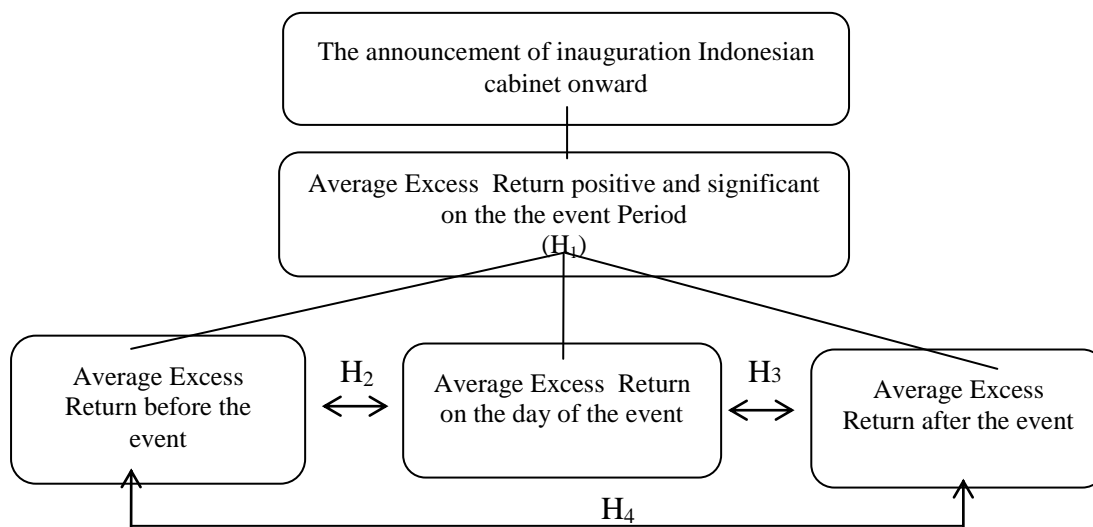
Figure 1
Theoretical framework
The effects of inauguration Indonesian cabinet onward toward the stocks price

II.   Research Method

This research includes in population research or called as census research, the research that investigate all the element which can be found in the population (Arikunto, 2006). The measurement of this research population is 90 companies stocks that merged in Kompas 100 index, it is always active traded every day, it does not have outlier data and it does not do the corporate action during the research period. The choice of 100 stocks which are in kompas 100 index consider the liquidity factor, capitalization market, and fundamental performance on that stocks.

This research used event period during 3 days around the date of the event, 3 days before, on the day of the event and 3 days after with the estimation period during 30 days from 4 days before the event until 33 days before the event. The use of the event period aims to avoid the bias effects from the other event. Estimation period and event period can be illustrated in figure 2 as follows:
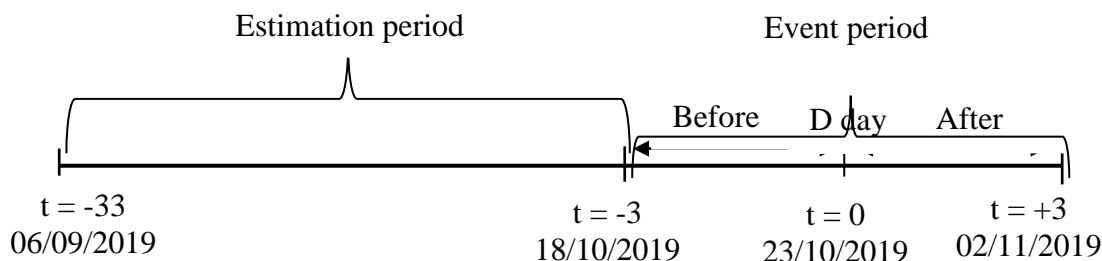
Figure 2.Estimation period and event period

The data used in this research is secondary data that gained from Indonesian Stocks Exchange and include
1. The closing stocks daily price.
2. The stocks that merged in Kompas 100 index.
3. The date of event period and estimation period.
The variable that will be examined is the stocks price which is measured using excess return. Excessreturn is the excess between the real return with the expected return (Hartono, 2016). The formula of excessreturn as follow

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$$ER_{i,t} = R_{i,t} - E(R_i)$$

$ER_{i,t}$ = excessreturnstocks i on the day t
$R_{i,t}$ = actual returnstocks i on the day t
$E(R_i)$ = expected returnstocks i.
The real return on i stocks on the day -t as follow:

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

$P_{i,t}$ = stock price i on the day t
$P_{i,t-1}$ = stock price i on the day t
Expected return is the return that must be estimated. Expected return on i stocks calculated based on Mean-adjusted model with the formula as follow:

$$E(R_i) = \frac{\sum R_{i,t}}{n}$$

$R_{i,t}$: real return i stocksday- t during the estimation period
n   : total stocks

This research used statistical parametric media, descriptive statistics and inferential statistics. Inferential statistics aims to test data normality and hypothesis. The data normality test using skewness test and kurtosis, while the hypothesis test using one sample t-test and paired sample t-test. One sample t-test used to test the second hypothesis, third hypothesis and fourth hypothesis.

Before the statistical test done, the first step is screening toward the data normality, especially if the purpose is inference (Ghozali, 2006). The data which is not distributed normally can be transformed as normal. After that, detect the outlier data by converting the data value in z-score. For the sample more than 80, the standard score with the value ±3 until ±4 stated as outlier (Hair, 1998 in Ghozali, 2006).

III.   Result

The analysis of research results
The early screening result showed that the data is not distributed normal, so the outlier data detection done. The result of outlier data detection can be seen on table 1 as follow:

Table 1: The result of outlier data detection

Obs	Z-ER t-3	Obs	Z-ER t-2	Obs	Z-ER t0	Obs	Z-ER t+1	Obs	Z-ER t+2	Obs	Z-ER t+3
36	3,364	77	4,082	28	-3,316	61	3,141	27	3,081	31	3,707
63	3,593	81	-3,335					46	-3,273	37	3,276

Resource : Secondary data processed, 2019.

Table 1 showed that there were 10 observation as outlier, because Z score excess return (Z-ER) is bigger than 3 and it is omitted, so the total observation changed from 100 observations became 90 observations.
After that the researcher transformed toward data t-1 and t+3 with the square root and normality test. Normality test toward the data of the average of excess return during the event period of the announcement of inauguration Indonesian cabinet onward can be explained in Table 2 below:

Table 2: The result of normality data test

Period	Date	Variable	N	Z score		Z scorecritical $\alpha = 0{,}05$	Conclusion
				Skewness	Kurtosis		
t-3	18/10/2019	ER	90	1,887	0,115	± 1,96	Normal
t-2	21/10/2019	ER	90	1,804	1,819	± 1,96	Normal
t-1	22/10/2019	SQRT_ER	90	1,562	0,463	± 1,96	Normal
t0	23/10/2019	ER	90	1,782	0,202	± 1,96	Normal
t+1	24/10/2019	ER	90	-0,897	-0,208	± 1,96	Normal
t+2	25/10/2019	ER	90	1,079	1,318	± 1,96	Normal

t+3	28/10/2019	SQRT_ER	90	1,129	0,716	± 1,96	Normal

Resource : Secondary data processed, 2019.

Table 2 showed that the average of abnormal return has z skweness score and z kurtosis score is bigger than -1,96 and smaller than +1,96, so that the data distributed normally. Therefore, the first hypothesis test using statistical parametric one sample t-test, while the second, third and fourth hypothesis test using paired sample t-test.

The descriptive statistics test toward the variable of the average of excessreturn can be calculated based on mean adjusted model as in Table 3 below:

Table 3: Descriptive Statistic of ExcessReturn

Period	Date	N	Minimum	Maximum	Mean	Std. Deviation
t-3	18/10/2019	90	-0,0442	0,0684	0,0040	0,0241
t-2	21/10/2019	90	-0,0447	0,0422	-0,0003	0,0156
t-1	22/10/2019	90	0,6500	0,7900	0,7097	0,0265
t0	23/10/2019	90	-0,0397	0,0385	-0,0047	0,0169
t+1	24/10/2019	90	-0,1088	0,0717	-0,0201	0,0370
t+2	25/10/2019	90	-0,0382	0,0728	0,0193	0,0198
t+3	28/10/2019	90	-0,0400	0,3100	0,1736	0,0515
Valid N		90				

Resource : Secondary data processed, 2019.

Table 3 showed that 90 as total observation stated valid, from 90 observation the average of excess return maximum happened one day before the event with the score 0,7900 and the standard deviation 0,0265, while the average of excess return minimum happened one day after the announcement with the score -0,1088 with the standard deviation data 0,0370. The average of excess return on the day of the announcement of inauguration Indonesian cabinet onward was -0,0047 with the standard deviation 0,0169.
The result of the first hypothesis test stated that there was average of excessreturn positive and significant on the event period can be seen in the Table 4 as follow:

Table 4: The Result of One Samples T-Test toward the Average of Excess Return

Period	Date	AverageExcess Return	Sig. (2-tiled)	Conclusion
t-3	18/10/2019	0,0040	0,117	Not significant
t-2	21/10/2019	-0,0003	0,879	Not significant
t-1	22/10/2019	0,0710	0,000	Significant
t0	23/10/2019	-0,0047	0,009	Significant
t+1	24/10/2019	-0,0201	0,000	Significant
t+2	25/10/2019	0,0932	0,000	Significant
t+3	28/10/2019	0,1736	0,000	Significant

Resource : Secondary data processed, 2019.

Table 4 showed that during the event period there were average of excess return positive and significant on the period of one day before the announcement, 2 days after the announcement and 3 days after the announcement, so that the first hypothesis accepted.
The second, third, fourth hypothesis test used paired sample t-test can be seen in Table 5 as follow:

Table 5: The Result of Paired Samples T-Test toward the Average of Excess Return

Event	Difference ARR	Standard deviation	Sig. (2-tiled)	Conclusion
Before–D day	0,223	0,0287	0,000	H_{a2} accepted
D day- After	0,306	0,0294	0,000	H_{a3} accepted
Before-After	0,529	0,0172	0,000	H_{a4} accepted

Resource : Secondary data processed, 2019.

Table 5 showed that the average of abnormal return before and after the event got score 0,223 with the significant level 0,000 is smaller than α =0,05, so that the second hypothesis accepted. The average of excess return on the day and after the event got score 0,306 with the significant level 0,000 is smaller than α =0,05, so that the second hypothesis accepted and the average of excess return before and after the event got score 0,529 with the significant level 0,000 is smaller than α =0,05, so that the fourth hypothesis accepted.

IV.   Discussion
The test result of average of excess return using one sample t-test found evidence that the market reaction which is significant happened 1 day before the announcement, on the day of the announcement, 1 day after the announcement, 2 days after the announcement and three days after the announcement. It was showed

by significant score of the average of excess return on the 5 days was smaller than α =0,05. The average of excess return on 1 day before the event, 2 days after the event and 3 days after the event was positive, while the average of excess return on the day and 1 day after the event was negative.

The market reaction which was significant on 1 day before the announcement showed that 1 day before the was leak on public. The biggest reaction from the market happened on the second day after the announcement. The average of excess return which was positive showed that the information of inauguration Indonesian cabinet onward considered as good news by investors of Indonesian capital market.

However, market reaction which was significant on the day of the event and 1 day after the event was inversely proportional with the reaction when the information was leak. It showed by the average of excess return which was positive and significant on the day and 1 day after the announcement. The average of excess return was negative and significant on the day and 1 day after the announcement inauguration Indonesian cabinet onward probably because the names of the cabinet who inductee were not the same as investors expectation, so that they responded negative by the market.

Based on the result of one sample t-test, it can be said that there were the average of excessreturn positive and significant on the event period and Indonesian capital market include the market efficiency semi-strong by the information. The market is not market efficiency semi-strong by decision because the market is not efficient by the information. It was because the market reaction was slow and long to absorb the information, the market needed time more or less 5 days to reach the new equilibrium situation (1 day before until 3 days after the event).

The result of the second hypothesis test showed that before after the announcement of inauguration Indonesian cabinet onward, there were significant difference on the score of the average of excessreturn stocks. The estimation of the leak information one day before the announcement caused the stock price increased, it might be the main trigger of the difference which was significant with the average of abnormal return on the day of the announcement have decreased because of the investors who took wait and see strategy.

The result of the third hypothesis on the day and after the announcement, proved that there were significant difference on the average of abnormal return stocks. It was because the score of the average of excessreturn was negative on the day of the announcement, while the average excessreturn after the announcement tend to be positive. It happened because the market reaction was longer on 1 day after the announcement until 3 days after the announcement, as the result the period after the announcement the market still reacted, it showed by the average of excess return which was significant on 1 day before the event, 2 days after the event and 3 days after the event.

The result of the fourth hypothesis before and after the announcement proved that there were significant difference on the average of excessreturn stocks. It showed that the longer period, the announcement of inauguration Indonesian cabinet onward contained of strong information, therefore the market responded again, it showed from the score of the average of excessreturn which was significant difference between the event period before and after the announcement. The market response supported by the information on the Table 4, the period after the announcement, 1 day after the event, 3 days after the event, the average of excess return stocks which dominated with significant score.

V. Conclusion And Suggestion

The conclusion of the research first the investors responded the information from the announcement of inauguration Indonesian cabinet onward as good news, it showed by the average of excessreturn which was positive and significant on the date of the announcement. Second, the investors reaction toward the announcement of inauguration Indonesian cabinet onward longer, which indicated that there was still an abnormal return until the 3rd day after the announcement. This shows that the market is not yet form efficient half formally information. Third, there is a significant difference between the average excess stock returns of the period before – the day the announcement, the day- after the announcement and there is a significant difference between the average excess stock returns in the period before and after the announcement.

The suggestion for the next research expected that the researcher can test the investors reaction toward the other information and use variable except stocks price likevariable security return variability. The next researcher can use market adjusted model or market modelto estimate the expected return, so that it can be seen the difference.

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