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Risk of Stock Price and Stock Return From Shares listed on the Indonesia Stock Exchange

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***Abstract*—Risks are unrelated or unexpected events of what we predict before, for example, returning stocks can be above or below our predictable. In a stock investment can occur a risk that is result of investment is not according to what we predict that can be loss or profit. While the meaning of the return or income from stock investment is the result of selling shares by investors minus the purchase price of these shares. In this paper will be discussed whether there is a significant influence and relationship between stock investment risks to stock returns from shares on Indonesia Stock Exchange. The sample data that will be used in this research are 46 samples from the stock price data in the Indonesia Stock Exchange on year 2017 from several different companies. The results of this research is that there is a significant relationship and influence between stock risk and stock return.**

Keywords—risk of stock price; stock return on Indonesian stock exchange

I. INTRODUCTION

Stock Value can be regarded as the value of a company. If that company's stock is rising that is considered a good company or can also be said that if we want stock price rise then make a good company value rise. Making a good corporate value that is the company's current profit is positive or we predict that the company in the future will be able to make a profit increase. Profit predictions will be taken company if the company is believed to operate properly and efficiently. If Company be able to operate properly and efficiently then must have a good internal system like have a good operating system or good management information system. Beside that, the company must be an innovation firm and Learner Company that is the company must continue to advance to face crisis with any strategy so can create profit in the future.

In transactions of stock on the stock market if the shares of the company are rising that considered the company is a good investment company and will grow further and expected the company will continue to generate a better profit. Investors assume that the stock is a picture of the company then if the stock price goes up it is considered the company value is goes up. Buying a stock also take a risks of the stock that are the inherent risk and a systematic risk. The stock has a great risk because of systematic risk and inherent risk are big.

Capital market is a place of transaction sale and purchase from securities such as shares, bonds, warrants, rights and options [1]. Buyers and sellers before making transactions must become clients of a securities company first. The purpose of investors to buy and sell stocks that is investors get a profit or return from that transaction. Because of this investors should know the value of stocks to be bought. Investor can do a fundamental analysis of the company, can be seen from a company's financial statements. The other Knowledge is investors must know a time of operational capital markets and performance of capital market.

In a capital market that are an organization that oversee of capital markets and an organization that run the capital market itself. The body that oversees the capital market is the Authority of Financial Services and the Indonesia Stock Exchange is an organization that runs the capital market with stock exchange's members.

Capital market is the place for gathering institutions or people who will seek capital and who provide capital so that there will be securities transactions of sale and purchase. The author is interested in writing paper about the capital market, especially a profile companies that listing on the Stock Exchange, a trading stock, a stock price, a rising stock price and a performance of the Stock Exchange also concerning other products traded in like a Bond, option, mutual fund and warrant.

The problem that will be researched to make a stock investment is a deciding to buy a stock that is predicting a rise and fall in stock price at the future. By knowing the risk of stock price and predict return then the investor will be able to decide to choose the stock he wants with the right price. In this case the author will write paper about the relationship and the effect of stock price risk with stock returns in Indonesia Stock Exchange.

The unsystematic risk for each company can be done risk mitigation or risk transfer or risk management for example by hiring outsourcing personnel to create a reliable system or company B can research cooperate with company A to gain transfer of technology and knowledge from cooperation of human resources [2].

Risks are very important for investors in deciding to buy stocks or not. If we know the size of the risk of our investment

then he will know how many returns that we want. In the investment known term high risk high return is the greater risk that we take the greater the return that we receive. The risk in buying stocks is an inherent risk from company and a systematic risk that is a risk which affects all stocks, like inflation, high interest rates, earthquakes, rising foreign exchange rates or otherwise known as market risk [3].

How to calculate the systematic risk of stock in the stock market is the same as the slope from the regression result between return of the stock (Variable Y) and return of the index stock (Variable X).

In this research, an author's take random samples from companies that have been listing on the stock exchanges of Indonesia during the year 2017. Samples data is a closing prices of these shares. The risk variable is a calculation of the standard deviation of the stock price during the 14 working days of the stock exchange. Stock return variable is a difference between the selling price and the purchase price. The sample data to be used is to take a random sample from 46 different stock price data on Indonesia Stock exchange which will represent the stock population.

II. METHOD

A. Object of Research

Object of research is the stocks that listed on the Indonesia Stock Exchange. Data is daily closing stock prices that have been transacted on the Indonesia Stock Exchange during 14 days. The closing price data will be processed into data Risk shares and stock return data. In this research the author will take samples of closing stock prices were randomly taken from data population that is stocks listed on the Indonesia Stock Exchange.

B. Data Collection

To be able to obtain data's were needed in the research, it can be used method of data collection that is documentation data from third party publication Indonesia stock exchange Company. The closing stock price data on the Indonesia Stock Exchange is taken from the closing price of shares during the year 2017 from some companies. The shares to be sampled in this study are 46 stocks from the Indonesia Stock Exchange.

C. Type of Data

As for the type of data that can be used as a sample of research data is as follows :

- Qualitative data is a collection of information other than numbers by doing the process questionnaire or opinions from respondents, data scientific papers / essay/ books/ journals, direct observation data or opinion of the experts.
- Quantitative data is a measure of certain numbers such as standard deviation size, closing stock price that occur daily from stock transactions on the Indonesia Stock Exchange.

D. Data source

Sources of data samples in this research are taken from secondary data not primary data that is from third parties who publish some data such as a new, journals and literature books, literature or other publication data from companies such as Financial statements. My sample data is from a closing prices of stock transaction.

E. Variable of Research

In this research is used two kinds of variables research are an independent variable (X) and ependent variable (Y).

- Independent Variable (Variable X). Variable X is independent variable that is stand-alone variable and will influence dependent variable (Variable Y). The independent variable in this research is stock risk on Indonesia Stock Exchange. Stock risk variable is the standard deviation that obtained from the movement or variability of stock prices for 14 days closing stock prices. The stock risk in this study is a standard deviation each share that is as many as 46 shares.
- Dependent Variable / Dependent Variable (Y). Variable Y is a dependent variable which will be influenced or there is a relationship with independent variable (variable X). Dependent variable (Y) is Return of Stock price. Return of stock price is share price sale less stock price buy or stock price of previous day [4].

III. RESULT AND DISCUSSION

From the data processing by using SPSS data processing application will get some result of statistical data test and will be analyzed data from the results processed data test. Firstly, the process of Classic assumption test data from data stock price risk (Variable X) and stock return data (Variable Y) from daily closing stock price on Indonesia Stock Exchange. The sample data is taken randomly as much 46 data companies. The second data processing is to find whether there is a relationship or influence of stock risk variables to stock return variables by using SPSS application too. The results of the test data - data of stock risk as the independent variables and stock return as dependent variables are as follows:

A. Classic Assumption Test

1) Test of Multicolinearity: This test aims to test whether the inter independent variable has a direct perfect relationship. Because the independent variables is only one, this test is not required.

2) Test of autocorrelation: This test aims to test whether there is an automatic relationship between the dependent variable with the independent variable. The result is free from autocorrelation. Tested by Durbin Watson model is to see the du value in Durbin Watson table, the column K = 1 (number of independent variables) and line 46 (amount of data sample).

The range durbin Watson Value that if there is no auto correlation is between 1,5700 to 2,4300.

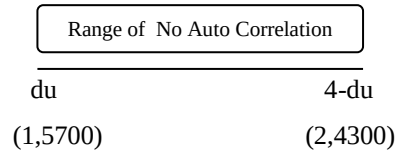

Fig. 1. Range of No Auto Correlation

The durbin watson value that taken from figure 1: Model Summary is 1.611 so it is between 1.5700 to 2.4300 than there is no autocorrelation problem for the test data or free of automatic correlation problem between independent variable with dependent variable [5].

3) Heteroscedasticity Test

This test aims to ensure that the test data are heterogeneous, that is generally do not have the same data movement, do not accumulate in one point or do not form a particular line pattern.

If data is still spreading randomly so this data is free from heterogeneity problem or heterogeneous. Data picture looks randomly distributed data so that it can be called data samples are heterogeneous.

4) Test Normality Data

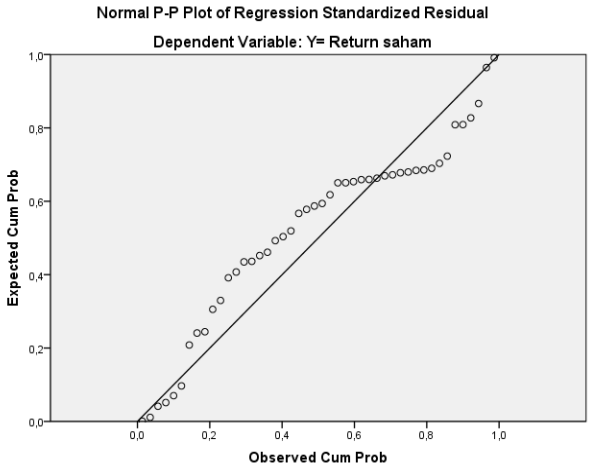

Fig. 2. Normal P-P Plot of Regression Standardized Residual

Normality test can be seen from the movement of data that is still around the diagonal line. This means the resulting regression equation will be BLUE (Best Linear Unbiased Estimation).

Normal P-P Plot of Regression Standardized Residual can saw the movement of data picture is still around the diagonal line which means data will produce a good regression equation because distribution of data population is normal.

B. Regression Test

1) Test of Partial Regression (t test): The result of Partial regression test is significant or not can be seen in the following way that is if a variable X has a significant effect to variable Y is the sig result < 0, 05 or distribution data 95% on the normal curve.

The result sig variable is a stock risk 0.000 or 0% that can be seen in Table.2: Coefficients. So the stock risk variable has sig < 0.05. Thus the variable of Stock Risk (X) has a significant effect to stock return variable (Y). The effect that resulted for the variable of Stock Risk (X) is positive that is beta + 0,808 means that effect given of Stock Risk (X) to Y is positive or effect of stock risk variable to stock return is a same direction so it can be interpreted that if a stock risk is rising then return stock will be rising too.

The regression equation is Y = - 28.990 + 0.808 X + error. This means that if variable X = 0 then variable Y will be constant equal to - 28,990. If there is an increase of X = 1, then there will be an increment Y of 0.808 minus 28.990 and vice versa if X down 1 then there will be a decrease Y of 0.808 add minus 28.990.

2) Test of Simultaneous Regression (Test F): Because the independent variables are only one, the simultaneous test is the same as result of the partial test which will get regression equation Y = - 28,990 + 0,808X + error and result of influence variable X to variable Y is significant.

3) Test of Coefficient Determination: Coefficient of determination is the ability of all independent variables that is stock risk variables influence the dependent variable. Coefficient of determination Adjusted R Square is 0,645 or equal 64, 5% taken from Table 1: Model Summary. That value which means that ability of variable X (stock risk) to explain variable Y (Return of stock) is equal to 64,5% while 35,5% explained by other variable outside from Variable X or called error in regression equation. R value of 0.808 taken from Table 1: Model Summary has a meaning that the relationship between variables X to variable Y is high that is 80%.

IV. CONCLUSION

Results of research on stock risk with stock returns in Indonesia Stock Exchange are as follows:

- The effect of stock risk on Stock Return is positive and significant under 5%.
- The research results showed that the risk of stock prices significantly influence the Return of shares and the results of regression equation as follows that Return Stock = -28, 990 + 0.808 stock risk + error.
- The result of determination coefficient of Adjusted R square equal to 0,645 or equal to 64,5% that is influence of stock price risk to stock return variable is 64,5% and 35,5% influenced by other variable that is variable of outside research or error.
- Correlation between independent variables with dependent variable or together dependent variable is 0.808 is height correlation between variables of stock risk to stock return.

Given the following suggestions are as follows:

- From the regression equation of the research result is that the stock price risk variables affect variable return

of Shares and significantly. It can be used to predict Return of shares in the Indonesia Stock Exchange as additional information to investors who want to buy a share on Indonesia stock Exchange.

- The multiple correlation is 0.808 which means high that there is a high correlation between stock price risks with stock return.
- From the results of Regression equation that is Stock Return = -28,990 + 0.808 stock risk + error. So if the risk of stock rises 1 then the stock Return will rise 0.808 minus 28.990 or if the risk of stock prices is very high then the stock return will rise high too and became positive.
- If return of stock equal zero hence stock price risk is 28,990 divided 0,808= 35,879 or stock price risk change above 35,879 hence it will happen positive return of stock.
- Since stock price risk can be above average and below average price then there will be negative return so investor need additional information as positive stock price trend or negative stock price trend. Investor can do another research like a positive and negative stock price trend.

If stock price risk is high then it will happen stock return will be high same as high risk high return concept.

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