

***PRICE EARNING RATIO, AVERAGE VOLUME AND STOCK BETA OF
INDONESIA SE HEALTHCARE COMPANIES***

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Abstract

This research is entitled Price Earning Ratio, Average Volume and Stock Beta of Indonesia SE Healthcare Companies. This research method uses multiple linear regression analysis with data processing using the PSPP software. The sampling method of this research uses purposive sampling technique. The results showed that simultaneous Price earning ratio and average volume had significant effect on stock beta. The results of the t test show that the variables Price earning ratio and average volume partially have significant effect on stock beta with a significance level of 2,4%, and 4,2%, respectively.

Keywords: Price earnings ratio, average volume, stock beta

INTRODUCTION

Systematic risk is a risk that cannot be minimized by diversifying, because fluctuations in this risk are influenced by macro factors that can affect the market as a whole. Meanwhile, unsystematic risk is a risk that can be minimized by diversification. In measuring various fluctuations in the returns of a security or portfolio within a certain period, this is called volatility. So, with this measurement is done using beta calculations. Because basically beta is a measure of systematic risk of a security's return or portfolio return on market returns.

The beta calculation process is also a systematic risk measure of a security or portfolio relative to market risk. If the fluctuations in the returns of securities or portfolios are statistically reviewed following fluctuations in market returns, then the beta of the security

or portfolio is declared to be 1. Beta equal to 1 also indicates that if market returns move up (fall), the return of the security or portfolio also move up (down) as big as following market returns (Reilly, 2018). This is also similar to what was revealed by Higgins (2016), that beta shows the relationship or movement between the stock and the market or can be called the stock as a whole. Beta is also interpreted as a systematic stock risk. This research is on the object of companies engaged in the Indonesia SE Healthcare. In this field, of course, it has been available, because this sector is a business sector that exists in Indonesia and continues to grow.

The Covid-19 pandemic has had a huge impact on various aspects of Indonesia. The spread of Covid-19 was very fast, starting from DKI Jakarta and then within a few months it quickly spread to West Java. Not long after, the virus quickly spread to various regions and tended to be difficult to control. The government is of course very wary of the spread of this epidemic. The government is making various efforts to tackle the spread of Covid-19, starting from limiting entry from abroad into the territory of the Indonesian state to imposing restrictions on community activities. One of the steps taken by the government is implementing Large-Scale Social Restrictions (PSBB) in various regions in Indonesia. The first time the PSBB was carried out was in the DKI Jakarta area, then these measures began to be implemented in various regions in Indonesia. It cannot be denied that the impact of the Covid-19 pandemic is not only on the various countermeasures carried out by the government, but this pandemic has also had an impact on the economic sector in Indonesia.

The share prices of all shares traded on the IDX have decreased since the Covid-19 pandemic. However, pharmaceutical stocks traded on the IDX have experienced price increases since the beginning of the pandemic, and have generated returns that outperform the market. On the other hand, since June 1, 2021 the government has started implementing New Normal conditions. This condition encourages people to continue carrying out their normal activities but by implementing the established health protocols to prevent the spread of Covid-19. The implementation of this policy will certainly affect the share prices of companies engaged in the healthcare sector in Indonesia. This new

normal event can be used by investors as an opportunity to buy shares at a cheap share price. Changes in stock prices are a reflection of market reactions (Hutabarat, 2020). Therefore, the reaction to the implementation of the New Normal will be examined using a paired sample t test to prove that the implementation of the New Normal has an influence on stock prices and stock returns of companies engaged in the healthcare sector in Indonesia.

There are numerous studies regarding fundamental factors such as firm value, and financial ratios and capital market analysis. Previous research has mention study on profitability and firm value (Ester, 2020). Seeing these various factors, of course, makes an investor's decision more comprehensive in knowing the factors that affect the value of a company's company, in this case banks in Indonesia. Naibaho (2020) use fundamental factors such as Liquidity, solvability and profitability. Siringoringo (2020) use similar factors such as solvability, liquidity and return on asset on its research. Nevertheless, in this research in determining the systematic risk of an investment, which is stock beta, aside from fundamental factors, in this study, the use of average volume of stock trading is of concern. Previous studies haven't use this variable as indicators, which is mind boggling. Why? Because in every investment there is a risk involved. And in each transaction there is a purchase and it is considered an investment. Average volume shows the average volume of stock trading in the stock exchange which mean the investment taken place at in average at the period observed.

Understanding aspects that can determine the risk in investing is a concern for investors, the formulation of the problem in this study is whether there is an influence between Price earning ratio, average volume and stock beta of Indonesia SE Healthcare. The purpose of this research is to see whether the implementation of price earnings ratio and average volume has an impact on stock beta of Indonesia SE Healthcare companies. Indonesia SE Healthcare is one of the Index given by Investing.com regarding Indonesia Stock Exchange. The benefit of this research is to provide input for decision making by investors

in relation to investment in this New Normal era. In addition, this research is expected to provide a reference for future researchers.

REVIEW OF RELATED LITERATURE AND HYPOTHESIS

Signaling Theory

Signal theory is one of the pillar theories in understanding financial management. In general, the signal is interpreted as a signal made by the company (manager) to outside parties (investors). The signal can be realized as a form that can be directly observed or which must be studied more deeply to find out. Whatever the form and type of signal issued, all of them are intended to convey something in the hope that the market or external parties will make a change in the valuation of the company. The company's financial decisions are often seen from its debt policy whether it uses debt or its own capital in funding. Does the use of debt can have positif affect to investor in this case the value of the firm of the bank? Or vice versa. Investors need to do their research on the company and study and analyze their financial performance (Higgins, 2016; Chandra, 2019). And another factor, of course, in an investor's investment decision is the company's profitability. Previous research has mention study on profitability and firm value (Ester, 2020). Seeing these various factors, of course, makes an investor's decision more comprehensive in knowing the factors that affect the value of a company's company, in this case banks in Indonesia.

Price Earning Ratio

Price Earning Ratio (EPS) shows how many times the company's market value is based on the profit generated. The calculation of earnings per share uses stock prices and is compared with earnings per share. (Reilly, 2021).

$$\text{PER} = \frac{\text{Stock Price}}{\text{EPS}}$$

Average Volume

Average Volume is composed of stock that is traded in the stock exchange. (Indonesia Stock Exchange, n.a.).

Stock Beta

Systematic risk for a stock can be measured by showing the beta coefficient. Stock beta measures the stock's sensitivity to market changes. The greater the beta of a stock, the more sensitive the profit level of a stock is to react far beyond changes in the market index profit rate. Return and risk are two inseparable things, because the consideration of an investment is a trade-off of these two factors. Return and risk have a positive relationship, the greater the risk that must be borne, the greater the return that is compensated (Reilly, 2018).

Hypothesis

In the provisional assumption of the problem that has been formulated as follows.

H1: *PER and Stock beta has significant relationship*

H2: *Average volume and Stock beta has significant relationship*

H3: *PER, Average volume and Stock beta has significant relationship*

METHODOLOGY

This research is a statistical-correlation study that tries to identify the effect of correlation between variables using regression analysis. This analysis is used to predict the value of a variable based on the value of two or more other variables. This research used data of companies listed in Indonesia SE Healthcare of Investing.com. Determination of banks samples using purposive sampling method, namely taking samples by taking into account certain criteria in year 2022. There are 27 companies listed at Indonesia SE Healthcare, and 22 companies are listed as sample of this research. They are: Bundamedik, Darya-

Varia, Diagnos Lab., Indofarma, Itama, SIDO, Kalbe Farma, Medikaloka, Merck, Metro Health, Mitra, Phapros, Prodia, Pyridam, Royal, Meditama, Sejahteraraya, Siloam, Soho, Tempo Scan Pacific. Thus the sample of the study.

In data processing there are techniques that are manual and computerized. In this study using a computerized technique that uses the PSPP program. PSPP is a computer program that can be used to process statistical research data just like SPSS. That is the basis or reason for using a computer program called PSPP. The statistical analysis used in this study included linear regression analysis, F test, t test, coefficient of determination and other analyses.

RESULT AND DISCUSSION

Multiple Linear Regression

Regression analysis in this study is a table of multiple linear regression test results. Based on the regression results, it can be seen that the coefficient value of each variable used in the multiple linear regression equation. The following is a multiple linear regression equation.

- a. The constant is 0.00, meaning that if the PER, Average Volume are 0 or do not experience an increase or decrease, so the value of the stock beta is 0.00 (*the constant data number is up to two decimals only to limit the data range*)
- b. The value of the Price Earning Ratio (PER) regression coefficient is 0.83, which means it shows a positive direction (unidirectional) between PER and stock beta. This indicates that if the PER variable increases by 1%, the stock beta will increase by 0.83 assuming other variables have a fixed value.
- c. The Average Volume regression coefficient value is -0.93, which means that this result shows a negative direction (opposite direction) between Average Volume and stock beta. This indicates that if the Average Volume variable increases by 1%, the stock beta will decrease by -0.93 assuming other variables have a fixed value.

Hypothesis test

Table 1. *t-statistic test*

Variable	Beta	Std. Error	t-Statistic	Prob.
C	0,00	0,08	3,64	0,02
VOL	-0,93	2,46E-006	-2,46	0.024
PER	0,83	0,83	2,18	0,042

Price Earning Ratio and Stock Beta

Based on statistical calculations, the t-count value is 2.18 using a significance level (probability) of $\alpha = 5\%$, that the t-count value is $2.18 < t\text{-table value}$ and a probability value of $0.042 < 0.05$ (5%). A positive value on t count indicates that the price earning ratio (PER) has a positive influence on stock beta.

Average Volume and Stock Beta

Based on statistical calculations, it is obtained that the t-value is -2.46 using a significance level (probability) of $\alpha = 5\%$, that the t-value is $-2.46 < \text{the value of t table}$. The negative value on t count indicates that Average Volume has a negative effect on stock beta.

Table 2. *F-statistic*

R-squared	0.24	Mean Sq regress	0.45
Adjusted R-squared	0.16	Mean Sq residual	0.15
S.E. of regression	0.38	Sum squared total	3.68
Sum squared residual	2.79	F-statistic	3.04
Residual	2.69	Prob (F-statistic)	0.072

Price Earnings Ratio, Average Volume and Stock Beta

The results of the calculation of the F test show that together the independent variables

affect the dependent variable. This is evidenced by the existence of an F-statistic value that is equal to $3.04 < F\text{-table}$, and a probability value of $0.072 < 0.10$ (10%). Thus, it shows that the influence of the price earning ratio and average volume is directly proportional to the beta of the stock or in other words if the effect value of the price earning ratio and average volume increases, the beta value of the stock will increase.

Coefficient Determination

It can be concluded that the coefficient of determination (R-squared) is indicated by the R-Squared value of 0.024 or 2.4% which indicates that the contribution of the independent variables consisting of price earning ratio and average volume to the dependent variable, namely stock beta, is 2.4% remaining ($100\% - 2.4\% = 97.6\%$) influenced by other variables outside the regression model.

Discussion

Price Earning Ratio and Stock Beta

The test results show that partially the price earning ratio has effect on stock beta in Indonesia SE Healthcare companies on the IDX. This situation can be seen from the regression results which show a t count value of $2,18 < t\text{-table}$ and a probability value of $0.042 < 0.05$. This result contradicts with Firmansyah (2017), that stated price earning ratio has negative impact systematic risk.

Average Volume and Stock Beta

The test results show that partially average volume has a significant effect on the stock beta of the Indonesian company SE Healthcare. This situation can be seen from the regression results which show a t count value of $-2.46 < t\text{-table}$ value and a probability value of $0.024 < 0.05$. The effect of average volume on stock beta is possible due to the process of buying and selling shares in the capital market in the Healthcare sector. Every investment has risk implications. Therefore, the Indonesian SE Healthcare company is of

course long-term in nature, so this could indicate that the average volume has an influence on the stock beta of the Indonesian SE Healthcare company.

Price Earning Ratio, Average Volume and Stock Beta

The test results show that simultaneously Price earning ratio and Average volume have a significant effect on the stock beta of the Indonesian company SE Healthcare on IDX. From this situation it can be seen from the regression results which show that the significance value (probability F count) is 0.072, which means it has a significance > 0.10 with an F-count value of 3.04 $<$ the F-table value. These results are supported by previous research by Sari & Alteza (2019) providing fundamental factors that affect stock beta, and the results show a significant influence between fundamental factors on stock beta.

CONCLUSION AND RECOMMENDATION

Conclusion

This study aims to examine the effect of Price Earning Ratio and Average Volume on the stock beta of the Indonesian company SE Healthcare on the Indonesia Stock Exchange. Based on the results of the research, it can be concluded as follows:

1. The results of the partial test show that the variable price earning ratio has a positive and significant effect on the stock beta of the Indonesian company SE Healthcare in 2022.
2. The results of the partial test show that the average volume variable has a negative and significant effect on the stock beta of the Indonesian SE Healthcare company in 2022.
3. Simultaneous test results show that the variable price earning ratio and average volume simultaneously or simultaneously affect the stock beta.

Recommendation

In investing, it is necessary to pay attention to the company's performance which can be seen from its annual financial reports in order to find out whether the company is in good health or indicates financial difficulties and good prospects or vice versa which tends to experience a decline in performance in the future. Investment risks need attention from investors, therefore factors that can influence these risks must also be taken into account and therefore calculations using existing financial ratios can help investors to assess the company's condition both in terms of health and returns. the investment. Investors should also consider other financial information such as issuer fundamental conditions and other macro factors.

The next researcher is expected to need to improve several other indicators besides the price earning ratio and average volume because it is very possible that other indicators not included in this study can affect stock beta. The use of other models is also recommended to produce predictions that are more than the current research and different data processing tools are possible for better predictive results as well.

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