# Composite Stock Price Index (Ihsg) Analysis

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| ARTICLE INFO | ABSTRACT |
|---|---|
| | The Composite Stock Price Index (IHSG) is a picture of a country's economy and always fluctuates from year to year. The main aim of this research is to see what factors influence the JCI movement in Indonesia for the period 2008 to 2022.<br>The analysis method uses multiple linear regression analysis with t test and Anova test with SPSS software version 26.<br>The result turns out that only the LQ45 Index variable has a significant effect on the IHSG, while the other variables do not have a significant effect. Simultaneously independent variables; inflation, economic growth, LQ45, JII, SBI, Dollar Exchange Rate and Gini Index have a significant influence on the IHSG in Indonesia.<br><br>**Keywords**: inflation, economic growth, LQ45, JII, SBI, Gini Index and IHSG Dollar Exchange Rates |

## INTRODUCTION

The Composite Stock Price Index (IHSG) is a picture of a country's economy, so it can be reflected in its capital market on the Indonesia Stock Exchange (BEI). A growing country's economy is reflected by an increase in the IHSG (bullish), conversely, a country's economy is not growing, reflected by a decline in the IHSG (bearish).

Fluctuations in the Indonesian Stock Exchange (BEI) are closely related to changes in macro economic variables, such as; inflation, economic growth, dollar exchange rate and Indonesian bank certificate (SBI) and other macro variables.

Capital Market Law No. 8 of 1995, capital markets are activities related to public offerings and securities trading, public companies related to the securities they issue, as well as institutions and professions related to securities.

The capital market is a meeting place for parties who need long-term funds with parties who invest their funds. The Capital Market (Stock Exchange), can be said to be a forum or vehicle as well as a monopoly on company ownership, because after the company goes public, then the securities holders will become the owners of the company, so they will become public owners (Gitosudarmo and Basri, 2002: 239).

Inflation will encourage people to reduce investment, so that they save more of their funds in banks to get returns (interest) that are quite high compared to other investment profits. This condition will reduce investment in the capital market, which will cause the JCI to experience bearish (decrease).

Increased economic growth will result in improved economic conditions in a country, such as; unemployment decreases, people's income increases, gross domestic product increases and people's purchasing power increases. With this increasing economy, people have excess funds, so they will place their excess funds into several investment instruments, such as; savings, deposits, property and capital markets (shares, bonds, sukuk etc.).

Following are the fluctuations in the Composite Stock Price Index (IHSG) in Indonesia for 15 years from 2008 to 2022.

**Composite Stock Price Index
Year 2008 until 2022**



Sources: https://www.Idx.co.id
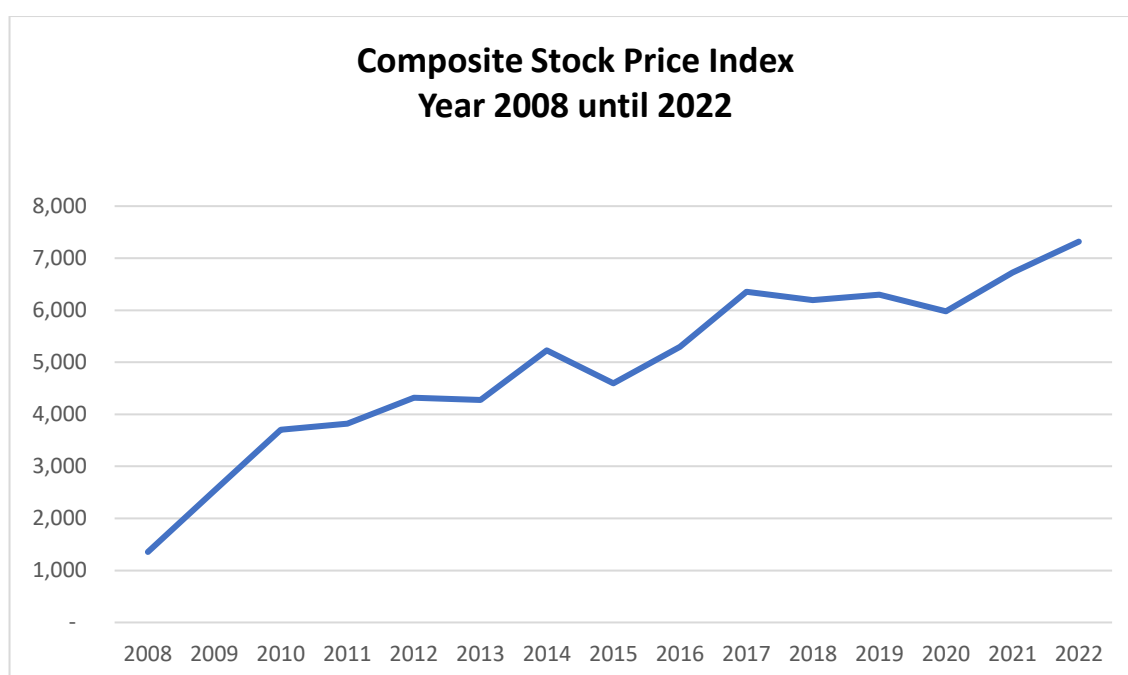
The table above shows that the Composite Stock Price Index (IHSG) has increased, but this increase is unstable and fluctuates over a 15 year period.

Simorangkir and Suseno (2014:4) "currency exchange rate or exchange rate is the price of one unit of foreign currency in domestic currency or can be said to be the price of domestic currency against foreign currency". Currency exchange rates show the price of a currency when exchanged for another currency.

Research by Sasono and Syukri (2023) states that economic growth, the dollar exchange rate and SBI (7-Day Reverse Repo Rate) have a significant effect on the IHSG, while inflation has an insignificant effect on the IHSG. Then simultaneously Inflation, Economic Growth, Dollar Exchange Rate and SBI have a significant effect on the IHSG for the period 2010 to 2021.

Meanwhile, Paidi and Sasono's (2022) research was conducted over 12 years, namely from 2010 to 2021. Economic growth, gold prices, the dollar exchange rate had a significant effect on the IHSG, while inflation and SBI had a significant effect on the IHSG. Then simultaneously Inflation, Economic Growth, Gold Prices, Dollar Exchange Rates and SBI have a significant effect on the IHSG.

Research by Ferdy Fadly Hidayat, et al. (2021), states that there is a positive and insignificant influence from the inflation and interest rate variables, however there is a negative and significant influence from the exchange rate variable on the Composite Stock Price Index on the Indonesia Stock Exchange for the 2016 period.

Research by Sasono and Said (2023), the results of the research are that the price of gold and LQ45 have a significant effect on the IHSG, while other macro variables do not have a significant effect. Simultaneously, all macro variables have a significant effect on the IHSG.

Based on the research results of several different researchers, the researchers are interested in conducting further research by increasing the research period and adding research variables, namely a research period of 15 years (2008 to 2022) and 7 independent research variables, namely; inflation, economic growth, LQ45 index, JII index, SBI_BI7_DRRR, dollar exchange rate and Gini index will affect the Composite Stock Price Index (IHSG).

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## THEORITICAL REVIEW

The Composite Stock Price Index (IHSG) describes a series of historical information regarding the movement of the combined share prices of all shares, up to a certain date (Sunariyah, 2011). In this case, it reflects a value that functions as a measurement of the performance of a joint stock on the stock exchange. The composite stock price index for all shares is a value used to measure the combined performance of all shares listed on a stock exchange. The combined meaning of all these shares is the performance of the shares included in the calculation of all shares listed on the exchange.

Composite Stock Price Index Calculation

Composite stock price calculation is carried out to determine the average development of all shares listed on the stock exchange. To calculate the Composite Stock Price Index, the following formula is used:

$$IHSG = (\sum p \, / \, d) \times 100$$

Where :

p is the Closing Price in the Regular Market

d is Base Value

Inflation is defined as the tendency of prices to increase generally and continuously (Boediono, 2001). An increase in the price of just one or two types of goods cannot be said to be inflation, unless the increase has an impact on an increase in the prices of most other goods. Broadly speaking, there are three groups of inflation theories, each of these theories states certain aspects of the inflation process and each is not a complete inflation theory covering all important aspects of the price increase process.

Bank Indonesia Certificates (SBI) are securities issued by Bank Indonesia as recognition of short term debt (1-3 months) with an interest discount system. SBI is one of the mechanisms used by Bank Indonesia to control the stability of the Rupiah value. By selling SBI, Bank Indonesia can absorb excess base money in circulation. The interest rate applicable to each SBI sale is determined by a market mechanism based on an auction system. Bank Indonesia strengthened the monetary operational framework by implementing a new reference rate or policy interest rate, namely the BI-7 Day Reverse Repo Rate (BI7DRR), which became effective on 19 August 2016, replacing the BI Rate. Strengthening the monetary operations framework is something that is commonly carried out in various central banks and is an international best practice in implementing monetary operations. The monetary operational framework is continuously refined to strengthen policy effectiveness in achieving the set inflation target.

The BI 7-Day (Reverse) Repo Rate instrument is used as the new policy interest rate because it can quickly influence the money market, banking and real sector. The BI 7-Day (Reverse) Repo Rate instrument as a new reference has a stronger relationship to money market interest rates, is transactional in nature or traded on the market, and encourages financial market deepening, especially the use of repo instruments.

The foreign exchange rate is the price of one currency against another currency which reflects the balance of supply and demand for the domestic currency. According to (Fahmi 2015), the rise and fall of a country's currency when it is converted into another country's currency, such as the Dollar, Yen, Euro and others.

The foreign exchange rate referred to in this research is the US Dollar exchange rate as a global currency, where almost all countries hold foreign exchange reserves in the form of US Dollars. The reason researchers use the US Dollar exchange rate is because the US Dollar can be a reference for carrying out the largest trade transactions in the world and trade in Indonesia also still uses US Dollars.

Economic growth, according to Sukirno (2002), is the development of activities in the economy which causes goods and services produced in society to increase and society's prosperity to increase. The problem of economic growth can be viewed as a long-term macroeconomic problem from one period to another.

Meanwhile, according to Arsyad (1999), economic growth is defined as an increase in gross domestic product (GDP)/gross national product (GNP) regardless of whether the increase is greater or smaller than the population growth rate, or whether changes in the economic structure occur or not.

The Jakarta Islamic Index (JII) is a sharia stock index which was first launched on the Indonesian capital market on July 3, 2000. The JII constituents only consist of the 30 most liquid sharia stocks listed on the IDX. Just like ISSI, reviews of sharia shares that are JII constituents are carried out twice a year, in May and November, following the OJK's DES review schedule. BEI determines and selects sharia shares that become JII constituents.

The LQ45 index is a collection of shares from several companies selected based on selection results with criteria determined and monitored by the IDX. Investing in LQ45 Index shares is suitable and safe for beginner investors, because the shares in the LQ45 index are good shares both in terms of liquidity and fundamentals. Therefore, shares in the LQ45 Index category have the potential to bring stable returns in the long term.

The LQ45 Index is a type of index that aims to measure the performance of shares with high liquidity, large market capitalization, and good fundamentals.

The Gini Index, Gini Ratio, or Gini Coefficient is a measure of aggregate inequality that was first developed by an Italian statistician named Corrado Gini and published in 1912 (International NGO Forum on Indonesia Development, 2018.

Income inequality is a condition where the distribution of income received by society is unequal. The Gini index is expressed as a number with a value of 0 to 1. A Gini index of 0 means perfect equality, whereas a value of 1 means perfect inequality (Todaro and Smith, 2006).

According to the Central Statistics Agency (BPS), the Gini Index is based on the Lorenz Curve, namely a cumulative expenditure curve that compares the distribution of a certain variable (for example income) with a uniform distribution that represents the cumulative percentage of the population. The Gini Index helps the government analyze the level of economic capacity of society because it is an indicator of the degree of justice in a country.

## RESEARCH METHODS

This research uses a form of relationship between performance and stock prices and uses a multiple linear model, which explains the casual relationship between one dependent variable and several independent variables.

Data collection by means of online library research. This research uses books, journals, or articles, and sources from internet media, including:
1. Indonesian Stock Exchange, (https://www.idx.co.id),
2. Yahoo Finance (https://finance.yahoo.com
3. Capital Financial Services Authority, (https://www.ojk.go.id
4. Bank Indonesia (https://www.bi.go.id)
5. Central Capital Statistics Agency (https://www.bps.go.id).

Population is a generalization area consisting of objects/subjects that have certain qualities and characteristics determined by researchers to be studied and then conclusions drawn (Sugiyono, 2017).

Sample according to (Sugiyono, 2017), the research sample is based on the number and characteristics of the population. Populations are large and researchers cannot possibly study everything in the population, what is learned from the sample, the conclusions will be applicable to the population.

The causal relationship in multiple linear regression is formulated as follows:

$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_6 + b_7X_7 + e$

Information:

Y= dependent variable, Composite Stock Price Index (IHSG)

A= constant, if there are no independent variables

$b_1, b_2, b_3, b_4, b_5, b_6, b_7$ = regression coefficient of each variable

$X_1$ = Inflation variable

$X_2$ = Economic Growth variable

$X_3$ = LQ 45 Index variable

$X_4$ = JII Index variable

$X_5$ = Dollar Exchange variable

$X_6$ = variable SBI_BI7_DRRR

$X_7$ = Gini Index variable

$\varepsilon$ = other variables that influence Y

## RESEARCH RESULTS AND DISCUSSION

The results of the multiple linear regression analysis equation are as follows;

| Model | B |
|---|---|
| 1  (Constant) | .135 |
| Inflation | .007 |
| Economic Growth | .001 |
| LQ45 | 1.757 |
| JII | -.614 |
| Dollar Exchange | .037 |
| SBI_BI7_DRRR | -.009 |
| Gini Index | .033 |

$Y = 0{,}135 + 0{,}007\,X_1 + 0{,}001\,X_2 + 1{,}757X_3 - 0{,}614X_4 + 0{,}137X_5 - 0{,}009X_6 + 0{,}033X_7$

Based on the table above:
a) The resulting constant value (α) is 0.135, meaning that if the values of the variables Inflation, Economic Growth, LQ45, JII, Dollar Exchange Rate and SBI_BI7_DRRR as well as the Gini Index are considered constant, then the Composite Stock Price Index (IHSG) value is 0.135 one scale unit.
b) The test results show that the regression coefficient value for the inflation variable is 0.007. This means that every increase of 1 on the inflation scale affects the IHSG increase by 0.007 on the scale.
c) The test results show that the regression coefficient value for the Economic Growth variable is 0.001. This means that every increase of 1 on the Economic Growth scale, affects the IHSG increase by 0.001 on the scale.

d) The test results show that the regression coefficient value for the LQ45 variable is 1.757. This means that every increase of 1 on the LQ45 scale, affects the IHSG increase by 1.757 scales.
e) The test results show that the regression coefficient value for the JII variable is -0.614. This means that for every 1 increase in the Economic Growth scale, the IHSG decreases by 0.614 on the scale.
f) The test results show that the regression coefficient value for the Dollar Exchange variable is 0.037. This means that for every 1 increase in the dollar exchange rate, the IHSG will increase by 0.037 on the scale.
g) The test results show that the regression coefficient value for the variable SBI_BI7_DRRR is -0.009. This means that for every 1 increase in the SBI_BI7_DRRR scale, the IHSG decreases by 0.009 on the scale.
h) The test results show that the regression coefficient value for the Gini Index variable is 0.033. This means that every 1 increase in the Gini Index scale, affects the IHSG increase by 0.033 scale.

## t Test Results

The t test shows how much influence an independent variable individually has in explaining the dependent variable. Testing was carried out using a significance level of 0.05 (a5).

| Model | | t | Sig. |
|---|---|---|---|
| 1 | (Constant) | .189 | .855 |
| | Inflation | 2.086 | .075 |
| | Economic Growth | .430 | .680 |
| | LQ45 | 2.418 | .046 |
| | JII | -.913 | .392 |
| | Dollar Exchange | .146 | .888 |
| | SBI_BI7_DRRR | -.609 | .562 |
| | Gini Index | .411 | .694 |

The results of the t test, it turns out that only the LQ45 variable has a significant influence, because its significance is 0.046 < 0.05. Meanwhile, other independent variables are; Inflation, Economic Growth, JII, Dollar Exchange Rate, SBI and Gini Index do not have a significant influence, because the significance level is greater than 0.05.

## Model Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .996[a] | .993 | .985 | .02315 |

a. Predictors: (Constant), Gini Index, Economic Growth, LQ45, Dollar Kurs, SBI_BI7_DRRR, Inflation, JII

The Model Summary R Square test results are 0.993 or 99.30%, while the Adjusted R Square is 0.985 or 98.50%, meaning that the simultaneous correlation between all independent variables is 98.50% which has a very strong influence on the Composite Stock Price Index. (IHSG) during the research period from 2008 to 2022.

## ANOVA[a]

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | .507 | 7 | .072 | 135.193 | .000[b] |
| | Residual | .004 | 7 | .001 | | |
| | Total | .511 | 14 | | | |

a. Dependent Variable: IHSG
b. Predictors: (Constant), Gini INdex, Economic Growth, LQ45, Dollar Kurs, SBI_BI7_DRRR, Inflation, JII

The results of the Anova test produced a significance of 0.000 and F calculated results of 135.193 and F table 6.591 (F calculated > F table), meaning that together there are 7 (seven) independent variables (Inflation, Economic Growth, LQ45, JII, Dollar Exchange Rate, SBI and the Gini Index), have a significant influence on the Composite Stock Price Index (IHSG) during the research period from 2008 to 2022.

## CONCLUSION

During the 15 year observation period from 2008 to 2022, the Composite Stock Price Index (IHSG) experienced fluctuations, apparently only the LQ45 variable had a significant influence on the IHSG, while other variables such as; Inflation, Economic Growth, JII, Dollar Exchange Rate, SBI and Gini Index do not have a significant

influence on the JCI. However, simultaneously all independent variables have a significant influence on the IHSG in Indonesia.

## RECOMMENDATION

Changes in the IHSG in Indonesia during the research period were greatly influenced by changes in the LQ45 Index, so investors and Investment Managers before investing their funds in the Capital Market need to pay close attention and analyze changes in LQ45, so that in the future the value of the funds invested can develop and increase from the initial capital value.

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