



Comparative of Stock Prices and Returns Before and After the Stock Split in Companies Listed on the Indonesia Stock Exchange for the Period 2010 to 2015

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Abstract: *Corporate actions such as stock splits may have a mixed effect on stock price fluctuations and investors' projected returns. As such, this research aims to ascertain the difference in stock prices and returns in firms listed on the Indonesian Stock Exchange before preceding and after the stock split. Purposive sampling was used to choose the sample for this study. The study sample was chosen based on firms that split their stocks between 2010 and 2015, and we received data on up to 35 companies. The descriptive statistics and hypothesis testing were studied in this research. The paired sample t-test findings indicate that there was no significant difference in stock returns between 2010 and 2015 for companies listed on Indonesian Stock Exchange. In other words, the lack of this difference is more likely attributable to the market anticipating a higher average return before to the news of the stock split than the average stock return after the announcement of the stock split.*

Keywords: *Stock Split, IDX, Market Price, Stock Return, Capital Gain*

I. Introduction

Since 2010, Indonesia's economy has revived, characterized by rapid economic development.

Indonesia has acquired the international community's trust as a country capable of constructive progress. This is demonstrated by Indonesia's rise in the World Economic Forum's 2010-2011 Global Competitiveness Index. Economic growth climbed by 1.55 percent in 2010 and 0.40 percent in 2011. However, in 2012, even though economic growth slowed until 2015, aggregate economic growth was still regarded as above average compared to 2009. Due to this high economic development rate, investors have flocked to the

Indonesian capital market. As an economic and financial catalyst, it shows that the community's capital market growth is becoming more and more important. The higher the company's leverage, the company tends to generate less cash, this is likely to affect the occurrence of earning management. Companies with high debt or leverage ratios tend to hold their profits and prioritize the fulfillment of debt obligations first. According to Brigham and Ehrhardt (2013), the greater the leverage of the company, it tends to pay lower dividends in order to reduce dependence on external funding. So that the greater the proportion of debt used for the capital structure of a company, the greater the number of liabilities that are likely to affect shareholder wealth because it affects the size of the dividends to be distributed. (Yanizzar, et al. 2020)

Throughout 2016, the Composite Stock Price Index gained a bullish 15.32 percent, the greatest gain in the index's history. This condition may also be a result of corporate operations such as stock splits, which affect the more liquid shares on the stock exchange and the growing number of public investors listed on the Indonesian capital market. Suppose a firm's investor base grows and its shares become more liquid. In that case, it becomes simpler for the company to recruit investors and participate in the company's operational finance. Typically, the stock price increases immediately following the announcement of a stock split

due to positive investor impressions of the firm, such as strong fundamentals and the potential to produce large profits in the future. However, as seen by the graph of the company's stock price changes prior to and following the stock split:

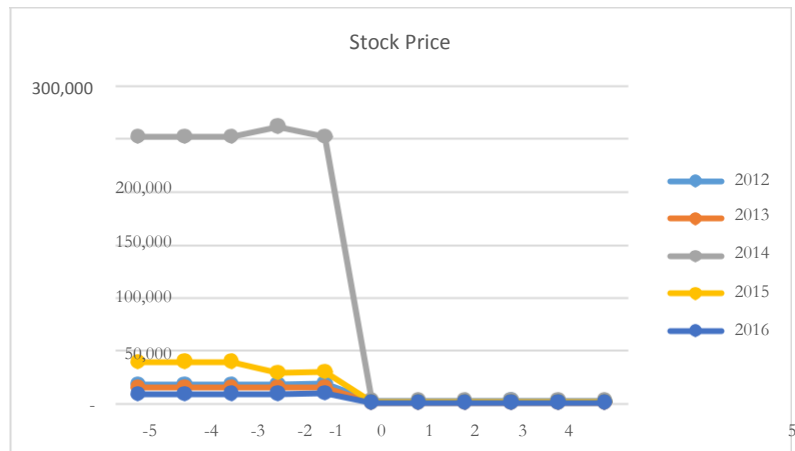


Figure 1. Stock price movements prior to and following the stock split are seen in Source: www.idx.co.id

Not only do issuers gain from business actions, but investors often anticipate that corporate actions will influence the prospective return on their portfolios. Unfortunately, share price movements following the company split tend to plateau, despite issuers' hopes that the stock price will improve due to the stock split (see Figure 1). The following graph depicts the evolution of stock returns following the stock repurchase announcement.



Figure 2. The stock market's return movement was highly erratic Source: www.idx.co.id

The movement of stock returns is highly erratic in Figure 2, implying that business activities such as stock splits are inversely proportionate to investor sentiments. This means that more factors need to be looked at to figure out why the different facts and assumptions behind the stock split business activity make stock prices rise

II. Review of Literature

2.1. Splitting the Stock

A stock split or stock split is the process of dividing a share into n shares at a price per new share equal to $1/n$ of the introductory price (Hartono, 2010). Stock splits may be thought of as fractionalizing the nominal value of shares, with the number of shares increasing in proportion to the split factor. If the market price of a share were IDR 5,000 before the stock split, the new market price of a share would be IDR 1,000.

According to Lestari and Sudaryono (2008), a stock split is used by publicly traded corporations to increase the number of outstanding shares. These acts affect investors' capacity to purchase shares. Stock splits are often implemented when a stock's price has become too high due to investors' diminished capacity or interest in purchasing it. In other words, a stock split has no economic worth and does not add value to the organization.

There are two types of stock splits: up and down splits (Raspati, 2013). To begin with, a stock split reduces the par value of each share, increasing the number of shares outstanding. Second, a stock split-down happens when the value of a share goes up while the number of shares that are out there goes down.

2.2. The Mechanism for Stock Splits

Stock splits can reach investors who were previously unable to buy the stock price. Stock splits are used to level the playing field for investors, allowing them to amass shares and improve stock trading frequency. When a firm splits its stock, outstanding shares can be withdrawn and replaced with new shares having a nominal value adjusted for the split factor.

Various theories, including signaling theory and trading range theory, explain why a corporation decided to split its shares and the resulting impact.

2.3. The Cost of the Stock

According to Hartono (2008), stock prices are decided by capital market participants at a specific period. Stock prices reflect a company's worth to investors. The more profitably a firm is managed, the greater the company's valuation is from the investors' perspective. Even if a company has performed well, its price may fall because of market conditions. Stock prices are determined by the interplay of sellers and purchasers of shares, both driven by their expectations of future earnings from the firm. As a result, investors require knowledge of the development of the share price to make informed judgments about whether to sell or acquire shares.

2.4. Returns on Investment

The term "return" refers to the sum of an investment over a certain period. Dividends and capital gains are included in the return (loss). A capital gain is the difference between the current price of an investment and the price from the preceding period. If the current investment price is more than the previous period's investment price, there has been a capital gain; conversely, if the current investment price is less than the previous period's investment price, there has been a capital loss (Hartono, 2008).

A capital gain is employed as the stock return in this study (a loss). A capital gain (loss) is the profit (loss) that shareholders experience because of the current share price being comparatively greater (lower) than the prior share price

2.5. The Relationship Between the Stock Split and the Stock Price and Return on The Stock

The level of the stock price is one of the elements that determine the demand and supply of shares. If the stock's market price drops too much, the number of inquiries may drop. On the other hand, if the market perceives the stock price to be excessively low, the number of requests may grow. The high stock price affects investors' purchasing power. The rule of supply and demand is applicable in this case, and as a result, a high stock price might fall until a new equilibrium position is established. When the stock price is high, it indicates that the firm is performing well. When stock prices fall, a lot of people buy and sell, which causes prices to change and gives investors a chance to make money.

The stock split's ramifications have sparked much discussion among financial market watchers. Although it does not generate cash flow for the firm or increase shareholder ownership in the company, it has a greater influence on the number of outstanding and accumulated by shareholders. For investors, management's announcement of the stock split is viewed as a favorable indication of the company's future potential. The stock split shows that the company is healthy and that it can make the best possible profits for its investors.

According to Signaling Theory, stock splits notify investors about the likelihood of greater future profits. The increasing return indicates both short- and long-term profitability. The better the stock return, the more trust investors will have in investing a specified sum of money in the capital market.

2.6. Research Hypothesis

Ha: There is a big difference in the stock returns of businesses on the Indonesia Stock Exchange before and after they split their stock.

III. Research Methods

This study's subject is all firms listed on the Indonesian Stock Exchange (IDX) that have undergone a stock split between 2010 and 2015.

3.1 Research and Population Samples

For 2010–2015, this study included 54 businesses that announced stock splits and were listed on the Indonesian Stock Exchange. Purposive sampling was used to choose the sample for this study. The sample for this study comprised firms that had stock splits between 2010 and 2015.

3.2 Techniques for Data Collection

Secondary data on the date of the stock split announcement and data on the stock prices of firms listed on and executing stock splits on the Indonesian Stock Exchange from 2010 to 2015 were used in this case.

IV. Result and Discussion

4.1. Results

This section presents data analysis and the analysis of hypothesis testing outcomes for a sample of firms that had stock splits between 2010 and 2015 and were listed on the Indonesian Stock Exchange. Using the stock price at time t to compare it to the stock price at time $t-1$, this study looks at how stock prices changed before and after they split.

According to the study data gathered, the stock split announcements made by each firm from 2010 to 2015 may be summarized as follows:

Table 1. Stock Split Announcement

No	Code	Name of the Company	Date of <i>Stock split</i>
1	KKGI	Resource Alam Indonesia Tbk	18 Mar 2010
2	CTRA	Ciputra Development Tbk	15 Jun 2010
3	TURI	Tunas Redean Tbk	17 Jun 2010
4	DILD	Intiland Developoment Tbk	26 Jul 2010
5	CPIN	Charoen Pokphan Indonesia Tbk	08 Des 2010
6	BBRI	Bank Rakyat Indonesia (Persero) Tbk	11 Jan 2011
7	LSIP	London Sumatera Plantation Tbk	25 Feb 2011
8	BTPN	Bank Tabungan Pensiunan Nasional Tbk	28 Mar 2011
9	INTA	Intraco Penta Tbk	06 Jun 2011
10	PBRX	Pan Brothers Tbk	15 Jun 2011
11	MAIN	Malido Feedmill Tbk	15 Jun 2011
12	AUTO	Astra Otopart Tbk	24 Jun 2011
14	PTRO	Petrosea Tbk	06 Mar 2012
15	PWON	Pakuwon Jati Tbk	30 Mar 2012
16	HERO	Hero Supermarket Tbk	05 Apr 2012
17	IMAS	Indomobil Sukses Internasional Tbk	07 Jun 2012
18	MDRN	Modern Internasional Tbk	03 Jul 2012
19	KREN	Kresna Graham Sekurindo Tbk	07 Agu 2012
20	TOTO	Surya Toto Indonesia Tbk	09 Agu 2012
21	KLBF	Kalbe Farma Tbk	08 Okt 2012
22	ACES	Ace Hardware Indonesia Tbk	01 Nov 2012
23	BRNA	Berlina Tbk	06 Nov 2012
24	ARNA	Arwana Citra Mulia Tbk	08 Jul 2013
25	TLKM	Telekomunikasi Indonesia Tbk	28 Agu 2013
26	JKON	Jaya Konstruksi Tbk	26 Sep 2013
27	MDLN	Modernland Realty Tbk	13 Nop 2013
28	NIPS	Nipress Tbk	25 Nop 2013
29	ROTI	Nippon Indosari Corporindo Tbk	29 Nop 2013
30	TOTO	Surya Toto Indonesia Tbk	25 Jul 2014
31	CMPP	Centris Multipersada Pratama Tbk	03 Sep 2014
32	LTLS	Lautan Luas Tbk	09 Jan 2015
33	LEAD	Logindo Samudramakmur Tbk	19 Mei 2015
34	MIKA	Mitra Keluarga Karyasehat Tbk	16 Okt 2015
35	DSNG	Dharma Satya Nusantara Tbk	19 Okt 2015

Source:<http://www.idx.co.id>

The table above summarizes the firms listed on the Indonesian Stock Exchange that had stock splits between 2010 and 2015. As seen in this table, five corporations divided their shares in 2010. The next year, it continued to grow, to the point that eight firms split their shares in 2011. Then it surged again in 2012 when ten corporations divided their stock. However, six firms divided their shares in 2013. The next year, it declined further as only two corporations divided their shares. In addition, four companies did stock splits on the Indonesia Stock Exchange in 2015. This brings the total number of companies that did stock splits on the Indonesia Stock Exchange to 35.

Table 2. Average Stock Returns Between 2010 and 2015, Prior to and Following the Announcement of Stock Splits

No	Code	Name of the Company	Mean of Return		Transformation (+)/(-)
			5 Days Before	5 Days After	
1	KKGI	Resource Alam Indonesia Tbk	0.0091	0.0241	(+)
2	CTRA	Ciputra Development Tbk	0.0295	-0.0102	(-)
3	TURI	Tunas Redean Tbk	0.0047	-0.0173	(-)
4	DILD	Intiland Development Tbk	0.0057	0.0110	(+)
5	CPIN	Charoen Pokphan Indonesia Tbk	0.0001	-0.0019	(-)
6	BBRI	Bank Rakyat Indonesia (Persero) Tbk	-0.0207	0.0084	(+)
7	LSIP	London Sumatera Plantation Tbk	-0.0007	0.0180	(+)
8	BTPN	Bank Tabungan Pensiunan Nasional Tbk	0.0121	0.0001	(-)
9	INTA	Intraco Penta Tbk	0.0026	-0.0160	(-)
10	PBRX	Pan Brothers Tbk	0.0081	-0.0037	(-)
11	MAIN	Malido Feedmill Tbk	-0.0037	-0.0057	(-)
12	AUTO	Astra Otopart Tbk	0.0107	0.0567	(+)
13	JTPE	Jasuindo Tiga Perkasa Tbk	-0.0093	-0.0132	(-)
14	PTRO	Petrosea Tbk	0.0146	-0.0179	(-)
15	PWON	Pakuwon Jati Tbk	0.0051	0.0001	(-)

No	Code	Name of the Company	Mean of Return		Transformation (+)/(-)
			5 Days Before	5 Days After	
16	HERO	Hero Supermarket Tbk	0.1033	0.0666	(-)
17	IMAS	Indomobil Sukses Internasional Tbk	-0.0105	-0.0086	(+)
18	MDRN	Modern Internasional Tbk	-0.0029	0.0181	(+)
19	KREN	Kresna Graham Sekurindo Tbk	0.0023	0.0003	(-)
20	TOTO	Surya Toto Indonesia Tbk	0.0188	-0.0082	(-)
21	KLBF	Kalbe Farma Tbk	0.0044	0.0063	(+)
22	ACES	Ace Hardware Indonesia Tbk	0.0089	-0.0023	(-)
23	BRNA	Berlina Tbk	0.0024	-0.0027	(-)
24	ARNA	Arwana Citra Mulia Tbk	0.0065	-0.0225	(-)
25	TLKM	Telekomunikasi Indonesia Tbk	-0.0052	-0.0043	(+)
26	JKON	Jaya Konstruksi Tbk	0.0091	0.0182	(+)
27	MDLN	Modernland Realty Tbk	-0.0025	0.0054	(+)
28	NIPS	Nipress Tbk	-0.0002	-0.0111	(-)
29	ROTI	Nippon Indosari Corporindo Tbk	-0.0063	0.0198	(+)
30	TOTO	Surya Toto Indonesia Tbk	0.0311	-0.0122	(-)
31	CMPP	Centris Multipersada Pratama Tbk	-0.0212	-0.0058	(+)
32	LTLS	Lautan Luas Tbk	0.0039	-0.0212	(-)
33	LEAD	Logindo Samudramakmur Tbk	0.0184	-0.0126	(-)
34	MIKA	Mitra Keluarga Karyasehat Tbk	-0.0050	-0.0113	(-)
35	DSNG	Dharma Satya Nusantara Tbk	0.0339	-0.0074	(-)

Source: www.financeyahoo.com,

According to Table 2, thirteen firms had an average stock return rise following the stock split announcement in 2010–2015. Most of the companies saw their average stock return fall after the stock split was announced. As many as 22 of these companies saw their average return fall.

4.2. Normality Test

Normality test were done with the SPSS version 22 computer program. The results are shown below:

Table 3. Results of the Normality Test

		<i>Return</i> Sebelum	<i>Return</i> Sesudah
N		35	35
Normal Parameters ^{a,b}	Mean	.007353	.001059
	Std. Deviation	.0207341	.0194049
Most Extreme Differences	Absolute	.209	.201
	Positive	.209	.201
	Negative	-.141	-.112
Kolmogorov-Smirnov Z		1.238	1.190
Asymp. Sig. (2-tailed)		.093	.118

As shown from table 3 of the normalcy test, all stock return values on the day of the study had an Asymp value. Sig. (2-tailed) > 0.05, implying that all stock returns are normally distributed. The paired sample t-test is the next statistical test used because the data is evenly spread out.

This test is used to determine the difference in stock returns before and after the stock split announcement. Based on a 0.05 threshold of significance or a 95% confidence interval.

The following conclusions were drawn from the calculation results:

Table 4. Paired Samples Correlations

Pair 1		N	Correlation	Sig.
1	<i>Return</i> Sebelum & <i>Return</i> Sesudah	35	.421	.012

As seen in Table 4, there is a correlation between the two variables, specifically 0.421, with a probability value less than 0.05. (Sig 0.012). As a result, there is a correlation between the average stock return before the entire stock split in 2010 and the average stock return following the announcement in 2015.

Table 5. Paired Samples Test

Pair		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error	95% Confidence Interval				
					Mean of the Difference	Lower			
1	<i>Return</i> Sebelum – <i>Return</i> Sesudah	.0062943	.0216238	.0036551	-.0011338	.0137223	1.722	34	.094

As shown in Table 5, the paired sample t-test findings indicate a t-count value of 1.722 and a t-table value of 2.030 (at a confidence level of 95 percent), or (1.722 > 2.030), indicating that this research hypothesis is rejected. This demonstrates that between 2010 and 2015, there was no discernible difference in stock returns for businesses listed on the Indonesian Stock Exchange before and following the announcement of the stock split. In addition, the probability value (2-tailed) is 0.094 > 0.05, which means that the stock split announcement did not have a major impact on the stock prices.

4.3. Discussion

Corporate actions such as stock splits increase the number of outstanding shares, which directly impacts share prices and investor profits. A stock split announcement is a favorable indicator for a profitable firm that has bright prospects. The data indicated no change in stock returns between 2010 and 2015, before and after the announcement of the stock split. This indicates that the market does not respond to the stock split announcement and does not produce a difference in stock returns. Only 13 out of the 35 firms examined saw a rise in returns following the stock split announcement.

Profitability prior to the stock split reveals the company's underlying status. The companies that saw the biggest changes in stock prices after the stock split are shown in the table below. The companies that saw the least changes in stock prices after the stock split are shown in the table below.

Table 6. The profitability conditions resulting in the greatest return change

No	Kode	EPS		ROA		ROE	
		-2	-1	-2	-1	-2	-1
1	AUTO	996	1480	20.38%	24.96%	17.44%	21.93%
2	BBRI	596.73	478.36	3.14%	3.68%	26.81%	31.28%
3	ROTI	114.52	147.33	20.41%	16.58%	21.21%	22.37%
4	MDRN	66	89	5.64%	6.59%	11.39%	13.38%
5	LSIP	105	151	20.80%	24.83%	18.55%	22.69%

Table 7. The profitability conditions that result in the smallest changes in return

No	Kode	EPS		ROA		ROE	
		-2	-1	-2	-1	-2	-1
1	TOTO	476	239	22.08%	18.50%	26.27%	22.84%
2	DSNG	215,696	649794	5.17%	12.16%	12.85%	28.33%
3	CTRA	27	20	6.25%	3.39%	5.05%	2.93%
4	HERO	67	83	9.37%	19.73%	19.13%	19.23%
5	PTRO	377.1	469.8	23.18%	17.56%	35.01%	33.06%

According to Table 7, companies that experience the greatest increase in stock returns following the announcement of the stock split are those that have a high level of profitability as measured by the ratios of EPS, ROA, and ROE for the two years preceding the announcement of the stock split, indicating that the company has strong fundamentals.

Meanwhile, stock returns following the stock split announcement have a lower level of profitability, implying that the company is operating under fundamentally adverse conditions.

The stock split increases the number of outstanding shares but does not affect the company's ownership percentage. Other circumstances or events that contribute to stock split announcements are less appealing to investors, as most corporations that do stock splits do not follow up with dividend payments. Additionally, even though these corporations divided their stock, the stock price appeared to be cheaper but was still fairly costly compared to similar companies. Therefore, investors gravitate toward similar firms with cheaper pricing and stronger fundamentals. On the other hand, the study's findings contradict the assumption of the signaling theory, which holds that stock splits send a good signal and indicate improved prospects, which might encourage investors to accumulate these shares. A negative market reaction suggests that the stock split event has insufficient information to anticipate its effects, affecting investors' expected returns.

The outcomes of this investigation support Sutrisno and Susilowati's conclusions that divided activity had no discernible influence on aberrant returns. On the other hand, the study's findings are consistent with conventional financial theory, which holds that a company's activities are just an attempt to polish the stock to boost its attractiveness to investors, even if they do not result in increased profits. The number of shares in the stockholders' hands may rise, but the total face value remains constant. The absence of a substantial variation in abnormal returns implies that stock returns remain unchanged.

Additionally, it is established that split activity has little effect on stock returns, either individually or collectively. The findings of this study corroborate those of Widyahari et al. (2014), who discovered that while there was no difference in stock returns between before and after stock splits in companies listed on the Indonesian Stock Exchange (IDX) between 2010 and 2013, there were differences in stock trading volume before and after the stock split.

As a result, a stock split announcement does not influence stock return fluctuations. This might be read as investors reacting not just to the news of the stock split but also to the actual situation of the firm that conducted the stock split.

V. Conclusion

The purpose of this study is to analyze stock returns in firms listed on the Indonesian Stock Exchange between 2010 and 2015 by examining the difference between the average stock returns acquired before and after the stock split announcement. The following conclusions can be drawn from the data analysis results: (1) There is no discernible difference in stock returns between 2010 and 2015 for companies listed on the Indonesian Stock Exchange. (2) The absence of this difference is due to the market's failing to react to the news of the stock split since, on average, stock returns peaked prior to the announcement. Additionally, corporations with stock splits frequently have weak fundamentals and lack a dividend distribution plan. (3)

When compared to similar companies that do not split their shares, the share price of corporations that split their stock remains extremely expensive.

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