

The Effect of Jakarta Composite Stock Price Index, Jakarta Interbank Offered Rate as Determination Factors Fluctuations in Net Asset Value of Mixed Mutual Funds

Vivin Hanitha¹⁾

vivin.hanitha@ubd.ac.id

Berlin Silaban²⁾

Tri Angreni³⁾

tri.angreni@ubd.ac.id

¹⁾²⁾³⁾Buddhi Dharma University

ABSTRACT

The purpose of this study is to define the factors that influence the Mixed Mutual Funds including the Jakarta Interbank Offered Rate and the Composite Stock Price Index. The research method used is purposive sampling by taking data on price movements of mutual funds published by PT Ashmore Asset Management Indonesia Tbk where Mutual funds originating from the period January 1, 2021 to December 31, 2021 and listed on the IDX, consist of 245 daily data. The test method used is descriptive statistical method using sample data from JCI and JIBOR where the results obtained from the calculation of this analysis are JCI and JIBOR have a positive and significant effect on the performance of the Net Asset Value of Mutual Funds, with a coefficient of determination close to 0.6526 or 65, 26%, which means that NAV is influenced by the movement of JCI and JIBOR. While the remaining 34.74% is explained by variables not included in this study.

Keywords: Jakarta Interbank Offered Rate, Composite Stock Price Index, Mixed Mutual Fund Performance.

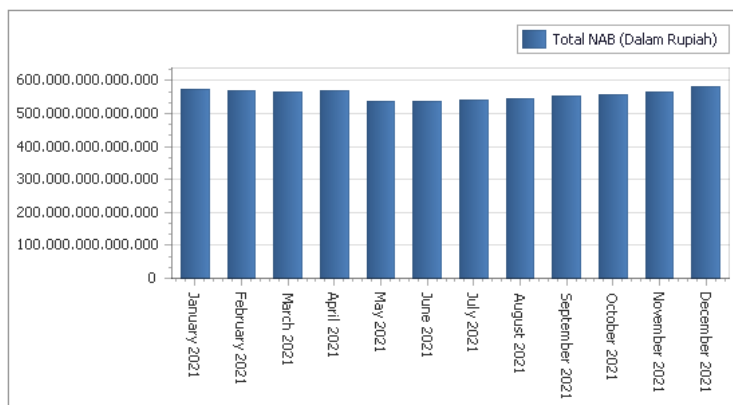
PRELIMINARY

Currently now, more millennials and the general public are starting to plan their future finances through investment. Especially since the pandemic hit since 2020. This means that many people have realized the importance of investing. Investment does have many benefits, however, the investment world is still quite foreign and quite challenging for some people. Investment is one way to get future profits from the capital invested in investment institutions.

As an alternative to public investment, mutual funds are currently in demand by investors who want to get a positive return from several types of investments at once. (Kurniasih et al., 2015). There many tipe of mutual fund investment example financial assets, we used it by buying a unit of mutual fund participation and getting return of the investment as Net Asset Value (NAV).(Tricahyadinata, 2016)

Net Asset Value (NAV) is a measure of yield in monitoring investment developments from mutual funds. Total net worth can be calculated from the NAV of the Mutual Fund. (Melyani, 2021) So it can be concluded that, NAV is the value of funds managed by investment managers for mutual funds in exchange trading which is recorded every day.

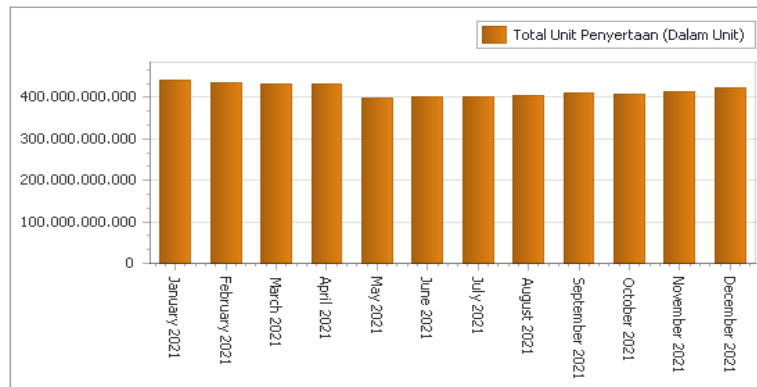
Figure 1. Mutual Fund Development



Source: www.reksadana.ojk.go.id

Net Asset Value are influenced for various factors, including the Composite Stock Price Index, this is mostly due that there are directed to similar investments to public fund allocations. Meanwhile, macroeconomic factors such as the rupiah exchange rate are factors that influence mutual fund fluctuations. According to (Martha & Simbara, 2021) Stable fluctuations in the value of the rupiah against foreign currencies have a positive effect on the investment climate of the capital market sector in Indonesia.

Figure 2. Development of Mutual Funds in Unit



Source : www.reksadana.ojk.go.id

Composite Stock Price Index (JCI)

As an index that is widely used to measure investment in the financial sector, fluctuations in the stock price index greatly affect people's decisions to invest where this index is divided into two types, namely Individual and Joint. (Wismantara, 2017) The function of the Individual Stock Price Index is only to measure fluctuations in the price of a particular stock, whereas if the movement is generally measured in the form of an increase or decrease, the Composite Stock Price Index is used. The formula for calculating the Composite Stock Price Index is the Market Value in units divided by the base value of the stock unit (Hartaroe et al., 2016) The formula for the calculation is as follows:

$$JCI = \frac{\text{Market value}}{\text{Basic Value}} \times 100$$

Where:

Market Value = Listed share price times market price

Base Value = number of shares listed at a time

Changes in market prices always fluctuate every day with stocks increasing or closing, so that currently the JCI is widely used as a benchmark to measure the latest financial market conditions, whether they are in good condition or not.

H1 = JCI has an effect on Mixed Mutual Fund Performance

The Jakarta Interbank Offered Rate (JIBOR)

This rate is an indication of a measuring instrument for interest rates in financial transactions in Indonesia. (Tricahyadinata, 2016) The determination of the deposit interest rate for JIBOR is calculated based on the average time deposit interest rate from state, private and foreign banks which is considered a reflection of the market interest rate on the Jakarta money market. JIBOR generally consists of several types of time distribution, namely per day, week, month, 6 month and year. The use of JIBOR is used to stabilize market conditions that support the financial system in Indonesia.

Investor always use JIBOR as the rank of fluctuations in the offering interest rate banks that reflect stable market conditions.(Hadijah, 2020) currently the best efforts are

continuously being made so that the use of JIBOR can help players maximize their investment in a stable money market. The high and low JIBOR interest rates affect investors decisions to invest in the capital market. (Tricahyadinata, 2016) On the other hand, if the JIBOR interest rate is not optimal, investors will switch to other sectors. So it can be concluded that the higher interest rates will increase the demand for mutual funds, and of course it will affect the performance of mixed mutual funds.

H2 = JIBOR has an effect on Mixed Mutual Fund Performance

Mutual Fund Performance

To determine the performance of mutual funds, analysis is usually carried out on a regular basis. The good performance of mutual funds in each period cannot be used as a guarantee that mutual funds will remain the same for several periods in the future, but the performance of mutual funds in the past can be taken into consideration for investors when choosing the type of investment. JCI becomes a benchmark for the performance of a mutual fund if its value is above the JCI value.(Kurniasih et al., 2015).

Calculation for NAV per unit of mutual fund price after deducting operational costs and then divided by the number of investment units that have been outstanding (owned by investors) at that time. Net asset value is one of the benchmarks in assessing the performance of an investment portfolio. The value of securities changes, in the portfolio affect the amount of NAV. An indication that an increase in net asset value means an increase in income for investors.(Filbert & Prasetya, 2017)

The calculation for net asset value is as follows:

$$Net\ Asset\ Value = \frac{Total\ Assets - Total\ Liabilities}{Number\ of\ Participation\ Units}$$

Net asset value (NAV) is the total assets after deducting existing liabilities. (Tricahyadinata, 2016) Meanwhile, NAV per unit of participation is the total value of net assets divided by the unit value of the number of existing investments. After receiving data from the investment manager, the net asset value per share can be calculated by the custodian bank on a daily basis. Then the results can be seen and published in mass promotion media.

H3 = JIBOR, JCI has an effect on Net Asset Value of Mixed Mutual Funds

RESULTS AND DISCUSSION

Sample

The sampling technique is purposive sampling which use data time series from PT Ashmore Asset Management Indonesia, Tbk. As one of the companies sampled in mutual funds that this namely mixed mutual funds. the period used from January 1, 2021 to December 31, 2021, with total of 245 daily data.

Data analysis technique

The variables used in this study are two independent variables, namely the composite stock price index and the JIBOR index, so the analysis technique used is a multiple linear regression model. (Purnama, 2021) the data is first tested using the classical assumption test, so that it can project the regression model used there are no problems in the form of abnormality, there is multicollinearity, there are symptoms of heteroscedasticity and

there are autocorrelation results. So that the technique used is successive and ensures the data is worth testing.

Multicollinearity Test

The multicollinearity test aims the correlation between independent variable to the dependent variable (Ghozali & Ratmono, 2017). The Variance Inflation Factor (VIF) is the criteria for good or not good model regression.(Hanitha, 2020) If the VIF from the results of the classical assumption test is between 1 to 10, then there is no multicollinearity on the model.

Table 1. Table of Multicollinearity Test

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	11272.51	2559.547	NA
IHSG	7.31E-05	645.0386	1.001311
JIBOR	627.7966	1836.812	1.001311

Source: Processed Data

The VIF test results above show that there is no VIF value greater than 10. Where the VIF value for the JCI variable is 1.001311, the JIBOR variable is 1.001311. Thus, this regression model is proven to have no multicollinearity problem.

Heteroscedasticity Test

If the constant observation of the residual variance has a fixed value, it can be concluded that homoscedasticity has occurred so that the regression model is declared good.(Zatira & Hanitha, 2021)

The current test uses the Glejser test, namely by regressing each independent variable to the dependent variable. Perceptions of equality in heteroscedasticity testing are:

Ho : Condition of non heteroscedasticity,

Ha : Condition of any heteroscedasticity.

The results of the study are explained that if the significance value is less than 0.05, then Ho is rejected (there are symptoms of heteroscedasticity. If the significance value is greater than 0.05, then the Ho hypothesis will be accepted, meaning there are no symptoms of heteroscedasticity).(Ghozali & Ratmono, 2017)

Table 2. Heteroscedasticity Test Glejser Test

F-stat	32.42358	Prob. F (2,242)	0.8889
Obs*R-squared	51.77677	Prob. Chi-Square (2)	0.8867
Scaled explained SS	37.99162	Prob. Chi-Square (2)	0.9124

Source: Processed Data

Autocorrelation Test

This test is used to see whether there is a correlation by usage errors in period t and usage errors in the previous period or $t-1$. (Hanitha, Purnama, & Purnama, 2021)

A regression model can be said when there are no autocorrelation symptoms in the regression model. The test used is the Durbin-Watson (DW) test for autocorrelation, provided that $du < d < 4-du$, then there is no autocorrelation symptom. (Ghozali & Ratmono, 2017)

The results of this study are the DW-stat value of 0.089083 and the comparison of d_l and d_u values in the statistical table. The value of d_l table at $n=245$, $k=3$ and $\alpha=0.05$ is 1.74833 and then the value of d_u is 1.78871. So it can be concluded that the value of $4-d_l = 2.25167$ and $4-d_u = 2.21$, it means that there is no autocorrelation symptom.

Analysis of Multiple Linear Regression

This is used to calculate the independent variable with more than one independent factor. (Purnama & Hanitha, 2021) The statistical tool used in this study is the Eviews Version 10 application. The regression equation can be calculated by the following formula:

$$NAV \text{ of Mixed Mutual Funds} = \alpha + \beta_1 X_1 + \beta_2 X_2 + \varepsilon$$

where:

Y = Total Value Performance of Mutual Funds (NAV)

a = constant value; b_1, b_2 = regression coefficient value

X_1 = Composite Stock Price Index (JCI)

X_2 = value of Jakarta Interbank Offered Rate (JIBOR)

e = error term.

Table 3. Results of Multiple Regression Analysis

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	749.9583	106.1721	7.063612	0.0000
IHSG	0.140925	0.008549	16.48527	0.0000
JIBOR	353.6312	25.05587	14.11371	0.0000

Source: Processed Data

From the calculation, regression equation can be made:

$$\text{Profitability} = 749.9583 + 0.140925 \text{ IHSG} + 353.6312 \text{ JIBOR}$$

So that Penjabaran result of the regression equation is the following:

1. The value of 749.9583 is the value of the multiple linear regression constant. This means that if the variable value of the Composite Stock Price Index (CSPI) and the Jakarta Interchange Bill of Rate or JIBOR is assumed constant, then the increasing of the value of the dependent variable (NAV) will increase by a sum of 749,9583.
2. The value of 0.140925 for the JCI variable is positive. This means that if the JCI variable changes by 1 unit, every increase in the JCI 1, the net asset value will change by 0.140925 assuming other variables do not change.

3. The positive direction on the JIBOR value of 353.6312 is positive, then this shows that if there is an increase of 1 in the JIBOR variable, it will be directly proportional to the NAV value of 353.6312 assuming other variables do not change.

R Test (Correlation Coefficient)

Statistical measurements for two variables often use correlation coefficient data as a measurement tool where the R Test (Correlation Coefficient) is used to analyze the relationship between variables linearly between the dependent and independent variables.. (Hanitha, Dama Yanti, et al., 2022)

The correlation coefficient equation or R test in this study is described as follows:

Table 4. R Test Results (Correlation Coefficient)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-749.9583	106.1721	-7.063612	0.0000
IHSG	0.140925	0.008549	16.48527	0.0000
JIBOR	353.6312	25.05587	14.11371	0.0000

Source : Processed Data

Correlation or relationship between variables can be explained by using the R Test or Correlation Coefficient. So that it can be explained that the value of 16.48 between the composite stock price index variable and the net asset value is positive, less than 0.05, which is 0.0000. So it can be concluded that the relationship between the independent variables has a positive and significant effect on the dependent variable (free). relationship) between the Jakarta Interbank Offered Rate variable and Net Asset Value is 14.11 with a significance value less than 0.05, which is 0.000. This shows that the relationship between the Composite Stock Price Index variable and Net Asset Value is positive and significant.

Coefficient of Determination Test

When researchers measure the model's ability to see the role and influence of the independent variable on the dependent, the coefficient of determination (R²) is used as one of the media used in statistical calculations. The size of the value of R² or the coefficient of determination can explain the variation or pattern created by the dependent variable when it is influenced by the independent variable.(Hanitha, Yoyo, et al., 2022) Adjusted R² value that is close to 1 means that the independent variables provide almost all the information needed to predict the variation of the dependent variable (Ghozali & Ratmono, 2017)

the value of the adjusted R² in the regression model is obtained at 0.652656. This shows that 65.26% of the variation in the dependent variable (Net Asset Value) can be explained by the independent variable (Joint Stock Price Index and Jakarta Interbank Offered Rate), while the remaining 34.74% is explained by other variables or factors that are not included. in this research model.

Simultaneous Test (Test F count)

The F statistical test shows whether all the independent variables included in the model have a joint effect on the dependent variable. (Purnama & Hanitha, 2021)

From the table, there are significant results of 227,3582 with a probability value (sig.) = 0.000. sig value. This will be smaller than $0.05 > 0.0000$, so the regression model can be used to predict the effect of the Composite Stock Price Index and the Jakarta Interbank Offered Rate simultaneously or together where the value is positive and significant to the dependent variable or Net Asset Value.

Partial Test (Test Statistical t)

The Partial tes is variable to signifincany tha independent and dependent value. If there is a significance level below 5 percent, then H_0 is rejected, on the other hand H_a is accepted, and on the other hand if the significance level value is greater than 5%, then H_0 is automatically accepted, H_a is rejected. (Ghiffari et al., 2018)

From the t-test calculation (partial) the t-count value of JCI is 16,48527 with a significance of 0.00, and t-table is 1.651, t-table ($16,48527 > 1.651$), it can be explained that the Composite Stock Price Index has had a positive effect on the NAV of Mixed Mutual Funds with positive and significant value. so it can be concluded that the JCI has a positive and significant influence. The hypothesis from the elaboration of the t-test (partial) obtained that the t-count value for the dependent variable JIBOR is 14.11371 with a sig value of 0.000, and the t-table is 1.651, because the significance value is less than 0.05 ($0.000 < 0.05$) and the t-count value is greater than at t table ($14.1371 > 1.651$), it can be concluded that there is a positive and significant effect of JIBOR on the NAV of mixed mutual funds.

CONCLUSION

There are several conclusions from the calculations that have been described, namely as follows:

1. It can be said that only the composite stock price index has a positive and significant effect on the performance of the net asset value of mutual funds. So it can be concluded that if the JCI value is high, it will have the same effect on mixed mutual fund performance and vice versa.
2. The dependent variable for the Jakarta interchange offered rate (JIBOR) has a positive and significant effect on the performance of the net asset value of mutual funds. Thus, the higher the JIBOR value, there will be an increase in the same value of the Mixed Mutual Fund's Nab, when there is a decrease in the JIBOR interest rate, it will have the same impact on the performance of the Mixed Mutual Fund.

REFERENCE

- Filbert, R., & Prasetya, W. (2017). *Investasi Saham ala Fundamentalis Dunia*. PT Elex Media Komputindo.
- Ghiffari, M. F., Kindangen, P., & Tumewu, F. (2018). The Causality Relationship of Dow Jones Industrial Average (DJIA) and Nikkei 225 Towards Jakarta Composite Index (JCI) Period 2011 - 2016. *Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis Dan Akuntansi*, 6(1), 445-454.
- Ghozali, I., & Ratmono, D. (2017). Analisis Multivariat dan Ekonometrika. In *Universitas Diponegoro*. Badan Penerbit Universitas Diponegoro.
- Hadijah, S. (2020). *Hadapi New Normal, Ini Strategi Bank Indonesia Bantu UMKM Indonesia Bangkit*. Cermati.Com. <https://www.cermati.com/artikel/hadapi-new-normal-ini-strategi-bank-indonesia-bantu-umkm-indonesia-bangkit%0A%0A>
- Hanitha, V. (2020). eCo-Buss The Effect of Excellent Services and Corporate Images to Customer Satisfaction on Financial Banking Sector. *E-Co Buss*, 2(3). <https://sinta.ristekbrin.go.id/authors/detail?id=6686952&view=overview>
- Hanitha, V., Dama Yanti, L., Aprilyanti, R., & Jatiningrum, C. (2022). eCo-Buss Analisis Faktor Penentu Kemandirian Kewirausahaan Inklusif Penyandang Disabilitas: Studi Pada Kota Tangerang Propinsi Banten. *ECo-Buss*, 5(1), 309-323.
- Hanitha, V., Purnama, M., & Purnama, O. (2021). The Effect Of Additive Covid19 Positive Cases And World Gold Prices On The Joint Share Price Index In Indonesia Stock Exchange. *Primanomics*, 19(3).
- Hanitha, V., Purnama, M., Purnama, O., Widiyanto, G., & Angreni, T. (2021). *Pengelolaan Manajemen Pemasaran (E-Commerce) UMKM RW15 Kampung Sejahtera Mandiri Teras Pancasila Tangerang*. <https://jurnal.buddhidharma.ac.id/index.php/ad/article/view/564/326>
- Hanitha, V., Yoyo, T., & Silaswara, D. (2022). *Analysis Effect of BI Rates, Inflation and Exchange Rates on the Composite Stock Price Index on the Indonesia Stock Exchange 2016-2021*. <https://jurnal.buddhidharma.ac.id/index.php/akunto>
- Hartaroe, B. P., Mardani, R. M., & Abs, M. K. (2016). *Pengaruh Inflasi, Suku Bunga Dan Kurs Rupiah Terhadap Indeks Harga Saham Gabungan (IHSG) Periode 2018-2021*. *September 2019*, 82-94.
- Kurniasih, A., David, L., & Johannes, Y. (2015). *ANALISIS VARIABEL MAKROEKONOMI TERHADAP KINERJA REKSADANA CAMPURAN: Vol. XIX (Issue 01)*. www.infovesta.com,
- Martha, L., & Simbara, B. (2021). Pengaruh Inflasi, Suku Bunga BI 7-Day (Reverse) Repo Rate Dan Nilai Tukar Rupiah Terhadap Indeks Harga Saham Gabungan. *Jurnal Pundi*, 05(01), 169-180. <https://doi.org/10.31575/jp.v5i1.349>
- Melyani, I. E. M. A. (2021). PENGARUH INFLASI, SUKU BUNGA, DAN NILAI TUKAR TERHADAP INDEKS HARGA SAHAM GABUNGAN PERIODE 2016 - 2018. *Jurnal Ilmiah Manajemen Dan Bisnis*, 6(1).
- Purnama, M. (2021). *Analysis of Factors Affecting Firm Value in Property , Real Estate and Building Construction Companies Listed on the Indonesia Stock Exchange for the 2014-2018 Period*. 2, 1-14.
- Purnama, M., & Hanitha, V. (2021). Effect of Gold Price, Nickel Price, Used Exchange, Dow Jones Industrial Average, and FTSE Malaysia KLCI on Sharia Share Price Index (Sharia Ida) on The Indonesia Stock Exchange In the Period of January 2020 - December 2020. *E-Co Buss*, 4(1), 159-175. <https://jurnal.kdi.or.id/index.php/eb/article/view/211>

- Trichayadinata, I. (2016). *INDEKS HARGA SAHAM GABUNGAN (IHSG) DAN JAKARTA INTERBANK OFFERED RATE (JIBOR); KINERJA REKSADANA CAMPURAN*. 12(2). <http://journal.feb.unmul.ac.id>
- Wismantara, S. Y. N. P. A. D. (2017). *PENGARUH NILAI TUKAR, SUKU BUNGA DAN INFLASI TERHADAP INDKES HARGA SAHAM GABUNGAN DI BURSA EFEK INDONESIA*. 6(8), 4391-4421.
- Zatira, D., & Hanitha, V. (2021). Pengaruh Current Ratio , Debt To Equity Ratio Dan Renturn On Equity Terhadap Harga Saham Perusahaan Manufaktur Subsektor Food And Beverage Tahun 2016-2020 Yang Terdaftar Dalam BEI. *Akuntoteknologi*, 1, 1-13.