Impact Analysis of Total Money Supply, Stock Trading Volume, Inflation, Interest Rate and Rupiah Exchange Rate on JCI in Indonesia Stock Exchange

Maria Widyastuti
Faculty of Economics, Catholic University Darma Cendika, Surabaya, Indonesia
Albertus Daru Dewantoro
Faculty of Industrial Engineering, Catholic University Darma Cendika, Surabaya, Indonesia
Thyophoida W.S. Panjaitan
Faculty of Economics, Catholic University Darma Cendika, Surabaya, Indonesia

Abstract:
This research includes explanatory research that is discussing Analysis of Total Money Supply Impact, Stock Trading Volume, Inflation, Interest Rate and Rupiah Exchange Rate of Change of JCI (Composite Stock Price Index) in Indonesia Stock Exchange.Population in this research all companies go public in BEI, monthly data taken by time series during period of July 2005 until December 2015, All population taken as sample or called saturated sample. The analysis used to test the hypothesis in this study is Multiple correlations.The results prove the amount of money supply and trading volume have a significant positive impact on changes in JCI. Inflation has no impact on JCI changes. Interest rates have a significant positive impact on JCI changes. While the exchange rate has a significant negative impact on JCI changes.

Keywords: Total money supply, stock trading volume, inflation, interest rate, exchange rate, JCI

1. Introduction

The stock market is a market for long-term securities, such as stocks and bonds (Jones, 2008). The development of the capital market can be reflected in the fluctuations of the stock market price. The stock price is defined by Weston and Brigham (2001) as the price at which a share is sold on the exchange. Share prices are often recorded on the basis of the last trading on the day of the exchange so often called the closing price. Therefore the stock price is measured from the official price based on the last closing transaction on the exchange day. Changes in stock prices are influenced by several factors, according to Samsul. (2006) there are seven factors: (1) Gross domestic product; (2) Inflation; (3) unemployment rate; (4) interest rates; (5) exchange rate; (6) current account, (7) budget deficit. But not all of these factors can be used as research variables; Among others: unemployment rate, current account and budget deficit. According to Ebert and Griffin (2000), GDP is the value of all goods and services produced within a year by the economy of a nation using domestic factors of production. In addition, current transactions are also ignored because they are included in the exchange rate as disclosed by Samuelson and Nordhaus (2002); That the movement of the exchange rate will continue until the capital balance and the balance sheet goes back in the balance position. While the budget deficit is not used as a research variable because the budget deficit occurs when government spending is greater than tax revenue. When the budget deficit is closed by issuing bonds on the capital market then automatically stock prices will be affected. But the budget deficit occurring in Indonesia is covered with foreign debt so there is no direct impact on stock prices. Based on the above description, the factors that influence stock price changes are: (1) money supply, (2) trading volume (3) inflation; (4) interest rates; (4) rupiah exchange rate.

The economic crisis experienced by the Indonesian people is very painful for all the people of Indonesia, not only give economic impact but also non-economic. The crisis is a situation that describes the decline in economic conditions that is a decline in some economic indicators. Mishkin (2004), said that there are five factors that can lead to the deterioration of adverse electoral issues and moral hazards in financial markets, and ultimately lead to financial crises; Namely the decline of the stock market, rising interest rates, an unanticipated drop of unanticipated levels of aggregate prices, rising uncertainty and panic in banks. This means the economic crisis will have an impact on capital market activity as reflected in the decline in stock market prices reflected in the Composite Stock Price Index.

1.1. Problem Formulation
Based on the facts above, then the problems in this research are:
1. Does the money supply affect the change of JCI in Indonesia Stock Exchange?

2. Does the stock trading volume affect the change of JCI in Indonesia Stock Exchange?
3. Does inflation affect the change of JCI in Indonesia Stock Exchange?
4. Will interest rates affect the change of JCI in Indonesia Stock Exchange?
5. Will the rupiah exchange rate affect the change of JCI in Indonesia Stock Exchange?

1.2. Research Purposes
Based on the above problem formulation, the goals to be achieved are:
1. To analyze the impact of money supply on JCI changes in Indonesia Stock Exchange
2. To analyze the impact of stock trading volume on JCI changes in Indonesia Stock Exchange
3. To analyze the impact of inflation on JCI changes in the Indonesia Stock Exchange
4. To analyze the impact of interest rate on JCI changes in Indonesia Stock Exchange
5. To analyze the impact of rupiah exchange rate on changes in JCI in Indonesia Stock Exchange

2. Literature Review

2.1. Total Current Money
Broad money amount or Broad money (M2) is the sum of M1 (currency plus deposit in the form of a current account or demand deposit) which incorporates time deposits and savings as well as domestic foreign currency accounts as part of the provision of money or quasi money (Quasi money) measurements used are in units of trillions of rupiah. The formula for calculating the amount of money in circulation is as follows (Oktaviana, 2007)
M2: (C + D) + TD
Remarks:
M2   : The amount of money circulating in a broad sense
C   : Currency (Bank notes and coins)
D   : Demand and checks
TD   : Time deposit (time deposit)

2.2. Stock Trade Volume
The volume of stock trading is used to measure whether individual investors know the information the company is issuing and uses in the buying or selling of shares so that it will get a profit above normal. The shares in question are ordinary shares traded on the individual stock market especially in the Effect Exchange (Zulhawati, 2000) Trading volume is the accepted part of technical analysis, trading activities in very high volumes, in a stock will be assessed as a sign of a better market (Bullish). Increased trade volume offset by price increases is a stronger symptom of a bullish condition (Husnan and Pudjiastuti, 2012).

2.3. Inflation
Inflation is defined as a phenomenon in which the general price level increases continuously (Nanga, 2001: 241). Inflation shows a general rise in prices (Samuelson and Nordhaus 2002). According to Agustina and Sumartio, (2014) Inflation can be interpreted as a long-term price increase. Inflation rate is the percentage of continuously increasing price increase that prevails in an economy. According to Tandelilin (2010: 212) Inflation increases the revenue and expenses of the company. If the increase in production cost is higher than the price increase that can be enjoyed by the company then the profitability of the company will decrease. The government's frequently used indicator to measure Inflation rate in Indonesia is Consumer Price Index (CPI). Changes in CPI from time to time indicate price movements of packages of goods and services consumed by the community.
Inflation can have a negative or positive effect depending on the degree of Inflation. Excessive inflation is detrimental to the economy as a whole, which is to make the company go bankrupt. So it can be concluded that high inflation will bring down stock prices in the market, while low inflation will result in very slow economic growth, and ultimately stock prices will move slowly. The difficult job is to create an inflation rate that can move the business world into a vibrant, economic growth can cover unemployment, the company can gain sufficient profits and stock market prices will move normally. The inflationary conditions according to Samuelson and Nordhaus (2002), by their nature are divided into three parts: 1) Creeping Inflation; 2) Medium inflation (Galloping Inflation); 3) High Inflation (Hyper Inflation). Research on Inflation has been done Hooker (2004); Amperaningrum and Agung (2011).

2.4. Interest Rate
According to Dornbusch et al., (2008: 43); Subagyo et al., (2002); The Interest Rate is the rate of payments on a loan or other investment, which is expressed as an annual percentage. While Reilly and Brown, (1997) declared interest rates are the price of funds borrowed. According Tandelilin (2010: 212) Interest Rate increase will cause the increase in interest rates required on investment in a stock. The interest rate is revenue (For creditors) or expense (For the debtor) received or paid by the creditor or debtor (Madura, 2005). In addition, an increased interest rate causes investors to withdraw their investments in stocks and transfer them to investments in the form of savings or deposits.
Interest rates prevailing in the financial markets and are used in financial transactions is the nominal interest rate that is therein contained inflation premium (and Rahayu Utami, 2003) .Penurunan net income resulted in earnings per share to decline and eventually resulted in the fall of stock prices in the market. On the other hand, rising interest rates on deposits encourage investors to sell shares

that then save in the form of deposits. Massive stock sales will bring stock prices down in the market. Therefore, an increase in lending rates or deposit rates will result in lower stock prices. Conversely, a decrease in the interest rate on the loan or the interest rate on the deposit will raise the share price in the market and net income per share, thus pushing stock prices up. A decrease in interest on deposits will encourage investors to shift their investments from banks to capital markets, so that stock prices will be boosted by rising stock demand.

2.5. Exchange Rate
According to Puspopranoto (2004: 212); Dornbusch et al., (2008: 46) The exchange rate is the currency price of a country that is exchanged with other currencies. The exchange rate is the price of money of a country which is expressed in the currency of another country (Madura, 2005). According to Tandelilin (2010: 212) The strengthening of the rupiah against foreign currencies will lower the cost of imported materials for production and will lower the interest rate applicable.

Exchange or so-called exchange rate in a range of transactions or the sale and purchase of foreign exchange, known there are four types: 1) Selling rate (selling rate) was determined by a bank for the sale of certain foreign currency at a given time. 2) Middle rate (middle exchange rate) is the middle exchange rate between the selling rate and the foreign exchange buying rate against the national currency, which is determined by the central bank at a certain time. 3) Buying rate (exchange rate), the rate specified a bank for the purchase of a particular foreign exchange at a time. 4) Flat rate (flat rate), the rate erlaku in the buying and selling of bank notes and traveler cheque, where the exchange rate has taken into account the promotion and other costs. The position of the exchange rate always fluctuates at any time, If the price of a currency becomes expensive against other currencies then the money is said to appreciate. Conversely, if the price of a currency drops against another currency then the money is said to be depreciated (weakened).

2.6. Joint Stock Price Index
Stock Price Index shows the general movement of stock prices on the Stock Exchange (Widoatmojo, 2005) For the calculation of stock price index, we have to add up the price of shares listed.The formula for calculating the Index as follows (Anoraga and Pakerti, 2001)

$$JCI = \frac{\sum H t}{\sum H 0} \text{ X } 100$$

Remark
$\sum Ht$: Total price of all shares at the time applicable
$\sum Ho$: The total price of all shares at the base time

3. Independent Variable Impact on Dependent Variables

3.1. Impact of Variable Amount of Money Supplied on JCI Change
A reasonable money supply has a positive effect on the economy and equity markets on a short-term basis. A drastic growth will trigger inflation which certainly has a negative impact on equity markets. A common measure used to study the impact of money on the economy is the money supply in the narrow sense (M_1) and the money supply in a broad sense (M_2). According to Samsul (2006), the money supply has a positive impact on the Composite Stock Price Index (IHSG). If the money supply has increased, the JCI will increase so that the capital market will increase. Vice versa, if the money supply decreased, the JCI will decrease so that the capital market will decrease. If the money supply increases, stock prices will tend to increase, so that the money supply is reduced, the higher the stock price is a good signal for investors to invest. Increasing the stock price will also affect the JCI based on the description can be found below hypothesis:
➢ H1: The money supply has a significant positive impact on JCI changes in the Indonesia Stock Exchange

3.2. The Effect of Stock Volume Variables on the Change of JCI
Trading volume is the number of shares traded on the capital market. High trading volume indicates that the stock is in demand by many investors. Stock trading volume is important for investors, because for investors the trading volume of shares describes the condition of securities traded in the capital market that can affect the stock price. The volume of trade is a function of supply and demand and can be used as a sign of strong change and weakening of the market. Trading volume in the capital market can be an important indicator for investors. Rising stock trading volume is an increase in buying and selling activity by investors in the capital market (Husnan, 2012). When stock purchasing activity increases then the stock price will increase, as the increase of stock buying activity reflects the high stock price.
➢ H2: Stock trading volumes have a significant positive impact on JCI changes in the Indonesia Stock Exchange

3.3. Impact of Inflation Variables on JCI Change
Inflation is a macroeconomic variable that can be both beneficial and disadvantageous. In relation to stock prices, inflation has a negative effect on the company. This is because an increase in inflation will increase the cost of the company's costs. If the increase in production costs is higher than the price increase that can be enjoyed by the company, then profitability will decrease. The rise in inflation makes investors want to divert their funds into real assets and investors are reluctant to invest in shares. In addition, inflation may lower corporate profits, so securities in the capital market become an unattractive commodity. This means that inflation has a negative impact on stock prices (Novianto, 2011).

According to Hooker (2004) also argues that inflation has a significant effect on stock prices, this condition suggests that inflation raises a negative signal to investment players in the capital market.

> H3: Inflation has a significant negative impact on JSX changes in Indonesia Stock Exchange

3.4. The Impact of Interest Rate Variables Against Changes of JCI
Bank Indonesia uses the BI rate as one of the instruments to control inflation. If inflation is felt high enough, BI will raise BI rate to curb inflation. High interest rate changes reflect high capital costs as well, as an increase in interest rates suggests an increase in return on investment in a stock. An increase in interest rates imposed on investment in a stock, causing investors to withdraw their investment in a stock and move it to investment in the form of savings and deposits (Tandelilin, 2010).
Weston and Brigham (2001) argue that interest rates affect stock prices, high interest rates can increase interest costs so that the company's earnings down then will be followed by the movement of stock prices will also fall. If it happens in many stocks then give a negative signal to JCI, this condition definitely affects investors to transfer their investment to the bond market and money market.

> H4: Interest rates have a significant negative impact on JCI changes in the Indonesia Stock Exchange

3.5. Impact of Variable of Rupiah Exchange Rate on Changes of JCI
Monetary policy and exchange rate influence investor behavior in deciding investment in capital market. Changes in exchange rates are divided into two namely depreciation and appreciation. Depreciation is the decline in the value of the domestic currency against foreign currencies, while appreciation is the increase in the value of domestic currency against foreign currencies (Murtianingsih, 2012).
For investors themselves, the depreciation of the rupiah against US $ indicates that the outlook for Indonesia's economy is bleak. Because the depreciation of the rupiah can occur if the fundamentals of Indonesia's economy is not strong, so the value of US $ will strengthen and lower the price of shares in the BEI. This certainly increases the risk for investors if they want to invest in Indonesia stock exchange. Investors will certainly avoid the risk, so investors tend to sell and wait until the economic situation in Indonesia is felt to improve. Selling action by this investor will push the decline of composite stock price index in BEI and divert its investment to US $ (Apriansah, 2014).

> H5: Exchange rate has a significant negative impact on JCI changes in Indonesia Stock Exchange

4. Research Method

4.1. The Scope of Research
The issues that will be discussed by the researcher are analyzing the impact of money supply, stock trading volume, inflation, interest rate, exchange rate, against JCI (Joint Stock Price Index) in Indonesia Stock Exchange.

4.2. Research Design
This research is an explanatory research that is research that explains the impact between several variables through hypothesis testing. In this study explain the impact of money supply, stock trading volume, inflation, interest rate, exchange rate of rupiah to change (JCI) Composite Stock Price Index in Indonesia Stock Exchange.

4.3. Population and Sample
Population in this research is all data of money supply, stock trading volume, Inflation, SBI interest rate, Rupiah / USD exchange rate and JCI, monthly data from July 2005 until December 2015. While data used as sample in this research Are data of money supply, stock trading volume, Inflation, SBI interest rate, Rupiah / USD exchange rate and JCI are limited to closing data of each of the last months during the observation period of July 2005 to December 2015. The reason for the selection of the year period Used is to get more accurate results in accordance with current circumstances. Monthly data selection is to avoid bias that occurs due to panic market in response to an information, so with the use of monthly data is expected to obtain more accurate results. Because the data is taken secondary data and allows to obtain all the data then the sampling technique is called saturated samples.

4.4. Research Variables and Operational Definition of Variables

4.4.1. Research Variable
The variables used in this study are dependent variable, independent variable. Dependent variable (bound) is variable that influenced or which become result because of independent variable, independent variable (free) is variable that influence or which cause change or dependent variable. The dependent variable used in this study is the Composite Stock Price Index (IHSG), the independent variables are the money supply, the stock trading volume, the inflation, the interest rate and the rupiah exchange rate.

4.4.2. Operational Definition of Variables
This study uses one dependent variable and five independent variables
Operational definition of each variable in this study as follows:
A) Composite Stock Price Index

Composite Stock Price Index (JCI) is the price index which is Combined all share prices listed on the Indonesia Stock Exchange (BEI), Measurements made are in units of points. Measurements used in Rp/$ USD.

B) Amount of Money in circulation

Broad money amount or Broad money (M2) is the sum of M1 (currency plus deposit in the form of a current account or demand deposit) which incorporates time deposits and savings as well as domestic foreign currency accounts as part of the provision of money or quasi money measurements used are in units of trillions of rupiah. The formula for calculating the amount of money in circulation is as follows (Oktaviana, 2007).

M2: (C + D) + TD

Remark:

M2 : The amount of money circulating in a broad sense

C   : Currency (Bank notes and coins)

D   : Demand and checks

TD : Time deposit (time deposit)

C) Stock Trading Volume

The volume of stock trading is used to measure whether individual investors know the information the company is issuing and uses in the buying or selling of shares so that it will get a profit above normal. The shares in question are ordinary shares traded on the individual stock market especially in the Effect Exchange (Zulhawati, 2000) Trading volume is the accepted part of technical analysis, trading activities in very high volumes, in a stock will be assessed as a sign of a better market. Increased trade volume offset by price increases is an increasingly strong symptom of a bullish condition (Husnan, 2012).

D) Inflation is a constant rate of price increase in goods.

The inflation rate used is the inflation rate obtained from the Price Index

Consumer (CPI) monthly. The measurements used are in percent units.

E) Interest rate of Certificates of Bank Indonesia (SBI)

Interest rate of Bank Indonesia Certificates (SBI) is the interest rate

Determined by Bank Indonesia for the issuance of Bank Indonesia Certificates (SBI). Tribe

Interest Certificate of Bank Indonesia (SBI) used is the Certificate interest rate

Bank Indonesia (SBI) 1 month. The measurement used is the percent unit.

F) Exchange Rates

Exchange Rate is the price of a country's currency against another country's currency. The exchange rate used is the US dollar exchange rate against the rupiah which is calculated based on the middle exchange rate calculated on the basis of the selling rate and the buying rate set by Bank Indonesia.Pengukuran used in Rp/US $.

4.4.3. Types and Data Sources

According to Kuncoro (2009), the data obtained by measuring the value of one or more variables in the sample (population), all the data that there is a variable that we measure, can be classified into quantitative data and qualitative data. The type of data used in this study is quantitative data, i.e. data measured in a numerical scale (number). The data is in the form of time series data (time series) that is arranged according to time data on a particular variable. This research uses secondary data that is data that has been collected by data collecting agency and published to the data user society. The data in this study were obtained from the publication of Bank Indonesia in the form of annual report of Bank Indonesia, in the form of inflation, interest rate of Bank Indonesia Certificate (SBI), US dollar exchange rate against rupiah (US $/Rp) using the middle rate calculated on the basis of the selling rate plus Buying rate divided by two. Data derived from the Indonesian Economic and Financial Statistics (SEKI) in the form of data on the amount of money in circulation. Whereas data derived from the Indonesia Stock Exchange include the Composite Stock Price Index and Stock Trading Volume.

4.4.4. Method of Collecting Data

In this research, the method used in data collection is the method of documentation, that is by recording and copying the written data related to the research problem either from the source document or books, newspapers, magazines, internet and others about Composite Stock Price Index (IHSG), Stock Trading Volume, Inflation, Interest Rate (Bank Indonesia Certificates), Rupiah exchange rate against US $ and in the form of monthly data from July 2005 to Desenber 2015.

4.4.5. Data Analysis Technique

1. Descriptive statistics

   The measurement by calculating the minimum value, maximum value, mean and standard deviation.

2. Inferential statistics

   Inferential statistical analysis is used to perform testing of research models,, and hypothesis testing.

4.4.6. Research Model

The research model is used to look at the independent variables that affect the dependent variable.

Impact of Amount of Currency in circulation, volume of stock trading, inflation, interest rate, exchange rate, against Composite Stock Price Index.

JCI =β1 UB +β2 VP + β3 IF+ β4 SB+ β5 NT +ε

Remarks:

- $\rightarrow$ IHSG : Composite Stock Price Index
- $\rightarrow$ β_1-β5 : Regression Coefficient
- $\rightarrow$ UB : Total Money Supply
- $\rightarrow$ VP : Stock Trading Volume
- $\rightarrow$ IF : Inflation
- $\rightarrow$ SB : Interest Rate
- $\rightarrow$ NT : Rupiah Exchange Rate

4.4.7. Model Feasibility Test (Goodness of Fit)

To assess the accuracy of the sample regression function in estimating the actual value can be measured from the Goodness of Fit (Ghozali, 2013: 97). Statistically Goodness of Fit can be measured from coefficient of determination and F statistic value.

1. Coefficient of Determination (R^2)

The coefficient of determination is basically to measure how far the ability of the model in explaining the dependent variable. Coefficient value of determination between zero to one. The small value of R^2 means that the ability of the independent variables to explain the dependent variable is very limited. A value close to one means the independent variables provide almost all the information needed to predict the variation of the dependent variable (Ghosali, 2013: 98). The fundamental weakness of the use of the coefficient of determination is the bias against the number of variables included in the model. Each additional one independent variable, then R^2 must increase with no regard whether the variable has a significant impact on the dependent variable. To evaluate which regression model is the best the researchers recommend to use an adjusted R^2 value, unlike R^2, the adjusted value of R^2can rise or fall if one independent variable is added to the model.

2. Partial Test (t test)

The statistical test t basically shows the impact of one independent variable individually in explaining the variation of the dependent variable (Ghozali, 2013: 88). In accepting or rejecting the proposed hypothesis by looking at SPSS output results, we can only see the value of the significant t test of each variable. If the value is significant <0.05 then we can conclude that the hypothesis is accepted (Ghozali, 2013: 89).

5. Research Result and Discussion

5.1. Descriptive Statistics

Descriptive statistics provide a general description of the object of research being sampled. Explanation of data through descriptive statistics is expected to provide a preliminary overview of the problem under study. Descriptive statistics focus on the maximum, minimum, average (mean) and standard deviation. Based on sampling during July 2005 to December 2015, 126 observations were obtained, the results of the descriptive statistical test are shown in table 1. Below

	N	Minimum	Maximum	Mean	Std. Deviation
UB	126	1092206	4548800	2.52E+06	1036196.410
VP	126	9.44E+11	8.54E+12	4.5026E+12	1.75198E+12
IF	126	2.41	18.38	7.2420	3.61536
SB	126	5.75	12.75	7.7956	1.83913
NT	126	8532.00	14396.10	10168.6653	1477.24037
IHSG	126	1054.58	5443.52	3186.3368	1346.38706
Valid N (listwise)	126				

Tabel 1: Descriptive Statistics

From the above descriptive statistical calculation can be concluded as follows:

5.1.1. Total Money Supply

Mean (Average) amount of money circulating in Indonesia year 2005-2015 amounted to 2.52E + 06 and the standard deviation of 1036196.410 where standard deviation is smaller than mean. This indicates small fluctuations in the money supply or can be summed up well, with a minimum value of 1.092.206 and a maximum value of 4,548,800.

5.1.2. Stock Trading Volume

Mean stock trading volume in the Exchange effect of Indonesia in 2005-2015 amounted to 4.5026E + 12 and the standard deviation of 1.75198E + 12 where the standard deviation is greater than the mean. This indicates large fluctuations in stock trading volume or it can be inferred to be inferior, with a minimum value of 9.44E + 11 and a maximum value of 8.54E + 12.

5.1.3. Inflation

Mean inflation in Indonesia July 2005 to December 2015 is 7.2420 and deviation standard of 3.61536 where standard deviation is less than the mean. This indicates small fluctuations of inflation or can be summed up well, with a minimum value of 2.41 and a maximum value of 18.38.

5.1.4. Interest Rate

Mean (Average) interest rate in Indonesia July 2005 to December 2015 of 7.7956 and standard deviation of 1.83913 where standard deviation is less than the mean. This indicates small fluctuations in interest rates or can be inferred good, with a minimum value of 5.75 and a maximum value of 12.75.

5.1.5. Rupiah Exchange rate against US $

Mean   the rupiah exchange rate against US $ in Indonesia from July 2005 to December 2015 was 10,168,6653 and the standard deviation of 1,477.24037 where standard deviation is less than the mean. This indicates the fluctuation of the rupiah exchange rate against US $ which is small or can be summed up well, with a minimum value of 8,532.00 and a maximum value of 14396.10.

5.1.6. Composite Stock Price Index

Mean Joint stock price index in Indonesia July 2005 to December 2015 amounted to 3,186.3368 and standard deviation of 1,346,38706 where standard deviation is less than the mean. This indicates fluctuations of small composite stock index or inferred good spread, with a minimum value of 1.054.58 and a maximum value of 5,443.52.

5.2. Inferensial Statistics

Inferential statistical analysis is used to perform testing of research models, and hypothesis testing

5.2.1. Model Feasibility Test

Coefficient of Determination (R^2)

The test results in table 2, R of 0.986 (98.6%), these results indicate a strong influence between IHSG with independent variables because above 50%. While the value of Adjusted R Square (R^2) shows 0.972 (97.2%), it means 97.2% JCI can be explained by variations of money supply, stock trading volume, inflation, interest rate, and exchange rate while the rest of 2, 8% is explained by other variables not included in the model.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1876.353	219.544		8.547	.000		
	UB	.00142	.000	1.096	32.271	.000	.205	4.885
	VP	.00000000014	.00000000001727	.179	7.965	.000	.467	2.142
	IF	-19.210	11.460	-.052	-1.676	.096	.249	4.014
	SB	62.893	28.111	.086	2.237	.027	.160	6.250
	NT	-.320	.024	-.351	-13.328	.000	.340	2.942

Table 2: Coefficients[a]

5.3. Hypothesis Testing

To test the hypothesis is done by multiple regression analysis to know whether there is impact of independent variable to dependent variable.

No	Model	Hypothesis	Testing Results	Regression Coefficient (β) & Significance Value
1	UB→JCI	Money supply has a significant positive impact on JCI	changes Money supply has a significant positive impact on JCI changes	B = 1,096 Sig = 0,000
2	VP→IHSG	Trade volume had a significant positive impact on JCI changes.	Trade volume had a significant positive impact on JCI changes	B = 0,179 Sig = 0,000
3	IF→ JCI	Inflation has a significant negative impact on JCI changes.	Inflation has no significant impact on JCI changes	B = -1,676 Sig = 0,096
4	SB→ JCI	Interest rates have a significant negative impact on JCI changes.	Interest rates have a significant positive impact on JCI changes	B = 2,237 Sig = 0,027
5	NT→ JCI	The exchange rate has a significant negative impact on JCI changes.	The exchange rate has a significant negative impact on JCI changes	B = - 13,328 Sig = 0,000

Table 3: Regression Results Appear

Based on table 3, the regression model is formulated and analyzed as follows:

JCI   = 1,096 UB +0,179 VP -1,676 IF + 2,237 SB – 13,328 NT

5.3.1. Analysis of the Impact of Money Supplied on JCI Change
The value of positive money regression coefficient (UB) 1,096 with significant 0.000 <0.05, statistically UB regression coefficient positive value means the higher UB higher JCI. While the value of sig 0,000 <0.050, it means UB impact on changes JCI. This explains that the increase in the money supply will have an impact on the JCI's rise. Thus the hypothesis stating that the money supply has a significant positive impact on changes in Composite Stock Price Index (JCI) proven.

5.3.2. Stock Exchange Volume Impact Analysis Against Change of JCI
Value of regression coefficient of stock trading volume (VP) positive 0,179 with significant 0,000 <0.05, statistically coefficient of regression VP positive value mean bigger VP of higher IHSG. While the value of sig 0,000 <0,050, it means that VP impact on changes JCI. This explains that the increase in stock trading volume will affect the increase in JCI. Thus, the hypothesis that the stock trading volume has a significant positive impact on changes in Composite Stock Price Index proven.

5.3.3. Inflation Impact Analysis of JCI Change
The value of regression coefficient Inflation (IF) negative 1.676 with significant 0.096> 0.05, statistically the regression coefficient IF negative value means the greater the IF the lower the JCI. While the value of sig 0.096> 0.050, it means that IF does not affect the change of IHSG. This explains that the inflation increase will not affect the increase of JCI. Thus the hypothesis that inflation has a significant negative impact on changes in the Composite Stock Price Index (JCI) is not proven. This is because the prevailing inflation mean of 7.242% is still less than 10%, according to Samuelson and Nordhaus (2002) is still relatively low inflation, so inflation changes have no impact on changes in JCI.

5.3.4. Analysis of the Impact of Interest Rate on Changes of JCI
The value of positive interest rate regression coefficient (SB) is positivef 2,237 with significant 0,027 <0.05, statistically positive rate of interest rate (SB) coefficient mean bigger interest rate (SB) JCI. While the value of sig 0.027 <0.050, meaning that SB impact on changes JCI. This explains that an increase in interest rates will have an impact on the JCI's rise. Thus the hypothesis that the bungar tribe has a significant negative impact on changes in the Joint Stock Price Index (JCI) is not proven. This is because the prevailing interest rate is still within the range of 7%, which means it is still within the range set by Bank Indonesia, so that the interest rate in effect actually has a positive impact on JCI.

5.3.5. Exchange Rate Impact Analysis on JCI Change
The value of negative exchange rate regression coefficient (NT) negative 13,328 with significant 0.000 <0.05, statistically regression coefficient NT negative value means the greater the lower the IHSG NT. While the value of sig 0.000 <0,050, meaning NT impact on changes JCI. This explains that an increase in the exchange rate will have an impact on the decline of the JCI. Thus the hypothesis which states that exchange rate has a significant negative impact on changes in the Joint Stock Price Index (JCI) is evident.

6. Conclusion
Based on Multiple Linear Regression Analysis Result and t test result above can be concluded as follows:
1. Money supply and stock trading volume have a significant positive impact on changes in the Joint Stock Price Index (JCI) on the Indonesia Stock Exchange.
2. Interest Rates and Rupiah Exchange Rate have a significant negative effect on the changes of the Joint Stock Price Index (JCI) in the Indonesia Stock Exchange.
3. Inflation does not have a significant negative impact on changes in the Joint Stock Price Index (JCI) on the Indonesia Stock Exchange.

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