Anomaly Analysis of Winner-Looser Stocks IDX30 and LQ45 Overreaction Amid the Covid-19: What Can Learn?

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Abstract. The purpose of this research was to investigate the overreaction anomaly in stocks listed on the IDX30 and LQ45 amid the COVID-19 Pandemic in 2020. An overreaction anomaly or price reversal occurs when looser stocks outperform winner stocks, which can be seen from the ACAR value of each stock. The samples used in this study are companies listed on the IDX30 and LQ45 period February-July 2020 and the period August-January 2021. This is a comparative study, hence using a qualitative approach, while the method study is the event study. The measurement used to estimate the market reaction to the published information is the abnormal return of each stock. The results showed that there was an overreaction anomaly in some test periods which was indicated by the ACAR value of looser stock that could outperform the ACAR value of winner stock. The results of the independent sample t-test statistical test showed that the ACAR value of winner stock had a significant difference from the ACAR value of loser stock. The implications of the research are investors should be aware toward risk potentially to macro economy shock and investors to assess rationally and wisely in making decisions even to blue chips stocks.

Keywords: Price reversal · overreaction · winner-looser anomaly · abnormal return · IDX30 · LQ4

1 Introduction

The COVID-19 pandemic that was discovered in early 2020 has taken the world by storm. This was prompted by the spread of COVID which impacted almost every corner of the country. Indonesia is one of the countries affected by a fairly high number of COVID cases. The continuous growth rate of COVID cases has caused panic among communities in Indonesia. The Indonesian government is responsive to suppressing the rate by issuing a policy of Large-Scale Social Restrictions (PSBB). The consequences of this policy posed an impact on slowing down the economic growth. The falloff in market sentiment was also evident in the Indonesian capital market. During the pandemic, the stock market in Indonesia was noticeably weakened throughout March 2020. Stocks in the liquid category such as LQ-45 and IDX-30 were also affected.

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The stock prices listed on the LQ 45 and IDX30 during 2019 experienced a proportionately stable level of fluctuation. Meanwhile, in 2020 the stock prices listed on the LQ45 and IDX30 had a very high level of fluctuation. Since the beginning of 2020, the change in stock prices has declined, however insignificantly. Meanwhile, at the beginning of March together with the announcement of the COVID-19 case in Indonesia, stock prices began to experience a very significant decline. Following the announcement of the case in Indonesia, the stock price listed on the LQ45 and IDX30 showed a very high level of fluctuation. At its peak, on 24 March 2020, the closing price of the shares plummeted to the worst record, which was IDR 311.88. After undergoing a transition period for economic recovery which had surpassed -5.12 in the second quarter of 2020, the Indonesian government implemented a "new normal" policy in June 2020. The policy received positive response from the capital market. This was indicated by the increasing closing stock price listed on the IDX30 Index Moreover, on 16 December, the closing stock price listed on the IDX reached IDR 525.46 which is the highest closing price following the announcement of the COVID-19 case in Indonesia. Simultaneously, at the end of the year, on 30 December 2020, the closing stock price listed on the IDX30 Index was IDR 502.27. Similar to the IDX30 Index, on the same day, 24 March 2020, the stock price listed on the LQ45 Index was also at its lowest, attaining IDR 605. Despite the closing share price fluctuating, it is a normal phenomenon given the stock price can be influenced by various factors so that it will keep changing [1, 2, 3].

Based on the stock price movements during the COVID pandemic, whether when the government implemented PSBB and the new normal era exhibited investor behavior that appeared to be excessive [4, 5]. According to [6] suggests that the concept of the efficient market hypothesis can modify the price of security due to the new information. To illustrate, when the market moves exceeding the expectations of investors, they will spontaneously sell their shares. In addition, when the stock earns profits, investors will buy the stock regardless of its fundamental value of the stock. Such excessive investor behavior becomes the basis for the overreaction anomaly in the capital market which results in a stock price reversal.

The market overreaction hypothesis was first introduced by DeBondt and Thaler in 1985. This hypothesis states that there is a profit reversal phenomenon that occurs in company shares. Stocks that initially have a negative return and a low price will experience an increase in the next period (loser to winner), while stocks that initially have a positive return value and a relatively high price will decrease in the next period (winner to loser). Some researchers such as [7, 8, 9, 10] suggest that investors will behave excessively if there is an event that is deemed dramatic. Excessive investor reactions may change a company's stock price. The market reaction can be calculated using the abnormal return of a company's stock. If there is an overreaction anomaly, the winner-loser stock returns will experience a reversal. Winner stocks that initially have high prices and high returns will experience a decline in the next period, therefore the returns earned will decrease as well. Loser stocks initially have low prices and low returns and they will often be sought in the next period so that prices and stock returns increase.

2 Hypotheses Development

Market overreaction is one of the anomalies that often occurs in the capital market. The market overreaction hypothesis states that investors or market participants are more likely to overreact to new information [11, 12, 13, 14]. Information is one of the factors that may affect changes in stock prices. All information, in past and current information, should be fully reflected in the stock price. If there is good information, investors will make a decision to buy stock as they judge that good news makes the stock price high, thus resulting in a growing demand for stocks [15, 16]. If the demand for shares increases, it will increase the stock price in the market and also the resulting revenue. The euphoria of the good news will not last long; over time this euphoria will cease, causing a decrease in stock demand which has an impact on falling prices and stock returns. This is called a market correction, leading to a return reversal [17, 18, 19]. Stocks with a high return and in the winner category will decrease to a negative value, therefore becoming loser stocks.

Furthermore, [20] conducted a test of extreme price reversals for the 1986–2015 period. The test results indicate that investors overreact to non-information based price movements and underreact to public announcements containing company-specific information. Price reversals also appear in smaller and low institutional ownership companies. In line with former studies. The results of the study [20] showed that there was an excess anomaly in the shares listed on the Egyptian Exchange in the period 1999–2010. A large stock price movement was followed by a price reversal in the opposite direction. The bigger the initial price move, the greater the reversal will be. [12] Tested the effect of information disclosure on ongoing overreaction on companies listed on the Shenzhen Stock Exchange in the course 2001–2018. The stock markets in China are unique, in that China's disclosure of information remains incomplete and comprehensive. This causes individual investors who have limited financial literacy would make irrational decisions and other individual investors. The test results show that higher information disclosure leads to greater overreaction.

[11] also state that the predictability of short-term returns is due to the overreaction of investors as a result of earnings announcements. Meanwhile [21] conducted a long-term price reversal test on thirty-three developed countries, including North America, Europe, Japan, and Asia from 1993 to 2014. The test results showed that there had been a long-term price reversal between looser and winner stocks over the last three years. The research conducted by Dauglas also corresponds to the research conducted by [21, 4, 22–24. The results of research conducted by [13] also show that information results in overshooting in stock returns. [25] Significant price reversal was observed in 2008–2018 Chinese corporate bonds. Corporate bonds yielded lower returns in prior periods and outweighed higher returns in the prior period. [26] Market and stock volatility affect stock trading. The evidence on trading in response to increased market volatility supports the hypothesis. [15] probed ChiNext's IPO performance before and after the 2013 stock market reform. The majority of firm-level characteristics differed significantly over the two sub-periods. Early returns looked normal before the reforms. [27] Short-term price reversal is as compensation for supplying liquidity. Price reversals have no dependence on stock liquidity in the Chinese market. A price reversal is a pricing error due to the

supply of excessive liquidity from an uninformed party. [16] The concept of momentum involves buying shares of past winning concepts and selling shares, resulting in a marked abnormality. Underreacted and cross-asset lead-lag effect channels can lead to slow information diffusion. Meanwhile, [28] states that investor sentiment in the stock market is caused by competition. Supporting several previous researchers, [30] state that there is moderate investor sentiment, and stock returns are positively correlated with changes in investor sentiment, presenting a clear momentum effect. Stock returns are negatively correlated with changes in investor sentiment if changes in investor sentiment are dramatic, presenting a significant reversal effect. A very pessimistic effect reversal indicates significant asymmetry.

The offer of company shares will grow if investors make a decision to sell their shares as a result of bad news. Bad news may cause stock prices to fall so that the returns generated by stocks also decline. Market corrections will occur along with the passage of bad news which prompts the supply of shares to plummet again, therefore the price and rate of return of shares will increase. This correction causes a reversal of stock returns which have a low level and are categorized as the loser. In the next period, the return rate will increase and turn into the winner stock category. The reversal of loser stock returns can be seen through the value generated by the average cumulative abnormal return (ACAR).

Symptoms of overreaction on the Indonesia Stock Exchange will be proven if during the research period the difference in average cumulative abnormal return between loser and winner stocks is positive. The positive value of the difference between the ACAR of the loser and the winner stocks indicates a reversal of abnormal returns in both stocks and indicates that the performance of the loser stocks has increased and can outperform the performance of the winner stocks. If this overreaction anomaly occurs on the Indonesia Stock Exchange, investors can use a contrarian strategy. Based on several studies that support the overreaction hypothesis mentioned above, such as [11, 29, 30, 21, 20], then the hypothesis of this research is:

Ho1 : The Average Cumulative Abnormal Return (ACAR) value of looser stocks is smaller than the Average Cumulative Abnormal Return (ACAR) value of winner stocks.

Ha1 : The Average Cumulative Abnormal Return (ACAR) value of looser stocks is greater than the Average Cumulative Abnormal Return (ACAR) value of winner stocks.

Ho2 : There is no significant difference between the Average Cumulative Abnormal Return (ACAR) value of winner stocks and the Average Cumulative Abnormal Return (ACAR) value of looser stocks.

Ha2 : There is a significant difference between the Average Cumulative Abnormal Return (ACAR) value of winner stocks and the Average Cumulative Abnormal Return (ACAR) value of looser stocks.

3 Methods, Data, and Analysis

This research was conducted on shares of companies listed on the IDX30 and LQ45 for the 2020 period. To obtain this data, the researchers took data from the Indonesia Stock Exchange accessed through the website www.idx.co.id, https://finance.yahoo.com, and, https://id.investing.com. The researchers used the event study method in carrying out this research, where this study discusses the market reaction to events currently happening. This research is comparative and uses a quantitative approach. The sampling technique used is a purposive sampling technique, namely companies listed on LQ45 and IDX 30 consistently during the observation.

3.1 Data Analysis Technique

The technical stages of data analysis include: (1) portfolio formation, (2) testing, (3) Data Normality Testing, (4) Hypothesis Testing using an Independent Sample t-test, and (5) drawing conclusions. Testing stage was conducted by calculating the average cumulative abnormal return (ACAR) on all stocks used as samples. To calculate the ACAR value, the formula uses:

$$ACAR_t = \sum_{i=1}^{n} \frac{CAR_{it}}{n}$$

Information:
$ACAR_{it}$: Average cumulative abnormal return of stocks on day t.
CAR_{It}: Cumulative abnormal return on day t.
N: Number of replicated stocks.

4 Results

4.1 Descriptive Statistics

The results of the descriptive statistics Table 1 (A) presents the maximum, minimum, means, and standard deviation values of the realized return values of each stock listed on the IDX30 index. Meanwhile, descriptive Table 2 (B) presents the maximum, minimum, mean, and standard deviation values of the abnormal return values of each stock listed on the LQ45 index.

4.2 Hypothesis Testing and Discussion

4.2.1 Observation 1 (January–June 2020)

This period consists of formation and testing. The formation period was carried out from January-March 2020, while the testing period was carried out from April-June 2020.

Table 3 and Table 4 show the movement of the return rate for both winner and loser stocks on the IDX30 index and LQ45 index which is reflected in the average cumulative abnormal return (ACAR) value of the respective share.

Table 1. (a) Realized Return of IDX30 Index in 2020

	Max.	Min.	Mean	Standard Deviation
ADRO	0,1550	-0,1399	0,0005	0,0364
ANTM	0,2484	-0,1510	0,0037	0,0408
ASII	0,1271	-0,1145	-0,0001	0,0297
BBNI	0,1365	-0,1172	-0,0003	0,0330
BBCA	0,1733	-0,0791	0,0003	0,0234
BBRI	0,2049	-0,0781	0,0003	0,0324
BBTN	0,2171	-0,1265	0,0000	0,0394
BMRI	0,1580	-0,1299	-0,0002	0,0323
CPIN	0,1663	-0,1156	0,0006	0,0342
GGRM	0,1998	-0,1097	-0,0006	0,0298
HMSP	0,1090	-0,0935	-0,0009	0,0289
ICBP	0,1446	-0,0698	-0,0003	0,0226
INKP	0,1742	-0,1208	0,0020	0,0416
INDF	0,1832	-0,0879	-0,0002	0,0272
INTP	0,1995	-0,1888	-0,0004	0,0376
KLBF	0,1483	-0,0769	0,0000	0,0275
MNCN	0,1412	-0,1308	-0,0008	0,0346
PGAS	0,1536	-0,1301	-0,0003	0,0386
PTBA	0,2121	-0,1699	0,0008	0,0357
SMGR	0,2000	-0,1215	0,0008	0,0364
TLKM	0,1374	-0,0696	-0,0004	0,0259
UNTR	0,1786	-0,0867	0,0013	0,0325
UNVR	0,1938	-0,0692	-0,0002	0,0242

Source: Data processed by researchers in 2022

Based on Table 4 and Table 5, both stocks in the IDX30 index and the LQ45 index experienced overreaction anomaly symptoms in the first month of observation I. Therefore, it can be concluded that when the COVID-19 event hit, the stocks listed on the IDX30 index were not significantly different from the stocks listed on the LQ45 index.

Table 2. (b) Abnormal Return of LQ45 Index in 2020

	Max.	Min.	Mean	Standard Deviation
ADRO	0,1332	-0,0898	0,0006	0,0283
ANTM	0,2399	-0,1012	0,0038	0,0326
ASII	0,0794	-0,0564	0,0000	0,0203
BBNI	0,1117	-0,0909	-0,0003	0,0216
BBCA	0,0714	-0,0298	0,0004	0,0139
BBRI	0,1030	-0,0628	0,0004	0,0210
BBTN	0,1974	-0,1019	0,0000	0,0305
BMRI	0,0824	-0,0907	-0,0002	0,0210
CPIN	0,1186	-0,0657	0,0007	0,0253
GGRM	0,1780	-0,0681	-0,0005	0,0216
HMSP	0,4635	-0,0696	0,0010	0,0359
ICBP	0,0642	-0,0855	-0,0003	0,0173
INKP	0,1344	-0,0737	0,0021	0,0323
INDF	0,0904	-0,0839	-0,0001	0,0205
INTP	0,1777	-0,1389	-0,0003	0,0280
KLBF	0,1201	-3,1927	-0,0123	0,2001
MNCN	0,1514	-0,0866	-0,0007	0,0297
PGAS	0,2446	-0,1124	0,0006	0,0324
PTBA	0,1903	-0,1200	0,0009	0,0274
SMGR	0,1782	-0,0773	0,0008	0,0281
TLKM	0,0774	-0,0416	-0,0003	0,0175
UNTR	0,1568	-0,0555	0,0013	0,0249
UNVR	0,1002	-0,0439	-0,0001	0,0183

Source: Data processed by researchers in 2022

Table 3. ACAR of Winner and Loser Stocks IDX30 Index Observation I

Month	**Winner Stocks**	**Loser Stocks**	**ΔACAR of Loser-Winner *Stocks***
Month 1	-0,0078	0,0129	0,0207
Month 2	-0,0300	-0,0432	-0,0131
Month 3	0,1121	-0,1990	-0,3111

Source: Data processed by researchers in 2022.

Table 4. ACAR of Winner and Loser Stocks LQ45 Index Observation I

Month	Winner Stocks	Loser Stocks	ΔACAR of Loser-Winner *Stocks*
Month 1	0,0279	0,0406	0,0128
Month 2	-0,0039	-0,0121	-0,0082
Month 3	0,0350	-0,0410	-0,0760

Source: Data processed by researchers in 2022

Table 5. ACAR of Winner and Loser Stocks IDX30 Index Observation II

Month	Winner Stocks	Loser Stocks	ΔACAR of Loser-Winner *Stocks*
Month 1	0,0665	-0,0393	-0,1058
Month 2	0,0521	0,0067	-0,0455
Month 3	0,0348	-0,0010	-0,0358

source: Data processed by researchers in 2022

Table 6. ACAR of Winner and Loser Stocks LQ45 Index Observation II

Month	Winner Stocks	Loser Stocks	ΔACAR of Loser-Winner *Stocks*
Month 1	0,10822	-0,03000	-0,13822
Month 2	0,03515	0,00421	-0,03094
Month 3	0,04295	0,00401	-0,03894

source: Data processed by researchers in 2022

4.2.2 Observation II (April–September 2020)

This period consists of formation and testing. The formation was carried out from April-June 2020, whereas the testing was carried out from July-September 2020. Table 6 and Table 7 show the movement of the return on stocks listed on the IDX30 index and LQ45 index, which is reflected in the average cumulative abnormal return value of winner and loser stocks and the difference between the average cumulative abnormal return (ACAR) of looser and winner stocks.

Based on Table 6 and Table 7, it can be determined that the stocks in the IDX30 index and the LQ45 index both did not experience symptoms of overreaction anomaly in the second observation. Additionally, the ACAR values of winner shares in both situations managed to maintain values with a positive stand despite the ACAR values of looser stocks experiencing reversals. Thus, when the COVID-19 occurred, the stocks listed on the IDX30 index were not significantly different from those listed on the LQ45 index.

Table 7. ACAR of Winner and Loser Stocks IDX30 Index Observation III

Month	Winner Stocks	Loser Stocks	ΔACAR of Loser-Winner *Stocks*
Month 1	0,0338	0,0214	-0,0124
Month 2	0,0179	0,0050	-0,0129
Month 3	0,0402	-0,0446	-0,0848

source: Data processed by researchers in 2022

Table 8. ACAR of Winner and Loser Stocks LQ45 Index Observation III

Month	Winner Stocks	Loser Stocks	ΔACAR of Loser-Winner *Stocks*
Month 1	0,0615	-0,0042	-0,0657
Month 2	0,0324	0,0419	0,0095
Month 3	0,0556	-0,0155	-0,0710

source: Data processed by researchers in 2022

4.2.3 Observation III (July–December 2020)

This period consists of formation and testing. The formation was conducted in July-September 2020, while the testing was conducted in October-December 2020. Table 8 and Table 9 show the movement of stock returns as reflected in the average cumulative abnormal return (ACAR) of winner and loser stocks and the difference in average cumulative abnormal looser and winner (ACAR) stock returns during the third observation on the IDX30 index and the LQ45 index.

Based on Table 8 and Table 9, it can be observed differences in results between the stocks in the IDX30 index and the LQ45 index. In the IDX30 index, the ACAR of looser stocks did not exceed the ACAR of winner stocks throughout the month, hence there was no overreaction anomaly. Meanwhile, the ACAR of looser stocks LQ45 index outperformed the ACAR of winner stocks in the second month. Thus, there were symptoms of an overreaction anomaly. Regardless of the different results, when the COVID-19 event occurred, the situation of the stock listed on the IDX30 index was not completely opposite from those listed on the LQ45 index because the difference in ACAR in the second month of the LQ45 index was only 0.0095 or less than 0.1%.

4.2.4 Observation IV (September 2020–March 2021)

This period consists of formation and testing. The formation period was carried out from September-December 2020, while the test period was from January-March 2021. Table 10 and Table 11 indicate the movement of stock returns as reflected in the average cumulative abnormal return of winner and loser stocks and the difference between the average cumulative abnormal return (ACAR)) looser and winner stocks listed on the IDX30 index and LQ45 index.

Table 9. ACAR of Winner and Loser Stocks IDX30 Index Observation IV

Month	Winner Stocks	Loser Stocks	ΔACAR of Loser-Winner *Stocks*
Month 1	0,0354	-0,0391	-0,0745
Month 2	0,0807	-0,0704	-0,1511
Month 3	0,0220	0,0018	-0,0201

Source: Data processed by researchers in 2022

Table 10. ACAR of Winner and Loser Stocks LQ45 Index Observation IV

Month	Winner Stocks	Loser Stocks	ΔACAR of Loser-Winner *Stocks*
Month 1	0,0517	-0,0256	-0,0773
Month 2	0,0854	-0,0385	-0,1239
Month 3	0,0314	-0,0088	-0,0403

Source: Data processed by researchers in 2022

Table 11. ACAR of Winner and Loser Stocks IDX30 Index Observation V

Month	Winner Stocks	Loser Stocks	ΔACAR of Loser-Winner *Stocks*
Month 1	-0,0015	-0,0414	-0,0400
Month 2	0,0253	-0,0592	-0,0845
Month 3	-0,0497	-0,0063	0,0434

Source: Data processed by researchers in 2022

Based on Table 10 and Table 11, both stocks contained in the IDX30 index and LQ45 index did not experience symptoms of overreaction anomaly in the fourth observation. Moreover, the ACAR values of winner stock in both situations managed to maintain values with a positive position despite the ACAR values of looser stocks experiencing reversals. Therefore, when the COVID-19 hit, stocks listed on the IDX30 index were not far disparate from those listed on the LQ45 index.

4.2.5 Observation V (January–June 2021)

This period consists of formation and testing. The formation was carried out from January-March 2021, while the testing was carried out from April-June 2021. Table 12 and Table 13 present the movement of stock returns as reflected in the average cumulative abnormal return (ACAR) of winner and loser stocks and the difference in average cumulative abnormal looser and winner (ACAR) stock returns during the observation V on the IDX30 index and LQ45 index.

Based on Table 12 and Table 13, both stocks in the IDX30 index and the LQ45 index experienced overreaction anomaly symptoms in the third month of the fifth observation.

Table 12. ACAR of Winner and Loser Stocks LQ45 Index Observation V

Month	Winner Stocks	Loser Stocks	ΔACAR of Loser-Winner *Stocks*
Month 1	0,0525	-0,0488	-0,1013
Month 2	0,0273	-0,0498	-0,0770
Month 3	-0,0356	-0,0280	0,0076

Source: Data processed by researchers in 2022

In the fifth observation, the winner stocks listed on the IDX30 and LQ45 experienced a negative reversal several times, while the looser stocks in both situations remained negative despite the third month the ACAR value of the looser stocks surpassed ACAR value of winner stock. The correspondence of these results happened during the COVID-19 that the situation of the stocks listed on the IDX30 index did not differ significantly from those listed on the LQ45 index.

4.2.6 Independent Sample t-test

4.2.6.1. Independent Sample t-test Index IDX30
The results of the independent sample test on the results of the ACAR values of stocks listed on the IDX30 index, based on the value of Levene's Test For Equality of Variances, which had a significant value greater than 0.05, namely 0.618 ($0.618 > 0.05$). Therefore, variance data between winner and loser stocks are homogeneous. If the data is homogeneous or identical, then the output used for decision making is the sig (2-tailed) value at the Equal Variances Assumed output, which is 0.002 ($0.002 < 0.05$). In conclusion, there was a significant difference between the winner stocks and loser stocks.

4.2.6.2. Independent Sample t-test LQ45 Index
The results of the independent sample test on the results of the ACAR values of stocks listed in the LQ45 index, based on the value of Levene's Test For Equality of Variances, which had a significant value greater than 0.05, namely 0.478 ($0.478 > 0.05$). Therefore, variance data between winner and loser stocks are homogeneous. If the data is homogeneous or identical, the output used for decision making is the sig (2-tailed) value at the Equal Variances Assumed output, which is 0.000 ($0.000 < 0.05$). To sum up, there was a significant difference between the winner and loser stocks.

5 Discussion

5.1 Average Cumulative Abnormal Return of Loser Stocks is Greater Than Average Cumulative Abnormal Return of Winner Stocks

The first hypothesis or Ha_1 formulated in this study is the average cumulative abnormal return (ACAR) of looser stocks is greater than the average cumulative abnormal return (ACAR) of winner stocks. The results of the first hypothesis testing show that the stocks

listed on the IDX30 Index overreaction symptoms occurred in the first month of the first observation and the third month of the fifth observation. Meanwhile, the results of testing on LQ45 Index, overreaction anomaly symptoms were discovered in the first month of the first observation, the second month of the third observation, and the third month of the fifth observation. In this interval, the ACAR value experienced a reversal, in which the ACAR value of looser stocks had a positive value, while the ACAR value of winner stocks had a negative value. Therefore, the first hypothesis or Ha_1 that the ACAR value of looser stocks has a positive value or is greater than the ACAR value of winner stocks is accepted on a limited basis, while Ho_1 that the ACAR value of looser stocks has a negative value or is smaller than the ACAR value of winner stocks is rejected. The results of this study are in line with previous studies, including [11, 29, 12, 30 22].

5.2 There is a Significant Difference Between the Average Cumulative Abnormal Return of Winner Stocks and the Average Cumulative Abnormal Return of Loser Stocks

The second hypothesis or Ha_2 formulated in this study is that there is a difference between the average cumulative abnormal return (ACAR) of winner stocks and the average cumulative abnormal return (ACAR) of looser stocks. The test results on the second hypothesis show that overall there were significant differences between the ACAR of winner stocks and ACAR of loser stocks in IDX30 and LQ45. Therefore, the second hypothesis, or Ha_2 that there is a significant difference between the ACAR value of winner stocks and the ACAR value of looser stocks is accepted, while Ho_2 that there is no significant difference between the ACAR value of winner stocks and the ACAR value of looser stocks is rejected. The research results are corroborated by [4, 5];

Altogether, both the stocks listed on the IDX30 and LQ45 had a significantly different average cumulative abnormal return value between winner stocks and loser stocks. Based on the value of Levene's Test For Equality of Variances, it obtained a significant value greater than 0.05, therefore variance between winner and loser stocks is homogeneous. If the data are homogeneous or identical, then the output used for decision making is the sig (2-tailed) value at the Equal Variance Assumed output that has a value of less than 0.05. In the end, there was a significant difference between the winner stocks and the loser stocks.

6 Conclusion, Limitation, and Suggestion

6.1 Conclusion

The purpose of this research was to find out whether the overreaction anomaly of winner-loser stocks listed on the IDX30 Index occurred during the COVID-19 pandemic in 2020. Based on the results of the analysis and discussion, the conclusions of this study are: For stocks listed on the IDX30 index, the overreaction anomaly occurred twice during the observation, while in the stock listed on LQ45, the overreaction anomaly occurred 3 times during the observation. This is indicated by the value of the average cumulative abnormal return (ACAR) of winner stocks that experienced several negative reversals,

while the average cumulative abnormal return (ACAR) of loser stocks experienced several positive reversals, however overall the ACAR value of loser stocks was only able to outperform the ACAR value of winner stocks twice in the IDX30 index and 3 times in the LQ45 index. The overreaction anomaly occurs when the ACAR value of loser stocks is greater than the ACAR value of winner stocks. The overreaction anomaly that occurs on the Indonesia Stock Exchange, especially those listed on the IDX 30 and LQ45 Index, does not occur continuously and only in a short time. There was a significant difference between the average cumulative abnormal return of winner stocks and the average cumulative abnormal return of loser shares, indicated by the value of sig. (2-tailed) on the Equal Variances Assumed output of less than 0.05.

6.2 Suggestion and Limitation

Based on the results of research conducted, researchers propose several suggestions: 1). These results prove that the overreaction anomaly occurs on the Indonesia Stock Exchange, especially in companies listed on the IDX30 and LQ45 so that investors can implement a contrarian strategy. However, the IDX30 index and the LQ45 index are those with blue chip stocks so that the overreaction anomaly does not occur in a long time because these stocks are more likely to adjust expeditiously to the situation. Therefore, investors should always actively seek information and be careful of the information. Moreover, in assessing information, it is recommended for investors to assess rationally and wisely in making decisions; 2). For further researchers who want to study overreaction, it is expected to expand the research sector other than companies listed on the IDX30 and LQ45, and to determine the expected return, further researchers are anticipated to be able to use the mean adjusted model or market model calculation method. This study has limited time during the research, therefore it is not possible to determine whether or not an overreaction anomaly occurs in the long term.

Authors' Contributions. Fitri Susilowati: Conceptualization, writing, Analysis, Supervivion.
Hari Purnama: Validation, Analysis, review.
Arif Sudaryana: Review, Methodology.
Restu Tita Ernasari: Methodology, Analysis, Data Collection.

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