

THE EFFECT OF INFLATION AND IDR EXCHANGE RATE ON NET ASSETS VALUE OF STOCK MUTUAL FUNDS IN INDONESIA WITH THE ROLE OF IDX COMPOSITE AS MEDIATING VARIABLE

* Luqman Hakim¹, Muhamad Ikra², Nuraeni³

^{1,2,3} Universitas Muhammadiyah Jakarta, Indonesia

*Corresponding author.

E-mail addresses: luqman_qia@yahoo.com

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ABSTRACT

Net Asset Value (NAV) is the rational market value of a mutual fund's securities and other assets with fewer liabilities. Net Asset Value can be used as a benchmark in monitoring the results of a mutual fund. Mutual fund results and performance cannot be separated from various internal and external factors. This study purposes to analyze the character of IHSG/IDX Composite in mediating the effect of inflation and the rupiah exchange rate on the equity mutual funds' NAV in Indonesia during the period of 2015-2019. This study benefits panel data with path analysis techniques by using the Smart PLS. The results show that inflation influences negatively and insignificantly on Equity Mutual Funds' NAV. IDX Composite has negative and insignificant effect on Equity Mutual Funds' NAV, and the Rupiah Exchange Rate have the positive and significant influence on Equity Mutual Funds' NAV. The value of the coefficient of determination is 49.8%, which means how much the Equity Funds' NAV can be explained by Inflation, IDX Composite, and Rupiah Exchange Rate. Moreover, the remaining 50.2% is effected by other variables.

Keyword: Inflation, IDX Composite, Rupiah Exchange Rate, and Net Asset Value (NAV)

1. INTRODUCTION

Mutual funds constitute one of the financial investment assets, and mutual fund investments are made by buying a mutual fund unit. The value of each unit will be reflected in the Net Asset Value (NAV) or Net Asset Value (NAV). Mutual funds are a form of investment with good diversification. Through mutual funds, capital from investors is collected to be subsequently purchased by an Investment Manager. Investment risk can be reduced by adding collectively owned funds into various investment objects (portfolios).

Equity Mutual Funds can have greater investment value growth than other mutual funds. Thus, it can be said that compared to money market mutual funds, fixed income mutual funds, and mixed mutual funds, stock mutual funds also have a greater risk. Equity mutual funds are an attractive investment choice for investors for the long

term, with diversification in the mutual fund portfolio to spread the risk, making it an attractive choice to invest the funds.

As an investment instrument, mutual funds have advantages and advantages over other investment instruments. Compared to other investments, mutual funds provide convenience, time efficiency, and more profitable costs. In addition, mutual funds have a relatively low risk compared to others. This is due to the diversification of investments manifested in the portfolio, according to Evinovita et al. (2015). Equity mutual fund investments can get many benefits compared to investing directly in the capital market because an Investment Manager and a Custodian Bank are professional in managing investments, making it easier for investors to carry out their investment activities. Analyze and choose what stocks to buy, when

However, in every form of investment, there will be risks and investing in mutual funds. Behind the convenience and benefits, investors must also understand and accept the investment risks that come with it. Several risks can affect the performance of a mutual fund. The risks that may arise include reducing the value of the participation unit, macroeconomic risk, risk due to political conditions, global market risk. In addressing macroeconomic risks, it is appropriate for investors to study some macroeconomic indicators because they can help investors to make the investment decisions. Macroeconomic indicators related to the capital market are fluctuations in inflation, IDX Composite, rupiah exchange rate, and others.

There is a difference in the average value of mutual funds net assets, total units of participation, inflation, IDX Composite, and the rupiah exchange rate each year from 2015 to 2019. From 2015 to 2019, the value of net assets has always increased, this is in line with the increase that always occurs in total investment units and the IDX Composite every year. In 2015-2016 the average value of mutual fund net assets increased from around 259.095 trillion to 309.220 trillion. Then in 2016-2017, it increased again from 309.220 trillion to 394.553 trillion. Then in 2017-2018, it increased again from 394.553 trillion to 454.078 trillion. Moreover, in 2018-2019 again increased from 454.078 trillion to 528.914 trillions. Likewise, the total investment units are always increasing every year, wherein 2015 it was 167,113 billion and increased in 2016 to 210.688 billion units. Then in 2017, it increased to 282,929 billion units. In 2018 it increased again to 330.278 billion units, and in 2019 it rose to 399.773 billion units.

As for inflation, there are fluctuations in each year of observation, namely in 2015 by 6.38%, decreasing in 2016 to 3.53%. Then in 2017, it increased from 3.53% to 3.81%. In 2018 it decreased from 3.81% to 3.20%, and in 2019 it decreased again from 3.20% to 3.03%. IDX Composite always increases every year, from 2015, 4,875 experienced an increase in 2016 to 5,060. Then in 2017, it increased to 5,785. In 2018 it increased again to 6,099, and in 2019 it rose to 6,325. Meanwhile, the rupiah exchange rate fluctuated every year of observation, namely in 2015 by 14,146, it increased in 2016 to 14,246. Then in 2017, it decreased from 14,246 to 13,384. In 2018 it again decreased from 13,384 to 13,307. Moreover, in 2019 it increased from 13,307 to 13,391. Namely, in 2015 amounted to 14,146, an increase in 2016 to 14,246. Then in 2017, it decreased from 14,246 to 13,384. In 2018 it again decreased from 13,384 to 13,307. Moreover, in 2019 it increased from 13,307 to 13,391. Namely, in 2015 amounted to 14,146, an increase in 2016 to 14,246. Then in 2017, it decreased from 14,246 to 13,384. In 2018 it again decreased from 13,384 to 13,307. Moreover, in 2019 it increased from 13,307 to 13,391.

2. LITERATURE REVIEW

NAV is a benchmark in seeing investment returns on mutual funds. NAV /United Participation is the mutual fund portfolio that has the fair price after subtracted the operational costs and divided by the number of outstanding participation units in a period. The Investment Manager reports the net asset value to the Custodian Bank. Custodian Bank is a financial institution that specifically handles and records Investment Manager assets to be announced to the public through newspapers every day, according to Kurniasih and Johannes (2015).

According to Sukarno (2010, p. 14), Inflation means the increased prices process that generally applies in the economy. Inflation means the rising price trend for nonstop, the higher the price increase, the value of the currency will decrease and affect the development of the portfolio. Pasaribu and Kowanda (2014) say that inflation is one of the factors that investment managers pay attention to in their considerations, especially with the development of a mutual fund's NAV. Hemawan and Wuagustini (2016) in their research found that inflation effects on the performance of stock mutual funds negatively and significantly. This result is in line with research conducted by Adrian and Rachmawati (2019), which states that inflation effected on the Islamic mutual funds' NAV negatively and significantly. Meanwhile, according to Nandari (2017), in his research, found that inflation effect the Islamic mutual funds' NAV positively and insignificantly. According to Tandelilin (2010, p. 342),

inflation causes a tendency to increase the products price entirely. High inflation will decrease the level of actual income generated by investors from investing.

On other hand, if a country's inflation rate declines, this positive signal shows the risk of purchasing power and actual income will decline. Meanwhile, according to Nandari (2017), in his research, he found that inflation effects the Islamic mutual funds' NAV positively and insignificantly. According to Tandelilin (2010, p. 342), inflation causes a tendency to increase the products price wholly. High inflation diminishes the level of actual income obtained by investors from investing. On the other hand, if a country's inflation rate falls, this positive signal causes the fall of purchasing power and actual income. Meanwhile, according to Nandari (2017), in his research, he found that inflation effects Islamic mutual funds' NAV positively and insignificantly.

According to Jugiyanto (2013, p. 147), the Composite Stock Price Index is a stock price index number that has been accumulated and measured by generating a trend. An index number is a number to be used to compare events and can be changed in stock prices from time to time. Stock price fluctuations reflected by the IDX Composite do not only reflect the development of a country's company or industry. However, the IDX Composite figure can be a more fundamental factor than a country, the progress or decline of a country can be seen from the IHSG figure.

Sholihat et al. (2015) in their research suggests that the IDX Composite effects the rate of return of stock mutual funds positively and significantly. Different results from research conducted by Septiana (2017) found that the IDX Composite effects the Islamic mutual funds' NAV negatively and significantly.

Sukarno (2011, p. 397) defines the exchange rate as the current price for one country. So that the exchange rate for rupiah currency can be interpreted as the selling price or buying price of the rupiah against currencies other than the rupiah. The exchange rate is a macroeconomic variable that also affects the validity of stock prices. This is because the unstable exchange rate is considered to impact the company's production factors. Citraningtiyas (2016), found that rupiah exchange rate effects the mutual funds' NAV positively and significantly, while Fredi (2018) discovered the opposite.

The weakening of rupiah exchange rate does not always have a negative impact on economic sectors in Indonesia. The value of the rupiah currency, which continues to fluctuate, will certainly impact the Indonesian economy, both positive and negative impacts. One of the negative impacts is that if the rupiah exchange rate decreases, production costs will increase, and company debt will increase so that the company's profit-sharing or profit will decrease, this will affect investors in investing and cause investment to be no longer attractive to investors, thereby lowering the value of the company. An investment that impacts decreasing the NAV of mutual fund. While the positive impact of the decline in the rupiah exchange rate can be felt by companies that carry out export activities and tourism industry companies, this is because the prices of local products will be more competitive in the global market, so that domestic industries have the opportunity to increase exports and decrease rupiah exchange rate can attract foreign tourists to come to visit Indonesia. So that indirectly, the decline in the rupiah exchange rate also increases state revenues.

The independent variables used herein are Inflation, IDX Composite, and Rupiah Exchange Rate. The dependent variable consists of Net Asset Value (NAV) of Equity Mutual Funds.

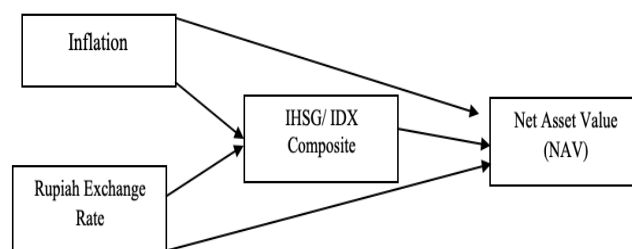


Figure 1. Thinking Framework

3. METHODS

The research nature is associative with quantitative method. The research tries to define the relationship of Inflation, IDX Composite, and Rupiah Exchange Rate Against Net Asset Value (NAV) of Equity Mutual Funds during the period of 2015-2019. In this study, secondary data is obtained through the site <http://www.reksadana.ojk.go.id>, <http://www.bi.go.id>. In this study, the object is a stock mutual fund registered on the OJK website in the form of NAV report obtained from the official website <http://www.reksadana.ojk.go.id> and <http://www.bapepam.co.id>. Researching to obtain the data and information needed by researchers takes time from April 2020 - January 2021. A number of 61 stock mutual fund products that are active and listed at Bapepam selected for the population of this study. Meanwhile, purposive sampling method is used for samples taken. Data collection methods benefit the literature study and documentation methods. This study uses panel data with path analysis techniques using the Smart PLS application.

4. FINDINGS AND DISCUSSION

Measuring Outer Model or Measurement Model

Table 1. Outer Loadings (Measurement Model)

Variable	Value of Outer Loadings	Description
Inflation		
2016	0.809	Valid
2017	0.910	Valid
2018	0.874	Valid
2019	0.882	Valid
2020	0.912	Valid
Rupiah exchange rate		
2016	0.707	Valid
2017	0.957	Valid
2018	0.950	Valid
2019	0.938	Valid
2020	0.886	Valid
Composite Stock Price Index		
2016	0.911	Valid
2017	0.928	Valid
2018	0.886	Valid
2019	0.935	Valid
2020	0.898	Valid
Net Asset Value (NAV)		
2016	0.876	Valid
2017	0.883	Valid
2018	0.936	Valid
2019	0.963	Valid
2020	0.745	Valid

Source: (processed data)

Smart PLS is used for data processing results (Table 1). The outer loading of all dimensions has met convergent validity as their loading factor value > 0.60.

Evaluating Reliability and Average Variance Extracted (AVE)

Table 2. Composite Reliability and Average Variance Extracted

Variable	Composite Reliability	Average Variance Extracted (AVE)
Inflation	0.843	0.645
Rupiah exchange rate	0.940	0.800
JCI	0.940	0.840
NAV	0.916	0.786

Source: (processed data)

Table 2 presents all constructs meet the reliable criteria (composite reliability value > 0.70 and Average Variance Extracted > 0.50) as recommended criteria. IDX Composite is the variable with the highest CR and AVE values, 0.940 and 0.840, respectively. Meanwhile, the Rupiah Exchange Rate has the same Composite Reliability value as the IDX Composite of 0.940, but the Extracted Average Variance is lower at 0.800. Net Asset Value has CR of 0.916 and AVE of 0.786. The last one is Inflation with the CR value of 0.843 and AVE of 0.645

Structural Model Testing (Inner Model)

The relations between the constructs, the significance value, and R-square can be tested by testing the structural model. The structural path parameters are evaluated by using R-square, t-test and coefficient of significance. R-square for each latent dependent variable indicate model assessment. R-square estimation by SmartPLS is presented below.

Table 3. R Square value

Variable	R Square
JCI	0.780
NAV	0.688

Source: (processed data)

This study uses 2 influenced variables: IDX Composite which is influenced by inflation and rupiah exchange rate. In contrast, NAV which is influenced by inflation, rupiah exchange rate, and IDX Composite.

Table 3 presents IDX Composite is 78% influenced by the Inflation and Rupiah Exchange Rate variables (R-square of 0.780) Meanwhile, NAV is 68.8% influenced by inflation, Rupiah Exchange Rate, and IDX Composite (R-square of 0.688).

Hypothesis testing

The closeness of influence between research variables will be decided by looking at the significance of estimated parameters. Simulation is used in PLS for each hypothesized relationship and estimated output for structural model testing as presented in Table 4. Bootstrapping was carried out and intended to decrease the problems on abnormal data.

Table 4. Result for Inner Model

Variable Effect		Original Sample (O)	Sample Mean (M)	Standard Deviation (STD DEV)	T Statistics (O/STD DEV)	P Values	Keep .
<i>Direct Effects</i>	Info -> JCI	-0.786	0.678	0.303	2,597	0.010	Sign.
	Info -> NAV	-0.672	0.233	0.318	-0.355	0.032	Sign.
	NTR -> JCI	0.498	0.490	0.377	3,969	0.000	Sign.
	NTR -> NAV	0.787	0.790	0.387	2.034	0.042	Sign.
	JCI -> NAV	0.510	0.158	0.121	1.217	0.024	Sign.
<i>Indirect Effects</i>	Info -> JCI -> NAV	-0.401	0.361	0.313	1,981	0.047	Sign.
	NTR -> JCI -> NAV	0.580	0.087	0.229	0.251	0.028	Sign.

Source: (processed data)

The following details resulted from results of the bootstrapping test:

Direct Effect

Inflation effects IDX Composite negatively and significantly

The testing results of H1 show that the inflation variable effects on IDX Composite (path coefficient of -0.786, p-value of 0.010). Therefore, Inflation (Inf) effects IDX Composite negatively and significantly (p-value < 0.05).

Inflation effects Mutual Funds' NAV negatively and significantly.

The testing results of H2 show that the inflation variable influences on Mutual Funds' NAV (path coefficient of -0.672, p-value of 0.032). value is Therefore, inflation effects transparency significantly and negatively (p-value < 0.05). In other words, the results of hypothesis 2 are made by the hypothesis in the previous chapter.

The Rupiah Exchange Rate effects Composite Stock Price Index (IDX Composite) positively and significantly

The testing results of H3 indicate that rupiah exchange rate variable effects IDX Composite (path coefficient of 0.498, p-value of 0.000). This proved that Rupiah Exchange Rate influences IDX Composite positively and significantly (p-value < 0.05). Thus hypothesis 3 is accepted.

The Rupiah Exchange Rate effects Mutual Funds' NAV positively and significantly.

The testing results of H4 indicate that Rupiah Exchange Rate variable influences Net Asset Value/ NAV (path coefficient of 0.787, p-value of 0.042). This shows that Rupiah Exchange Rate effect positively and significantly on the mutual funds' NAV (p-value < 0.05). Thus Hypothesis 4 is accepted.

IDX Composite effects Mutual Funds' NAV positively and significantly.

The testing results of H5 indicate that IDX Composite variable effects on Net Asset Value/ NAV (path coefficient of 0.510, p-value of 0.024). Hence, IDX Composite influences financial performance positively and significantly (p-value < 0.05). Then hypothesis 5 is accepted.

Indirect Effect (Indirect Effect)

The role of IDX Composite in mediating the effect of Inflation on Mutual Funds' NAV

The testing results of H6 find the role of IDX Composite in mediating the effect of inflation variable on Net Asset Value/ NAV (path coefficient of -0.40, p-value of 0.0471), meaning that the value is smaller than the significant level of 0.05. These results indicate that the IDX Composite as a mediating variable effects positively and significantly of inflation on Net Asset Value (NAV). So that the IDX Composite can mediate the inflation effect on NAV. Therefore the hypothesis that the authors propose in Chapter 2 of the role of the IDX Composite in mediating the effect of inflation on mutual funds' NAV is proven.

The IDX Composite role in mediating the influence of Rupiah Exchange Rate on Mutual Funds' NAV

The testing results of H7 indicate that the IDX Composite role in mediating the influence of Rupiah Exchange Rate variable on Net Asset Value of Mutual Funds' NAV (path coefficient of 0.58, p-value of 0.028). These results indicate the IDX Composite role to influence of 58% positively and significantly in mediating the Rupiah Exchange Rate effect on Mutual Funds' NAV in Indonesia (p-value < 0.05).

5. CONCLUSION

These conclusions are based on data analysis in the previous chapter.

- 1) Inflation effects Composite Stock Price Index negatively and significantly. If inflation increases, the IDX Composite will decrease, and vice versa if inflation decreases, the IDX Composite will increase.
- 2) Inflation effects Mutual Funds' NAV negatively and significantly. It means that if inflation increases, Mutual Funds' NAV will decrease, and vice versa. If the inflation decreases, NAV will increase.
- 3) Rupiah Exchange Rate effects Composite Stock Price Index positively and significantly. This means having a unidirectional influence.
- 4) Rupiah Exchange Rate effects Mutual Funds' NAV in Indonesia positively and significantly.
- 5) Composite Stock Price Index impacts Mutual Funds' NAV in Indonesia positively and significantly.
- 6) IDX Composite plays a role in mediating the effect of Inflation on Mutual Funds' NAV in Indonesia
- 7) IDX Composite plays a role in mediating the influence of the Rupiah Exchange Rate on Mutual Funds's NAV in Indonesia

Based on the conclusion above, the IDX Composite is a full mediating variable.

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