



Composite Stock Price Index (IHSG) Macro Factor in Investment in Stock (Equity Funds)

Andi Desfiandi¹, Alvin Desfiandi², Hapzi Ali^{3*}

¹Lecturer of Business and Economics, Institute of Business and Informatics, Darmajaya Lampung, Indonesia, ²Lecturer of Business and Economics, Prasetia Mulya University, Jakarta, Indonesia, ³Lecturer of Management and Business, Mercu Buana University, Jakarta, Indonesia. *Email: prof.hapzi@gmail.com

ABSTRACT

Investors often find it difficult to value and purchase stocks with good performance that provide optimum yields. Inadequate information regarding how to make good investments is one of the main reasons why people lose interest to invest in capital market. The purpose of this research is to find a stock performance measurement model by using accounting and financial management system that is made by using the information from stocks turnover ratio and risk level of stocks. This performance measurement model can be an important tool for investors to identify the stock performance factor. Therefore, investors can value and purchase stocks with optimum performance and yields. US Dollar (USD)/Indonesian Rupiah (IDR) rate has significantly negative influence to Indonesian composite price index (IHSG) movement since a depreciation of IDR discourages investors to invest in Indonesia stock exchange (IDX). Therefore, the investors divert their investments from stock market to foreign exchange market to arbitrage. Straits times index (STI) has significantly positive influence to IHSG since Singapore and Indonesia share common investors that causes the movement of STI is followed by the movement of IHSG.

Keywords: Performance, Mutual Funds, Risk Stock

JEL Classifications: D53, E44, G2

1. INTRODUCTION

The movement of stock price index can be influenced by several external factors, either from within country or from foreign countries (Ilham, 2013). The factors come from within country can be formed as macroeconomic factors such as, the change of exchange rate, level of interest rate, inflation, and gross domestic product. Whereas, the factors come from foreign countries are either globally integrated capital market or the economic situation in a country. Exchange rate is one of macroeconomic variables which influence the stock price index. When IDR is depreciated against USD, the price of imported goods are more expensive which affects domestic companies that use imported goods as their production factors. The price level also has an impact to the movement of stock price because inflation reduces the value of money. According to Tandelilin (2010), inflation, relatively, is a negative signal for investors in capital market. If the investors are discouraged to invest in a company, it will decrease the stock price of that company.

Regional stock price index in Asia which is used as a reference for investors to make investment in IDX is STI. Singapore is one of the most developed country in Southeast Asia and located near Indonesia. Therefore, the economic situation in Singapore could affect the economic situation in Indonesia.

2. LITERATURE REVIEW

2.1. Random Walk Theory

Random walk theory states that the change of a stock price (equity) or the whole market which has been incurred cannot be used to predict the stock price movement in future. The change of one stock price has no influence on other stock prices and has similar probable distribution (Mills, T.C. 1999). According to him, if the market is efficient, it means that the current marketable security price cannot be reflected from the price in the past. Therefore, he concludes that the marketable security price is random or disordered (Sunariyah, 2011. p. 186).

2.2. Domino Theory (Contagion Effect Theory)

Indonesia, as one of the developing countries in Asia, still depends on the economic condition of foreign countries in terms of investments. As a consequence, the condition of capital market in Indonesia is influenced by foreign conditions, particularly the condition of capital market in developed countries ((Ludovicus Wondabio, 2006). The domino effect is the chain reaction which is happened when there is a change, either small or big, that causes a similar change nearby in which will cause another similar changes too. The domino effect can be used to describe the chain reaction for a certain activity.

2.3. Investment

Tandelilin (2010. p. 2) states that investment is a commitment of funds or other resources which is made at present time to obtain yield in the future. An investor purchases equity at present time purpose to gain profit from a difference in equity price or to gain dividends, as a reward from the time spent and risk taken related to the investment, in the future. According to Tandelilin (2010. p. 12), the decision process of investment consists of five decision levels that run until the best decision for the investment is made.

2.4. Mutual Funds

The first mutual fund in the world was Massachusetts investors trust, which was established on 21 March 1924, had two hundreds investors in the first year with total assets worth of USD 392,000. In 1929, when the capital market crashed, the growth of mutual funds industry was slowed. Robert C. Pozen (1998) states that "A mutual funds is an investment company that pools money from shareholders and invest in a diversified of securities."

Investing through mutual funds attracts investors because they do not have to analyze and monitor the market condition continuously and do not require huge capital to invest. The investment is made and monitored by intermediary, that is, investment manager.

2.5. Statement of Research Hypothesis

Based on the background of the problem and the study of theory, the hypotheses of this study are:

- H₁: Rate to composite stock price index (IHSG)
- H₂: Inflation to composite stock price index (IHSG)
- H₃: Dow jones index to composite stock price index (IHSG)
- H₄: Straits times index (STI) to composite stock price index (IHSG)

3. RESEARCH METHOD

The purpose of data analysis is to classify the data based on variable and respondents, and to make data tabulation based on variable of all respondents, providing data of each controlled variables and making calculation to test the hypothesis.

The data which is used for this research is secondary data since the author observes not directly from the investors but from IDX data and literature reviews that are related to this research. The data can be obtained from IDX, Bapepam-LK, and Bank of Indonesia websites.

In this research, there is one dependent variable and four independent variables. The independent variables or variables (X)

are USD/IDR rate, inflation, Dow jones industrial average (DJIA), and STI. The dependent variable or variable (Y) is composite stock price index (IHSG).

Partial regression test model in this research as follows:

$$1. \text{ The effect of exchange rate to IHSG model} \\ \text{IHSG} = \alpha + \beta_1 R + \mu \quad (1)$$

This linear model is used to answer the hypotheses 1 which state that there is a negative correlation between USD/IDR rate and IHSG movement.

$$2. \text{ The effect of inflation to IHSG model} \\ \text{IHSG} = \beta_0 + \beta_2 I + \mu \quad (2)$$

This linear model is used to answer the Hypotheses 2 which state that there is a negative correlation between inflation and IHSG movement.

$$3. \text{ The effect of DJIA to IHSG model} \\ \text{IHSG} = \beta_0 + \beta_2 \text{DJIA} + \mu \quad (3)$$

This linear model is used to answer the Hypotheses 3 which state that there is a positive correlation between DJIA movement and IHSG movement.

$$4. \text{ The effect of STI to IHSG model} \\ \text{IHSG} = \beta_0 + \beta_2 \text{STI} + \mu \quad (4)$$

This linear model is used to answer the Hypotheses 4 which state that there is a positive correlation between STI movement and IHSG movement.

The model used in this research uses estimation model which is applied to form multiple linear regression with ordinary least square (OLS) method.

From the result of estimated data by using OLS method from Table 1, the linear model as follow: $\text{IHSG} = 43.06447 - 0.189684_{\text{RATE}} - 4076.530_{\text{INFLATION}} + 0.041405_{\text{DJIA}} + 0.876591_{\text{STI}}$

4. CONCLUSION AND RECOMMENDATIONS

4.1. Conclusion

1. The influence of USD/IDR rate to IHSG movement
Current depreciation of IDR towards USD shows that the prospect of economic in Indonesia will be gloomy. The

Table 1: OLS estimated result

Variable	Coefficient	Standard error	t-statistic	P
C	43.06447	17.09601	2.518978	0.0148
D (RATE)	-0.189684	0.088257	-2.149225	0.0361
D (INFLATION)	-4076.530	2349.387	-1.735146	0.0884
D (DJIA)	0.041405	0.049702	0.833076	0.4085
D (STI)	0.876591	0.194998	4.495377	0.0000
R ²	0.550313	F-statistic		16.52085
Adjusted R ²	0.517002	P (F-statistic)		0.000000

Source: Data processed year 2015, DJIA: Dow jones industrial average, OLS: Ordinary least square

depreciation presents when Indonesia's economic fundamental is weak. Therefore, USD grows stronger and reduces the level of IHSG. When IDR depreciates, it increases the price of imported raw materials. The increasing production costs will dissipate domestic companies' profit. The USD/IDR rate has negative correlation and significant to IHSG Movement for -0.189684 . It means if USD/IDR rate (in this case, IDR is depreciated) by 1, IHSG will declined for $0,189684$ bps. The increase of USD/IDR rate gives a negative signal to the capital market, which leads the investors to divert their investments from equity market to foreign exchange market as it allows them to gain more return.

2. The influence of Inflation to IHSG movement
This paper shows that inflation has no significant correlation to IHSG Movement. It means that inflation has no direct impact to investors' decision to invest in equity or stocks in IDX. The investors have the tendency to wait for other signals, for example, domestic interest rate and USD/IDR rate, simultaneously before they make decision to invest in IDX. Moreover, inflation has no correlation to IHSG movement might because the inflation is still considered low ($<10\%$ per year). As long as the inflation growth has not reached 10% or above, IHSG will continue to grow without being affected by inflation.
3. The influence of DJIA to IHSG movement
DJIA has no significant correlation to the IHSG movement. It shows that there is no integration between American capital market and IDX during this research period. It might be caused by several factors, such as, the economic recovery in Indonesia which was faster compared to economic recovery in America prior global financial crisis in 2008 (Report, BI). During 2010-2011, the economic condition in USA was recovering. However, during 2012-2013 the economic growth in USA still moved slower than Indonesia. In 2014, the economic condition in USA moved better than before.
4. The influence of STI to IHSG movement
The Strait times index (STI) has positive correlation and significant to IHSG Movement with coefficient value of 0.876591 . It means that if STI increases by 1 bps, IHSG will increase by 0.876591 bps. This result shows that Singapore and Indonesia share common investors. Therefore, a robust change in STI could be transmitted to IDX. The growing trend of capital inflow from Singapore causes STI movement influences IHSG movement.
5. The influence USD/IDR rate, inflation, DJIA, and STI IHSG movement
The depreciation of IDR tends to give pressure to IHSG movement. The growth of exchange rate influences the

expected inflation in society, specifically for imported goods, and the pricing decision by domestic companies. The depreciation of IDR towards USD and inflation can be considered as shocks for Indonesian economy and influence the movement of IHSG in IDX. Simultaneously, the USD/IDR rate, inflation, DJIA, and STI affect IHSG movement for 16.52085 . It shows that if there is an increase in USD/IDR rate, inflation, DJIA, and STI simultaneously by 1 bps, IHSG will increase by 0.876591 bps.

5. RECOMMENDATIONS

1. The government of Indonesia should establish more economic investment cooperation with other countries, specifically with USA, Singapore, and other developed countries, in order to boost capital inflows.
2. Investors should aware on the movement of USD/IDR rate and STI movement that influence the performance of capital market in Indonesia. It is useful for investors to determine the ideal position, whether they should buy, sell, or hold their stocks. Moreover, investors should not be worried about the inflation level as inflation has no influence to the capital market, as long as the inflation growth is $<10\%$ per year. Investors should also not be worried by the movement of DJIA as long as the economic condition in USA is stable.

REFERENCES

- Ilham, A. (2013), Influence Analysis of Macro Economic Variables Against Sector Stock Price Index In Indonesia Stock Exchange. Yogyakarta: UGM.
- Ishomuddin. (2010), Analysis of Influence of Domestic and Foreign Macroeconomic Variables on Composite Stock Price Index (IHSG) in BEI Period 1999.1-2009.12 (Selection Analysis Model OLS-ARCH/GARCH). Semarang: University of Diponegoro.
- Martalena, Maya, M. (2011), Introduction to Capital Market. Yogyakarta: Publisher Andi.
- Wondabio, L. (2006), Relationship Analysis on Composite Stock Price Index (IHSG). Jakarta, London, Tokyo, and Singapore: K-AKPM.
- Pozen, R.C. (1998), The Mutual Fund Business. Cambridge: The MIT Press.
- Mills, T. C., (1999), The Econometric Modelling of Financial Time Series. 2nd ed. Cambridge: Cambridge University Press.
- Sunariyah. (2011), Introduction to Capital Market Knowledge. 6th ed. Yogyakarta: School High Science Management YKPN.
- Tandelilin, E. (2010), Investment Analysis and Portfolio Management. Yogyakarta: BPFE UGM.