



Do Value Stock Outperform Growth Stock During Covid-19 Pandemic: Evidence From The Indonesian Stock Exchange

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ABSTRAK

Penelitian ini bertujuan untuk mempelajari perbandingan tingkat pengembalian antara saham value dan growth yang terdaftar di Bursa Efek Indonesia pada masa pandemi COVID-19. Portofolio dibentuk dan dipisahkan antara perusahaan dengan kapitalisasi pasar yang lebih besar dan kecil. Teknik analisis data terdiri dari statistik deskriptif dan uji hipotesis dengan uji t dan uji Mann-Whitney untuk membandingkan kinerja portofolio. Hasil pengujian menunjukkan tidak ada perbedaan yang signifikan antara kinerja portofolio saham value dan growth. Portofolio saham value memiliki kinerja yang lebih tinggi dibandingkan portofolio saham growth jika diukur dengan rasio Treynor dan Jensen, sedangkan tingkat pengembalian dan rasio Sharpe justru menunjukkan nilai yang sebaliknya. Selain itu, hasil penelitian ini menemukan bahwa hanya portofolio saham growth pada perusahaan besar yang memiliki return positif, sehingga menunjukkan bahwa sebagian besar saham di pasar modal Indonesia memberikan respon yang negatif terhadap informasi yang ada selama pandemi COVID-19.

Kata kunci: value, growth, kinerja portofolio, strategi investasi, COVID-19

ABSTRACT

This research aims to study the return comparison between value and growth stocks listed in the Indonesia Stock Exchange during the COVID-19 pandemic. The portfolios were formed and separated between bigger and smaller capitalization. Data analysis techniques consist of descriptive statistics and hypothesis testing with t-test and Mann-Whitney test to compare the performance. The test's result reveals no significant difference in portfolio performance between value and growth stocks. The value portfolios have superior performance over growth portfolios, measured by Treynor and Jensen ratios, while the actual return and Sharpe ratios show the contrary. Moreover, the result of this study discovers that only growth portfolios for large companies have positive returns, which indicates that most of the stocks in Indonesia's capital market respond negatively to the information that existed during the COVID-19 pandemic.

Keywords: value, growth, portfolio performance, investment strategy, COVID-19



INTRODUCTION

Investment is one of the fund management activities carried out to obtain prosperity in the future. This activity can be carried out through various instruments in the money market, commodity market, capital market and futures market with different returns and risks. The higher the expected rate of return, the higher the risk that investors face. The difference in the expected rate of return by each investor is adjusted to the type of each investor. Some investors dare to face high risk because they also expect high returns. However, some prioritize security in investing, so they prefer the type of investment with lower risk and return. One of the market institutions that can be targeted for investing is the capital market. Many instruments are offered, and one of the most popular ones comes from stocks/shares, because it gives higher return.

Because of the higher return rate, investors should also be aware of the higher risk they will face when they invest their money in stocks. Also, there is another unexpected risk when it comes to investing; for example, at the end of 2019, there was an outbreak known as the COVID-19 Pandemic worldwide (Xu, 2020). Naturally, when a shock as devastating as the current COVID-19 hits the financial and economic systems, as reported, the Indonesia Composite Index (IDX Composite) hit its lowest level in March 2020, which stood at 3,937.63, which later calls into question how the investors manage their portfolio investment. Those risks in investing can be minimalized if only investors can utilize a proper investment strategy (Haroon, et al., 2021).

Two strategies can be applied in making long-term investments: value investing and growth investing. Value investing is a strategy to invest in stocks whose market price is below the fair price, better known as value stocks. In contrast, growth investing is a strategy to invest in stocks whose growth rate is above the industry average, better known as term growth stock. The two investment strategies have some characteristics in common because they involve analysis of financial statements to find appropriate stocks. However, the two strategies differ in the rates of return and risk. The difference in the rate of return between value investing and growth investing strategies will greatly affect investment decision-making, especially at certain moments, such as during a pandemic or economic crisis (Herwany, et al., 2021). Therefore, this research tries to determine the right investment strategy under uncertain economic conditions, such as during the COVID-19 pandemic.



LITERATURE REVIEW

Definiton of Investment and The Instruments

According to Hartono (2009: 5), investment can be defined as a delay in current consumption to be included in productive assets for a certain period of time. In addition, according to Tandelilin (2001: 3), investment is a commitment to a number of funds or other resources carried out at this time, with the aim of obtaining a number of benefits in the future. Each individual uses the income earned to meet their daily needs through consumption activities. However, it would be better if some of the funds from income could be allocated to more productive assets to obtain benefits in the future so that they can help improve the welfare of the individual himself. These activities are referred to as investment activities and those who carry out investment activities will be referred to as investors.

Investment activities can be divided into two: direct investment and indirect investment. Hartono (2009: 6) mentions that direct investment is done by buying directly financial assets from a company through intermediaries or other ways. On the other hand, indirect investment is done by buying shares from investment companies that have portfolios of financial assets from other companies. In direct investment activities, each investor will carry out his investment activities by buying financial assets in the money, capital, and derivative markets. In indirect investment activities, a party appears who will collect funds from investors to be invested in an investment portfolio that he has formed; this party is referred to as an investment company. Investors who carry out indirect investment activities will only buy securities from the investment company. The investment company will manage the funds from investors for direct investment activities in the money, capital, and derivative markets.

The instrument chosen in investing must be adjusted to the investment objectives themselves. The higher the goal to be achieved in investing, the higher the risk must be faced. The purpose of investing is realized in the form of investors' expected rate of return. The rate of return has a directly proportional relationship with risk. Capital market instruments such as government and corporate bonds have lower returns and risks than capital market instruments such as stocks and derivative market instruments. Therefore, people who invest in bonds will be safer because the level of risk faced is lower, but they will get a lower rate of return than stocks and products in the derivative market. The rate of return and risk are two things that should be considered by investors before making investment activities.

Making investment decisions based on the rate of return and the risks faced depends on the nature of each investor. According to Samsul (2006: 161), based on their willingness to bear investment risk, investors can be categorized into three types which are investors who dare to take risks, called risk takers or risk seekers; an investor who is afraid or reluctant to take risks, which is called risk averter, or risk aversion; and the last investor who is afraid not and dares not, or is called moderate investor or indifference investor. Each type of investor will determine their investment decisions according to the level of risk they want to face. The higher the risk faced, the investor who has the type of risk taker will decide to invest in the instrument because the expected rate of return is also very high. Meanwhile, investors with a risk averter type and moderate risk will avoid this investment instrument because it is considered too risky.

Investment Strategy

Investment activities can be carried out in several financial markets, including markets with short-term and long-term financial instruments. One type of financial market in question is the capital market. Hadi (2015: 5) defines the capital market as an organized system that brings together sellers and buyers of securities directly or indirectly through a broker. One form of securities in question is shares, proof of participation or ownership of individuals or institutions in a company. The number of issuers listed on the Indonesia Stock Exchange (IDX) always increases yearly. Hence, investors need to carry out several stages in the investment decision process, as mentioned by Tandelilin (2001: 8), which are the determination of investment objectives, determination of investment policy, selection of portfolio strategy, asset selection, measurement and evaluation of portfolio performance. Investors must apply those five stages properly and correctly to make investment decisions that provide a high rate of return and minimize the risks that must be faced.

Strategies for long-term investment that investors can choose are value investing and growth investing strategies. Value investing is a strategy to invest in stocks included in the value stock group, which, according to Wira (2014: 185) value stock is stock from issuers that are considered cheap or undervalued compared to their fair price. This type of stock tends to have a low market price and can provide adequate return security. On the other hand, growth investing is also one of the long-term investment strategies. This investment strategy encourages investors to invest in stocks included in the growth stock group. Wira (2014: 180) also mentions that growth stocks are shares of issuers with substantial revenue and profit



growth. Hadi (2015: 120) added that growth stock is shares of issuers with high revenue growth compared to other issuers in similar industries. Companies included in the growth stock offer high dividends and capital gains, so they are in great demand by investors and generally have a fairly high market value.

The formation of a portfolio is needed in this study in order to know the difference between value stock and growth stock. Samsul (2006: 285) states that financial portfolios can be defined as investments in various financial instruments that can be traded on the stock exchange and money market to spread the sources of return and possible risks. The portfolio formation in this research is done by grouping the shares on the Indonesia Stock Exchange to form a portfolio with the characteristics of value stock and growth stock. Grouping stocks into portfolios will generate returns and risks that investors must consider before making investment decisions. The rate of return obtained from the value and growth stocks can be measured by calculating the capital gain or loss. According to Hartono (2009: 200), capital gain or loss is the difference in the current investment price relative to the past period. Capital gain will be obtained if the stock price increases from the previous period, while capital loss is obtained if the stock price is lower than the previous period. The calculation result of capital gain or loss will determine the rate of return of each portfolio of value stock and growth stock in this research.

A comparison of the rate of return between value stock and growth stock has been done by several previous researchers. One of them is Fama & French (2007) who mention in their research that the average rate of return on growth stocks is lower than value stocks. Research conducted by Chan & Lakonishok (2004) also shows the same results; they even add information that the high rate of return on value stocks also occurs in equity markets outside the United States. The results of this research are again strengthened by Piotroski (2000), who reveals in his research that the average rate of return will increase by 7.5 percent if investors can choose to invest in companies with a high fair value. However, several studies show different results. One of them is Ding et al. (2005), who stated in their research that small-scale companies in Japan, Singapore, and Taiwan produce higher growth stock portfolio returns than value stocks. In addition, research conducted by Gonenc & Karan (2003) on small and large capitalized stocks on the Istanbul Stock Exchange (ISE) shows that growth stocks produce higher returns than value stocks.

A high rate of return does not necessarily indicate that the investment return is good, and a low rate does not necessarily indicate that the investment return is bad. The rate of return must be adjusted to the risks that investors face. Therefore, several measurements are

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needed that involve the rate of return and risk factors known as risk-adjusted returns. According to Hartono (2009: 616), several models for calculating risk-adjusted returns are reward to variability, reward to volatility, reward to market risk, reward to diversification, Jensen's alpha, M2, and information ratio. This research uses several measurements: the reward to variability, known as the Sharpe ratio; the reward to volatility, known as the Treynor ratio; and the last Jensen's alpha, known as the Jensen ratio.

William Sharpe developed the Sharpe ratio, which is often referred to as the reward-to-variability ratio. According to Tandelilin (2001: 324), the Sharpe ratio bases its calculations on the concept of the capital market line as a benchmark by dividing the portfolio risk premium by the standard deviation. Hartono (2009: 616) also adds that this measure calculates portfolio performance by dividing the excess return by the portfolio return variability. This method will later compare a portfolio's return rate with the total difference in the portfolio. The portfolio's rate of return will be offset first by the rate of return on the risk-free instrument. On the other hand, Jack Treynor developed the Treynor ratio, often called the reward-to-volatility ratio. Hartono (2009: 616) mentions that portfolio performance, calculated by this measure, is done by dividing the excess return by the portfolio's volatility, and Tandelilin (2001: 327) adds that this ratio is seen by connecting the level of portfolio return with the magnitude of the risk of the portfolio with the assumption that the portfolio is well diversified so that the risk that is considered relevant is systematic risk measured by beta. If a portfolio is well diversified, the ranking obtained between the Sharpe and Treynor indices will remain the same.

The Impacts of Covid-19 Pandemic

Narayan, Devpura, & Wang (2020) in their research mention that COVID-19 has influenced the relationship between the exchange rate and stock returns in Japan. They also mention that during the pandemic, the role of the exchange rate has become stronger. Hence, investors must apply the right investment strategy in uncertain economic situations, such as during a pandemic. Several studies have examined the impact of COVID-19 on capital market conditions in Indonesia, but only limited ones discuss investment strategies, especially those related to value investing and growth investing. Implementing the right investment strategy is highly desirable to maximize profits and minimize risks, especially during uncertain economic conditions. Ryandono et al. (2021) in their research mention that the global COVID-19 Pandemic is bad news with the indicators as follows: the average expected return,



actual return, and the average abnormal return are all negatives, and there is an increase in selling action of stock as a cut loss strategy. Narayan, Devpura, & Wang (2020) and Nugroho & Robiyanto (2021) studied the comparison of returns between value and growth and between small and large-cap stock portfolios for IDX using monthly returns that are calculated from the adjusted closing price during the pandemic (January 2020-August 2020). Stock prices are adjusted to account for stock splits and dividend payments. During the pandemic, Indonesia faced an economic crisis where many companies and industries needed help importing raw materials and paying foreign debts, which made the investors disinterested in investing their money in the stock market of Indonesia (Nugroho & Robiyanto, 2021). The research conducted by Herwany et al. (2021) also mentions that the stocks on the Indonesia Stock Exchange (IDX) were affected by the COVID-19 Pandemic with a cumulative negative value of the average abnormal return sample; the result also strengthened the relationships between the COVID-19 Pandemic and negative and significant market returns. In reference to the explanation above, the hypothesis is formulated as below:

H1: There is a difference in portfolio performance between growth and value stocks on company listed in the Indonesia Stock Exchange.

H2: Implementing a value investing strategy can produce higher stock returns during covid-19 pandemic.

RESEARCH METHODS

The research methodology used by the writers is comparative analysis because this research compares one variable with another (Sujarweni, 2014; Sugiyono, 2016). The variables used to test the comparisons on each portfolio are portfolio return, capital market return obtained from the Indonesia Composite Index (IDX Composite), risk-free rate of return obtained from Sertifikat Bank Indonesia (SBI), and risk, which are measured using standard deviation and beta. The portfolio return value is obtained from the average monthly return of all shares in each portfolio. In contrast, the stock market return is obtained from the average monthly return of the Indonesia Composite Index (IDX Composite), both from January to August 2020, which is when the Covid-19 pandemic reaches its peak in Indonesia (Narayan, Devpura, & Wang, 2020; Nugroho & Robiyanto, 2021). The data was then processed using the Sharpe, Treynor and Jensen ratios to obtain portfolio performance measurement results. Data analysis techniques include descriptive statistics and hypothesis testing with a t-test and Mann-Whitney test to compare the performance (Khan et al., 2020).



RESULTS & DISCUSSION

This research uses a comparative study to determine the difference between the performance of value stocks and growth stocks portfolios. The population of this research are companies listed on the Indonesia Stock Exchange that conducted initial public offerings before 2020. The portfolio was formed by calculating the market capitalization and price-to-book value (PBV) of each sample in the research. The portfolio formation process begins by separating the entire research object of 483 shares into two groups. Fifty percent of shares with the lowest market capitalization will be grouped in the small capitalization category, while the other fifty percent with the highest market capitalization will be grouped in the big capitalization category. In each group, a portfolio of value stocks and growth stocks will be formed based on their PBV value. Thirty percent of shares with the highest PBV value are grouped into the growth stocks portfolio, while thirty percent of shares with the lowest PBV value are grouped into the value stocks portfolio (Fama and French, 2007 & Gonenc and Karan, 2003). In the end, four types of stock portfolios will be formed, which will later be called Big Growth (BG), Big Value (BV), Small Growth (SG), and Small Value (SV), each consisting of 72 shares.

The variables used to test the comparison of each portfolio that has been formed are portfolio returns, stock market returns, risk-free returns obtained from Sertifikat Bank Indonesia (SBI), and the risk, which are measured using standard deviation and beta. The portfolio return value is obtained from the average monthly return of all shares in each portfolio, while the stock market return is obtained from the average monthly return of the Indonesia Composite Index (IDX Composite), both from January to August, which is when the Covid-19 pandemic reaches its peak. The data was then processed using the Sharpe, Treynor and Jensen ratios to obtain portfolio performance measurement results.

Descriptive Statistic

The descriptive analysis carried out in this research shows statistical results, which include the range, minimum, maximum, mean, standard deviation and variance of each portfolio's return:

Table 1. Return on Market, BG, BV, SG, and SV Portfolio

Return	Range	Minimum	Maximum	Mean	Std. Deviation	Variance
BG	.00792	-.00414	.00378	.0003989	.00291957	.000
BV	.01260	-.00834	.00425	-.0010720	.00417168	.000
SG	.00617	-.00396	.00221	-.0007884	.00206601	.000



SV	.00786	-.00615	.00171	-.0012876	.00267131	.000
M	.01014	-.00791	.00223	-.0009204	.00365682	.000

Source: Processed data (2023)

Based on Table 1, the average returns of the four portfolios, BV, SG, SV, and the market portfolio, have low and even negative values of -0.0010720, -0.0007884, -0.0012876, and -0.0009204, respectively. This data also shows that growth stock portfolios in companies with large and small market capitalization can produce returns higher than the market, with the BG portfolio having the largest value of 0.0003989. When compared, the value stock portfolio had lower returns than the market and the growth stock portfolio during the COVID-19 pandemic. However, when making investment decisions, it is also necessary to consider the risks that must be faced apart from just considering the return that will be obtained. Therefore, to measure the performance of each portfolio in this research, the Sharpe, Treynor and Jensen ratios are used, which integrate risk and return performance into a single value, helping investors assess the performance of portfolios or funds on a risk-adjusted basis.

Normality Test Result

The normality test aims to test whether data is normally distributed or not. Data normality is a basic requirement that must be met when testing with parametric statistics. One method for testing data normality is to use the Shapiro-Wilk method. Data can be normally distributed if the test results' significance value is greater than 0.05. However, if the significance value is less than 0.05, the data is not normally distributed. The following are the results of the normality test on the rate of return data variables, Sharpe, Treynor and Jensen ratios on each portfolio:

Table 2. The Normality Test of The Return, Sharpe, Treynor and Jensen Ratios on BG, BV, SG, and SV Portfolio

		Shapiro-Wilk			Conclusion
	PORTFOLIO	Statistic	df	Sig.	
SHARPE	BG	.859	8	.117	Normally distributed
	BV	.893	8	.252	Normally distributed
TREYNOR	BG	.913	8	.376	Normally distributed
	BV	.935	8	.559	Normally distributed
JENSEN	BG	.909	8	.345	Normally distributed
	BV	.914	8	.385	Normally distributed
RP	BG	.910	8	.356	Normally distributed
	BV	.933	8	.544	Normally distributed
SHARPE	SG	.931	8	.526	Normally distributed



	SV	.943	8	.645	Normally distributed
TREYNOR	SG	.800	8	.028	Not normally distributed
	SV	.660	8	.001	Not normally distributed
JENSEN	SG	.915	8	.393	Normally distributed
	SV	.933	8	.548	Normally distributed
RP	SG	.940	8	.614	Normally distributed
	SV	.906	8	.328	Normally distributed

Source: Processed data (2023)

Based on Table 2, the data on all variables tested for companies with larger market capitalization, BG and BV portfolios is normally distributed. The significance values of each variable tested, which are return, Sharpe, Treynor and Jensen ratios, are greater than 0.05. Furthermore, portfolios for companies with smaller market capitalization are also almost entirely normally distributed. Only the Treynor ratio in the SG and SV portfolios have not normally distributed data because the significance values are below 0.05, which is 0.028 and 0.001, respectively.

Comparative Analysis Result

The normality test results of returns and portfolio performance data using each portfolio's Sharpe, Treynor and Jensen ratios differ. Normally distributed data will be tested using the Independent Sample t-test method. This method requires the existence of equal variances from the two populations tested. The equality of variances will be tested using the F test (Levene test). If the two populations do not have the same variance, shown by the significance value in the F test is less than 0.05, the Independent Sample t-test will use the basis of equal variance not assumed. In contrast, if the significance value exceeds 0.05, the Independent Sample t-test will use the assumed equal variance basis.

Data that is not normally distributed will be tested using a non-parametric statistical method, the Mann-Whitney test. This method is also a test for comparing two variables, such as the Independent Sample t-test, but the normality of the data is not required. The following are the results of testing the rate of return data variables, Sharpe, Treynor and Jensen ratios on growth and value stock in bigger market capitalization:

Table 3. Independent Sample t-test of The Return, Sharpe, Treynor and Jensen Ratios on BG and BV Portfolio

Levene's Test for Equality of Variances	t-test for Equality of Means
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		95% Confidence Interval of								
						Sig. (2-	Mean	Std. Error	the Difference	
		F	Sig.	t	df	tailed)	Difference	Difference	Lower	Upper
SHARPE	Equal	.820	.380	-.679	14	.508	-	1.01540218	-	1.488130866
	variances						.689690216	2116417	2.86751130	097441
	assumed						988526		0074492	
TREYNOR	Equal	4.759	.047	.247	10.620	.810	.002755791	.011162432	-	.0274319574
	variances not						865409	955462	.021920373	58009
	assumed								727191	
JENSEN	Equal	7.847	.014	.495	10.574	.631	.001557826	.003145102	-	.0085143677
	variances not						009952	398338	.005398715	64350
	assumed								744446	
RP	Equal	1.440	.250	-.817	14	.428	-	.001800236	-	.0023901523
	variances						.001470971	551087	.005332094	10110
	assumed						079764		469638	

Source: Processed data (2023)

Based on Table 3, the significance level in the F test on the Sharpe ratio and portfolio return data, which are 0.380 and 0.250, respectively, is greater than 0.05, indicating a similar variance between the BG and BV portfolio populations. Similar variances in the two data populations cause the use of the assumed equal variance basis in the Independent Sample t Test. In contrast, the Treynor and Jensen ratio data show significant results in the F test, which are lower than 0.05, which is only 0.047 and 0.014, respectively, so that the basis of equal variance not assumed is used because there is no equal variance in the two data populations tested.

The significance value of the t-test results for all the variables tested is greater than 0.05, where the values for the Sharpe, Treynor, and Jensen ratios also the portfolio return, respectively, show figures of 0.508, 0.810, 0.631 and 0.428. The t-statistics for each variable tested are also smaller than the t-table value, where the Sharpe ratio t-statistics value is 0.679 lower than the t-table value of 2.14479, the Treynor ratio is 0.247 lower than 2.22814, the Jensen ratio is 0.495 lower than 2.22814, and the portfolio return of 0.817 is also lower than 2.14479. Therefore, it can be concluded that there is no significant difference between growth stock and value stock's portfolio performance in companies with large market capitalization during the COVID-19 pandemic.

After carrying out an Independent Sample t-test between the value stocks and growth stocks portfolios for companies with large market capitalization, the following are the results of testing the rate of return data variables, Sharpe, Treynor and Jensen ratios on growth and value stock in smaller market capitalization:

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Table 4. Independent Sample t-test of The Return, Sharpe, and Jensen Ratios on SG and SV Portfolio

		Levene's Test for		Equality of		t-test for Equality of Means				95% Confidence Interval of	
		Variances								the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference		Lower	Upper
SHARPE	Equal	.035	.853	1.439	14	.172	.642857613	.4468770845	-	1.601313635	
	variances						075332	84106	.315598409	226835	
	assumed								076171		
JENSEN	Equal	3.882	.069	-1.798	14	.094	-	.0034043048	-	.0011791144	
	variances						.006122393	05053	.013423900	16503	
	assumed						210988		838479		
RP	Equal	1.191	.294	.418	14	.682	.000499213	.0011939569	-	.0030599966	
	variances						621337	89880	.002061569	79179	
	assumed								436505		

Source: Processed data (2023)

Table 4 uses equal variance assumed as the basic assumption for the t-test because the significance value in the F test for all variables tested is greater than 0.05, where the Sharpe ratio value is 0.853, Jensen's is 0.069, and portfolio return is 0.294. Likewise, the significance of the t-test results shows a number greater than 0.05, where the Sharpe, Treynor and portfolio return ratios are 0.172, 0.094 and 0.682. The t-statistics value for all variables is also smaller than the t-table, where the t-statistics value of the Sharpe ratio is 1.439, the Jensen ratio is 1.798 and 0.418 for the portfolio return, which is smaller than the t-table of 2.14479.

The Treynor ratio data was not normally distributed, so a difference test using the Mann-Whitney method was used. The following are the results of the Treynor ratio's comparative test for the SG and SV portfolios measured by the Mann-Whitney method:

Table 5. Mann-Whitney Test of The Treynor Ratios on SG and SV Portfolio

Test Statistics ^a	
	TREYNOR
Mann-Whitney U	17.000
Wilcoxon W	53.000
Z	-1.575
Asymp. Sig. (2-tailed)	.115
Exact Sig. [2*(1-tailed Sig.)]	.130 ^b

Source: Processed data (2023)



Based on Table 5, the significance value in the test results is 0.115, greater than 0.05. The significance value in the test results shows no difference in portfolio performance as measured by the Treynor ratio between the SG and SV portfolios. Combined with the previous comparative test results of Sharpe and Jensen ratios also portfolio return, it can be concluded that there is no significant difference between the performance of growth and value stock portfolios in companies with small market capitalization. This result aligns with portfolio performance for companies with large market capitalization. During the COVID-19 pandemic, applying growth and value investing strategies in making investment decisions was similar. Even though the average value of each ratio shows different numbers, the differences are insignificant, as shown in Table 6.

Table 6. Portfolio Performance Based on The Sharpe, Treynor, and Jensen Ratios

		Range	Minimum	Maximum	Mean	Std. Deviation	Variance
BG	SHARPE	5.30201	-12.95591	-7.65390	-10.0394121	1.88155165	3.540
	TREYNOR	.04781	-.10311	-.05530	-.0855645	.01473776	.000
	JENSEN	.01256	-.02415	-.01159	-.0198279	.00412829	.000
BV	SHARPE	5.58959	-13.79945	-8.20986	-10.7291023	2.16981476	4.708
	TREYNOR	.08094	-.13190	-.05096	-.0828087	.02792128	.001
	JENSEN	.02087	-.02842	-.00755	-.0182701	.00787976	.000
SG	SHARPE	2.48550	-9.51689	-7.03140	-8.3216076	.92352631	.853
	TREYNOR	1.37143	-1.48632	-.11489	-.5190774	.50435618	.254
	JENSEN	.01605	-.04304	-.02698	-.0365520	.00492402	.000
SV	SHARPE	2.36910	-10.23298	-7.86388	-8.9644652	.86295549	.745
	TREYNOR	.99492	-1.07038	-.07546	-.2840364	.33315321	.111
	JENSEN	.02426	-.04026	-.01600	-.0304296	.00827456	.000

Source: Processed data (2023)

In Table 6, the average performance of the BG portfolio, as measured by the Sharpe ratio of -10.0394121, shows that the stock portfolio has better performance than the BV portfolio, which is -10.7291023. This result is in line with the performance of growth stock portfolios in small capitalization companies, where the SG portfolio performance as measured by the Sharpe ratio shows an average value of -8.3216076, which is greater than the SV portfolio, which is -8.9644652. However, the portfolio performance measured by Treynor and Jensen ratios shows the opposite results. The value stock portfolio, both for companies with large and small market capitalization, has better portfolio performance than the growth stock portfolio, as is evident from the average Treynor and Jensen ratios of the BG portfolio, which are -0.0855645 and -0.0198279, respectively. It is lower than the average Treynor and Jensen ratios of the BV portfolio: -0.0828087 and -0.0182701, respectively. Likewise, the SG



portfolio is also lower than the SV portfolio, with Treynor and Jensen ratio values of -0.5190774 and -0.0365520, respectively, for the SG portfolio and -0.2840364 and -0.0304296 for the SV portfolio. The Sharpe ratio measures the performance of each portfolio compared to a risk-free asset after adjusting for its risk by standard deviation. In contrast, Treynor and Jensen ratios utilize beta, or market risk, to measure volatility. Tandelilin (2001: 330) also mentions that the Treynor and Jensen ratio assumes that the portfolio is fully diversified so that the only risk in the portfolio is systematic. As is known, during the pandemic, the stock market performance weakened, affecting the market risk and later affecting the difference between the portfolio performance measured by each ratio.

CONCLUSIONS & RECOMMENDATIONS

Based on the discussion outlined previously, during the COVID-19 pandemic, there was no significant difference between the performance of value stocks and growth stocks portfolios in companies on the Indonesian Stock Exchange. The value stock portfolio performs better than the growth stock portfolio when measured using the Treynor and Jensen ratios. However, based on the results of measuring portfolio performance using the Sharpe ratio, the growth stock portfolio performs better. In line with these measurement results, the highest rate of return among all the portfolios formed, including higher than the average market return, is the growth stock portfolio, especially for companies with larger market capitalization. The results of this research show that during the Covid-19 pandemic, even though the average market rate of return showed a low or even negative figure if investors could implement the right portfolio strategy, they could still generate a higher rate of return than the market. During the Covid-19 pandemic, higher returns were generated by portfolios that implemented a growth investing strategy. However, investors need to consider the risks faced in investing. Therefore, in unstable economic conditions such as during a pandemic, applying value investing and growth investing strategies can be used in making investment decisions. Applying a growth investing strategy can produce a higher rate of return, while applying a value investing strategy can produce better portfolio performance, considering the risks faced.

This research uses data on company shares on the Indonesian Stock Exchange in emerging market countries. Future research can consider using the data from other stock exchanges excluded from emerging market countries. Economic developments in countries included in the emerging market group have led to opportunities and expectations from



investors so that investment decision-making is no longer based on the results of applying fundamental and technical analysis. However, it is more driven by high speculation from investors regarding the selected capital market instruments.

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