Window Dressing Analysis on Mutual Funds of Investment Management Companies in Indonesia in 2017–2020

Yuli Agustina[✉] and Jonathan Tamba

State University of Malang, Malang, Indonesia
`yuli.agustina.fe@um.ac.id`

Abstract. This research uses descriptive quantitative methods. The variables in this study are the Net Asset Value (NAV) of equity mutual funds, JCI and bank Indonesia interest rates. The purpose of this study is to analyzea window dressing phenomenon of mutual fund products of investment management companies in Indonesia in 2017–2020. The object of this study focuses on investment management companies that practice window dressing of their mutual fund products. The population used in this study is all conventional equity mutual funds that have a license from the Financial Services Authority (OJK) and have been registered and have complete portfolio data. The sample used was 39 stock mutual fund products from 66 observations. With the Sharpe method, the results of the study obtained that the performance of equity mutual funds in 2017 there were 33 stock mutual funds performing positively and 12 stock mutual funds performing negatively. In 2018 there were 29 stock mutual funds performing positively and 16 stock mutual funds performing negatively. In 2019, there were 21 mutual funds performing positively and 24 equity mutual funds performing negatively. In 2020 there were 22 stock mutual funds performing positively and 23 stock mutual funds performing negatively, after comparison, there were five stock mutual fund products that had the potential to do window dressing, namely Prima Equity Mutual Funds, Batavia Optimal Stock Funds, Progressive Equity Lautandhana Mutual Funds, Mandiri Investa UGM Endowment Plus, Syailendra Equity Opportunity Fund. Of the five equity mutual funds, the most consistent stock mutual funds that have always been ranked in the top 10 for three consecutive years are Syailendra Equity Opportunity Fund and Batavia Optimal Stock Fund. The five equity mutual funds respectively during 2017, 2018, 2019 and 2020 had positive performance based on the Sharpe method.

Keywords: Sharpe method · Performance · Stock mutual funds · Window dressing

1 Introduction

The developments of investment in Indonesia show a positive increase, there is a surge in the number of stock investors in 2021 as much as 165 percent compared to 2019, in other words, until the first quarter of 2021, the number of investors on the Indonesian

stock exchange reached four million people with an average daily transaction of 251 thousand investors. This development has also encouraged the availability of qualified human resources in managing investment portfolios properly and correctly. Therefore, understanding this investment is very important in answering these demands, plus, the purpose of investing itself is to improve the welfare of investors. The welfare referred to here is related to monetary welfare, which can be measured by clear and measurable calculations so that the income received in the future can be predicted. However, investment activities are closely related to risk, because basically the higher the potential profit obtained, the higher the risk will follow. So it can be concluded that the basis that is not strong in the management of investment capital, has a very high potential for losses. From this phenomenon, many professional institutions have emerged that can manage investment portfolios, they offer an easier investment solution to investors who in fact do not have sufficient skills and time in managing their investment portfolios, which are called mutual funds.

In general, mutual funds are a forum to collect public funds that will be managed by a legal entity called an investment manager and then the collected funds will be converted into a portfolio of securities such as stocks, bonds, or other investment instruments. Prospective investors should analyze the performance of mutual funds before determining the stock mutual fund product to be selected. Performance measurement is a mandatory thing to do to measure the level of return and risk in accordance with the risk profile you have. It is called a stock mutual fund, because 80% of its fund management is used for stock purchases, so automatically the risk received tends to be higher than other types of mutual funds such as fixed income mutual funds and mixed mutual funds, this is because the JCI as a reference for market price formation has price fluctuations that are difficult to predict, because many aspects affect it. In measuring investment performance, the most ideal tools to use include the mutual fund return information itself and the Risk Adjusted Return model. These two things cannot be separated, because when using only one reference information does not guarantee an ideal result. The methods used in measuring include Sharpe Ratio, Jensen Alpha, Treynor Ratio, M2, MSR and information ratio. In this study, a sharpe measurement method was used to assess the performance of mutual funds. The results of the study stated that the test results with the Kruskal Wallish test in the three methods were obtained 2 = 1.514, with a probability of 0.469.

So it can be seen that the probability of testing >0.25 means that the sharpe measurement method, the user is more optimal in evaluating a portfolio than other methods, and this method can also be applied to all types of mutual funds available. On this basis, investors can see various phenomena that occur in the market so that it can become an opportunity or threat depending on how we react. One of the phenomena that occurs in the capital market and has been proven from various studies is Window Dressing. Window dressing is a phenomenon where there are fluctuations in stock performance that tend to be positive, which always occurs in Q4 every year, precisely in December, no matter what monetary crisis or pandemic there is, there will be a significant increase compared to the previous months, if this situation can be utilized properly by investors, no wonder they will get a large investment return, as well as the investment managers

who manage the capital will get a large bonus because it makes a good impression in the eyes of the principal for an achievement they have made.

2   Methods

This research is included in event studies research. According to Tandelilin (2001:126), event studies are studies that observe the impact of information announcements on the price of securities. This study aims to present empirical evidence regarding the practice of window dressing carried out by investment managers in their securities companies in 2017–2020. The sampling technique in this study was taken using the purposive sampling method, which is the selection of non-random samples whose information is obtained using certain considerations, which are generally adjusted to the purpose or problem of the study. The criteria for determining the sample are:

1. All equity mutual funds registered with the Financial Services Authority (OJK) in 2017–2020
2. The type of mutual fund chosen is a conventional stock mutual fund
3. Have a complete portfolio report for the period 2017–2020

From the results of data collection, 45 equity mutual fund products were obtained that met all the criteria in the sample selection. The type of data used in this study is secondary data, namely data obtained in finished form, either published or unpublished or has been collected by other parties. The data source used in this study comes from the official OJK website, namely www.ojk.go.id. And capital market e-commerce www.bareksa.com to obtain data on the Net Asset Value (NAV) of equity mutual funds, JCI data obtained through the www.idx.co.id website and BI rate data through www.bi.go.id. The data obtained in this study were analyzed descriptively quantitatively. The data obtained is collected and then processed with the appropriate formula in the operational definition of the variable. To facilitate data processing using the microsoft Excel program. The steps performed are as follows; Calculate the monthly return of each stock mutual fund using net asset value (NAV), calculate the monthly market return (benchmark) using JCI, Calculate the monthly risk-free return using BI rate, Calculate the standard deviation before calculating the performance of stock mutual funds using the method Sharpe and Compare the performance results of each equity mutual fund with the benchmark return (JCI).

Based on Sharpe's performance, if the average return on equity mutual funds is greater than the average return on risk free (BI rate), then the stock mutual fund has a positive performance and if the average return on equity mutual funds is smaller than the average return on risk free (BI rate), then the stock mutual fund has a negative performance. Based on the benchmark performance, if the average return of a stock mutual fund is greater than the average return on the JCI, then the stock mutual fund is classified as an outperform category and if the average return of a stock mutual fund is smaller than the average return on the JCI, then the stock mutual fund is classified as an underperform category. Furthermore, if equity mutual funds have a positive performance and are classified as outperform categories, they have the potential to do window dressing.

3 Result and Discussion

Returns on conventional equity mutual funds are based on changes in NAV/Units. This data is used as a reference data in answering the formulation of the problem above, the data chosen is the nav/unit data at the end of the month during 2017–2020, then classified in 4 quarters and calculated on average, The results of the calculation can be seen in the Table 1.

Based on the Table 1, it is known that there is a change in NAV every quarter, in the 1st quarter of 2017 the total NAV was 32 trillion rupiah, then there was an increase of 7% in the next quarter to 35 trillion rupiah, but in the fourth quarter there was a decrease of 3% to 34 trillion and in the end it increased quite high in the 4th quarter by 13% to 39 trillion rupiah, This upward trend also occurred in 2018 where the increase was quite high, namely 8%, but in 2019 there was a significant decrease in the value of net assets by 20%, so that in the 1st quarter the total managed funds in equity mutual funds were only 33 trillion rupiah, but after that there was a trend of pingkatan again until the end quarter of 2020 by 8% to 44 trillion rupiah. The next stage is to find the return The average monthly index of the JCI benchmark in this study serves as a benchmark to state the performance of stock mutual funds whether outperform or underperform.

Based on the Table 2, it can be seen that there are no excessive fluctuations, the price movement in 2017 was in the range of -1%–6% this is fairly stable for the combined price index category, then in 2018, the price movement was stretched -7%–4%, then in 2019 it was almost similar from previous years where the price movement was in the range of -8%–3%, then the last one in 2020 there were quite high price fluctuations, where the price movement was far in the stretch of -20%–9%.

After obtaining the overall data on mutual fund returns, the next step is to calculate the average return of the JCI during the research period, by dividing the amount of accumulated JCI returns during the observation period by the number of observation periods, this aims to determine the benchmark (reference) of mutual fund performance, so when mutual fund performance is below the performance of the JCI, the mutual fund product can be categorized as underperform and when The performance of mutual funds is above the JCI benchmark, so the mutual fund products are categorized as outperform. The results of the benchmark comparison are as follows:

Based on the Table 3, the performance of equity mutual funds in 2017 shows that 26 stock mutual funds have an outperform status against benchmark performance (JCI) and 19 other stock mutual funds have underperform status. in 2018 it showed that 37 stock mutual funds had outperform status to benchmark performance (JCI) and 8 other stock

Table 1. Average Net Asset Value (NAV) of Equity Mutual Funds (In Millions of Rupiah)

Quartal	2017	2018	2019	2020
Q1	32,847,598	37,283,465	33,764,558	35,756,743
Q2	35,283,473	38,948,594	30,948,732	37,847,948
Q3	34,324,758	36,748,598	33,475,849	40,947,583
Q4	39,577,081	40,562,244	35,842,538	44,526,553

Table 2. JCI Monthly Return 2017–2020

No	Moon	2017	2018	2019	2020
1.	January		0.0378	-0.0268	-0.0774
2.	February	0.0172	-0.0013	0.0337	-0.0894
3.	March	0.0326	-0.0660	0.0197	-0.2013
4.	April	0.0206	-0.0324	0.0134	0.0376
5.	May	0.0092	-0.0018	0.0021	0.0078
6.	June	0.0157	-0.0318	0.0136	0.0309
7.	July	0.0019	0.0231	0.0048	0.0474
8.	August	0.0039	0.0136	-0.0414	0.0170
9.	September	0.0062	-0.0070	0.0217	-0.0757
10.	October	0.0175	-0.0248	-0.0063	0.0503
11.	November	-0.0090	0.0371	-0.0026	0.0863
12.	December	0.0635	0.0223	-0.0019	0.0613

Table 3. Comparative Results of Stock Mutual Fund Performance with JCI Benchmark Performance

Status	Year			
	2017	2018	2019	2020
Outperform	26 Mutual funds	37 Mutual funds	23 Mutual funds	29 Mutual funds
Underperform	19 mutual funds	8 Mutual funds	22 Mutual funds	16 Mutual funds

mutual funds had underperform status. in 2019 it showed that 23 stock mutual funds had outperform status against benchmark performance (JCI) and 22 other stock mutual funds had underperform status. And the work of equity mutual funds in 2020 showed that 29 stock mutual funds had outperform status against benchmark performance (JCI) and 16 other stock mutual funds had underperform status. The next stage is looking for the results of the monthly BI rate. Data from the monthly average bi rate results will be used as part of the Risk Free Rate in this study. Risk free rate itself is a result or return without risk.

Based on the Table 4, interest rates in 2017 did not experience a significant movement, but in the following year to be precise in January – April 2018, a fairly drastic rate reduction occurred, then in 2019 it rose again and was classified as the highest increase among others, especially in January to May, after which it fell back in 2020 and finally touched its lowest point in December 2020. After getting the interest rate return data, the next step is to find a risk free return by summing the return data then looking for the average, the results of the calculation can be seen in Table 5.

Table 4. Monthly Return on BI rate 2017–2020

No.	Moon	2017	2018	2019	2020
1.	January		0.0035	0.0050	0.0042
2.	February	0.0040	0.0035	0.0050	0.0042
3.	March	0.0040	0.0035	0.0050	0.0042
4.	April	0.0040	0.0035	0.0050	0.0042
5.	May	0.0042	0.0040	0.0050	0.0044
6.	June	0.0042	0.0048	0.0050	0.0044
7.	July	0.0042	0.0048	0.0048	0.0044
8.	August	0.0042	0.0048	0.0046	0.0044
9.	September	0.0035	0.0048	0.0044	0.0033
10.	October	0.0046	0.0048	0.0042	0.0033
11.	November	0.0046	0.0050	0.0042	0.0033
12.	December	0.0046	0.0050	0.0042	0.0033

Table 5. Risk Free Rate

Status	Year			
	2017	2018	2019	2020
Positive Performance	33 Mutual funds	29 Mutual funds	21 Mutual funds	22 Mutual funds
Negative Performance	12 Mutual funds	16 Mutual funds	24 Mutual funds	23 Mutual funds

From the Table 5, it can be seen, that in 2017 mutual funds that performed positively dominated as many as 33 mutual fund products, while negative performance as many as 12 mutual funds, mutual funds that had the best performance in 2017 In 2018 there were 29 positive performing mutual funds and 16 negative performance mutual fund products, when viewed from the average return on risk free in this period, it matched a significant increase from the previous year, but the results given were the opposite, this indicates that there is another instrument that affects the performance of mutual funds, namely the return on the portfolio of mutual fund products concerned. In 2019 there were 21 positive performance mutual funds and 24 negative performance mutual fund products, if you look at the value of return risk free in 2019 was the highest value during the research period, but the results were inversely priced, this year's positive performance was the lowest among others. 2020 is a difficult situation to see the phenomenon of a pandemic in Indonesia and its impact on the economy in Indonesia is seen in fairly low interest rates, but the mutual fund products in circulation can be said to be quite good in maintaining their performance, this year there are 22 mutual funds performing

Table 6. Sharpe And Mutual Fund Benchmark Performance Comparison

No.	Mutual funds	2017		2018		2019		2020	
		Bench	Sharpe	Bench	Sharpe	Bench	Sharpe	Bench	Sharpe
1	Prime Equity	0.051	0.333	0.058	0.406	0.043	0.123	0.051	0.230
2	Batavia Fund	0.019	0.134	0.105	0.157	0.114	0.297	0.095	0.488
3	Lautandhana	3.877	0.301	0.110	0.087	0.028	0.354	0.023	0.012
4	Mandiri Investa UGM	0.260	0.288	0.135	0.583	0.057	0.766	0.052	0.144
5	Syailendra Equity	0.089	0.559	0.094	0.563	0.112	0.355	0.0052	0.106

positively and 23 mutual funds performing negatively, this is quite good considering the very unstable economic situation. The last step is to make a comparison between the JCI benchmark and the sharpe method At this stage, the data that has been calculated with the benchmark and sharpe will be compared to find out the possibility of mutual fund products that do window dressing. The results of data processing can be dissected in Table 6.

Based on mutual funds performed data using the Sharpe method and benchmark performance, there are 5 stock mutual funds that have positive performance and out-performance, namely Prima Equity Mutual Fund, Batavia Optimal Stock Fund, Lau-tandhana Equity Progressive Mutual Fund, Mandiri Investa UGM Endowment Plus, Syailendra Equity Opportunity Fund. Of the five equity mutual funds, the most consis-tent stock mutual funds that have always been ranked in the top 10 for three consecutive years are Syailendra Equity Opportunity Fund and Batavia Optimal Stock Fund. The five equity mutual funds respectively during 2017, 201 8, 201 9 and 2020 had positive performance based on the Sharpe method. Measurements based on benchmark perfor-mance also show that the Syailendra Equity Opportunity Fund stock mutual fund is in the outperform category.

4   Conclusion

The purpose of this study is to analyzea window dressing phenomenon for mutual fund products of investment management companies in Indonesia during the 2017–2020 period. This research is also a means to expand knowledge about capital market investment instruments, especially equity mutual funds and is expected to be able to be considered in making investment decisions, especially in equity mutual fund investment instruments. The object of this study focuses on investment management companies that practice window dressing of their mutual fund products. With the Sharpe method, the results of the study obtained that in 2017 there were 33 stock mutual funds performing positively and 12 stock mutual funds performing negatively. In 2018 there were 29 stock mutual funds performing positively and 16 stock mutual funds performing negatively. In 2019, there were 21 mutual funds performing positively and 24 equity mutual funds

performing negatively. In 2020 there were 22 stock mutual funds performing positively and 23 stock mutual funds performing negatively, and after comparison there were five stock mutual fund products that had the potential to do window dressing, namely Prima Equity Mutual Funds, Batavia Optimal Stock Funds, Progressive Equity Lautandhana Mutual Funds, Mandiri Investa UGM Endowment Plus, Syailendra Equity Opportunity Fund.

References

1. Abdul, halim. 2005. Investment Analysis. Salemba Four. Jakarta
2. Ady, S. U. (2017). Exploration of the Efficiency Level of the Indonesian Capital Market Case Study on the Indonesia Stock Exchange. Pectra : Journal of Business And Management. Https://Doi.Org/https://doi.org/10.25139/Ekt.V0i0.184
3. Agarwal, V., Gay, G. D., & Ling, L. (2014). Window dressing in mutual funds. Review of Financial Studies. https://doi.org/https://doi.org/10.1093/rfs/hhu045
4. Bischoff, I., & Blaeschke, F. (2016). Performance Budgeting: Incentives and Social Waste from Window Dressing. Journal of Public Administration Research and Theory. https://doi.org/https://doi.org/10.1093/jopart/muv013
5. Christina, S. O., & Andadari, R. K. (2015). Window Dressing Practice in Equity Mutual Funds in Indonesia in 2008–2012. Journal of Management Studies.
6. Darmayanti, N. P. A., Suryantini, N. P. S., Rahyuda, H., & Dewi, S. K. S. (2018). Comparison of Stock Mutual Fund Performance With Sharpe, Treynor, And Jensen Methods. Journal of Economic and Business Research. Https://Doi.Org/https://doi.org/10.26623/Jreb.V11i2.1079
7. Djam'an Satori. (2018). Financial and Business Research Methodology. Scholar's Journal.
8. Eisenhardt, K. M. (1989). Agency Theory: An Assessment and Review. Academy of Management Review. https://doi.org/https://doi.org/10.5465/amr.1989.4279003
9. Fama, E. F. (1970). Efficient Capital Markets: A Review of Theory and Empirical Work. The Journal of Finance. https://doi.org/https://doi.org/10.2307/2325486
10. Hadi, N. (2013). Capital Market : Theoretical and Practical Reference for Investment in Capital Market Financial Instruments. First Edition. In Graha Science.
11. Jorion, P. (2003). Portfolio optimization with tracking-error constraints. Financial Analysts Journal. https://doi.org/https://doi.org/10.2469/faj.v59.n5.2565
12. Presidential Decree of the Republic of Indonesia Number 52 of 1976 concerning the Capital Market.
13. Lamoreaux, P. T., Litov, L. P., & Mauler, L. M. (2019). lead Independent Directors: Good governance or window dressing? Journal of Accounting Literature. https://doi.org/https://doi.org/10.1016/j.acclit.2019.06.001
14. Masruroh, A. (2014). Basic Concepts of Mutual Fund Investment. Shares: Syar-I Social and Cultural Journal. Https://Doi.Org/https://doi.org/10.15408/Sjsbs.V1i1.1526
15. Nurlaeli, S., & Artati, D. (2020). Stock Portfolio Performance Analysis with Sharpe, Treynor, and Jensen Methods. Scientific Journal of Management, Business And Accounting Students (JIMMBA). https://doi.org/10.32639/jimmba.v2i6.690
16. Nurul Hanifah. (2020). Mutual Fund NAV – Definition, Function, and How to Calculate It. NavB of Mutual Funds - Definition, Functions, and How to Calculate Them. (lifepal.co.id) accessed march 2021.
17. Pranyoto, E. (2018). Evaluation of Mutual Fund Performance and Interest Rate Policy: Empirical Evidence of Equity Mutual Funds in Indonesia. Evaluation of Mutual Fund Performance and Interest Rate Policy: Empirical Evidence of Equity Mutual Funds in Indonesia.

18. Sujana, I. N. (2017). Efficient Capital Markets. Equity: Journal of Economic Education. https://doi.org/10.23887/ekuitas.v5i2.12753
19. Sunaryo, D. (2019). Investment And Portfolio Management. In Qiara media.
20. Suronto, H. L. (2016). Definition of Composite Stock Price Index (JCI). Gomarketingstrategic.Com.
21. Tami Kosasih, Dian. (2021). IDX: 251 Thousand Active Investors in Stock Transactions. https://www.liputan6.com/saham/read/4489730/bei-251-ribu-investor-aktif-transaksi-saham. Retrieved March 2021.
22. Tandelilin, E. (2017). Capital market: portfolio management & investment. In Yogyakarta : Konisius.
23. Tandelilin, E. 2010. (2010). Fundamentals of Investment Management. Finance.
24. Law of the Republic of Indonesia Number 8 of 1995 concerning the Capital Market.
25. Untari, M. D. A. (2017). The Influence of Investor Follower Behavior on Stock Volatility. Scientific Journal of Accounting And Business. https://doi.org/10.24843/jiab.2017.v12.i01.p06
26. Vyas, A. H., Ambadkar, R., & Bhargava, J. (2015). True and Fair View: A Fact or Illusion in the World of Creative Accounting. International Journal of Multidisciplinary and Current Research.