THE EFFECT OF LEVERAGE AND ASSET PRICES ON MUTUAL FUND RISK IN MUTUAL FUND COMPANIES IN INDONESIA

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ABSTRACT

This study aims to know the effect of Leverage and Asset Prices on Mutual Fund Risk. This research was conducted at equity mutual fund companies listed in OJK for the period 2018-2019. This study used purposive sampling with a total sample of 23 equity mutual funds. The type of data used is quantitative data and the data source is in the form of company annual financial reports. The data analysis tools used were descriptive statistics and panel data regression The results of this study find that mutual fund is managed by an investment manager with high leverage and high asset prices will have a high risk as well, and can be suppressed when the investment manager creates a low level of leverage and a low asset prices.
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Keywords: *Leverage, Asset Price, and Mutual Fund Risk*

PRELIMINARY

Mutual funds are investments with a high rate of return, in line with the size of mutual funds returns, it is very important to know the risks of investing activities carried out. Risk is the level of potential caused by circumstances that are not in accordance with the expected results and at risk there is a systematic difference between free funds and free funds, Boguth & Simutin (2014). Gałkiewicz (2015) suggested that a strong effect would arise from a no-burden fund. Mutual funds are one of the investments in Indonesia which is an easy investment alternative for investors in Indonesia. As a place to invest, mutual funds certainly have risks.

Boguth & Simutin (2014) shows that theoretically mutual funds will have a risk of leverage when constrained and increased, but this does not apply to all mutual fund products. For example, in companies Aberdeen Standard Investments Indonesia, PT with mutual fund products Aberdeen Standard Indonesia Balanced Growth Fund, there was a decrease in the value of leverage from 34,152,883,330 in 2018 to 30,993,494,784 in 2019, with the condition that the beta value in 2018 was 0.715 and then increased in 2019 to 0.722. There are several factors that affect the risk in the company, such as research conducted by Bhatti et al., (2010) said namely the size of the company, the complexity of business activities, volume, assets, and the leverage of an investment portfolio. Company size through assets and leverage is one of the factors that influence risk. Mutual funds in

funding conditions are driven by the value of the performance and the ability of the managerial agent to carry out liquidity in time so that it does not pose a risk in accordance with the statement of agency theory.(Safdar & Yan, 2017).

In the use of assets or leverage by the principal, it is very important to pay attention to emphasizing risk. Apart from emphasizing leverage, asset prices also influence the risk of mutual fund companies. Aymanns & Farmer (2015)argued that the condition of asset prices in pricing will pose a risk. When funding limits are high and have strict constraints on the use of asset prices the risk factor is high as well, but this does not apply to all mutual fund products. As an example of a company Aberdeen Standard Investments Indonesia, PT with mutual fund products Aberdeen Standard Indonesia Balanced Growth Fund. The value of asset prices owned decreased in 2018 by 1,907.21 to 1,901.37 in 2019 however, the risk or beta value increased from 0.715 in 2018 to 0.722 in 2019. This is not in accordance with the above statement that the greater the asset value, The more big risk too.

LITERATURE REVIEW

In agency theory, the management of the source of funds is carried out by the agent when the management is not carried out properly, it will increase the risk. When the agent is tightening or limiting leverage, it will lead to risk to the company or mutual fund, while managing the source of funds or leverage and controlling leverage can reduce the risk of mutual funds, (Eisenhardt & Eisenhardt, 2018). So that the higher the leverage, the higher the risk of the mutual fund company. In Boguth & Simutin (2014) disclosed that leverage will have a significant effect on the risk where leverage binds assets so that it affects risk. Risks will also occur when the use of leverage cannot create flexibility and maintain access so that leverage has a significant effect on risk.

Asset Prices is the value of assets that is owned today from all the values that will be received in the future. In the use of asset prices, the investment manager or agent will optimize the use of the portfolio. The agent will perform a performance so that stocks with low volatility will outperform stocks with high volatility. When managing asset prices that are owned by the principal, they are vulnerable to the risk of abuse by the agent or manager. Panda & Leepsa (2017) analyzing the ownership structure that the agent will control the company, so that the agent can use the assets for his own interests will create

a conflict between the principal and the agent. Agents can perform actions or performance that do not maximize asset prices.

In agency theory, it has been suggested that the risk of principal party ownership can be suppressed by externally controlling multi-assets for managed mutual fund portfolios, so that the management and the amount of existing asset prices on the part of the principal will affect the mutual funds, (Jarrow, 2012). In Heaton & Lucas (2000) has analyzed and obtained results that the higher the price of existing assets, the higher the risk posed to the company.

RESEARCH METHODS

This study uses the dependent variable in this study is mutual fund risk, while the independent variable is leverage and asset prices. In this study using companies in mutual funds that are in Indonesia in the 2018-2019 time period. Variable measurements can be seen as follows:

1. *Mutual Fund Risk,* is equivalent with rate of return of a stock.

Where, Y = $\quad$ *Beta:* $Y = \alpha + \beta x$ $\quad$ rate of return of a stock and X = the market index profit $\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad$ rate

2. *Leverage is comparison between Long-Term Debt and Equity Capital.*

$$LEVE = \frac{LongTermDebt}{Equity\ Capital}$$

3. Asset Prices, is comparison between the total number of shares and the reduction between total assets and obligations

$$ASETP = \frac{Asset\ Prices - Oblligations}{Total\ Number\ of\ Shares}$$

The population in this study were all mutual fund companies registered and published by OJK during the 2018-2019 period. The sample used is purposive sampling that based on certain criteria. In this study, especially stock mutual funds that have mixed types.

In collecting data in this study, researchers collected a population in the form of mixed mutual fund companies. The population taken is a conventional type and research samples are companies that publish prospectuses issued by OJK during the 2018-2019 period or internet access on www.pasardana.id. The risk calculation uses the beta value of mutual fund products contained in the daily data, while the leverage value is taken from

the long-term dept divided by the equity capital in the product prospectus. In calculating asset prices, it is taken from the total net asset value contained in mutual fund products.

There are two analysis tools used in this research, namely descriptive statistics and panel data regression. Descriptive statistics are used to analyze an event that is currently occurring and occurs in mutual fund companies for the period 2018-2019. Furthermore, panel data regression is used where there are three approach models, namely; Common Effect Model / CEM, Fixed Effect Model / FEM, and Random Effect Model / REM. From the three models, it can be selected by doing the Chow Test and the Hausman Test (Baltagi, 2002). Before testing the hypothesis, the Classical Assumption Test is carried out by conducting three tests, namely; Multicollinearity Test, Heteroscedasticity Test, and Autocorrelation Test. The models used in this study are as follows:

$$MFR = \alpha_1 + \beta_1 Lv + \beta_2 AP + e$$

MFR: *Mutual Fund Risk;*

α_1 : Constants;

$\beta_1 .... \beta_3$: Coefficient;

Lv: *Leverage*;

AP: *Asset Prices;*

e: Confounding variable

Furthermore, testing the hypothesis with the F test and t test. The F statistical test shows whether all the independent variables included in the model have a simultaneous influence on the dependent variable. From the significance level used is 5% indicate The T statistical test shows how far the influence of one independent variable on the dependent variable by assuming the other independent variables are constant.

RESULTS AND DISCUSSION

Mixed mutual funds are often referred to as hybrid funds. Mixed mutual funds consist of a combination of equity, debt securities, and money market. Each allocation is a combination of equity securities, debt securities, and money market which does not exceed 79 percent. So, it can be concluded that in a mixed mutual fund there must be an investment in shares and bonds.

Mixed mutual funds are suitable for individual investors who have a moderate risk profile and have medium to long term goals. The advantage of this mutual fund is that the portfolio composition can be more flexible. Investment managers can mix their instruments with various instruments. When compared to Equity Mutual Funds which only focus on one instrument, while Mixed Mutual Funds can combine stocks with debt, bonds and others.

Table 1
Descriptive Statistics Table

	ASSETP	LEVE	RISK
MEAN	535894.6	181415.3	40,54212
MEDIAN	4474,985	63097.50	0.692000
MAXIMUM	3643023.	965138.0	1059,000
MINIMUM	1238,210	20819.00	0.030000
STD. DEV.	930419.3	224401.9	201.6788
OBSERVATIONS	52	52	52

Descriptive statistics are used to see an overview of the data used in the form of the amount of data, the maximum value, the minimum value, the average value and the standard deviation of each variable. The results of the descriptive statistics show that the ASETP, LEVE, and RISK variables have a mean value that is below the standard deviation value.

Based on the results of the Chow test output from the E-views tool, it can be seen that the F test value is 0.2017 and the Chi-square value is significant, which is 0.0049 which is smaller than 0.05. This means that the null hypothesis is rejected, so the FEM method is better than OLS. Furthermore, the Hausman Test was carried out. Based on the results of the Hausman test output using the E-views tool version 10, it can be seen that the p-value is greater than 0.05, which is 1.0000. Thus, the null hypothesis is accepted, so the use of a better method in this study is the REM method compared to FEM. With the low R-square value in the REM model, the researcher chose to use the FEM model.

The classic assumption test in this study uses the multicollinearity test, and autocorrelation test. In the multicollinearity test there is no relationship between the independent variables with a value of more than 0.90 so that the panel data model in this study does not have a multicollinearity problem. In this study also did not occur

heteroscedasticity where the probability value of Osb * R-squared was 0.4915 (greater than 0.05). Furthermore, in the autocorrelation test the DW value is 1.937305 which then refers to the Durbin-Watson benchmark, the test results show that the DW value of 1.094695 is between -2<DW<2 where there is no autocorrelation.

Based on the results of panel data regression analysis using the E-views version 10 tool, the following results are obtained:

Table 2
Results of Panel Data Regression Analysis on Mutual Fund Risk (RISK),
Leverage (LEVE), and Asset Prices (ASETP) Variables.

Dependent variable	Independent Variable	Regression Coefficient	t-count	Prob.	Directions	Ket.
RISK	Constant	0.399327	449.6847	0.0000		
	LEVE	2.888618	78161550	0.0000	(+)	Significant
	ASSETP	2.730301	23566828	0.0000	(+)	Significant
R – Square		0.997469				
Adjust RSquare		0.994621				
F-Statistics		350.2881				
F Significant		0.000000				

The results of the researcher's test showed value of LEVE of 2.888618 against RISK with a significance of 0,0000<0,05. This means that the regression model in this study has a positive and significant effect on RISK. The results of the researcher's test showed that the ASETP value was 2.730301 against the RISK with a significance of 0.0000<0.05. This means that the regression model in this study has a positive and significant effect on RISK. LEVE has a significant positive effect on RISK in mixed mutual fund companies in Indonesia. The results of this study are in line with the research conducted Bhatti et al., (2010), and Mandelker and Rhee, (1984) who stated that LEVE had a significant positive effect on RISK.

In previous studies said that limiting or tightening the LEVE will lead to risks. Companies with higher or bigger LEVE will bring the company to lower real profits so that the risk to the company increases. This is not in line with the research conducted by Yoon & Jang, (2005) which states that LEVE has a positive and insignificant effect on

RISK, the effect of LEVE in several companies is relatively lower. This result is not significant because in some companies, investment managers who are included in the small group reduce financial risk by making the financial level LEVE lower. financial risk increases when the company size is smaller. Thus, small companies that have higher financial leverage have a higher financial risk. Therefore, small companies can reduce financial risk by making the level of financial leverage lower.

ASETP has a significant positive effect on RISK in mixed mutual fund companies in Indonesia. The results of this study are not in line with the research conducted Heaton & Lucas, (2000) and Tuzel & Zhang, (2017) who argued that ASETP had no significant positive effect on RISK. The determination and use of high asset prices will lead to risk, but the emphasis of investment managers on the use of ASETP in portfolios makes risk can be reduced.

In theory, when using and managing ASETP owned by the principal, it will be susceptible to the risk of abuse by the asset manager then it will result in the risk of return on the part of the principal. This can be seen in the management of the investment manager Minna Padi Property Plus with ASETP of 1008291 in 2018 to 1146349 in 2019, this is in line with the increase in RISK from 0.285 to 0.494. In previous research Bekaert et al., (2009) which states that ASETP has a positive and insignificant effect on RISK, companies can reduce risk by externally controlling multi-assets for mutual fund portfolios managed by investment managers, so that ASETP management does not trigger high risks.

CONCLUSION

Based on the analysis that has been carried out in the previous chapter, the following conclusions can be drawn that *Leverage* has a significant positive effect on Mutual Fund Risk in mutual fund companies in Indonesia. The results of this study find that mutual fund is managed by an investment manager with high leverage will have a high risk as well, and can be suppressed when the investment manager creates a low level of leverage. The test results show that *Assets Prices* had significant positive effect on Intellectual Mutual Fund Risk. Companies which have high asset prices will tend to get risk. This is because the high potential asset price in management will provide a level of risk to the management of the asset price itself.

MANAGERIAL IMPLICATION

From the results of the analysis of the conclusions of this study, there are several managerial implication that can be used as information and input for consideration in decision making, that is investment managers can reduce the financial value of leverage that is too high to be low so that it can reduce the level of risk that is owned by investment managers and to the principal. A decrease in the value of leverage must of course be accompanied by good management so that it can get high profits as well. And investment managers should optimize the use of ASETP so that it has a positive impact on reducing risk. In addition to maximizing principal party funds, investment managers from fund management also benefit from management trust from effective principals.

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