The Effect of Microeconomic Variables with Interest Rate as Moderating Variables on the Return of Stock Manufacturing Companies in Indonesian Stock Exchange

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ABSTRACT

The period 2014 to 2018 is a very good period for investing in shares on the Indonesia Stock Exchange (IDX). Political conditions are relatively stable and conducive, support the business ventures to produce good performance and in the end provide high stock returns. From the research sample of 21 manufacturing companies (basic and chemical industries, various industries and consumer goods industries), to determine the effect of microeconomics on stock returns, an average stock return (RTS) was 9.5% and the highest was 140.83%; positive economic value added (EVA) an average of Rp. 497.7 billion and the highest was Rp. 3.452 billion; operating cash flow (OCF) an average of Rp. 2. 241 billion, and the highest was Rp. 1,748 billion; earning per share (EPS) averaged Rp. 296.25 and the highest was Rp. 1,211; return on equity (ROE) an average of 14.87% and the highest is 26.40%; return on revenue (ROR) with an average of 9.92% and the highest 32.74%; interest (INT) was relatively stable with an average of 4.24%. From quantitative testing, to determine the effect of microeconomics with the independent variables EVA, OCF, EPS, ROE and ROR on the dependent variable RTS; partial testing is only the independent variable ROE has a significant effect on the dependent variable RTS. While the simultaneous test or F test, the independent variables together, have a significant effect on the dependent variable stock returns (RTS). Further testing to determine the effect of microeconomics with independent variables EVA, OCF, EPS, ROE and ROR on the dependent variable RTS, with macroeconomic proxy by interest rates (interest/INT) as a moderating variable, only the independent variable ROE together with the variable moderation of INT which has a significant effect.

Keywords: Microeconomic variables, interest rates, stock returns.

INTRODUCTION

The main sources of funding in Indonesia are banking and the stock exchange

or the capital market. Currently Indonesia is a developing country, the stock exchange as a source of funding continues to develop. In the industrial era 4.0, the Indonesian government implemented industry 4.0. Since May 22, 1995, the trading system on the Indonesia Stock Exchange (IDX) has used an integrated computer and internet system called The Jakarta Automated Trading System. The government encourages investment by inviting as wide as possible investors, opening jobs to reduce permits, extortion and barriers other investment.

Investment in the Indonesia Stock Exchange (IDX) in the last 5 years has continued to develop, as seen from the composite stock price index (IHSG) 5,226 in 2014 to 6,194.5 in 2018; market capitalization of Rp. 5,228 trillion in 2014 to 7,023.5 trillion in 2018; and 510 companies registered in 2014, to 619 companies in 2018.[3] www.sahamok.com www.idx.co.id

With the encouragement of investment from the government, Indonesia, which is a developing country, has become an attraction for domestic and foreign investors. Cohen (2002) states that on average, in developing countries, stock returns are higher than in developed countries. Likewise, the opinion of Lim (2009) states that developing countries with low portfolio risk provide high stock returns for foreign investors.

In conducting the analysis to determine the possibility of a better stock return, investors can analyze various kinds of microeconomic variables and macroeconomic variables. Idrus and Bala (2015) state that in essence there is no consensus on whether a variable or combination of various variables can explain better stock return results. Sayedi and Ghazali (2017) who use microeconomic variables with the proxies debt / equity ratio, quick ratio and dividends per share; and macroeconomic variables with money supply as a proxy, found a significant relationship and influence on stock returns. Singh, Mehta and Varsha (2011) also stated that investors have a better chance of developing investment strategies if they include macroeconomic variables in decision making.

The interest rate, which is one of the macroeconomic variables, which is determined by the monetary authority, has an effect on capital flows and economic growth, so it is the dominant variable. The effect of interest rates on stock returns is significant and negative according to Upadhyay (2016).

This paper is organized into four sections. The next presents the material and method. The results obtained from quantitative analysis and their discussion are the subject of third section. The fourth section concludes.

LITERATURE REVIEW

Stock Exchange

The need for corporate funding cannot always be met from the company's internal capital sources. Companies can seek funding from outside the company. Referring to the agency theory of Jensen and Meckling, 1976, the contract between the principal and the agent gives the agent or management the right to make decisions for the benefit of the company.[4] The interests of the companies regarding funding can be done through the registration (listing) of the company's shares to be traded on the stock exchange. Investments made by investors in the stock exchange are generally for the purchase of shares of various companies (stock portfolios).

The Indonesia Stock Exchange (IDX) has 11 types of stock indices, which are continuously disseminated through print and electronic media, as a guideline for investing in the capital market..

Markowitz (1952) who wrote the article Portfolio Selection is considered to be the first to conduct research on portfolio theory, regarding portfolio diversification to reduce risk. Then known other theories, namely: Capital Asset Pricing Model (CAPM) regarding the relationship between risk and stock returns, Arbitrage Pricing Theory regarding the absence of arbitrage in the market, Fama and the French Three Factor Model developed in 1992 which expanded the CAPM model by adding size and factor factors. the value of risk in market risk in CAPM,

Sekreter (2017) states: several empirical tests have shown that the time interval of 3 years and stock returns that are evaluated annually give better results. Most of the CAPM tests and others focus on cross-sectional aspects of the data. However, recent research suggests that investigating the conditional relationship between beta and return provides better estimates of assuming time series analysis because beta is unstable over time.

Macroeconomic analysis

Macroeconomic analysis includes macro indicators : politics, macroeconomic indicators (inflation, economic growth, income per capita and others) including those that cross borders between countries. Today's stock price index is an indication of the future direction of a country's economy. Therefore, the stock price index is used as a leading indicator (leading indicator) of future economic direction. Leading indicators precede economic indicators.

Therefore, investors from other countries always pay attention and observe the development of the Dow Jones Index (DJIA) in the United States, the Nikei 225 Index in Japan and calculate their effects on the domestic stock price index. At

the time of the 2008 global crisis, almost all stocks fell. Stocks in the “durable goods” group and the “non durable goods” group fell together

The interest rate, which is determined by the monetary authority, in this case is Bank Indonesia (BI) for Indonesia, is one of the dominant macroeconomic factors.

Microeconomic analysis

Microeconomic analysis by looking at the micro indicators of an individual company or similar, for example: return on assets (ROA), return on equity, economic value added (EVA), stock returns and other indicators.

Stock returns Jones (2000) states stock returns, capital gain / loss as a result of investing in stocks. Hallefors (2013) states that stock returns are the result of trading on the secondary market in the form of capital gains and dividends. Stock Return = (Pt - Pt-1) / Pt-1. *Economic Value Added (EVA)* It is the profit from operations after deducting the annual cost of capital. EVA = NOPAT - (Capital x WACC). *Operating Cash Flow* The amount of cash generated by a company during a certain period. Operating Cash Flow = Net Income + Non Cash Expense - Increase in Working Capital *Earning Per Share* It is the amount of rupiah that can be generated by each share of a company listed on the Stock Exchange *Return on Equity* Is a measure of the company's ability to return on equity investment. *Return on Revenue* Is a measure of the company's ability to generate operating income (revenue), before deducting interest costs and taxes.

RESEARCH METHODOLOGY

Research Questions and Models

Descriptive quantitative research, designed to determine the effect microeconomic on stock returns partially from the microeconomic subset and simultaneously with interest as a moderating variable. Data processing was carried out using the Statistical Product and Service Solutions (SPSS) program 24.

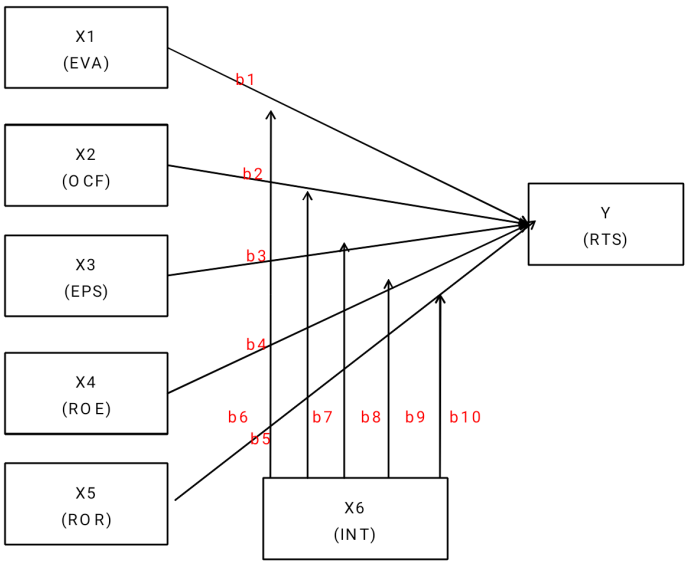
The study population is companies manufactured listed on the Indonesia Stock Exchange (IDX) from 2014 to 2018. The population is 175 (forty-five) companies. The research sample was chosen by 20 (twenty) companies. The sample criteria are as follows: (1) registered on the IDX until 2018, (2) paying dividends in the last 3 (three) years, (3) not receiving a warning from the Financial Services Authority (OJK), (4) issuing annual financial reports in accordance with the provisions (OJK). Companies samples studied can be seen in the appendix.

Research Questions

1. Is the independent variable of microeconomics as proxy (projected) by: Economic Value Added (EVA), Operating Cash Flow (OCF), Earning per Share (EPS), Return on Equity (ROE); partially affect the independent stock return variable (Stock Return / RTS)?
2. Is the independent variable of microeconomics as proxy (projected) by: Economic Value Added (EVA), Operating Cash Flow (OCF), Earning per Share (EPS), Return on Equity (ROE); simultaneously affect the independent return variable (Stock Return / RTS)?
3. Is the independent variable of microeconomics as proxy (projected) by: Economic Value Added (EVA), Operating Cash Flow (OCF), Earning per Share (EPS), Return on Equity (ROE); with Interest Rate (INT) as a moderating variable, partially and with difficulty affect the independent variable stock return (Stock Return / RTS)?

No	Symbol	Description	Measurement : Ratio
1	X1 (EVA)	*Economic Value Added*	*Nominal* *Profit after deducting the cost of capital*
2	X2 (OCF)	*Operating Cash Flow*	*Nominal* *Cash flow from operation*
3	X3 (EP)	*Earning per Share*	*Ration* *Rupiah per share*
5	X4 (ROE)	*Return on Equity*	*Ratio* *Percentage of return on Equity*
6	X5 (ROR)	*Return on Revenue*	*Ratio* *Percentage of operating profit to revenue*
7	X6 (INT)	*Interest*	*Ratio* *Average annual interest rate*
6	Y (ROA)	*Return on Asset*	*Net Income/Total Assets*

Graphic Model



Hyphoteses

1. X1, X2, X3, X4, X5 affect Y
2. X1 has an effect on Y which is moderated by X6
3. X2 has an effect on Y which is moderated by X6
3. X3 has an effect on Y which is moderated by X6
4. X4 has an effect on Y which is moderated by X6
5. X5 has an effect on Y which is moderated by X6

Mathematical Model:

$Y = a1 + b1X1 + b2X2 + b3X3 + b4X4 + b5X5 + e1$

$Y = a2 + b1X1 + b6X6 + b11X1X6 + e2$

$Y = a3 + b2X2 + b7X6 + b12X2X6 + e3$

$Y = a4 + b3X3 + b8X6 + b13X3X6 + e4$

$Y = a5 + b4X4 + b9X6 + b14X4X6 + e5$

$Y = a6 + b5X5 + b10X6 + b15X5X6 + e$

RESULT RESULTS AND DISCUSSION

Descriptive statistics

The research sample statistics are 21 manufacturing companies (basic and chemical industries, various industries and consumer goods industries) which are listed on the Indonesia Stock Exchange (BEI). The period used is 5 (five) years, namely 2014 to 2018, with the type of quarterly publication report.

Stock returns (RTS) of the sample companies from 2014 to 2018, the lowest was -62 and the highest was 140.83 and the average was 9.50. Stock returns with an average of 9.5% and the highest of 140.83% indicate that investment on the IDX during that period was very profitable. Economic value added (EVA) from sample companies from 2014 to 2018, the lowest was -893,767,276.20 and the highest was 3,451,610,209.00 and the average was 497,711,708.40. The average value of economic value add is positive, namely Rp. 497.7 billion, this average value is very high which illustrates the company's ability to generate high earnings after all capital costs have been deducted. Operating cash flow (OCF) from the sample companies during 2014 to 2018, the lowest was -862,339,383.00 and the highest was 1,747,644,225.00 averaged 2,241,837,480. The data is presented in thousands of rupiah, thus, the average cash flow is Rp. 2. 242 billion (positive). This illustrates the ability of the manufacturing industry to generate very high earnings before deducting interest costs and taxes. Earning per share (EPS) of the sample companies from 2014 to 2018, the lowest was 16.33, the highest was 1,211 and the average was 296.25. EPS in this research period is also very good, proven positive EPS with an average of Rp. 296.25 and the highest was Rp. 1,211. Return on equity (ROE) of the sample companies from 2014 to 2018, the lowest was 3.20, the highest was 26.40, and the average was 14.87. The average ROE level is very high, namely 14.87%. This rate of return illustrates the return of profitable stock owners' funds compared to returns from other investments, for example bank savings rates. Return on revenue (ROR) from the sample companies from 2014 to 2018, the lowest was 2.72, the highest was 32.74 and the average was 9.92. Return on revenue illustrates the comparison between profit before tax and income, the average is quite high, namely 9.92%. Interest rate (interest / INT), which is the benchmark interest rate of Bank Indonesia from 2014 to 2018, the lowest is 4.30%, the highest is 7.60% and the average is 5.88%. The average interest rate during this period was relatively stable.

Analysis

1. The effect of microeconomics, projected with Independent Variables: X1

(EVA), X2 (CFOPR), X3 (EPS), X4 (ROE) and X5 (ROR) on the dependent variable Y (RTS)

1.1. From the partial test results, the effect of the independent variable X4 (ROE) on the dependent variable Y (RTS) is significant 0.001 <0.05. This effect can also be seen from the average return on equity (ROE) of 14.87% and the highest is 26.40% during the study period. Other independent variables have no significant effect. Although the effect of the independent variables (EVA, OCF, EPS and ROR) is not significant from the data description, it can be seen that almost all of these independent variables are very good. Another possibility is that there will be very significant outliers, especially among various industrial and consumer goods sectors. It can be said that the highest EVA before the outlier is Rp. 13.4 trillion; The highest OCF is Rp. 27.7 trillion; RTS 140.3%; EPS Rp. 8,132; ROE 224.46%; ROR 101.37%.

1.2. From the simultaneous test results, the effect of the independent variables (EVA, OCF, EPS, ROE and ROR) on the dependent variable RTS is significant. Obtained sig value 0.027 <0.05, it can be concluded that there is a significant effect of the independent variables X1, X2, X3, X4 and X5 on the dependent variable Y

Regression Equations:

Y = -21.023 + 4.648E-9X1 - 0.001X2 + 2.706X3 - 7.402E-11X4 -1.172X5 + e1

2. The effect of microeconomic, projected with. : X1 (EVA), X2 (OCF), X3 (EPS), X4 (ROE) and X5 (ROR) with macroeconomic, interest rates (X6 / INT), as a moderating variable on the dependent variable Y (RTS)

Partial testing with spss 24, it is known that the effect of microeconomics (X1 (EVA), X2 (OCF), X3 (EPS), X4 (ROE) and X5 (ROR) with interest rates (X6 / INT) as moderation has no significant effect the dependent variable Y (INT). However, from the simultaneous test / ANOVA test or F test of the independent variable X4 (ROE) and the moderating variable X6 (INT), the significance level is 0.007 <0.05, the regression model can be used to predict the independent variable. , or X4, X6 and moderation4 have a significant effect on Y.

From the data description, it is known that the highest interest rate is 7.6% and an average of 5.9%. If the interest rate margin and bank loan interest costs reach 5%, then the theoretical interest rate can be predicted to have a significant effect on stock returns. Where the average interest rate is the average BI interest rate for 2014 to 2015. From 2016 to 2018 using the BI 7-

day (Reverse) Repo Rate.

CONCLUSION

The period 2014 to 2018 is a very good period for investing in shares on the Indonesia Stock Exchange (IDX). Political conditions are relatively stable and conducive, support the business world to produce good performance and in the end provide high stock returns.

From the research sample of 21 manufacturing companies (basic and chemical industries, various industries and consumer goods industries), to determine the effect of microeconomics on stock returns, an average stock return (RTS) was 9.5% and the highest was 140.83. %; economic value added (EVA) positive average of Rp. 497.7 billion and the highest was Rp. 3.452 billion; operating cash flow (OCF) an average of Rp. 2. 241 billion, and the highest was Rp. 1,748 billion; earning per share (EPS) averaged Rp. 296.25 and the highest was Rp. 1,211; return on equity (ROE) an average of 14.87% and the highest is 26.40%; return on revenue (ROR) with an average of 9.92% and the highest 32.74%; interest (INT) was relatively stable with an average of 4.24%. From quantitative testing, to determine the effect of microeconomics with the independent variables EVA, OCF, EPS, ROE and ROR on the dependent variable RTS; Partial testing is only the independent variable ROE has a significant effect on the dependent variable RTS. While the simultaneous test or F test, the independent variables together have a significant effect on the dependent variable stock return (RTS).

Further testing to determine the effect of microeconomics with independent variables EVA, OCF, EPS, ROE and ROR on the dependent variable RTS, with macroeconomic proxied by interest rates (interest/INT) as a moderating variable, only the independent variable ROE together with the variable moderation of INT which has a significant effect There are still several companies with negative EVA and OCF values. One factor is the large annual cost of capital that must be paid by the company. The funding strategy can be adjusted by taking into account the prevailing interest rates. Return on revenue can be increased by paying attention to efficiency and effectiveness at the internal level, although from the results of the research the average is 9.92% and the highest is 32.74%, many are still below the lowest average 2.72%.

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