

The Rating of Sectoral Stocks Based on Their Capital Gain

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Abstract—This study aims to determine the amount of capital gains of sectoral stocks and find out sectoral/ industrial stock rankings based on their capital gains in Indonesia at 2017. Capital gain is a part of the return of stock investment that gets great attention of investors. An understanding of the ranks difference of capital gain will be useful in stock analysis especially in phase of the fundamental analysis of industry, i.e. when potential investors will determine the industry/sector to be object of the stock investment. Data of the sectoral capital gain were obtained by processing index data of sectoral stocks in Indonesia Stock Exchange (ISE). Descriptive analysis was conducted to explain the existing capital gain of the sectoral stocks. Test of Means Difference was conducted to ensure the difference of capital gain among the sectors. Analysis of variance was conducted to test the difference in the rankings of the capital gains among the sectors. The result show that the sectoral capital gains are not significantly different, where the mean is 0.97%. The result also find that the ranks of their sectoral capital gains are significantly different, with Financial Sector as highest rank and Sharia Stock as the lowest rank. The ranks sequentially are: Financial sector, Basic Industry Sector, Consumption Sector, Agriculture Sector, Mining Sector, Manufacturing Sector, Miscellaneous Industry Sector, Infrastructure Sector, Trade Sector, Property Sector, and Sharia Stock.

Keywords— *capital gain; rating; sectoral stock*

I. INTRODUCTION

The investors' aim in stock investment is generally to obtain the return as much as possible with certain risk that has been taken into account, because the return is an indicator for investors' equities and wealth, as well as an indicator of the company's stock prospect. Therefore, return is the factor that gets most investors' attention to be analyzed. Investors try to forecast potential stock return through stock performance over several observation periods as measured by fluctuation in the stock price index. Before choosing the individual stocks (stock of companies) to be investment object, investors need to select the industry/sector among the existing sectors (nine conventional industries/sectors plus a group of sharia stocks which is considered as a single industry in this research.

Stock return consists of capital gain and dividend components. For most investors the acquisition of stock return that come from the capital gain component becomes the main goal. So it always gets the great attention. Capital gain of

individual stock is obtained through changes in the stock's market price or stock's price index. Capital gain of sectoral stock is obtained through changes in the sectoral stock market price or sectoral stock price index. For the selection of industry that will be investment object, the capital gain of sectoral stock needs to be compared. The sectoral capital gain is calculated from changes in sectoral stock's price index.

There is Arbitrage Pricing Theory (APT) relate to stock prices and returns. This theory does not explicitly mention the factors that affect the expected return, the analysts are welcome to formulate themselves about the factors [1]. The factors can be more than one. There are at least three or four factors that influence the price development of securities, which are company's fundamental performance, stock performance in the market as well as market and economic condition [2].

To date many studies used the APT approach, since rationally and theoretically the development of stock price is strongly influenced by demand and supply. Demand and supply of stock is strongly influenced by investors' expectations [2]. Furthermore, the hope or the courage of an investor to bargain stock price is determined by market conditions, economic conditions and the value of the company itself [3]. Theoretically, the height of stock prices are influenced by fundamental factors and technical factors [4-9]. Therefore, before taking investment decision investors perform fundamental analysis and technical analysis. Analysts and stock market actors generally use these theories in analyzing and predicting stock prices and returns in the future must be estimated. Fundamental stock analysis includes economic (macro) analysis, industry analysis, and company analysis. Top-down fundamental analysis is done in the following order [4]:

- Economic and capital market analysis to determine the vulnerability of securities to changes in macroeconomic factors that affect the performance of all companies in the market.
- Industry analysis to know what kinds of industries are more eligible to be selected for investment.
- Company analysis to determine what individual/company stocks are more eligible to be selected and choose among the stocks in selected industry.

The selection of industry as an investment object is done before choosing the company. In other words, prospective investors need to select the industry first before choosing the existing companies in the industry. This analysis is conducted to find out and compare the prospect of sectoral stocks. Industry analysis aims to determine what kinds of industries have good and profitable prospects for investment. Sectoral stock' prospect are reflected in industrial financial performance, sectoral stock performance and sectoral stock risk in the market. The industrial financial performance includes and are reflected in the industrial performance aspects of profitability, solvency, liquidity, and activity. Sectoral stock performance is reflected in sectoral stocks' price, index, return, and risk.

Any investment both short and long term has the main goal to get the benefit called return either directly or indirectly [6]. Stock return is one of the factors that motivate investors to invest and also reward for the courage of investors' taking risks on their investments. In simple terms investment can be defined as an activity of placing funds on one or more assets during a certain period in the hope of earning or increasing the value of investment. Stock return is the result of a stock investment that can be calculated from changes of stock prices. High stock return indicate that the stock is attractive to investors or demanded by the market. Practically speaking, the rate of return for an investment is the percentage of total income over the investment period compared to the purchase price of the investment. In stock investment the stock return is the percentage of total income during the period of stock ownership compared to the purchase price of the stock. Return is an indicator of investors' equity and wealth increase as well as a benchmark of the company's stock prospects. The stock return consists of capital gain and dividend [4,7,10]. The total return is the overall return of an investment in a certain period of capital gain/loss and yield [11]. Capital gain/loss is the difference between the current investment prices relative to the price of the past period. Yield is the percentage of periodic cash receipts to the investment price of a certain period of an investment [6]. In fact almost all investors prefer capital gain than dividend [12], so capital gain is very important and become a major concern to investors. The potential capital gain is derived from the index increase from the previous period. Therefore, investors and potential investors are concerned to predict the capital gain of stocks to be purchased.

The study comparing the stock capital gain among the sectors has not been widely conducted. Several studies had been conducted to see the description of individual or sectoral capital gains (not doing cross-sectoral comparisons). Several previous studies relevant to the topic of this research are presented below.

Two researchers conducted stock research in Saudi Arabia with stock return, earning per share, return on equity, and cash flow (EPS, ROE, and CF) as research variables [13]. The result showed that EPS is a significant variable in explaining changes in stock returns, but ROE and CF are not. Other researchers examines the financial ratios and industry characteristics [14]. The result indicate that certain financial ratios have different benefits or meanings when associated with different industry characteristics. Other researchers examines the performance of

companies and industry types [15]. The results showed that industrial/sectoral stock analysis still needs additional theory to help. An Indonesian expert conducted research on application Model of Panel Data in technical and fundamental analysis on sharia stock [16]. The result shows that sharia stocks price was influenced by fundamental factors (EPS, ROE, exchange rate, Jakarta Islamic Index) and technical factor (stock price of the past), but technical factor has the greatest effect. Two researchers conducted research on political risk, economic risk and financial risk [17]. The results indicate that the political risk, economic risk, financial risk, Price Earnings Ratio and Price to Book Value Ratio positively and significantly influence stock returns, but the Dividend Payout Ratio doesn't. Another expert examines the volatility of stock prices with dividend, capital gain, return, and stock price as research variables [18]. The results showed that investors on the aggregate level tend to be more interested in the size of future cash flows (capital gain) than dividend, and expected return are negatively correlated to expected profit. Another one conducted a study with dividend, capital gain, and stock return as research variables [19]. The results show that long-term cross-section stock returns are affected primarily by capital gain, not by dividend. Other two Indonesian researchers conducted a study of sectoral stock in the telecom industry [20]. The results indicate that the fundamental and technical factors influence the investment decision making in telecom companies in Indonesia. Another Indonesian expert conducted a study of sectoral stock in the banking sub-sector/sub-industry in relation to stock-splits [21]. The results indicate that there is different stock performance between before and after stock-split. The purpose of this study is to compare and prove that the sectoral capital gains and their ranking differ among the sectors. By comparing the sectoral capital gains and ranks investors can know what sectoral stocks are potential to be selected as the object of stock investment.

The research problems are formulated in the form of question: "How is the description of sectoral capital gains in Indonesia at 2017? Are the ranks of sectoral capital gains in Indonesia differ among the sectors? The hypothesis of the research formulated as follows:

H1: Sectoral capital gains in Indonesia are vary (significantly differ).

H2: The ranks of sectoral capital gains in Indonesia are vary (significantly differ).

II. METHOD

Secondary data were used in this research and collected from Indonesia Stock Exchange's website [22]. The study was designed as a quantitative-comparative study using Descriptive Statistical analysis, Variance analysis, and Kruskal-Wallis analysis. Descriptive statistical analysis is used to describe the average, minimum, and maximum value of sectoral capital gains. The Variance analysis (F Test) is used to test the significance of the difference among the mean of sectoral capital gains. The Kruskal-Wallis analysis is used to test the significance of the different ranks of the sectoral capital gains.

Sectoral stock capital gain (also called as sectoral capital gain) is aggregation of individual capital gains of all companies

in an industry/sector. It's formula is equal to the composite/market capital gain. The difference lies in the number of individual stocks included in the calculations. If the composite/market capital gain covers all the individual stocks in the market (stock exchange), the sectoral capital gain covers all the stocks in each industries/sectors.

The composite/market capital gain (R_m) is formulated as follows [6]:

$$R_m = \frac{JCI_t - JCI_{t-1}}{JCI_{t-1}}$$

where JCI : Jakarta Composite Index

t : certain period

t-1 : previous period

Based on the formula above, the sectoral capital gain (R_s) can be formulated as follows:

$$R_m = \frac{SCI_t - SCI_{t-1}}{SCI_{t-1}}$$

where SCI: Sectoral Composite Index

t : certain period

t-1 : previous period

III. RESULT AND DISCUSSION

A. Descriptive Statistic Analysis

Descriptive Statistic Analysis result in percentage of listed companies amount, market capitalisations, capital gains, and the ranks of capital gain of sectoral stocks as follows:

- 63.22% of companies listed on the Indonesia Stock Exchange (ISE) are companies whose stocks are included in the Sharia Stock group, and the remain (36.78%) are included in the nine conventional sectors.
- 55.42% of market capitalisations are stocks that included in the Sharia Stock group, and the remain (44.58%) are included in the nine conventional sectors.
- The maximum capital gain is 2.90% and achieved by Financial Sector, the minimum is -1.13% and achieved by Agriculture Sector, and the Mean (average) is 0.97%.
- The highest rank of sectoral capital gain is Financial Sector's, and the lowest is Agriculture Sector's.

Table I below contents sectoral capital gains and their ranks of the existing sectors.

TABLE I. CAPITAL GAIN AND RANK

Industry/Sector	Capital Gains	Ranks of CG
Agriculture Sector	-1.13%	11
Mining Sector	1.31%	5
Basic Industry Sector	2.18%	2
Miscellaneous Industry Sector	0.14%	9
Consumption Sector	1.80%	3
Property Sector	-0.35%	10
Infrastructure Sector	1.00%	6
Financial Sector	2.90%	1
Trade Sector	0.59%	8
Manufacturing Sector	1.57%	4
Syariah Stock	0.84%	7
Mean	0.97%	-

Sources : Counted from ISE's Index Data [22]

B. Hypothesis Testing of the Means Difference

Hypothesis testing of the means difference of sectoral capital gain proved that the first research hypothesis was rejected, meaning there is no significant difference in capital gains among the sectors. In other words although the capital gain of the sectoral stocks are varies, but the difference among them is not significant (the magnitude of the difference is considered insignificant).

C. Hypothesis Testing of the Ranks Difference

Hypothesis testing of the ranks difference of sectoral capital gains by the Kruskal-Wallis method proved that the research hypothesis is accepted, which means that the sectoral stock rank of capital gains differ significantly (the magnitude of the difference is considered significant).

IV. CONCLUSIONS

Based on the results of the analysis, it's can be made conclusions as follows: Firstly, sectoral stock capital gains are not significantly different among the sectors with 0.97% as the mean (average), -1.13% as the minimum (Sharia Stock's) and 2.9% as the maximum (Financial Sector's). Secondly, the rank of capital gains are significantly different, in sequence are as follows: Financial Sector (rank1), Basic Industry Sector, Consumption Sector, Agriculture Sector, Mine Sector, Manufacturing Sector, Miscellaneous Industry Sector, Infrastructure Sector, Trade Sector, Property Sector, and Sharia Stock (rank11).

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