# Performance of Equity Mutual Fund in Indonesia: The Effect of Mutual Fund and Macroeconomic Factors

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***Abstract*- This study examines the influence of mutual fund factors and macroeconomic factors on the performance of equity funds in Indonesia. This study uses fund size, expense ratio, turnover ratio, and market timing ability as mutual fund factors. Meanwhile, the macroeconomic factor use inflation, economic growth, and the money supply. Mutual fund performance is measured using actual return and Jensen alpha. The sample used in this study is equity funds listed on the Indonesia Stock Exchange (IDX) from June 2016 to May 2020. There are 53 equity mutual funds obtained as a sample. This study uses panel data regression to analyze data. The results showed that mutual fund factors and macroeconomic factors as a whole affect the performance of equity funds in Indonesia. Meanwhile, the test results for each variable show that the expense ratio, market timing ability, economic growth, and money supply have significant effects on the performance of equity funds in Indonesia. On the other side, fund size, turnover ratio, and inflation variables do not have a significant effect on the performance of equity funds in Indonesia.**

***Keywords*- Equity Mutual Fund, Mutual Fund Factors, Macroeconomic Factors, Mutual Fund Performance**

## I. INTRODUCTION

Every investor needs to anticipate the uncertainty of the future. Risk and expected return are two variables that must be considered in investment activities (Simu, 2019). High expected returns will be followed by high risks.

Beginner investors face difficulty understanding the expected return and investment risk. Therefore, many beginner investors choose an easy and practical investment like mutual funds. Mutual funds are instruments used to collect public funds to be invested in securities portfolios by investment managers. Funds in mutual funds comes from investors, and the investment manager is the party entrusted to managing the fund.

Indonesia mutual fund performance was quite good from 2015 to 2019. However, in 2020, mutual funds experienced a decline in performance. Many factors influence the movement or fluctuation of mutual funds values. The following is the performance of Indonesian mutual funds:

| Periode | Jumlah Reksa | Nilai Aktiva Bersih (Rp miliar) | Jumlah UP Beredar | Subscription (Rp miliar) | Redemption (Rp miliar) |
|---|---|---|---|---|---|
| 2015 | 1,091 | 271,969.00 | 182,980,302,630.53 | 254,346.90 | 213,345.50 |
| 2016 | 1,425 | 338,749.81 | 240,237,854,788.62 | 350,645.34 | 302,719.79 |
| 2017 | 1,777 | 457,506.57 | 324,223,922,190.67 | 527,061.89 | 458,791.26 |
| 2018 | 2,099 | 505,390.30 | 373,725,898,271.97 | 613,482.30 | 541,657.24 |
| 2019 | 2,181 | 542,196.36 | 424,796,068,151.00 | 711,217.13 | 656,327.13 |
| 2020 | 2,209 | 482,152.61 | 407,476,322,890.00 | 184,232.01 | 200,294.77 |
| Januari | 2,205 | 537,279.31 | 428,005,048,809.00 | 53,055.97 | 48,924.45 |
| Februari | 2,184 | 525,277.79 | 423,321,110,436.95 | 47,994.34 | 47,606.07 |
| Maret | 2,196 | 472,772.24 | 408,562,387,254.52 | 46,269.34 | 67,689.79 |
| April | 2,220 | 477,676.44 | 408,650,653,838.00 | 36,912.36 | 36,074.47 |
| Mei | 2,204 | 476,283.03 | 405,710,380,642.02 | | |
| Juni | 2,209 | 482,152.61 | 407,476,322,890.00 | | |

Source: ojk.go.id (2020)

Table 1 Indonesia Mutual Fund Performance

The increase that occurred in 2018 was due to lower deposit rates. Lower deposit rates can encourage an increase in the net subscription of mutual funds. Meanwhile, the decline of equity fund performance in 2020 was caused by the Covid-19 pandemic that hit the entire world. The object of mutual fund investment that fell the worst was the stock market.

The performance of equity funds is influenced by a number of factors including the volatility of the JCI, interest rates, NAV value, low inflation, high government bond, socialization of the new normal, profit taking or withdrawing mutual funds, and many more. These many factors make investors think before starting to invest. This study analyzes the influence of macroeconomic factors and mutual funds on the performance of equity funds and provides new insights for beginner investors to invest effectively.

Nguyen & Dung (2019) said there are two factors that affect mutual fund performance, namely mutual funds, and macroeconomic factors. First, the mutual fund factor is information or data obtained from the mutual fund itself. Meanwhile, macroeconomic factors are information from outside mutual funds that affect mutual fund performance, both from government and Bank Indonesia policies.

Researchers are interested in choosing equity funds as the research sample because stock mutual funds have the highest fluctuation than other types of investment. Pratomo & Nugraha (2009) explained that equity funds fluctuations are considered higher than other types of mutual funds and the stock performance should be above the risk-free interest rate.

## II. LITERATURE REVIEW

### *2.1. The Concept of Mutual Fund*

Mutual funds are a vehicle that is used to collect investor funds to be invested in stock portfolios by investment managers. (Capital Market Law No.8, 1995). The investment manager is in charge of assisting investors in managing mutual funds. Types of mutual funds are divided into four forms (Hermawan & Wiagustini, 2016), namely money market funds, fixed income mutual funds, equity funds, and balanced funds.

Return from mutual funds is known as net asset value (NAV), where the value will be updated every day based on daily mutual fund transactions (Asriwahyuni, 2017). NAV can be calculated by adding up the entire value of each securities based on the closing price of the securities and then deducting the mutual fund liabilities. Mutual fund performance data originating from the investment manager is generally submitted to the custodian bank to calculate the NAV value and the results will be announced every day.

In the Treynor Model, mutual fund portfolio performance is measured by dividing risk by the portfolio volatility expressed in beta. The Treynor model calculates the slope connecting the portfolio at risk from market volatility. Portfolio performance results are determined by a market risk that is also the slope of the stock market line. The greater the slope of the portfolio, the better the portfolio performance (Pranyoto & Susanti, 2018).

Meanwhile, the Sharpe model measures mutual funds by calculating the slope line that connects a risky portfolio with risk-free interest. The greater the slope value, the better the portfolio performance. The greater the portfolio reaction to standard deviation, the better the portfolio performance (Pranyoto & Susanti, 2018).

Meanwhile, the Jensen Model measures using alpha. Alpha is a measurement that uses the value of the intercept as a determinant of the performance of a portfolio. The higher the intercept value, the higher the portfolio return. The Jensen alpha measurement model is based on a security market line that connects market portfolios with risk-free investment opportunities (Pranyoto & Susanti, 2018).

Stock selection in the Treynor & black model is carried out by looking at market risk from specific risks because a stock faces specific market risks and risks. The average return minus the minimum return is called alpha. Therefore, the alpha must be corrected with specific risks (Pranyoto & Susanti, 2018).

Mutual fund performance is influenced by factors that exist in the mutual fund itself, such as fund size. Fund size is the number of funds collected by the investment manager or known as Asset under Management (AUM). The size of mutual funds is measured from the AUM obtained from the community that will be managed by the investment manager. Economic scale can be obtained if mutual funds have larger asset sizes.

Another mutual fund factor, namely the expense ratio, is the costs needed for mutual fund operations, such as promotion, administration, and investment manager costs. Mutual fund operating costs represent the costs imposed on mutual fund assets.

The turnover ratio is generally seen as a proxy for mutual fund trading costs (Fan, 2018). The turnover ratio is calculated by dividing the smaller total sales or purchases by the mutual fund's NAV. The turnover ratio value can be seen from the financial statements. The high turnover ratio figures illustrate that investment managers carry out buying or selling activities with a very high frequency to anticipate market volatility.

Market timing ability is the investment manager's ability to manage portfolios in anticipation of the market changes. If the market will decline, the investment manager will immediately change the portfolio composition to a lower volatility portfolio and vice versa (Astapa, et al. 2018). The ability of an investment manager will greatly influence the portfolio realization in the future. Portfolio performance in the future is determined by the ability of investment managers to manage portfolios.

Macroeconomic variables such as inflation, economic growth, and the money supply can also affect mutual fund performance. Inflation increases in price continuously. The higher the price increase, the value of money will decrease and will affect the performance of mutual funds. Investment managers must pay attention to changes in inflation because it will affect the NAV of mutual funds.

Economic growth will increase investors' enthusiasm for investing. There are three reasons that economic growth can improve mutual fund performance (Nguyen & Dung, 2019). First of all, the quality of education is better, so that it has better quality human resources in the financial sector. Managers who tend to be more skilled can make better investment decisions. Second, better economic development will attract more human capital. Third, the level of technology in developed countries is much higher than in developing countries, so it can increase transactions more efficiently (Dharmalingam & Balanaga, 2016).

Based on the theory of the money supply, the size of the money supply in a society largely determines the value of money, while the growth in the amount of money in circulation is the main cause of inflationary pressure (Rozak, 2016). The money supply can have several levels, narrow (M1), broad (M2), and wider (M3).

### *2.2. Empirical Review*

Nguyen & Dung (2019) said there are two factors that affect mutual fund performance, namely mutual funds, and macroeconomic factors. First, the mutual fund factor is information or data obtained from the mutual fund itself. Meanwhile, macroeconomic factors are information from

outside mutual funds that affect mutual fund performance, both from government and Bank Indonesia policies.

The mutual fund factor includes fund size, which is the size of the funds collected by mutual funds (Bitomo and Harjum, 2016). Pratama & Dewa (2018); Nguyen, et al. (2018) explained that fund size affects the performance of stock mutual funds. On the other hand, Pangestuti, et al. (2017); Gusni, et al (2018) found that fund size has no significant effect on equity mutual fund performance.

Expense ratio is the percentage of assets funded by investors that will be used for operational costs (Chen et al. 2016). Pangestuti, et al. (2017) and Nguyen & Dung (2019) stated that expense ratio affects the performance of equity funds. Meanwhile, Harjono, et al. (2017); Simu (2019) and Kaur (2018) through their research found that the expense ratio does not have a significant effect on the performance of equity funds.

Turnover ratio is a measure that explains the changes in the assets that make up the mutual fund portfolio (Simu, 2019). Some research results explain that there is an effect of turnover ratio on equity funds performance, namely Nguyen et al. (2018); Kaur (2018). Meanwhile, Simu (2019) found that there is no effect of turnover ratio on the performance of equity funds.

Market timing ability is a measure of the ability of an investment manager to anticipate market fluctuation when the market is going down. The way this is done is like changing the composition of the portfolio to portfolio with lower volatility and vice versa (Astapa, et al. 2018). Rao, et al (2017); Astapa, et al. (2018) explained that market timing abilities can have a positive effect on equity fund performance. In contrast, Pangestuti, et al. (2017); Wagner & Dimitris (2017) found that there is a negative effect of market timing ability on the performance of equity funds. Meanwhile, Gusni, et al. (2018); Lucas, et al. (2019) found that market timing has no significant effect on the performance of equity funds.

In addition, macroeconomic factors such as inflation also affect the performance of equity funds. Inflation describes the tendency of prices to increase continuously, the higher the price increase, the lower the purchasing power of money and then it can affect the portfolio (Hermawan & Wiagustini, 2016). The existence of inflation can have a positive effect on the performance of equity funds as the research of Gusni et al. (2018); Rahmawati & Dudung, (2018). However, the research conducted by Pratama & Dewa (2018); Rois, et al (2019) found that inflation can have a negative effect on the performance of equity funds.

The next macroeconomic factor is economic growth. Good economic growth will attract more domestic investors and even foreign investors. The increase number of investors will have an impact on portfolio performance. Economic growth will also improve the performance of equity funds (Nguyen & Dung, 2019). However, Sari (2019); Nguyen, et al. (2018) stated that there is no effect of economic growth on the performance of equity funds.

The money supply variable is also one of the macroeconomic factors that affect the performance of equity funds. An increase in the money supply indicates that people are investing more, so that investment demand increases (Rozak, 2016). Sari (2019) and Rozak (2016) found that there is an influence between the money supply and the performance of equity funds. However, Nguyen, et al. (2018) stated that there is no relationship between the money supply and the performance of equity funds.

### *2.3. Hypotesis and Model Framework*

Here is the model framework that will be tested in this research:

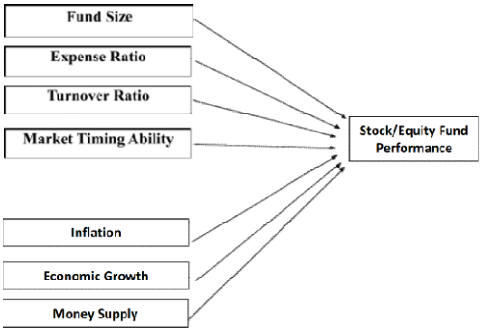


Figure 2.1 Model Framework

H1: Fund size positively effects on stock fund performance

H2: Expense ratio negatively effects on stock fund performance

H3: Turnover ratio positively effects on stock fund performance

H4: Market timing ability positively effects on stock fund performance

H5: Inflation negatively effects on stock fund performance

H6: Economic growth positively effects on stock fund performance

H7: Money supply positively effects on stock fund performance

## III. METHODOLOGY

The population in this study is equity funds listed on the Indonesia Stock Exchange (IDX) from June 2016 to May 2020. Samples according to the criteria have been collected and obtained 53 equity mutual funds in Indonesia. The number of observations used in this study was 2544 observations from June 2016 - May 2020.

This study uses a Panel Data model. Panel data analysis is a regression analysis that combines cross-sectional data and time-series data. The panel data test begins with determining the appropriate model by performing the Chow test and

Hausman test and continues with panel data regression testing by using the selected model.

Dependent variable in this research is mutual performance measured by actual return of equity funds and Jensen alpha. Here is the formula:

Actual return of equity funds

$$Return_{RD} = \frac{NAB_t - NAV_{t-1}}{NAV_{t-1}}$$

$Return_{RD}$ : Mutual fund return

$NAV_t$ : NAV on t period

$NAV_{t-1}$ : NAB on t-1 period

Jensen alpha

$$\alpha_p = \underline{r_p} - [\underline{r_f} + \beta_P (\underline{r_M} - \underline{r_f})]$$

$\alpha_p$ = Jensen's alpha

$\underline{r_p}$ = Average return portofolio

$\underline{r_f}$ = Average risk free rate

While the independent variables are fund size, expense ratio, turnover ratio, inflation, economic growth, and money supply.

The analysis model in this study uses panel data regression with Eviews. The panel data models in this study have two equations.

Equation 1:

$$RRD_{it} = \alpha + \beta_1 FS_{it} + \beta_2 ER_{it} + \beta_3 TR_{it} + \beta_4 MTA_{it} + \beta_5 INF_{it} + \beta_6 PE_{it} + \beta_7 JUB_{it} + \varepsilon$$

Equation 2:

$$JA_{it} = \alpha + \beta_1 FS_{it} + \beta_2 ER_{it} + \beta_3 TR_{it} + \beta_4 MTA_{it} + \beta_5 INF_{it} + \beta_6 PE_{it} + \beta_7 JUB_{it} + \varepsilon$$

$RRD_{it}$ = Actual Equity funds return ($Return_{RD}$).

$JA_{it}$ = Equity funds by Jensen Alpha ($\alpha_p$).

α = Constant (intercept).

β1, β2..β7 = Beta.

FS = *Fund Size.*
ER = *Expense Ratio.*
TR = *Turnover Ratio.*
MTA = *Market Timing Ability.*
INF = Inflation.
PE = Economic growth.
JUB = Money supply.
ε = Error term.
i = Company i.
t = Times.

## IV. RESULT AND DISCUSSION

*4.1 Result*

Based on the estimation results, the best model for equation 1 is the common effect model. The regression model for equation 1 is as follows:

Table 4.1 The Result of Equation 1

| Variable | Coefficient | t-Statistic | Prob. |
|---|---|---|---|
| FS | 0.000899 | 0.689433 | 0.4906 |
| ER | -0.000296 | -0.556566 | 0.5779 |
| TR | 6.97E-05 | 0.397519 | 0.6910 |
| MTA | 0.000418 | 8.567705 | 0.0000 |
| INF | -0.320367 | -1.383277 | 0.1667 |
| PE | 0.220914 | 2.736365 | 0.0063 |
| JUB | -0.422162 | -7.955001 | 0.0000 |
| C | 3.332250 | 5.064569 | 0.0000 |

$RRD_{it}$ = 3,332250 + 0,000899 $(FS)_{it}$ – 0,000296 $(ER)_{it}$ + 6,97E-05 $(TR)_{it}$ + 0,000418 $(MTA)_{it}$ – 0,320367$(INF)_{it}$ + 0,220914 $(PE)_{it}$ – 0,422162 $(JUB)_{it}$ + ε

These results are obtained from the significance test on the common effect model by considering the probability value of the t-statistic. If the results show a p-value <0.05, it means that the hypothesis is supported. Meanwhile, if the p-value> 0.05, it means that the hypothesis is not supported. Based on table 4.5, the results of the t statistical test for equation 1 for the variables Market Timing Ability, Economic Growth, and Total Money Supply hypothesis are supported. Meanwhile, the variable fund size, expense ratio, turnover ratio, and inflation, the hypothesis is not supported.

Meanwhile, the best model estimation result used in the second equation is the random effect model. The regression model for equation 2 is as follows:

Table 4.2 the Result of Equation 2

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| FS | -0.001051 | 0.000770 | -1.364776 | 0.1724 |
| ER | -0.001032 | 0.000284 | -3.631297 | 0.0003 |
| TR | 0.000118 | 9.32E-05 | 1.265181 | 0.2059 |
| MTA | 0.000758 | 2.27E-05 | 33.39828 | 0.0000 |
| INF | 0.116813 | 0.106787 | 1.093890 | 0.2741 |
| PE | 0.002967 | 0.037231 | 0.079694 | 0.9365 |
| JUB | 0.199180 | 0.024489 | 8.133375 | 0.0000 |
| C | -3.187684 | 0.303700 | -10.49617 | 0.0000 |
| | Effects Specification | | | |
| | | | S.D. | Rho |
| Cross-section random | | | 0.002697 | 0.0165 |
| Idiosyncratic random | | | 0.020834 | 0.9835 |

$JJA_{it}$ = -3,187684 – 0,001051 $(FS)_{it}$ – 0,001032 $(ER)_{it}$ + 0,000118 $(TR)_{it}$ + 0,000758 $(MTA)_{it}$ + 0,116813 $(INF)_{it}$+ 0,002967 $(PE)_{it}$+ 0,199180 $(JUB)_{it}$ + ε

The significance test on the random model for equation 2 finds that the expense ratio, market timing ability, and the money supply hypothesis are supported. Meanwhile, the variable fund size, turnover ratio, inflation and economic growth hypothesis is not supported.

Table 4.3 Summary of the Result

| Independent Variables | Dependent Variables | | | |
|---|---|---|---|---|
| | Equation 1 | | Equation 2 | |
| *Fund Size* | Positive | Not significant | Negative | Not significant |
| *Expense Ratio* | Negative | Not significant | Negative | Significant |
| *Turnover Ratio* | Positive | Not significant | Positive | Not significant |
| *Market Timing Ability* | Positive | Significant | Positive | Significant |
| Inflation | Negative | Not significant | Positive | Not significant |
| Economic growth | Positive | Significant | Positive | Not significant |
| Money supply | Negative | Significant | Positive | Significant |

The F test both model 1 shows that the value is 40.73472 with a probability F-statistic of 0.0000. Meanwhile, The F test in model 2 shows that the value is 174,9290 with a probability F-statistic of 0.0000. Thus, it can be concluded that the variable fund size, turnover ratio, expense ratio, market timing ability, inflation, economic growth, and the money supply simultaneously have a significant effect on the performance of equity funds.

*4.2 Discussion*

*Fund size on equity funds performance*

The test results found that fund size has no significant effect on the performance of equity funds in Indonesia, which means that H1 is rejected. Both actual return and alpha jensen, the results found that the fund size had no effect. This study is in line with the research of Pangestuti, et al. (2017); Gusni, et al (2018) that found that there is no significant influence between fund size and equity mutual fund performance. Although Perold and Salomon (1991) said that a large fund size can reduce mutual fund performance.

*Expense ratio on equity funds performance*

In the first model, the test results of the second hypothesis (H2) find that the expense ratio does not have a significant effect on the performance of equity funds. While in the second model, expansion has a negative effect on stock performance. This means that the greater the expense ratio, the lower the performance of stock mutual funds. It can be concluded that the results obtained were inconsistent.

Return is income after deducting operational costs. If the company cannot control these costs, it will have an impact on the performance of equity mutual funds. The results of this study are supported by Nguyen & Dung (2019); Nguyen, et al. (2018); Rao, et al (2017); Busse, et al. (2019).

*Turnover ratio on equity funds performance*

The results of testing the third hypothesis (H3) found that the turnover ratio does not have a significant effect on the performance of equity funds. This means that H3 is rejected. Both actual return and jensen alpha both get the same result, which is insignificant, which means consistent results.

Equity mutual funds that have a high turnover ratio indicate trading movements carried out by investment managers with high liquidity. High liquidity is usually followed by an increase in mutual fund returns. However, high liquidity directly increases transaction costs. These transaction costs can reduce the investment returns you get. This study supports Simu's research (2019) which stated that there is no significant effect of turnover ratio on equity fund performance.

*Market timing ability on equity funds performance*

The test results of the fourth hypothesis (H4) found that market timing ability has a significant effect on the performance of equity funds. This means that H4 is accepted. Mutual fund performance measured using actual return and jensen alpha has a positive effect on stock mutual fund performance.

Good market timing will affect the performance of equity funds. The market timing ability has a direct effect on the portfolio realization in the future. So that future portfolio prices are expected to increase (Astapa, et al. 2018). This result is supported by research by Rao, et al. (2017) and Stark (2019) which stated that market timing has a positive effect on the performance of equity funds.

*Inflation on equity funds performance*

The results of testing the fifth hypothesis (H5) found that inflation does not have a significant effect on the performance of equity funds. Mutual fund performance measured by both actual return and Jensen alpha found that the same results were not significant, which means consistent results.

High inflation will affect the price of goods and will reduce the performance of equity funds (Ginting, 2016). This result does not support the results of Pratama & Dewa (2018); Rois, et al. (2019) found that inflation does not affect the performance of equity funds.

*Economic growth on equity funds performance*

The results of testing the sixth hypothesis (H6) found that economic growth has a significant effect on the performance of equity funds. This means that H6 is accepted. This means that the higher the economic growth, the higher the performance of equity funds in Indonesia. Mutual fund performance measured by using actual return has a positive effect. However, if using the measurement of alpha jensen, it

is found that the results do not affect the performance of equity funds, so the results are not consistent.

*Money supply on equity funds performance*

The results of testing the seventh hypothesis (H7) found that the money supply has a significant effect on the performance of equity funds. This means that the higher the money supply, the better the stock mutual funds performance. The mutual performance was measured using jensen alpha with positive significant results. However, using the actual return measurement has a negative effect on the performance of equity funds, so the results are contradictory.

Sari (2019) found that the money supply affects the performance of equity funds. The results of the study indicate that the money supply affects the performance of equity funds. The increase in the money supply illustrates that the demand for financial product instruments has increased because it is assumed that people invest more. The results support research conducted by Rozak (2016).

## V. CONCLUSION

This study examines the factors that influence the performance of equity funds in Indonesia. The study found that mutual fund factors and macroeconomic factors as a whole affect the performance of equity funds in Indonesia. Meanwhile, the test results for each variable show that the expense ratio and market timing ability (the mutual fund factors), and economic growth and money supply (the macroeconomic factors) have significant effects on the performance of equity funds in Indonesia. On the other side, fund size and turnover ratio (the mutual fund factors) and inflation (macroeconomic factor) do not have a significant effect on the performance of equity funds in Indonesia.

## REFERENCES


[1] Asriwahyuni, I Gusti A. P. (2017). Pengaruh Ukuran Dan Umur Pada Kinerja Reksadana Saham Di Indonesia. E-Jurnal Akuntansi Universitas Udayana. Vol.21.2, Hal .1460-1487. ISSN: 2302-8556 DOI: 10.24843/EJA.2017.v21.i02.p22.

[2] Astapa, I Gede. A., Gede Suwardika., I Ketut. (2018). Analisis Data Panel Pada Kinerja Reksadana Saham. Jurnal Varian Vol.1 No.2, Hal. 59-69. e-ISSN 2581-2017.

[3] Bitomo, Habib & harjum Muharam. (2016). Analisis Faktor-Faktor yang Memengaruhi Kinerja Reksadana di Indonesia (Studi Empiris Pada Reksadana Konvensional di Indonesia Periode 2012 – 2014). Diponegoro Journal of Management, 5 (2), hal.1-14.

[4] Busse, Jeffrey A., Tarun Chordia., Lei Jiang., & Yuehua Tang. (2019). Transaction Costs, Portfolio Characteristics, and Mutual Fund Performance. Management Science, Forthcoming, pp.1-18. Doi:10.2139/ssrn.2350583

[5] Chen, H.C., Lai, C.W., & Wu, S.C. (2016). Mutual Fund Selection And Performance Persistence In 401(K) Plans. North American Journal Of Economics And Finance, 35, pp 78-100.

[6] Dharmalingam, N., & Balanaga Gurunathan K. (2016). Performance Of Monthly Income Scheme In Mutual Fund Industry In India. Global Journal of Management and Business Research: C Finance, Vol. 16 No. 7, pp. 50-58.

[7] Fan, Y. (2018). Position Adjusted Turnover Ratio And Mutual Fund Performance, Studies In Economics And Finance, 35(1), pp 65-80.

[8] Ginting, Maria R M., Tepowijono., Sri Sulasmiyati. Pengaruh Tinggat Suku Bunga, Nilai Tukar dan Inflasi Terhadap Harga Saham (Studi Pada Sub-Sektor Perbankan Di Bursa Efek Indonesia Periode 2011-2015). Jurnal Administrasi Bisnis (JAB). Voll. 35, No. 2 Juni 2016, hal 1-9.

[9] Gusni, Silviana, & Faisal Hamdani. (2018). Factors Affecting Equity Mutual Fund Performance: Evidence from Indonesia. Investment Management and Financial Innovations, Volume 15, Issue 1, pp. 1-9.

[10] Harjono, Timotius H., Cicilia Erna S., FX Agus. (2017). Biaya Operasional Reksadana Sebagai Interverning Pengaruh Karakteristik Reksadana Terhadap Kinerja Reksadana Saham Di Indonesia. Kajian Ilmiah Mahasiswa Manajemen (KAMMA) Vol 6 no 2, hal. 72-84. ISSN: 2303-1611.

[11] Hermawan, Denny., & Wiagustini, NI Luh P. (2016). Pengaruh inflasi, suku bunga, ukuran reksa dana, dan umur reksa dana terhadap kinerja reksa dana. E-Jurnal Manajemen Unud, Vol. 5, No. 5, 2016: 3106 – 3133, ISSN : 2302-8912, hal 3106-3133.

[12] Kaur, Inderjit. (2018). Effect Of Mutual Funds Characteristics On Their Performance Nad Trading Strategy: A Dynamic Panel Approach. Cogent Economics & Finance, pp. 1-17. Doi:10.1080/23322039.2018.1493019.

[13] Lucas, Nathalia A., Jenry Cardo M., Adler Haymans H., & Bahtiar Usman. (2019). The Analysis Of Market Timing, Exchange Rate Of Us Dollar, And Inflation To Equity Fund Performance During 2011-2017. Journal of Applied Finance & Banking, vol. 9, no. 5, pp. 125-140. ISSN: 1792-6580 (print version), 1792-6599 (online).

[14] Nguyen, Ann-Ngoc., Muhammad Shahid S., & David Kernohan. (2018). Investor Confidence And Mutual Fund Performance In Emerging Markets Insights From India And Pakistan. Journal Of Economic Studies. Vol. 45 No. 6, 2018. pp. 1288-1310. DOI 10.1108/JES-07-2017-0175.

[15] Nguyen, Hoa Thi., & Dung Thu N N. (2019) The Impact Of Country-Level And Fund-Level Factors On Mutual Fund Performance In Vietnam. Journal of Economics and Development. Vol. 21 No. 1, pp. 42-56. e-ISSN: 2632-5330. p-ISSN: 1859-0020. DOI 10.1108/JED-06-2019-0007.

[16] Pangestuti, Irene R D., Sugeng Wahyudi., & Robiyanto R. (2017). Performance Evaluation of Equity Mutual Funds in Indonesia. Jurnal Keuangan dan Perbankan, 21(4), pp. 527–542. ISSN:2443-2687 (Online). ISSN:1410-8089 (Print).

[17] Perold, A. F., & Salomon, R. S. (1991). Tie Right Amount of Assets Under Management. Financial Analysts Journal, 47(3), 31-39.

[18] Pratama, I Putu. B. S., & Dewa Wirama G. (2018). Pengaruh inflasi, IHSG, Ukuran Dan Umur Pada Kinerja Reksadana Saham Periode 2012 – 2016. E-Jurnal Akuntansi Universitas Udayana. Vol.23.2, hal. 842-870. ISSN: 2302-8556. DOI: https://doi.org/10.24843/EJA.2018.v23.i02.p02.

[19] Pratomo, E. P., & Nugraha, U. (2009). Reksadana: Solusi Perencanaan Investasi Modern. Jakarta: PT Gramedia Pustaka Utama.

[20] Pranyoto, Edi., & Susanti. (2018). Evaluasi Kinerja Reksadana San Kebijakan Suku Bunga: Bukti Empiris Reksadana Saham Di Indonesia. Jurnal Manajemen Magister, Vol.04. No.02, Hal. 158-171.

[21] PT Infovesta utama. (2020). Reksadana. Diakses pada tanggal 4 juni 2020. https://www.infovesta.com/index/learning/learning//3

[22] Rahmawati, Setya A., & Dudung Ma'aruf N. (2018). Pengaruh Faktor-Faktor Perekonomian Makro Terhadap Kinerja Reksadana Pendapatan Tetap Periode 2015-2017. Jurnal Nominal,Volume VII Nomor 2, hal. 22-32.

[23] Rao, Zia-ur-Rehman., Muhammad Zubair T., Amjad Iqbal., & Muhammad Umanr. (2017). Emerging Market Mutual Fund Performance: Evidence For China. Journal Of Asia Business Studies. VOL. 11 NO. 2, pp. 167-187. DOI 10.1108/JABS-10-2015-0176. ISSN 1558

[24] Rois, Muhammad., Manarotul Fatati., & Winda Ihda M. (2019). Analisis Pengaruh Inflasi, Kurs Dan Ihsg Terhadap Return Reksadana Saham Pt Nikko Securities Indonesia Periode 2014-2017. Jurnal Aktual Akuntansi Keuangan Bisnis Terapan. Vol. 2, No 2, hal. 103-109. ISSN: 2622-6529.

[25] Rozak, Abdul. (2016). Analisis Pengaruh Indeks Harga Saham Gabungan (IHSG) Dan Jumlah Uang Yang Beredar Terhadap Kinerja Reksadana Saham Di Bursa Efek Indonesia. Conference on Management and Behavioral Studies, hal. 195-205. ISSN NO: 2541-3400. e-ISSN NO: 2541-2850.

[26] Sari, Amilia P. (2019). Pengaruh Jumlah Uang Beredar dan Pertumbuhan Ekonomi Terhadap Kinerja Reksadana Saham. Jurnal Manajemen dan Sains, 4(2), hal. 362-367. ISSN 2541-6243 (Online), ISSN 2541-688X (Print). DOI: 10.33087/jmas.v4i2.120.

[27] Simu, Nicodemus. (2019). Kinerja Reksadana Saham di Situs Bareksa. Management & Accounting Expose.Vol. 2, No. 2, hal. 73-84. e-ISSN: 2620-9314.

[28] Stark, Jeffrey R. (2019). Decomposing Mutual Fund Alpha Into Security Selection And Security Weighting. Journal of Empirical Finance 52, pp. 76–91. DOI. 10.1016/j.jempfin.2019.03.001-7894.

[29] See, Y. P., & Jusoh, R. (2012). Fund Characteristics And Fund Performance Evidence Of Malaysian Mutual Funds. International Journal Of Ecomomics Ad Management Sciences, 1(9), 31-43.

[30] Tegar, Arief. (2018). Pembelian Baru Reksadana Melonjak, Ini Faktor Pendorongnya. Diakses tanggal 4 juni 2020. https://market.bisnis.com/read/20180306/92/746752/pembelian-baru-reksa-dana-melonjak-ini-faktor-pendorongnya.