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# Abnormal Returns Before and After the January Effect

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# Abstract

This research aims to see if there is a difference in LQ45 share abnormal returns before and after the January effect. The nonprobability sampling method was used in this study, and data from 45 companies were obtained using this method. In this study, secondary data from financial reports obtained from yahoo.finance.com was used as the source of data. The Event Study technique was used in this study, with the Event Window consisting of seven days before and seven days after the January Effect event. The research data was put to the test using a normality test and a paired sample test to test the hypothesis. The results revealed that the Abnormal Return on LQ45 companies listed on the Indonesia Stock Exchange did not differ significantly before and after the January Effect. One of the references used by the entity's stakeholders in making decisions is managerial interest in window dressing.

Keywords: Abnormal Return; January Effect; Dividend

### 1. Introduction<sup>1</sup>

Because the Indonesian capital market is not very sensitive to the efficient market hypothesis, the Indonesian capital market is currently inefficient. An efficient market can provide timely and relevant information. Fama, (1970) was the first to propose and promote an efficient market concept, and he divided it into three types of efficient market hypothesis. To begin with, a weak form of efficient market or security prices accurately reflects previous information markets. Investors cannot profit from past information in a weak and efficient market, as evidenced by the current share price. Second, it is a market in which the security price or the semi-strong efficiency market fully reflects all publicly available information. No investor can use published information to obtain long-term abnormal returns in a semi-robust efficient market form. Third, for all information, a powerful form of an efficient market or securities price fully reflects the market (including personal information) if no one can make excessive profits after adjusting risk and using existing trading strategies, whether an individual investor or an institutional investor, the market is influential (Pradnyaparamita & Rahyuda, 2017).

A deviation known as abnormality exists in an efficient market, but the abnormal return rate cannot be obtained. Because it can generate abnormal returns, the market anomaly is evidence that rejects or at least does not support the existence of an efficient market theory. The return obtained from the difference between the expected and actual returns is known as an abnormal return. The abnormal income can be in the form of profit if the difference in income earned is more significant than the expected income; it can also be negative if the income earned is less than the expected income (Bodie & Brière, 2011; Saofiah et al., 2019). Dividend announcements, production company announcements, interest rate increases, lawsuits, and other events are common causes of abnormal returns.

The debate over an efficient market is still going on right now. One sign of seasonal pattern deviation is what is known as the January effect, which occurs at the start of the year. The first week of January's impact is the upward trend in stock prices as investors restructure their portfolios after the year-end holidays. Due to positive investor expectations, rising investor demand for financial instruments can lead to price increases (Werastuti, 2012). Most fund managers advise investors to sell losing stocks at the end of the year and repurchase them at the beginning of the following year. This is due to the investment manager's desire to improve the stock portfolio report's performance. This will provide tax benefits to investors, causing prices to fall at the end of the year and rise at the start of the year due to supply and demand for stocks seeking a

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high return in January. Because it is dependent on investors' behavior in interpreting each event to obtain a higher return, the January effect is not always observed in every observation period.

According to research conducted by Indrayani, (2019) there is a significant difference between the 5-day average abnormal return at the end of December and five days in early January, indicating that the mining sector stocks listed on the Indonesia Stock Exchange experienced a January effect phenomenon between 2011 and 2015. According to the findings of Pradnyaparamita & Rahyuda (2017), January has the highest overall abnormal stock returns, while other months have the lowest. Pradnyaparamita & Rahyuda, (2017) found, on the other hand, that there was no difference in abnormal stock returns in January compared to other months.

Signal theory is a type of information signal that investors should consider when deciding whether to invest in related companies (Spence, 1973; Khairudin & Wandita., 2017). Following the information's announcement, market participants will first interpret and analyze it to determine whether it is a good signal (good news) or a wrong signal (bad news). The trading volume of shares will change if this information is released as a positive signal to investors. Around 1942, a banker named Sidney B. Wachtel noticed the January effect for the first time. In January, he said, the performance of idle stocks tended to rise sharply. Some theorists believe that this phenomenon is that American retail investors who own these inactive stocks sell their shares at the end of the year for tax reasons and reinvest the funds at the beginning of the following year. Another theory is that bonuses are usually distributed in January in the United States, allowing investors to purchase shares as an investment in January, causing the share price to rise.

Tax-loss selling, a requirement for investors to sell shares that have depreciated, is one of the many factors that can cause abnormal stock behavior in January. Its goal is to generate a tax loss or lower the amount of tax owed before the end of the year. Stocks that are being sold will see price changes in December before rising again in January. Window-dressing refers to the practice of selling underperforming stocks at the end of the year. This is similar to Tax Loss Selling, except that financial managers do it to make the stock portfolio performance report at the end of the year look promising. In January, shares with a lower market cap are riskier than in other months. If this is the case, small-cap stocks will have a higher average return in January than in other months. Return is one of the factors that encourages investors to invest, and it also serves as a reward for the investor's courage in taking the risk of his investment (Tandelilin, 2010; Wulandari, 2014)

Abnormal return is the advantage of return that occurs on expected returns (Sharpe, 1995; Pratomo, 2007). The average return is the return expected by investors in normal circumstances. For some events, the average return will increase if it contains good news. If the event contains terrible news, then the average return will decrease. Thus, abnormal return is the difference between the actual results and the expected results (H. Jogiyanto, 2010). The January effect explains that every month is different, and in January, there is a higher return than other months. This research is a study that observes the movement of stocks in January with other months. Several researchers have previously studied the January effect. The study results (Faiq & Mahardika, 2019) show differences in annual abnormal returns. This does not prove that companies listed on the LQ45 index during the 2015-2017 period experienced an abnormal January effect because they did not show abnormal returns. The abnormal return is always positive in January and not consistently higher than the other months. Pradnyaparamita & Rahyuda, (2017) and Saofiah et al., (2019) prove this, proving that the January effect does not occur in abnormal returns. The results of the study (Pradnyaparamita & Rahyuda, 2017; Indrayani, 2019) show that Indonesia had a January impact on LQ45 companies on the IDX from February 2009 to January 2014, so that it had an impact on the IDX in January, especially companies that had entered the LQ45 index.

The difference in the results of this study is one reason for the need for further research. This research was conducted to consider whether or not the January effect occurred on the LQ45 Index company. The object of this research is companies that are on the index 45 stocks that have the highest level of liquidity on the Indonesia Stock Exchange or the LQ 45 index and are one of the stock index indicators on the IDX that can be used as a reference as a material for assessing stock trading performance. Of the many stocks listed on the IDX, the shares in the LQ 45 index are the stocks most attractive to investors. Based on this description, the researcher is interested in examining whether there are differences in abnormal returns before and after the effect of LQ45 shares on companies included in the LQ 45 index listed on the Indonesia Stock Exchange in January.

Abnormal return is the difference between the actual rate of profit and the expected rate of return. In utilizing the January effect phenomenon's momentum to achieve abnormal returns, investors try to sell their shares at the end of the year and buyback at the beginning of the year. The act of selling and buying back causes the stock price at the end of the year to fall and again increase at the beginning of the year to get a higher rate of return or return at the beginning of the year. Research conducted by Indrayani, (2019) shows that there is a significant difference between the 5-day average abnormal return at the end of December and five days in early January, which indicates that there is a January effect phenomenon on mining sector stocks listed on the Indonesia Stock Exchange during 2011-2015 period. The same result was also obtained by Pradnyaparamita & Rahyuda, (2017) that the highest overall abnormal stock returns occurred in January and the lowest occurred in other months. However, the results obtained from research conducted by Pradnyaparamita & Rahyuda, (2017) found no difference between January's stock abnormal returns and other months, so it can be concluded that the January effect phenomenon does not occur in the Indonesian capital market.

# 2. Research Design and Method

This research is quantitative. Sampling in this study is a census sampling method because the population is limited. Objectively, we observed 45 companies with observation times in August 2017- January 2018. The data analysis method used was statistical analysis consisting of descriptive statistical analysis and inferential statistical analysis. There are two kinds of statistical analysis used in the research, namely descriptive statistical analysis and inferential statistical analysis to the Difference-Test. Hypothesis testing in this study is determined based on the results of the data normality test. If the data is normally distributed, the Paired Sample T-Test parametric test is used. Meanwhile, if the data is not normally distributed, a non-parametric test is used, namely the Wilcoxon Signed Rank Test. This statistical test is used to determine whether the difference is significant between the average abnormal returns before and after the stock split (Jogiyanto, 2008). The January publication date of the securities in question is the date of listing on the IDX when it enters 1 January. This is done to make it easier to determine day 0 as the stock split event. Determining the event period is observing the period around the event time (when the event occurs). The event period chosen in this study was for 14 days, namely seven days before and seven days after the January effect. To see whether there is a significant difference, comparing the average stock liquidity and stock returns is performed using the abnormal return with day 0 or (event date). Paired Sample T-Test was used to test the differences between two paired samples. Paired samples are defined as a sample with the same subject but experiencing two different treatments in the situation before and after the process (Ghozali, 2010).

### 3. Results & Discussion

#### **Result Analysis**

This study's data processing results indicate that the actual return before (January the highest securities) was at the company PT PP London Sumatra Tbk with an average value of 0.016512107 and the actual return before (January The lowest securities) was at the company PT. Matahari Department Store Tbk with an average value of -0.00832413. As for the Actual Return after (the highest January Securities) is at PT. Adaro Energy Tbk with an average value of 0.021552003, and for Actual Return after (the lowest January Securities) is at PT. PP London Sumatera Tbk with an average value of -0.067220534.

The calculation result (attachment) shows that the Expected Return highest before January is in the company PT. PP London Sumatera Tbk with an average value of 0.0165121, and the lowest is at the company PT. Matahari Department Store Tbk with an average value of -0.008324. The Expected Return calculation results after the January Securities; the highest Expected Return is at the company PT. Adaro Energy Tbk with an average value of 0.024631, and the lowest is PT. BPD West Java and Banten Tbk with an average value of -0.0105.

Calculation of Abnormal Return for each issuer's shares for seven days before and seven days after the stock split. The Abnormal Return analysis results show that the Abnormal Return before January the highest securities are in the company PT. PP London Sumatera Tbk with an average value of 0.087861249 and the lowest at PT. Matahari Department Store Tbk with an average value of -0.085992408. As for the Abnormal Return after January, the highest securities are in the company PT. Adaro Energy Tbk with an average value of 0.142339128 and the lowest at PT. Bumi Serpong Damai Tbk with an average value of -0.050880029. So it can be concluded that there is no significant difference in the sample of 45 companies before and after the January effect.

Table 1.	Descriptive	Statistics
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N		Minimum	Minimum Maximum		Std. Deviation	
7 Hari Sebelum	45	-86,00	88,00	-,3333	35,93175	
7 Hari Setelah	45	-133,00	142,00	-,7111	61,54770	
Valid N (listwise)	45					

The descriptive statistical analysis results in table 1 show the observation period's results before and after the January Effect 2017-2018 event. The minimum values for all samples' abnormal returns in each observation period before and after the January effect event are -86.00 and -133.00. The highest maximum value for abnormal returns occurs before the January effect, 88.00, and the maximum value after the January effect is 142.00. Before the January effect event, the average value of abnormal returns was -3333 with a standard deviation of 35.93175, then decreased after the January effect event to -7111 with a standard deviation of 61.54770.

		<b>Return Before January</b>	Return After January	
N		45	45	
Normal Parameters, <sup>b</sup>	Mean	3333	7111	
	Std. Deviation	35.93175	61.54770	
Most Extreme Differences	Absolute	.096	.063	
	Positive	.096	.063	
	Negative	072	053	
Test Statistic		.096	.063	
Asymp. Sig. (2-tailed)		.200 <sup>c,d</sup>	.200 <sup>c,d</sup>	

#### **Table 2. Normality Test Results**

The results of the normality test were obtained using the One-Sample Kolmogorov-Smirnov Test for the Asymp value. Sig. (2-tailed) > 0.05 on the abnormal return before the January effect (0.200) and the abnormal return after the January effect (0.200), then the data is usually distributed. Based on the normality test results, the test tool used to test the hypothesis is the Paired Sample T-Test.

#### **Table 3. Paired Samples T-Test**

		Mean	Std. Deviation	Std. Error Mean	Т	Df	Sig. (2-tailed)
Pair 1	7 Hari Sebelum	.37778	80.67902	12.02692	.031	44	.975
	7 Hari Setelah						

Table 3 shows that the paired sample t-test hypothesis testing obtained an average value (mean) before and after the January effect of 37778 with a standard deviation of 80.67902 and a standard error of 12.02692. then obtained the value of t count before and after January of the effect of 0.031. Based on the test results, the significance value is more significant than  $\alpha = 0.05$ , so Ha is rejected. It can be seen that the results of the study do not support the hypothesis, which states that there are differences in abnormal returns before and after January in effect on LQ45 company shares in the Indonesia Stock Exchange.

#### Discussion

According to this research, there is no difference in abnormal returns before and after the January events. This research demonstrates that the hypothesis is correct. These findings support Pradnyaparamita & Rahyuda, (2017) that the January effect does not exist in LQ45 companies listed on the Indonesia Stock Exchange because there is no difference in abnormal stock returns in January to other months. There are differences in stock returns and abnormal returns each month, according to Faiq & Mahardika, (2019), but this does not prove that the January effect anomaly occurs in returns that are always positive in January and are not always higher when compared to other months. In terms of overall abnormal returns, Saofiah et al. (2019) explained no January effect on the LQ45 stock group on the Indonesia Stock Exchange. Because portfolio managers and investment managers are always interested in beautifying the year's performance so that a positive return is felt at the end of the year, the January effect does not occur. Investment managers and portfolio managers have lost interest at the beginning of the year after the window dressing action. The January effect's potential will not be felt in January. Furthermore, because the January effect is dependent on investors' actions in interpreting each event, it is not always observed in every observation period. The January effect does not occur if investors wait and see before buying shares. Investors or users of financial data's ability to make decisions is heavily influenced by the company's management parties' behavior, which sends strong signals at the end of the period to improve their year-end reports to generate positive returns (Wulandari, 2014). As a result, the January effect is no longer a common occurrence. Each decision is colored by the increasing increase in each entity's economic activity (Esana & Darmawan, 2017; Purnamasari et al., 2020).

The January effect does not occur for several reasons, one of which is that portfolio managers and investment managers are always interested in enhancing the year's performance so that positive returns are felt at the end of the year (Eduwinsah & Sitorus, 2018; Dewi & Sasmikadewi, 2017; Primajati & Ahmad, 2018). Investment managers and portfolio managers have lost interest at the beginning of the year after the window dressing action. The January effect's potential will not be felt in January. Furthermore, because the January effect is dependent on investors' actions in interpreting each event, it is not always observed in every observation period. The January effect does not occur if investors wait and see before buying shares.

Other instances of the January effect are due to a company's desire to appear better, reflected in the annual financial statements. Company managers sell shares that are considered to have little value at the end of the year and repurchase them

at the start of the year. Incidents similar to those seen in the January effect could occur for various reasons, including companies' desire to appear flawless in their annual financial report presentation, causing middle managers to sell shares that are expected to have a low value at the end of the year. Also, they will buy back the stock (Indrayani, 2019).

# 4. Conclusions

Based on the results of the research and discussion previously described regarding the analysis of abnormal returns before and after the January effect on LQ45 company shares on the Indonesia Stock Exchange, researchers can conclude that there is no difference in abnormal returns before and after the January effect. This is evidenced by the paired sample t-test on Abnormal Returns 7 days before and seven days after January. It can be seen from the count of 0.031, which is smaller than the t table of 1.680 with a significant t (0.975) greater than  $\alpha = 0.05$  in LQ45 company on the Indonesia Stock Exchange. The January Securities phenomenon does not always occur. There is no significant difference in abnormal returns before and after January Securities, so companies are advised not to believe in the January Securities phenomenon entirely. This research can help investors find out anomalies on a trading day, namely January Securities, consider deciding the right time to invest, and understand stocks' situation in the future. However, investors should pay more attention to stock prices because of the information. The stock price investors can predict their future investment to predict that they will get a positive abnormal return.

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No	Emiten	-7	-6	-5	-4	-3	-2	-1	Total
1	AALI	-0,00769	0	0	0	0,021013	-0,0095	0,00381	0,0010905
2	ADHI	0,010526	-0,00525	0	0	-0,02937	0,002706	0,018742	-0,000378
3	ADRO	0,029853	0,010638	0	0	0,002642	-0,00264	-0,016	0,0034987
4	AKRA	0,020285	0,019881	0	0	0,015625	-0,00388	-0,01174	0,005738
5	ANTM	-0,00797	0,007968	0	0	0,007905	-0,02391	0,008032	-0,001138
6	ASII	0,006192	0,01227	0	0	-0,00612	-0,01235	0,030583	0,0043691
7	BBCA	0,007134	0,01878	0	0	0,001162	0,018412	-0,00114	0,0063354
8	BBNI	0,020514	0	0	0	0,005063	0,002522	-0,00252	0,0036538
9	BBRI	-0,00583	0,011628	0	0	0,025679	0,022285	0,002751	0,0080732
10	BBTN	0,005714	-0,00285	0	0	-0,00286	0,008559	0,014105	0,0032377
11	BJBR	0,017778	-0,00885	0	0	0	0,004435	0,060104	0,0104953
12	BMRI	0,009885	0,006536	0	0	0,041473	-0,00627	0,00627	0,0082706
13	BMTR	0,033902	-0,02532	0	0	-0,02598	0,017392	0,017094	0,0024421
14	BRPT	0,0177	-0,0044	0	0	0,017468	-0,02188	0	0,0012698
15	BSDE	0,014948	0,002963	0	0	0	0	0,0059	0,0034015
16	BUMI	-0,01429	-0,01449	0	0	0,021661	0	-0,03637	-0,006212
17	EXCL	0,013986	0	0	0	0,003466	0,027305	-0,00337	0,0059122
18	GGRM	0,012735	-0,00062	0	0	0,005544	0,004291	0,024767	0,0066741
19	HMSP	0,033152	0,010811	0	0	0,008565	0,004255	0,004237	0,0087173
20	ICBP	0,01387	-0,0083	0	0	0,000505	-0,01117	0,004257	-0,0008
21	INCO	-0,01051	-0,01418	0	0	0,010657	0	0,02098	0,0009921
22	INDF	0,009917	0,003284	0	0	0,010057	0,009788	-0,00979	0,0018859
23	INTP	0,020001	0	0	0	0,017178	0,047515	0,018391	0,0147265
24	JSMR	0,032261	0	0	0	0,00396	-0,00396	0,015748	0,0068585
25	KLBF	-0,02403	0,003035	0	0	0,02099	-0,00370	0,002963	0,0004233
26	LPKR	-0,02405	0,005055	0	0	0,02055	0,012419	0,002703	0,0004233
20 27	LPPF	0,025613	0	0	0	0,004157	-0,00454	-0,09531	-0,008324
28	LSIP	-0,01193	-0,00401	0	0	0,015504	-0,00454	0,096015	0,0165121
20 29	MNCN	0,007937	-0,01193	0	0	0,033307	0,011929	0,015687	0,0103121
30	MYRX	0,007937	-0,01193	0	0	0,017935	0,011929	-0,02689	-0,002572
31	PGAS	-0,02874	0,014472	0	0	0,017933	-0,01435	0,011494	-0,002372
32	POAS	-0,02874 0,010638	-0,016	0	0	0,008384	-0,01433 0,010638	0,011494	0,001219
32 33	PTBA	0,010038	-0,010	0	0	-0,003302	-0,00399	-0,01613	0,0013198
33 34	PTPP	-0,00387	0,003868	0	0			·	
						-0,02344	0,015687	0,026873	0,0027316
35	PWON	0,015625	0,045462	0	0	-0,00743	0,014815 -0,02806	0,007326	0,0108277
36	SCMA	-0,01227	0,020367	0	0	0,019961		0,008097	0,0011567
37	SMGR	0,020619	0,002548	0	0	0,017655	0,019803	-0,02985	0,004396
38	SMRA	0,04012	0,049325	0	0	0	0	0,010638	0,0142976
39	SRIL	-0,01644	-0,00554	0	0	0,00554	0	0,048527	0,004584
40	SSMS	-0,00344	-0,00692	0	0	0,037483	0,003339	0	0,0043513
41	TLKM	0,014218	0,011696	0	0	0	0,020714	0,011325	0,0082791
42	UNTR	0,02249	0,015447	0	0	0,009444	0,000723	0,022858	0,0101374
43	UNVR	0,010324	0,01068	0	0	0	0,005068	0,0272	0,0076104
44	WIKA	-0,00316	-0,01274	0	0	-0,00966	-0,00649	0,009972	-0,003155
45	WSKT	0,004535	-0,02288	0	0	0	0,018349	0,004535	0,0006479
							expected	Sebelum	0,0039605

# Appendix 1. Calculation Results of Expected Return Before January Securities

No	Emiten	0	1	2	3	4	5	6	7	Total
1	AALI	0	0,009461	-0,02866	0,001936	0,001932	0,026668	0,016776	0,007367	0,005069
2	ADHI	0	-0,01067	-0,02718	0,035186	0,007947	0,033726	0,02519	0,004963	0,009881
3	ADRO	0	0,010695	-0,02696	0,045402	0,038417	0,081974	0,009217	0,013668	0,024631
4	AKRA	0	-0,02391	-0,00404	0,00404	0	0,039531	-0,02353	-0,01198	-0,00284
5	ANTM	0	0,015873	-0,00791	0,015748	0,023167	-0,00766	0,007663	-0,00766	0,005603
6	ASII	0	-0,01212	-0,01846	0,021506	0,009077	0	-0,01517	0,012158	-0,00043
7	BBCA	0	0	0	0,014731	0,001124	0,004484	0,007799	-0,00334	0,003543
8	BBNI	0	-0,01271	-0,03646	-0,00266	-0,0107	0	0	-0,00269	-0,00932
9	BBRI	0	-0,00275	-0,00552	-0,01676	0,011205	0	-0,00559	-0,01127	-0,00438
10	BBTN	0	0,005587	0	-0,03688	-0,0058	-0,00583	0,023122	0,030945	0,001592
11	BJBR	0	-0,01681	-0,01709	0,004301	-0,01732	-0,00438	-0,00881	-0,01336	-0,0105
12	BMRI	0	-0,01893	-0,01929	0,016103	0	0,012699	-0,00316	0	-0,0018
13	BMTR	0	0,033336	0	0,008163	-0,02469	0,072321	0,02299	-0,01527	0,013836
14	BRPT	0	-0,00443	-0,05012	-0,04297	0,024098	-0,00477	0,018958	0,004684	-0,00779
15	BSDE	0	0	0	0,005865	-0,00881	0,005882	-0,00294	-0,0208	-0,00297
16	BUMI	0	-0,00743	0,022141	0,007273	0,063179	0,00678	-0,00678	-0,0137	0,010208
17	EXCL	0	-0,0274	0,013793	0	0,030356	0,064331	0,042689	-0,03648	0,01247
18	GGRM	0	-0,02783	-0,00184	0,032056	0,009184	0,000295	-0,03847	0,017011	-0,00137
19	HMSP	0	0,004219	-0,03863	0,028049	0,031416	0,00206	0,01227	-0,01227	0,003873
20	ICBP	0	0,022223	0	0,002743	0,016305	-0,0301	-0,01399	-0,01705	-0,00284
21	INCO	0	0,047306	0,006579	0,019481	0,019109	0	0,00315	0,00627	0,014556
22	INDF	0	-0,00988	0,013158	0,009756	-0,00649	0,022545	-0,00319	0	0,003699
23	INTP	0	0,046727	0	0	0,009735	0,001076	-0,01081	0,006501	0,007604
24	JSMR	0	-0,01972	0,011881	-0,00394	0,027292	0,011472	-0,02698	-0,01575	-0,00225
25	KLBF	0	0,023393	-0,02044	0,029072	0,008559	0,014105	-0,00281	-0,02273	0,004165
26	LPKR	0	-0,00822	-0,00415	0,016465	0	0,016198	0,00399	-0,00399	0,002899
27	LPPF	0	0,065319	0,025435	0,011351	0,037657	-0,02198	-0,0202	0	0,01394
28	LSIP	0	-0,06548	-0,00755	0,033523	-0,00735	0,032671	0	0,014185	0
29	MNCN	0	0	0,003884	0,041752	0,011091	-0,01109	0,003711	0,00738	0,008104
30	MYRX	0	0,018004	-0,00905	0,017935	0	0,034758	-0,04364	0,008882	0,003841
31	PGAS	0	0,008535	-0,00568	0,002845	0,016902	0,02755	-0,0192	0,011019	0,005995
32	PPRO	0	0	0	0,005277	0,015666	0,035627	0,00995	-0,00995	0,008081
33	PTBA	0	0,016129	-0,02429	0,016261	0,051092	0,022728	0,022223	-0,00367	0,014353
34	PTPP	0	-0,0076	-0,02708	0,038466	0,011257	0,071974	0,054067	-0,01325	0,018262
35	PWON	0	0	0,007273	0,00722	0,021353	0,007018	-0,0212	-0,02899	-0,00105
36	SCMA	0	-0,01217	0,00813	0,008065	0,004008	-0,00803	-0,00404	-0,02045	-0,0035
37	SMGR	0	0,037179	-0,00733	0,075508	-0,00913	0,009132	0,018019	-0,03406	0,012761
38	SMRA	0	-0,00531	-0,02696	0,026956	0,031416	0,020409	0,01005	0,024693	0,011609
39	SRIL	0	-0,02128	-0,01626	0,00545	0,00542	0,031918	-0,01583	0,015831	0,00075
40	SSMS	0	-0,00669	-0,02377	-0,00344	-0,00345	-0,01394	0,010471	-0,01047	-0,00733
41	TLKM	0	-0,00678	-0,04167	-0,00237	0,014118	-0,00468	-0,01418	-0,00238	-0,00828
42	UNTR	0	-0,03595	-0,03198	0,027583	0,041057	0,007733	0,005587	0,027474	0,005929
43	UNVR	0	-0,00045	-0,03413	-0,01117	0,011173	0,00738	-0,01668	0,012999	-0,00441
44	WIKA	0	0,009631	-0,02589	0,016261	0,01917	0,073203	0,054377	-0,01403	0,018961
45	WSKT	0	-0,00909	-0,01379	0,058444	0,004357	0,04256	0,044814	0	0,018184

# Appendix 2. Calculation Results of Expected Return After January Securities