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Firm Size and Price Book Value Impact on Stock Return: Evidence from the Indonesian Stock Exchange

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Abstract

This study aimed to examine the effect of firm size and price book value on the stock returns companies listed on the Indonesia Stock Exchange 2015-2019 period. Number of sample 134 companies with five years of observations using purposive sampling techniques, the sample selected as 670 observations. This study uses secondary data form of financial statements along with stock prices obtained from the homepage of the Indonesia Stock Exchange. The analytical method used is the Panel Data Regression Analysis. The results of this study are the size of the company (firm size) has a significant negative effect and the price book value has a significant positive effect on the stock returns in companies listed on the Indonesia Stock Exchange during the 2015-2019 period.

Keywords
firm size; price book value; stock returns

I. Introduction

The capital market is a meeting place for investors and issuers, where investors or investors are the owners of funds who want to invest their funds, while issuers are organizations that need medium-term or long-term funds through issuing securities. Along with the development of the Indonesian economy, many companies have gone public. Investors can choose a variety of companies that have gone public to be targeted for investment in one company. Because this stock investment is able to provide profits and returns or what is called (return). However, investment decisions also have various kinds of risks that must be faced by investors. However, high risk can also promise investors a high rate of return.

Return is the result that investors get after investing their capital, profit is the main factor or goal of investors investing, without this, investors will not want to invest in a company (Hartono, 2000). Profitability (profit) is the result of the wisdom taken by management. Profit ratio to measure how much the level of profit that can be obtained by the company (Yusuf et al, 2019). To minimize risk and maximize profits, investors need to invest their capital in various companies and form an efficient and optimal portfolio. An efficient portfolio is formed by assuming how the behavior or behavior of investors in making investment decisions. For example, the average investor does not like risk or risk averse. An efficient portfolio or portfolio chosen by investors from several portfolios is called an optimal portfolio. All these differences are triggered by several factors or characteristics of each company. One of them is company size (firm size) and price book value (pbv).

Because Indonesia is a developing country and an economy that tends to be unstable, the rate of return or stock returns fluctuates which can be caused by various factors such as macroeconomics such as inflation, interest rates, foreign exchange rates and regional stock price indexes and events other both domestic and international political events.

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The thing that can attract investors to invest is the offer investors will get a high or large stock return. If the return obtained by investors is higher then it can attract investors to invest, and vice versa. Things like that will generate investor interest in investing or investing their capital.

Firm size is also often a reference for investors before investing their capital, assuming that a large company size or a small company size will affect how the company faces various situations and risks that befall the company and it will be related to its operations and will also affect the size of the return obtained by investors. Fama and French (1992) argue that the size of the company or firm size is divided into two, namely the size of small and large companies. And both can be measured through the size of market capitalization which is commonly called market value capital.

Not only that, PBV also includes several factors that can affect stock returns. Jogiyanto (2003), defines that the price book value is the ratio of the market to the book value measured from the work of a company. A value below one indicates that the price of a company's stock is relatively cheap and a value above one indicates that the stock is expensive. However, cheap stocks are not necessarily able to bring high returns and high-priced stocks do not mean low returns because large-scale companies usually have high price book values. In general, a good company has a PBV ratio above one. Investors will rate the company highly if it has a large PBV ratio.

II. Research Methods

In this study the method used is a quantitative approach. Sugiyono (2015) says that, quantitative method is a method that uses numbers and in the form of data or qualitative data that is scored. So this quantitative method is a more accurate measurement of a data.

The objects of this research are companies listed on the Indonesia Stock Exchange in 2015-2019. The population used in this study were all companies listed on the Indonesia Stock Exchange in 2015-2019, the number of companies studied was 627 companies which were designated as population. The sampling method used is purposive sampling. The following considerations are used by researchers in this study:

1) Companies listed on the Indonesia Stock Exchange at the end of the observation period. 2) Companies that are listed consecutively during the 2015-2019 period. 3) Registered companies that have complete annual financial statements during the observation period. 4) Registered companies that have complete financial statements based on variables during the observation period.

Table 1. Sampling Process

No	Criteria	Quantity
1	Companies listed on the Indonesia Stock Exchange at the end of the observation period in 2019.	**627**
2 3	Companies that are not listed in a row during the 2015-2019 period.	**(182)**
4	Registered companies that do not have complete annual financial statements during the observation period.	**(166)**
	Companies that do not have financial data that match the variables to be tested	**(145)**
	Final Sample	**134**
	Number of Observations	**670**

From the results of population selection by applying the purposive sampling method, the final sample was 134 companies or 670 observations.The research method according to Sugiyono (2012: 5) is a scientific way to obtain valid data with the aim of being able to find, develop, and prove certain knowledge so that in turn it can be used to understand, solve and anticipate problems. So that the type of research used in this research is descriptive research. Descriptive research is research that is intended to collect information about the status of an existing symptom, namely the state of the symptoms according to what they were when the research was conducted Arikunto (2013: 203). With this method the writer intends to collect historical information and observe carefully about certain aspects related to the problem being researched by the author so that it will obtain data that can support the preparation of a research report.

In this study, after obtaining some data, the data is analyzed to get conclusions, some of the methods contained in data analysis are as follows: Descriptive Analysis, this data the author has carried out a place mapping of the data that will be searched in various places. Content analysis, the researcher tries to analyze more deeply related to books, magazines, journals, research, not only the contents of the data, but the researcher will reveal the background, time and several aspects in it, the writer expresses his opinion on the various data collected.

Data Analysis Techniques

In this study, a normality test was conducted to determine whether our data were normally distributed or not. The approach used for panel data analysis is Fixed Effect (FEM). There are two stages to determine which model is the best, the stage is in the form of the Chow Test which serves to determine which model is the best between Common Effect (CEM) or Fixed Effect (FEM). Hausmant test which serves to determine which model is the best between Fixed Effect (FEM) or Random Effect (REM). The following is the panel data regression equation used in hypothesis testing:

RS〗_it= +β_1 S〗_it+β_2 PBV〗_it+e

The explanation: RS〗_it is Stock Return, is Constant Coefficient, _1 is regression coefficient for Firm Size, _2 is Coefficient for Price Book Value, S〗_it is firm size i at time t, PBV〗_it is Price Book Value i at time t and the last e is the standard error.

III. Results and Discussion

The data used in this study is secondary data, the data is obtained directly from the financial statements and stock prices of the Indonesia Stock Exchange. Observations made in 2015-2019 were obtained 134 as the research sample with a total of 670 observations using the purposive sampling method.

3.1 Statistical Descriptive Analysis

The results of the descriptive analysis can be seen in the following table:

Table 2. Statistical Descriptive Analysis Test Results (Return, Size and PBV)

	Rs	*SIZE*	*PBV*
Mean	0.18	6.59	2.78
Standard Deviation	1.34	0.72	6.86
Minimum	-0.93	4.81	-0.53
Maximum	26.86	8.91	82.44

Source: data processed 2020, excel 2010

Description: Rs : Stock Return (bound variable), Size: Company Size (independent variable) and PBV: Price Book Value (independent variable)

It can be seen from the table above for the Return variable which is the dependent variable (dependent). Stock returns can be measured by the current stock price minus the previous stock price and then divided by the previous stock price. The mean value of this Return variable is 0.18 which means that the company uses less equity than debt for the company's operational activities. The standard deviation of the Return variable is 1.34, which means that the sample diversity is 134% and because it shows a larger or higher data spread because the value is higher than the mean. While the minimum value of Return is -0.93 found in the company TOTO (Surya Toto Indonesia Tbk) in 2016. and the maximum value of the Return variable is 26.86 which is located in the INAF company (Indofarma Tbk) in 2016.

For the Size variable which is an independent variable (Independent). Size or what can be called the size of the company which can be measured through the total asset log. The mean value that can be seen from the table above is 6.59 which shows the natural logarithm of the company's total assets. The standard deviation of Size 0.72 is smaller than the mean, which means that the data spread is smaller because the value is lower than the mean. The minimum value of the Size 4.81 variable contained in the PGLI company (Development Graha Lestari Indah Tbk) in 2015. And for the maximum value of this Size variable, which is 8.91, it lies in the INKP (Indah Kiat Pulp & Paper) company in 2018.

And the last is the PBV (Price Book Value) variable which is also part of the independent variable. This PBV can be measured by the market price of the stock divided by the book value per share. The mean value of the pbv variable is 2.78 with an average standard deviation of PBV 6.86 which means that the Price Book Value has a large data distribution, it can be seen from the standard deviation value which shows a value greater than the mean. While the minimum value obtained from the variable pbv -0.53 at the company TAXI (Express Transindo Utama Tbk) was in two consecutive years, 2018-2019. And the maximum value of the PBV variable, which is 82.44, is located at the UNVR (Unilever Indonesia Tbk) company in 2017.

Table 3. FEM Estimation Model Test Results

Variable	Coefficient	Std. Error	t-Statistik	Prob.
C	23.54583	11.10073	2.121107	0.0352
LOG(SIZE)	-13.38292	5.884711	-2.274185	0.0240
LOG(PBV)	0.444318	0.217304	2.044688	0.0422

Source: Data processed by researchers 2020, eviews8

From the regression results, the coefficient value for the Size variable is -13.38292 with a probability value that is smaller than the alpha value, namely (0.0240 < 0.05) and Tcount in absolute terms is greater than T table (2.274185 > 1.96) meaning that it can be concluded that Size has a negative effect and significant to Stock Return, while the coefficient of PBV variable is 0.444318 with a probability value that is smaller than alpha (0.0422 < 0.05) and Tcount is greater than T table (2.044688 > 1.96) so it can be concluded that the PBV variable has a positive and significant effect on Return.

Table 4. Chow Test Results

Cross-section F	1.000477	(130,198)	0.4944
Cross-section Chi-square	167.133751	130	0.0156

Source: Data processed by researchers 2020, eviews8

Based on the data that has been tested above, it can be seen that the value of the Probability Cross-Section Chi-square is smaller than alpha (0.0156 < 0.05) which means that H0 is rejected, H1 is accepted. Thus the best model to use is the Fixed Effect.

Table 5. Housman Test Results

Test Summary	Chi-Sq. Statistik	Chi-Sq. d.f.	Prob.
Cross-section random	10.236926	2	0.0060

Source: Data processed by researchers 2020, eviews8

With the results of the table above, it can be seen that the random cross-section probability value is greater than the alpha value (0.0060 < 0.05), which means that H0 is accepted and H1 is rejected. Thus the best model used is the Fixed Effect Model.

Table 6. Normality Test Results

Jerque-Bera	1.453603
Probability	0.483453

Source: processed by researchers 2020, views8

From the table above, it can be seen that the results of the Jerque Berra test on FEM are 1.453603 with a probability of 0.483453, which means that the probability value is greater than alpha (0.48 > 0.05), so it can be said that the residuals in this study are normally distributed.

Table 7. Panel Data Estimation Results

Variable	**Coefisien**
Constanta	23.54583
SIZE	-13.38292**
PBV	0.444318**

Note: ***) significant at 1 percent (1%), **) significant at 5 percent (5%) and *) significant at 10 percent (10%)
Source: Processed by researchers, 2020

The Panel Data Regression equation for the Random Effect Model is as follows:

RS〗_it= 23.54583+-13.38292S_it+0.444318〖PBV〗_it

Based on the regression model above, these values can be interpreted. Where the constant is worth 23.54583, which means, if it is assumed the independent variable is worth 23 (twenty three). Then the Stock Return is worth 23,54583. Size coefficient is -13.38292, which means that every increase in the Size variable by 23 units means it will decrease the Stock Return variable by -13.38292 and assume other variables are in constant form. The PBV coefficient is 0.444318, which means that every 23 units of the PBV variable increase, it means that it will increase the Stock Return variable by -0.444318 and assume other variables are constant.

Table 8. Hypothesis Test Results

Variable	t-Statistic	t-table	Prob.	Alpha.	Conclusion
LOG(SIZE)	-2.274185	1.96	0.0240	0.05	H_1 rejected
LOG(PBV)	2.044688	1.96	0.0422	0.05	H_2 accepted

Source: processed by researchers, 2020

From the results of the hypothesis test above, the Size variable shows the Tcount in absolute terms is greater than Ttable (2.274185 > 1.96) or the probability is smaller than the alpha value (0.0240 < 0.05) then H1 is accepted and it can be concluded that Size has a negative and significant effect on Stock Return. Meanwhile, the PBV variable obtained a large Tcount value from Ttable (2.044688> 0.96) or a large probability value from the alpha value (0.0422> 0.05), then H2 is accepted and it can be concluded that PBV has a positive and significant effect on Stock Return.

3.2 Discussion of the Effect of Company Size (Size) on Stock Return

Based on the tests that have been carried out, it can be concluded that the first hypothesis cannot be accepted (rejected). Due to the size of the company (size) has a negative and significant effect on stock returns. This means that the larger the company, the lower the return generated, because large companies have greater access to funding or loans from various sources (third parties) when compared to small companies, which means large companies will be easier to obtain. loans or credit, which causes large companies to have a higher level of leverage and spending than small companies (Kusmiati & Mu'minatus, 2018). So that it can affect the level of stock returns.

From this study, it shows that the size of the company (size) does not always obtain significant positive results or no effect, but also has a significant negative effect and the results of this study may occur because the research object that the researcher tested covers all companies listed on the IDX while in previous studies only examines certain objects such as banking (finance) or others, and can also be influenced by economic issues in the year the researcher is conducting such as the uncertain Rupiah exchange rate and inflation that occurs.

3.3 Discussion of the Effect of Price Book Value (PBV) on Stock Return

Based on the tests that have been carried out, it can be concluded that the second hypothesis, namely price book value (pbv) has a positive and significant effect on stock returns and is acceptable. This means that all companies that are sampled have good performance so that they can increase stock returns.

So this study is in accordance with the theory put forward by Ang which states that PBV has a positive influence on stock returns. Where investors will be willing to value their shares above the book value or book value if the company has a higher ratio or above one. Thus, it is expected that the rate of return or stock return will also increase.

The results of this study are consistent with previous research conducted by Akbar & Herianigrum (2015), which states that the PBV variable has a positive and significant effect on stock returns. The rise and fall of the PBV variable will have an impact on stock returns, which means that if PBV increases, it will have an impact on increasing stock returns, but if PBV decreases, it will affect or decrease in the provision of stock returns.

IV. Conclusion

The results of the study of firm size and price book value on stock returns in all companies listed on the Indonesia Stock Exchange in 2015-2019 can be concluded that firm size has a significant negative effect on stock returns in companies listed on the Indonesia Stock Exchange. . Although not consistent with the alleged provisional hypothesis. That is, the larger the size of the company, the smaller the return, due to the large amount of debt on a large scale of company size. Price book value has a positive and significant effect on stock returns in companies listed on the Indonesia Stock Exchange and is stated to be statistically robust at the level of 5%. That is, the higher the PBV value obtained from the company, the stock return received will increase, and if the company obtains a low value, the stock return received will also decrease.

Recommendations for further researchers are expected to be able to add several independent variables such as other financial ratios that can influence and increase the company's valuation ratio, namely PER and other ratios that can affect the rate of return or stock returns. In addition, further researchers can also increase the number of years of observation exceeding five years.

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