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The Effect of SBSN, ISSI, Inflation and BI 7 DAY REPO Rate Toward Net Asset Value of Islamic Mutual Funds in 2016-2019

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Abstract

This research aimed to analyze the effect of SBSN, ISSI, Inflation and BI 7 Day Repo Rate toward Net Asset Value (NAB). Data used in this research were data of 2016-2019. The research method used multiple linear regression using Eviews 9 data processing. The results of the research showed that the t-test statistic of SBSN and ISSI had a positive effect toward NAV with probability values of 0.0462 and 0.0000 <0.05. BI 7 Day Repo Rate had a negative effect with a probability value of 0.0365 <0.05. Furthermore, for inflation, it had no effect toward NAV because the probability was 0.3159> 0.05.

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INTRODUCTION

Based on Financial Planning Standard Board (FPSB), financial planning is a process to reach financial goals of individual through financial management,in an integrated and planned manner. In addition to the definition of financial planning in general, there is also Islamic financial planning. According to the Financial Services Authority (FSA/OJK) the meaning of Islamic financial planning is when the process carried out in achieving financial goals is not in conflict with Islamic principles and is oriented not only to the world but also to the hereafter. These principles include allocating funds for zakat, infaq, and alms; minimize debt; set financial goals in accordance with Islamic teachings; prepare an emergency fund; using financial products with sharia principles; accustoming simple and non-consumptive lifestyle (www.cnbc.indonesia.)

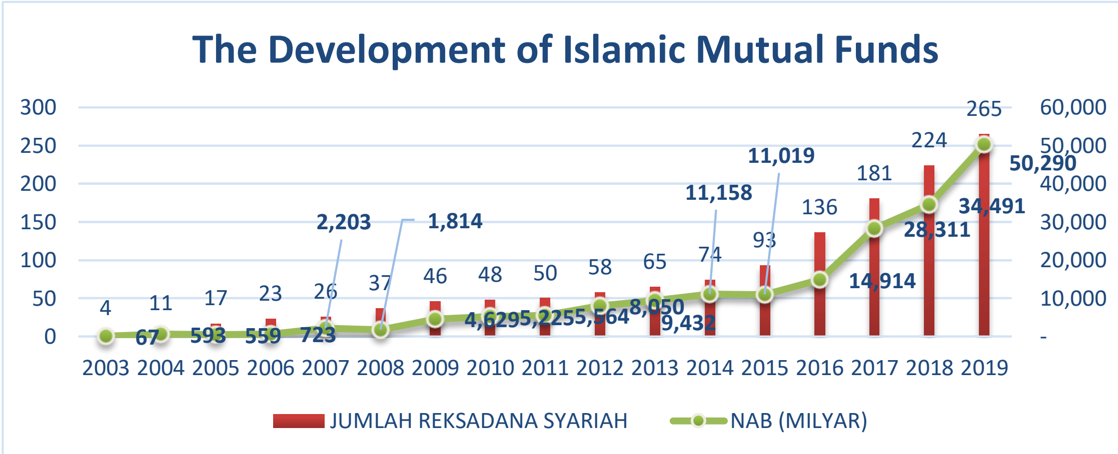
Financial planning can be conducted by short-term and long-term investments. Islamic mutual funds are an investment alternative for the investor community, especially small investors and those who do not have much time and expertise to calculate the risk of their investment. Mutual fund investment can be considered to be relatively more conservative because it avoids large fluctuations and losses. However, obviously the capital gain is not as great as stock investment. Diversification in the portfolio of mutual funds will minimize the risks faced by investors and even allow investors to profit optimally (M. Irsan Nasarudin et al, 2011).

The role of investment manager is important to optimize investment in each Islamic mutual fund products. There are 7 types of Islamic mutual funds based on portfolio contents. There are money market syariah mutual funds, fixed income, shares, mixed, indices, foreign sharia securities and sukuk-based mutual funds. Each type of mutual fund has a different investment policy. Money market of Islamic mutual funds are mutual funds that only invest in fixed income sharia securities with a period of not more than 1 (one) year. Fixed income Islamic mutual funds, Islamic equity mutual funds and index Islamic mutual funds, for investments are at least 80% of the net asset value. Mixed Islamic mutual funds, Islamic based mutual funds and Islamic/sharia based mutual funds, for investments are 79%, 51%, 85% of the net asset value, respectively.

NAB/NAX is one of one measure of performance of Islamic mutual funds. NAV is related to the value of the mutual fund portfolio in question. The assets of mutual funds can be in the form of cash, deposits, SBI, SBPU, commercial securities, stocks, bonds, and so forth. While mutual fund obligations can be in the form of unpaid manager fees, unpaid taxes, and unpaid securities. Debt securities (bonds) consistently receive fixed coupon payments from their issuance. In practice, the coupon is not forwarded to investors but it is reinvested. The results of this reinvestment will then add to the value of Islamic mutual funds, thus the prices will rise. Bond and money market prices can change according to changes in interest rates and inflation.

Based on statistical data from the Financial Services Authority (FSA), growth in the number of Islamic mutual funds and net asset values has always increased. In 2003, mutual funds were only 4 and until the last year in August 2019, the number of mutual funds had reached 265 with a net asset value of 50,290 (billion). However, along the journey from 2003-2019, Net asset value had decreased in 2008 and 2015. In 2007, net asset value of 1.17% was 2,203 (billion). In 2008, it fell to 0.96% with a net asset value of 1,814 (billion). The decline was not too long felt by investors. In 2009-2014, net asset value growth had begun to improve. There was a decrease again in 2015, which was a net asset value of 11,019 (billion). It was 11,158 (billion) in the previous year.

The graphic below is the development of Islamic mutual funds in 2003-2019



Source: www.ojk.go.id

If it is observed, the cause of NAV decrease in 1998 was due to Indonesia's economic crisis. Thus, it was often called the dark period. The economic crisis re-occurred in 2008, known as the subprime mortagage crisis in the United States. Lehman Brothers suffered the biggest bankruptcy in the history of the United States. The bankruptcy of the fourth largest investment bank in the United States did not only shook the United States but also brought a severe wave of the global financial crisis. The impact spread to many countries, including Indonesia. The rupiah exchange rate dropped to Rp 12,650 per USD. The level of trust had declined and many foreign investors had withdrawn their funds (kompasiana.com). In 2015, the condition of the Indonesian economy was not so good. It was seen from the economy which was still slowing and turmoil on the financial markets. The global level situation had a negative impact on the Indonesian economy due to a number of structural problems in the domestic economy.

Economic growth in 2019 was still stagnant in 5%. It was because turmoil of the global economy. The trade war caused uncertainty and pressure on the economy. The trade war between the United States and China heated up. The two countries had begun implementing mutual tariffs on commodities which had been effective since early September 2019. The results of the Katadata Investor Confidence Index (KICI) survey state that investor confidence in the financial market has affected global economic conditions sharp decline due to the trade wars of the United States and China. Slowing world economic growth is a factor triggering the magnitude of investor pessimism. Based on the growing development of Islamic mutual funds accompanied by uncertainty of global economic movements both the economic crisis occurred in 2015, and the trade war in 2019. Thus, this research is entitled the influence of SBIS, ISSI, Inflation and BI 7 Repo Rate on NAV Islamic Mutual Funds.

Previous Research and Hypothesis Development

Financial Fervices Authority FFA/OJK) have released the OJK regulation No. 19/2015 which regulates issuance of sukuk-based Islamic mutual funds. Sukuk-based Islamic mutual funds, hereinafter referred to as RDSBS, is Islamic mutual funds which can invest in sukuk with a composition of at least 85% of the net assets value of Islamic mutual funds invested in sukuk offered in Indonesia through Government Islamic Securities. In addition to SBSN, Bank Indonesia has issued sharia-based valuable certificates as investment products which are SBIS (Bank Indonesia Sharia Certificates) and SWBI (Bank Indonesia Wadiah Certificates). They have their respective characteristics. The results of research conducted by Annisa, Sholihah, (2008) is that SWBI has no effect on the performance of Islamic mutual funds. Apriliana (2014) and Febrian (2015) provided the results of SBIS research that it has a positive but not significant effect toward NAVs of Islamic mutual funds. According to Sharia Financial Market Deepening Policy Analyst in the second semester of 2019, it was estimated that the growth of net assets value (NAV) of Islamic mutual funds had shown positive development. This was driven by more emissions from corporate sukuk issued (https://republika.co.id).

H1: SBSN has a positive and significant effect toward NAV

ISSI is an indicator from the performance of Indonesian Islamic stock exchange. The ISSI

constitution is all Islamic shares listed on the IDX and entered into the Islamic Securities List (DES) issued by OJK/FFA. Compared to other mutual fund instruments, this stock is an instrument which is able to provide the highest level of profit as well as the level of risk. If investing in sharia mutual funds, the instrument used is shares listed on the Indonesian Sharia Stock Index (ISSI). Therefore, ISSI is one indicator which can effect the movement of NAVs. Research conducted by Riska Yanty (2017) provides research results that ISSI has a positive and significant effect on the performance of Islamic mutual funds.
H2: ISSI has a positive and significant effect on NAV

The economy will always be associated with inflation. Inflation is a phase when there is a consistent increase related to goods and services. It causes the purchasing power of money to decrease. Investors must have a strategy or an effort to maintain assets so that at the time of inflation, investors are assisted to make use of savings funds appropriately. The results of research conducted by Gigih (2018) explained that there is no effect of the inflation rate on NAVs of Islamic mutual funds in the long and short terms. However, it was different from studies conducted by Ibram, P and Ajeng, (2019). It showed that inflation has a negative effect on Islamic mutual funds. While Riwi Sumantyo's research (2019) results stated that in inflation, it has a positive and significant effect toward NAV. The difference from the results of the researches makes it necessary for other answers to support one of the results of the research.
H3: The inflation rate has a negative and significant effect on NA

The use of BI 7 Day Repo Rate as reference rate has been applied since August, 19th 2016. Before this period, the benchmark interest rate used the BI Rate. The time span of the BI 7 Day Repo Rate is shorter. Thus, the automatic BI 7 Day Repo Rate has a lower interest rate than the BI Rate. Using the BI 7 Day Repo Rate instrument as a new policy rate, there are three main impacts expected; First is the strengthening of monetary policy signals with the 7-day Repo Rate interest rate as the main reference in the financial markets. Second is to increase the effectiveness of monetary policy transmission through its influence on the movement of money market interest rates and bank interest rates. Third is the formation of deeper financial markets, particularly transactions and the formation of interest rate structures on the interbank money market (PUAB) for a period of 3-12 months (Riza Ardian, 2019). According to research conducted by Inas Yunita (2018), the results showed that the BI 7 Day Repo Rate has a negative and significant effect toward net assets value (NAV) of Islamic mutual funds. This shows that an increase in interest rates will have an impact on decreasing NAVs. Thus, investors divert their funds from mutual funds to other instruments with higher returns.
H4: BI 7 Repo Rate has a negative and significant effect toward NAV

DATA AND METHODS

This research used independent variable of SBSN, ISSI, Inflation rate, BI 7 Day Repo Rate and NAV Islamic Mutual Funds as the dependent variable. The sampling technique in this research used a nonprobability sampling technique. It is a sampling technique which does not provide equal opportunity or opportunity for each element or member of the population to be selected as a sample. This research used secondary data sources from April 2016 to November 2019. It used monthly reports so that the data were collected of 44 samples. Secondary data in this research were obtained from sharia mutual fund statistics of the Financial Services Authority (OJK) concerning Net Asset Value of Islamic Mutual Funds and SBSN (State Sharia Securities), Bank Indonesia Data on Inflation and BI 7 Day Repo Rate, Indonesian Stock Exchange (IDX)) regarding ISSI.

DISCUSSION

Multiple Linear Regression Test

Table 1. Result of Multiple Linear Regression Test

Dependent Variable: LOGNAV
Method: Least Squares
Date: 01/07/20 Time: 00:26
Sample: 1 44
Included observations: 44

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	8.144631	1.133274	7.186813	0.0000
SBSN	7.04E-05	8.08E-06	8.712265	0.0000
INFLATION	-0.098440	0.096900	-1.015899	0.3159
ISSI	1.02E-05	4.96E-06	2.059000	0.0462
BIRTATE	-0.162394	0.074980	-2.165845	0.0365

R-squared	0.840221	Mean dependent var	10.09564
Adjusted R-squared	0.823834	S.D. dependent var	0.516408
S.E. of regression	0.216748	Akaike info criterion	-0.113522
Sum squared resid	1.832201	Schwarz criterion	0.089227
Log likelihood	7.497480	Hannan-Quinn criter.	-0.038333
F-statistic	51.27184	Durbin-Watson stat	0.480349
Prob(F-statistic)	0.000000		

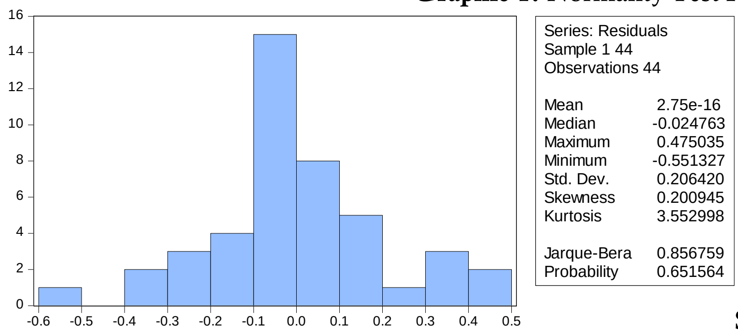
Source: output of Eview 9, processed data

The results of test using Least Squares method showed that t-statistic of SBSN and ISSI had positive effect to NAV with probability values 0.0462 and 0.0000 <0.05. BI 7 Day Repo Rate had a negative effect with a probability value of 0.0365 <0.05 and for Inflation, it had no effect toward NAV because the probability was 0.3159> 0.05.

SBSN had a coefficient value of 7.04 which means that if the SBSN rises 1% then the NAV will increase by 7%. ISSI had a coefficient value of 1.02. Thus, if ISSI rises 1% then NAV will also increase by 1.2%. The BI 7 Day Repo Rate coefficient was -0.1623. It means that when the BI 7 Day Repo Rate increases by 1%, the NAV will decrease by 0.16%. Therefore, it affects the NAV. Inflation had a coefficient of -0.09. It means that when inflation rises by 1%, then the NAV will decrease by 0.09%, but the decrease in the NAV caused by inflation did not have a significant effect toward the NAV. Therefore, the investor does not need to worry about the capital invested simply because of inflation.

Normality Test

Graphic 1. Normality Test Result



Source: Output Eviews 9, Processed Data

Normality test is to examine whether residual values that have been standardized in the regression model are normally distributed or not. The way to carry out a normality test can be conducted with a normal probability plot graph analysis approach. In this approach, residual values are normally distributed if the lines (dots) that represent the actual data will follow or move closer to the diagonal line. From the test results above, it can be seen that the Jarque-berra probability value of 0.651> 0.05. It means that the research data residuals are normally distributed.

Multicollinearity Test

Table 2. Result of Multicollieartity Test

	INFLATION	ISSI	BIRATE	SBSN
INFLATION	1.000000	-0.091563	-0.509813	-0.384931
ISSI	-0.091563	1.000000	-0.074070	0.531231
BIRATE	-0.509813	-0.074070	1.000000	0.493606
SBSN	-0.384931	0.531231	0.493606	1.000000

Source: Output Eviews 9, Processed Data

Multicollinearity test aims to examine whether model is formed due to high or perfect correlation among independent variable (independent). If it is found that there is a high correlation between independent variables, it can be stated that there are symptoms of multicollinearity in the research. The correlation value which can be tolerated in the multicollinearity test is 70 percent or 80 percent (0.7 or 0.8). From the multicollinearity test results, the correlation value is -0.091563, -0.50098 and -0.3849 <0.7. Thus, it can be concluded that there is no multicollinearity problem in the research variables. with this result a classic assumption test has been fulfilled.

Heteroscedasticity Test

Table 3. Result of Heteroscedasticity Test

Heteroskedasticity Test: White

F-statistic	0.775017	Prob. F(14,28)	0.6857
Obs*R-squared	12.00920	Prob. Chi-Square(14)	0.6056
Scaled explained SS	79.83429	Prob. Chi-Square(14)	0.0000

Source: Output Eviews 9, Processed Data

Heteroscedasticity Test is used to find out the existence of deviations of classical assumptions. Heteroscedasticity is the variance of the residual inequality for all observations in the regression model. The requirement that must be fulfilled in the regression model is the absence of heteroscedasticity symptoms. If the value of prob is <0.05, there is a symptom of heteroscedasticity in the model while if the value of prob is > 0.05, then there is no symptom of heteroscedasticity in the research. From the results of the heteroscedasticity test using the white method, the prob valuewas 0.6056> 0.05. Therefore, it can be concluded that there were no symptoms of heteroscedasticity.

Autocorrelation Test

Table 4. Result of Autocorrelation Test

Heteroskedasticity Test: White

F-statistic	0.775017	Prob. F(14,28)	0.6857
Obs*R-squared	12.00920	Prob. Chi-Square(14)	0.6056
Scaled explained SS	79.83429	Prob. Chi-Square(14)	0.0000

Source: Output Eviews 9, Processed Data

Autocorrelation Test is a correlation between residuals in one observation with another in the regression model. Autocorrelation can be known through the Breusch-Godfrey Test, in which if the value of prob is <0.05, then autocorrelation symptoms occur while if the value of prob is> 0.05, then autocorrelation symptoms do not occur. From the results of the autocorrelation test above, it can be seen that the prob is 0.9300> 0.05, it can be concluded that there were no autocorrelation symptoms in the research model.

Simultaneous Significance Test (F-test)

F-test is to examine the effect of the independent variable toward the dependent variable as a whole. From the results of the statistical F test, it was found that the F statistic was statistically significant at 0.0000. It indicates that overall, all independent variables was able to explain the dependent variable. SBSN, ISSI, Inflation and BI 7 Day Repo Rate together were able to affect NAV (Nett Asset Value).

Coefficient of Determination (R^2)

The value of coefficient of determination will tend to be bigger if the number of independent variables and the amount of data is observable a lot. Therefore, the adjusted R^2 size is used to eliminate bias due to the addition of the number of independent variables and the amount of data observed. Adjusted R Squared describes how the variable affects the NAV. Through the analysis of the eviews, this research produced an R^2 adjuster of 0.8238. Therefore, it can be stated that the SBSN, ISSI, inflation and BI 7 Day Repo Rate variables have an effect toward the NAV.

CONCLUSION

Islamic mutual funds are an investment alternative which uses investment managers as investors' advisers on the proper placement of capital according to Islamic principles and they are profitable. Islamic mutual funds have 7 types of investment and each has each classification of the percentage of investment to NAV, return of shares and investment period. NAV can be influenced by several internal and external factors which are macroeconomics. SBSN and ISSI. They are products which can be used for investors to invest through sukuk Islamic mutual funds and shares. Inflation and the BI 7 Day Repo Rate are macroeconomic factors used in research. In the range of 2016-2019 inflation and the BI 7 Day Repo Rate, it has increased. Thus, that it will cause an effect toward NAV. The results of data processing produce SBSN and ISSI had a positive effect toward NAV. More investors are investing in sukuk-based mutual funds and stocks will increase mutual fund's net asset value. While inflation does not have a negative effect toward NAV. Inflation is indeed seen as a threat to financial conditions. Thus, people or investors will think about their investment portfolios. However, it will be better if investors continue to invest compared to maintaining cash in cash. Although inflation occurs, an investment will still return results, but there will be a decrease. BI 7 Day Repo Rate has a negative and significant effect toward NAVs of Islamic mutual funds. This is because interest rates. When they increase, it will make an investment less attractive and borrowing costs will increase. In addition, the stock market will tend to go down which can be detrimental to stock investors either investing in shares individually or in equity funds.

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