

Dynamic Interaction Of Benchmark Index Fluctuation And Beta Value On Etf Return

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Abstract

This study was conducted to analyze the effect of benchmark index fluctuations and beta values on ETF returns with a population of all ETFs listed on the IDX. Sampling was carried out using purposive sampling technique so that the Reksadana Premier ETF LQ45 (R- LQ45X) was obtained as a sample. The data used is in the form of quantitative data obtained from various sources indirectly (secondary) and then tested using multiple linear regression methods. The results of the analysis show that there is a significant effect of the benchmark index fluctuation on ETF returns, while the beta value has no effect on ETF returns. However, simultaneously the fluctuation of the reference index and beta value have a significant and significant effect on ETF returns.

Keywords : Index fluctuation, beta, ETF

Introduction

In our country, Indonesia, investment activities have increased tremendously from year to year. Since the start of the "Yuk Nabung Saham" campaign in 2015, the Indonesia Stock Exchange has been aggressively promoting capital market investment activities by holding activities in the form of seminars, workshops, or what is currently popular, namely Capital Market School (SPM) activities, in collaboration with educational institutions ranging from high schools to universities, not to forget the investment galleries opened in offices, campuses, in collaboration with Members of the Exchange (AB), in this case, securities service providers. The Indonesia Stock Exchange has maximized its important role as a Self Regulatory Organization (SRO) in the Indonesian capital market. Progress after progress is experienced by the capital market in Indonesia, one of which is an increase in the number of investors investing in the capital market. This is shown from the Single Investor Identification (SID) data reported by the Indonesian Central Securities Depository (KSEI) which shows a significant increase from year to year with an accumulated increase from 2015 of 434,107 SIDs to May 2020 of 2,800,000 by 645%, which means that public awareness of Indonesian capital market investment has also increased significantly.

Various kinds of instruments traded in the Indonesian capital market in the form of stocks, mutual funds, ETFs, and other derivative products are the main attraction for investors. By offering different benefits with their respective risk profiles, investors are free to choose any instrument to buy to maximize their investment portfolio. According to Harry M. Markowitz (1952) in a study (Aminda, 2019) suggests that portfolio selection discusses the problem of how to place funds in order to get maximum returns with minimal risk. Research from (Yudhawati & Si, 2012) adds that having a portfolio means that an investor has carried out an investment strategy and risk management or called diversification, by owning several assets. diversification, by owning several assets certain risks can be reduced.

ETFs are mutual funds that are generally index mutual funds that are traded on the capital market. The Indonesia Stock Exchange explains that ETFs are mutual funds in the form of collective investment contracts whose participation units are traded on the Stock Exchange. Exchange Traded Funds or ETFs are containers of securities that are traded like shares in general through an investment company on the Stock Exchange. Daily transactions make ETFs very flexible compared to conventional mutual funds, where investors must wait at the end of trading hours to sell or buy directly to an investment company.

In Indonesia itself, ETFs have not been known for long, only appearing at the end of 2007. Until 2020 the IDX recorded 45 ETFs, where the first ETF introduced was the Premier ETF LQ45 Mutual Fund (code: R-LQ45X) with PT Indo Premier Investment Management as the investment manager. This ETF replicates the performance of the LQ45 index as a benchmark, with stocks that are included in the LQ45 index as

underlying assets, the investment manager has a goal that this R- LQ45X ETF provides a return equivalent to its benchmark index.

The LQ45 index itself has a fairly good performance, this index is also popular because the stocks included in the index are the most liquid or frequently traded stocks, besides that the list of stocks in it are stocks that have the largest market capitalization in many sectors and are supported by strong fundamentals.

Discussing the return is of course incomplete if it does not discuss the risk. In a research journal (Yudhawati & Si, 2012) mentioned in the context of a market portfolio, there are two components of investment risk, namely; 1) Systematic risk 2) Unsystematic risk. Systematic risk is a risk that is general in nature and cannot be avoided, whereas non-systematic risk is a risk associated with certain instruments and can be avoided or minimized. Quoted from a research journal (Aminda, 2019) states

Methodology

This research is a quantitative research where the data used is in the form of numbers obtained from several sources. The independent variables in this study are fluctuations in the reference index (X1) and beta value (X2) while the dependent variable is ETF return.

The population in this study is all ETFs listed on the IDX and then samples are taken using purposive sampling techniques with criteria: (1) The sample taken is an ETF with the LQ45 index as its reference. That one of the measures to measure risk is by looking at the volatility of returns, so investors in dealing with risk and uncertainty require rationality based on; 1) Maximum return at a certain risk, or 2) At minimum risk with a certain return. The volatility can be measured using the beta value, according to Zvi Bodie (2018) explains that "beta is a measure of the systematic risk of a security or the tendency of security returns to respond to large market swings". (2) The ETF sample taken has been released at least on January 1, 2014. Then the data used is quantitative data in the form of secondary data obtained from various websites such as duniainvest to take data on the closing price of the R-LQ45X ETF, yahoo finance to take the closing price of the LQ45 index and pefindo to take beta value data.

All data is taken quarterly in the 2014-2018 period. The beta value in this study was obtained from the average shares that survived in the LQ45 index during the study period, and 27 companies were obtained with the following codes; ADHI, ADRO, AKRA, ASII, BBKA, BBNI, BBRI, BMRI, BSDE, EXCL, GGRM, ICBP, INDF, INTP, ITMG, JSMR, KLBK, LPKR, MNCN, PGAS, PTBA, PTPP, SMGR, TLKM, UNTR, UNVR, and WIKA.

The analysis method used is descriptive analysis to see a description of the data to be processed which is then carried out a classical assumption test to avoid the symptoms of classical assumptions. so that the data used is valid data.

Hypothesis

Ho: It is suspected that there is no effect of fluctuations in the reference index and beta value on ETF returns.

Ha1: It is suspected that there is a significant influence on the LQ45 index fluctuation variable on ETF returns.

Ha2: It is suspected that there is a significant influence on the beta value variable on the ETF Return.

Ha3: It is suspected that there is a significant influence on the LQ45 index fluctuation variable and beta value on ETF Return simultaneously.

Result

Every calculation in the research analysis utilized SPSS 20 software.

Descriptive Analysis of LQ45 Index Fluctuations

Table 1. Descriptive Analysis of LQ45 Index Fluctuations

	Min	Max	Mean	Standar Deviasi
LQ45	-134,16	99,94	13,58	69,66

Based on the results of the descriptive analysis above, we can see that the lowest fluctuation of the LQ45 index was - 134.16 which occurred in the 3rd quarter of 2015 at Rp. 704.98. It is suspected that the cause of

the decline in the LQ45 index at the lowest point was due to the increase in the US Fed benchmark interest rate which caused foreign investors' funds to be withdrawn from the stock exchange amounting to Rp. 22.55 trillion which resulted in the JCI also falling, in addition to other driving invoices are the weakening of the Indonesian economy which

growth targeted at 5.5% to 4.7%.

Meanwhile, the highest fluctuation of LQ45 index was 99.94 in the 4th quarter of 2017 at Rp.1079.38. The reason is thought to be due to the positive sentiment towards the JCI in the form of Indonesia's rating upgrade by Standard and Poor's to investment grade. At the end of 2017 the international rating agency, Ficht Rating, upgraded Indonesia's debt rating from BBB- to BBB with a stable outlook. Then the results of descriptive analysis also mention the average movement of LQ45 fluctuations is 13.58 with a standard deviation of 69.67.

Descriptive Analysis of Beta Values

Table 2. Descriptive Analysis of Beta Values

	Min	Max	Mean	Standar Deviasi
BETA	1,04	1,38	1,28	0,097

In the table the results of descriptive analysis of beta values show that the lowest beta value is at a value of 1.04, while the highest value is at 1.38 with an average of 1.282. Which means that the average beta value shows that the fluctuations of the average stock are more aggressive and reactive to market changes by 28.2%.

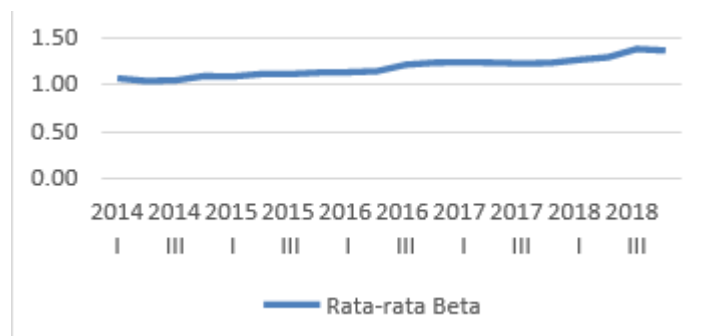


Fig 1. movement of beta value

The graph shows that the beta value tends to increase in the study period, namely 2014-2018. This is due to many internal and external factors. Suppose the external factor is inflation. According to research (Fitriawati, 2009) inflation has a positive and significant effect on the beta value of JII index stocks, this is directly proportional to the theory that there is an increase in inflation every year, so according to research it affects the beta value which tends to increase. For internal factors, such as fundamental variables, in research (Nurdina, 2014) variables such as DER, CR, and ROA affect beta value. Because the conditions of the companies included in the calculation of the average beta value are different fundamental variables and also fluctuate, so that the combination of these variables encourages an increase in the average beta value in this study.

Descriptive Analysis on ETF Returns

Table 1. Descriptive Analysis on ETF Return

	Min	Max	Mean	Standar Deviasi
R ETF	-15,97	13,09	2,17	7,93

The table of descriptive analysis results shows that the lowest return decline was -15.97% which accompanied the lowest decline in the LQ45 index in the study period, namely in the 3rd quarter of 2015,

while the highest return was 13.09% in the following quarter in 2015 due to the performance of the capital market which began to improve and so did the performance of its benchmark index, namely LQ45. The following is a graph comparison between the LQ45 Index return and the R-LQ45X ETF return.



Fig 2. Comparison of ETF returns and ndex LQ45

The chart shows the return of the R-LQ45X ETF with a blue line and the LQ45 Index with a black line from January 2014 to December 2018. We can see that the two lines are very similar, moving together, but the ETF return is always above the LQ45 index, which means that the Investment Manager of the ETF is able to maximize the portfolio in its ETF so that it can compete with its own reference index.

Classical Assumption Test

Normality test is carried out to see the distribution of data distribution in research

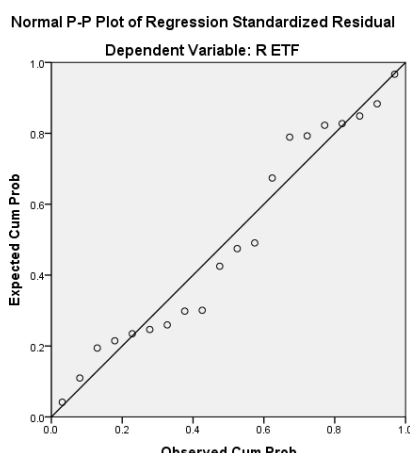


Fig 3. Normality Test

The distribution of these data points around and following the direction of the diagonal line means that the data is distributed normally. normal distribution.

Table 3. Kolmogorov Smirnov Normality Test

Unstandardized Residual	
Asymp. Sig. (2-tailed)	0,196

Obtained the number asymp. Sig. table above $0.196 > 0.05$, it means that the data is normally distributed. Heteroskedastisitas

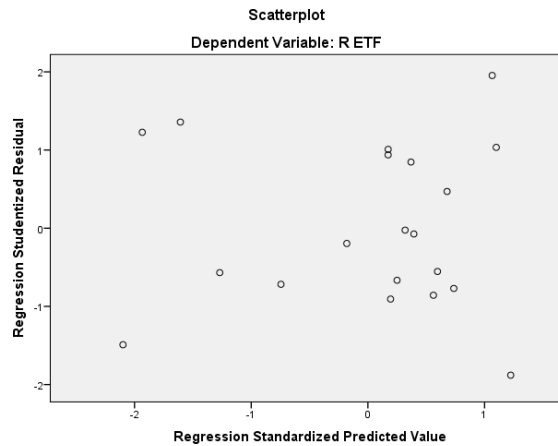


Fig 4. Scatterplot Test

No specific pattern is formed in the graph so it can be interpreted that the data is normally distributed.

Autocorrelation Test

Table 4 Run Test

Asymp. Sig. (2-tailed)	<u>Unstandardized Residual</u>
	1,000

From the output results above because the value of Asymp. Sig. 1,000 > 0.05, it is stated that this research data does not experience autocorrelation symptoms.

Multicollenarity Test

This test is done by looking at the Tolerance and VIF values

Table 5. Multukolinearity Test

Variabel	<i>Collinearity Statistic</i>	
	Tolerance	VIF
FLQ45	0,993	1,007
BETA	0,993	1,007

In the test results above, it can be seen that the Tolerance value is $0.993 > 0.1$ and the VIF value is $1.007 < 10.00$, it can be concluded that there are no multicollinearity symptoms in the regression model.

Hypothesis Test

Table 6 Hypothesis Test (t test)

Model	t	Sig.
LQ45	-3,948	0,000
BETA		

The db (n-k-1) value of this study is

34 with a confidence value of 95%, the t table value is 2.032. Because the tcount value is 3.948 > The ttable value is 2.032, Ho is rejected. And the sig. value obtained is 0.000 < 0.05, meaning Ho is accepted or Ha2 is rejected. So there is no effect of the beta value variable on ETF.

Simultaneous Hypothesis Test (F Test)

Table 7 Simultaneous Test (f Test)

Model	df	F	Signifikasi
Regresi	2	289,659	0,000

With a significance level of 95% or α 0.05 and df n, (n-k) then obtained ftable of 3.55. Obtained from the output results above fhitung is 289.659 thus 289.659 > 3.55 then Ho is rejected and Ha3 is accepted with a confidence level of 100% so that simultaneously there is a significant influence between index fluctuations and beta values on ETF returns.

Multiple Linear Regression Test

Table 8. Multiple Linear Regression Test

Variabel	B
(Konstanta)	304,40
FLQ45	0,112
BETA	-2,024

The linear regression test is carried out to determine the nature of the predictive relationship between variables. From the table above, it is known that the multiple linear regression equation in this study is:

$$Y = 304.40 + 0.112X_1 - 2.024X_2$$

a = 304.40 means that if the independent variables X1 and X2 remain, the value of Y is 304.40

b1 = 0.112 shows that the LQ45 variable has a positive effect on ETF returns, if the LQ45 index increases by one unit, the ETF return will increase by 0.112

b2 = -2.024 shows that the beta variable has a negative effect on ETF returns, if beta increases by one unit, ETF returns will decrease by -2.024.

Determination Test

Table 9 Determination Test (R2)

R	R Square	AdjustedR Square
0,986	0,971	0,968

The determination test is carried out to determine the ability of the independent variable to explain the dependent variable. The results obtained from the output table above show the R Square number of 0.971, which means that the LQ45 variable and beta value contribute to explaining the ETF return by 97.1% while the other 2.9% is influenced by other factors outside of this study. this research.

Conclusion

From the results of multiple linear regression analysis using SPSS 22 above, it can be concluded that partially the LQ45 index fluctuation variable affects ETF returns with a coefficient of 0.112 with sig. 0.00, which means that every one unit change in LQ45 index fluctuations adds 0.112 ETF returns. In addition, the correlation between LQ45 index fluctuations and ETF returns is very strong at 0.985. This is in line with research by (Sholihat & Ar, 2015) in which the study discusses the effect of market indices in this case the JCI on mutual fund returns with the result that the JCI affects mutual fund returns with a coefficient of 0.404. Another supporting research is from (Adisetiawan, 2015) with one of the same discussions, namely the effect

of JCI on mutual fund returns which turned out to affect with a coefficient of 0.379 and sig. 0,00. Then research from (Wijaya & Meirisa, 2020) which examines the effect of JCI volatility on market returns with the result that JCI volatility has a significant effect with a coefficient of 0.334. Then in the regression results in this study, the beta value variable partially does not affect the ETF return, with a coefficient of -2.024 with a significance level of 0.544. affect ETF returns, namely with a coefficient of -2.024 with a significance level of 0.544. In research (Ismanto, 2012) which discusses the effect of beta value on stock returns in portfolio formation, it is found that beta value only affects stock returns in the formation of stock portfolios with large market capitalization. In contrast to research (Sugiarto, 2011) it is said that beta value partially does not affect stock returns with a coefficient of 0.00051. However, it is not in line with research from (Nurjanah & Rosita, 2008) with the result that the beta variable affects the stock returns of several manufacturing companies with a coefficient value of 1.539. The possibility of insignificant results from this study is due to data that is not comprehensive so that it is not accurate in the processing results. Furthermore, in the simultaneous test using the f test, the two independent variables affect the ETF return, this is evidenced by the fcount value of 289.659 > t table of 3.55 with a 100% confidence level. The results of the determination test also show that the two independent variables contribute to explaining the dependent variable by 97.1% and the remaining 2.9% is influenced by other variables outside this study.ETF by 97.1% while the other 2.9% is influenced by other factors outside this study.

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