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The Impact of Monetary Policy on Stock Price Index Movement

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Abstract: This study aims to analyze the impact and effectiveness of monetary policy on the decline of the Composite Stock Price Index (IHSG) during the COVID-19 pandemic. The research employs a quantitative approach using Ordinary Least Squares (OLS) with equations 2017-2024 to evaluate the relationship between monthly IHSG and variables such as BI Rate and Exchange Rate. The findings reveal that IHSG significantly affects JUB, consistent with previous research indicating that monetary expansion by Bank Indonesia enhances market liquidity and raises IHSG. However, during the pandemic, global uncertainty disrupted the relationship between IHSG and other economic variables, as evidenced by the insignificance of IHSG concerning BI Rate and the significant impact of Exchange Rate in the first equation, and Dow Jones in the second. The significant influence of Dow Jones on IHSG highlights global market integration and its effect on investor sentiment in Indonesia. The study emphasizes the importance of understanding the relationship between IHSG and economic variables amid global uncertainty.

Keywords: BI Rate, Exchange Rate, IHSG, Dow Jones Index

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INTRODUCTION

In the current era of globalization, many countries, including Indonesia, have shifted their attention to the capital market due to its vital role in the economy. However, the rapid spread of the COVID-19 pandemic in Indonesia has had a significant impact on the economy. The surge in positive cases and the high mortality rate in the last two months, with cumulative data from March 2 to May 4, 2020, reaching 11,192 cases and 8,452 deaths, caused concern and panic among the government, society, and the business world (Haryanto, 2020).

Since the official announcement by the President regarding the first confirmed COVID-19 case in Indonesia on March 2, 2020, stock trading on the Indonesia Stock Exchange (IDX) has experienced significant impact. The Composite Stock Price Index (IHSG) sharply declined from its previous level, which was always around 5,000 points, to 4,000 points. The IDX even had to temporarily halt stock trading on several days, such as Thursday (March 12), Friday (March 13), and Tuesday (March 17), when the IHSG automatically dropped by 5% (Rahmawati, 2020). The impact of COVID-19 was also felt across various sectors, including the stocks of State-Owned Enterprises (BUMN) and Islamic banks, which saw a decline in their values. During the period from December to March, all banks faced challenges in their intermediary functions, experiencing declines in both financing and fund collection (Ningsih, M.R., & Mahfudz, 2020).

Indeks Harga Saham and Kasus Covid 19

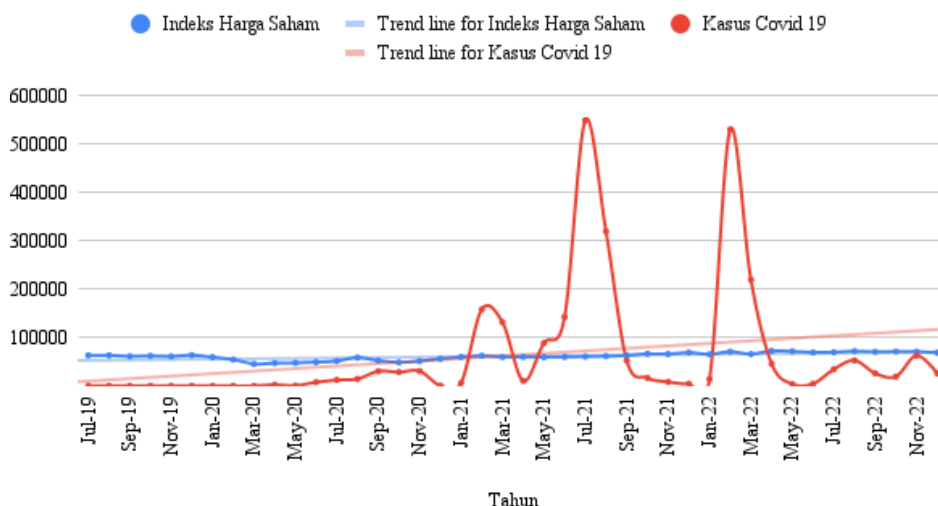


Figure 1. Composite Stock Price Index and COVID-19 2019-2022

Source: Indonesia Stock Exchange 2019-2022 (Data Collected by the Researcher)

In Figure 1, the Composite Stock Price Index (IHSG) on the Indonesia Stock Exchange (IDX) experienced significant fluctuations. In 2020, the highest level occurred in January at 6299.54, and the lowest in April at 4538.93. In March 2020, the IHSG dropped to its lowest point of 4538.93 due to the confirmation of 4 COVID-19 cases in Indonesia, which was officially announced on March 2, 2020. However, it started to recover in April (4716.4) due to positive media sentiment regarding vaccine trials in Europe in April, according to News.detik.com (April 24, 2020). The IHSG reached 5979.07 in December, driven by positive sentiment surrounding the arrival of the first batch of vaccines on December 6, 2020, according to Kominfo (December 29, 2020). The highest IHSG level was recorded in December (6888.17), and the lowest in May (5947.46). This recovery followed the downturn caused by the pandemic in 2020, with the Indonesian capital market beginning to rebound. In 2022, the highest IHSG level was reached in April (7228.91) and the lowest in January (6533.93). The instability of the IHSG that year was caused by inflation related to government policies providing assistance during the pandemic.



Figure 2. Bank Indonesia Interest Rate Chart for the 2020-2022 Period
 Source: Bank Indonesia 2020 – 2022 (Data Processed by the Researcher)

From the chart above, the interest rate experienced significant changes. In January 2020, the interest rate was at 5%. When COVID-19 hit in March 2020, the interest rate decreased to 4.5% and continued to decline to 3.5% by July 2022. It then began to increase to 3.75% in August 2022, 4.25% in September and October 2022, and reached 5.25% in November and December 2022. The decrease in the interest rate in 2020 was caused by COVID-19, which reduced public purchasing power and demand, leading to a reduction in the BI Rate to boost purchasing power and control inflation. The pandemic caused people to prefer saving due to uncertain economic conditions.

Interest rates affect stock prices because they influence investor choices between deposits and the capital market. An increase in interest rates makes deposits more attractive, leading to a decrease in capital market investments and a weakening of the IHSG.

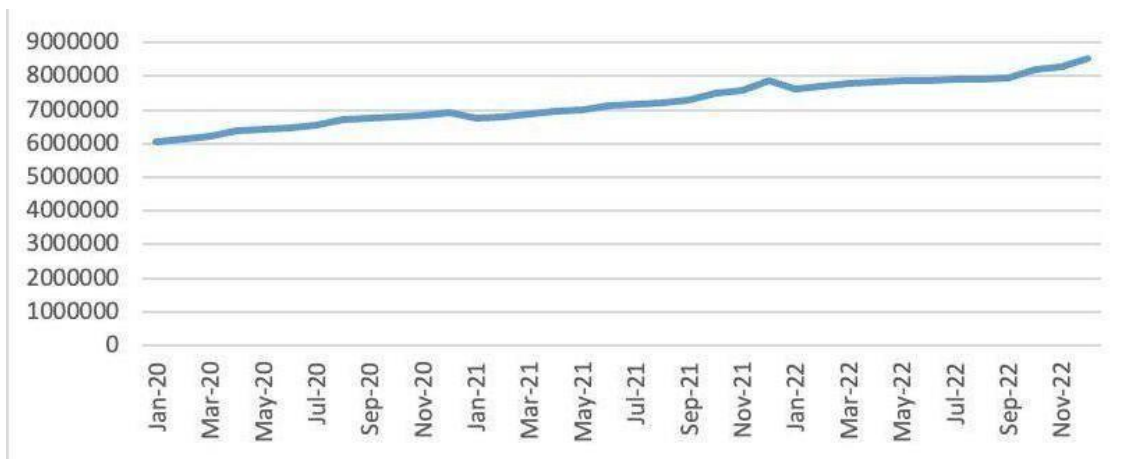


Figure 3. Money Supply Chart for the 2020-2022 Period
 Source: Bank Indonesia 2020 – 2022 (Data Processed by the Researcher)

According to Figure 3, the money supply in 2020 was the lowest at 6,047,998 in January and the highest at 6,905,939 in December. In 2021, the highest money supply occurred in December at 7,870,452, and the lowest in January at 6,767,407. In 2022, the lowest money supply occurred in January at 7,646,789, and the highest in December at 8,528,022. In 2020, the money supply was affected by the unstable economic conditions due to COVID-19, while in 2021, it was influenced by economic recovery. The increase and decrease in the money supply can affect the IHSG.

The money supply is related to the IHSG. If the money supply increases due to loose monetary policy, it can stimulate economic growth and demand for stocks, leading to an increase in the IHSG. However, if this increase raises concerns about inflation, investors may sell stocks, causing the IHSG to decline.

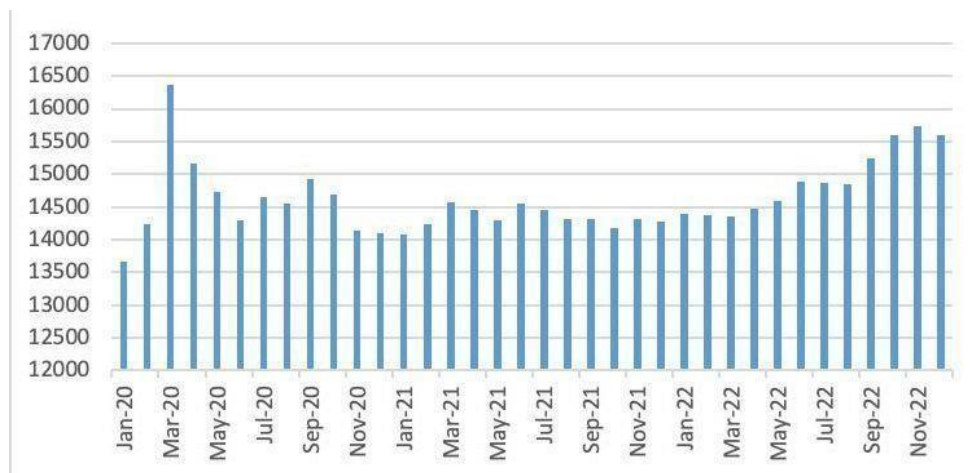


Figure 4. Exchange Rate of Rupiah Against US Dollar for the 2020-2022 Period
 Source: Bank Indonesia 2020 – 2022 (Data Processed by the Researcher)

According to Figure 4, the exchange rate of the Rupiah in 2020 was the lowest at 13,662 in January and the highest at 16,367 in March. In 2021, the highest exchange rate occurred in March at 14,250, and the lowest in January at 14,084. In 2022, the lowest exchange rate occurred in March at 14,357, and the highest in November at 15,742. In 2020, the exchange rate was influenced by economic instability due to COVID-19. In 2021, the exchange rate was influenced by economic recovery, while in 2022, global inflation affected the exchange rate. The increase and decrease in the exchange rate impacted the IHSG.

The exchange rate of the Rupiah, particularly against the US Dollar, is very important for Indonesia’s economy. Exchange rate fluctuations can have widespread effects, so changes in the exchange rate must be closely monitored by Bank Indonesia and the Government to control its movement (Kartikaningsih, Dewi, 2020).

This study continues previous research by Silim (2013) and Candra (2015), which showed a significant relationship between IHSG and interest rates. An increase in interest rates impacts the IHSG. Haryanto (2020) found that a 1% increase in COVID-19 cases led to a 0.02% depreciation of the Rupiah against the US Dollar and a 0.03% correction in the IHSG, while a 1% increase in the IHSG led to a 0.311% appreciation of the Rupiah against the US Dollar. These findings are consistent with Silim (2013) and Candra (2015), which indicated a significant relationship between the exchange rate of the Rupiah, interest rates, and the IHSG. Research by Abbas and Wang (2020) shows that exchange rates and money supply do not affect the stock price index in China and the USA. However, Rahmatika (2019) found that the money supply had an impact on the IHSG, while the exchange rate had a negative influence. Research by Mamahit et al. (2019) and Wijayaningsih et al. (2016) demonstrated the fluctuating impact of monetary policy on the IHSG, with the BI Rate, FED Rate, and Rupiah exchange rate having a significant influence.

This study aims to examine the impact of monetary policy and the effects of COVID-19 on the movement of the IHSG during 2020-2022, as well as to evaluate the effectiveness of government monetary policies in addressing the decline of the IHSG during the pandemic. With a better understanding of these factors, this study is expected to provide valuable insights in the context of economics and finance..

LITERATURE REVIEW

Q Theory

James Tobin (1969) in Ehrmann (2004) explains that monetary policy affects the economy through equity valuations. When the economy improves, stock values rise, prompting companies to increase the number of shares they sell and acquire more capital. The effectiveness of monetary

policy depends on the structure of the economy, particularly in large financial sectors. In Tobin's theory or Q Theory, the relationship between monetary policy and the Composite Stock Price Index (IHSG) is explained by three main factors: first, changes in the exchange rate of the local currency against foreign currencies affect asset values in foreign currency, which impacts the market value of companies; second, the reference interest rate (BI Rate) affects the cost of capital for companies, where an increase in the BI Rate depresses the IHSG while a decrease raises it; third, the money supply influences the IHSG through economic growth, company revenue and profit, and investor preference for riskier assets. Therefore, the effectiveness of monetary policy in influencing the IHSG depends on its impact on these factors (Ehrmann & Fratzscher, 2004).

Contagion Theory

According to Husted, et al. (2010:398), the contagion effect causes a crisis in one country to spread to others. Several experts argue that the economic condition of one country will affect the economic condition of other countries. The 1997 Asian financial crisis, particularly, was caused by the contagion effect (domino effect) from other countries (Tan Jose Antonio, 1998). Indonesia, as a developing country, is heavily dependent on the external economy, especially concerning investment. As a result, the capital market conditions in Indonesia are believed to be influenced by external conditions, particularly those in developed countries.

Capital Market

The capital market is a market for various long-term financial instruments (securities) that can be traded, both in the form of debt (bonds) or equity (stocks) issued by the government and private companies (Suad Husnan, 1994). Law No. 8 of 1995 on the capital market defines it as activities related to public offerings and trading of securities, involving public companies issuing these securities. The capital market also involves institutions and professions related to the process of trading and oversight of securities. The capital market plays an essential role in allocating financial resources and supporting economic growth. In the capital market, investors can participate in company ownership through stocks or provide loans through bonds.

Composite Stock Price Index (IHSG)

A stock price index is a measure that shows how stock prices move or change over time. This index serves as a market trend indicator, meaning that the movement of the index reflects the market's condition at a particular time, whether the market is active or sluggish (Martalena & Malinda, 2011). According to Abdul (2006:12), the stock price index reflects the impact of various variables that influence it simultaneously and complexly, particularly related to economic events. The Composite Stock Price Index (IHSG) is an index that describes the movement of stock prices overall, which are listed on the stock exchange, and serves as a reference in monitoring the developments in the capital market. IHSG is calculated based on all stocks listed on the Indonesia Stock Exchange, with its base value set on August 10, 1982. By using IHSG, market participants can monitor and analyze the movement of stock prices overall, enabling them to make better investment decisions. IHSG is also an essential indicator in measuring the performance and sentiment of the capital market overall.

Exchange Rate (Currency Rate)

Tandelilin (2010) explains that the Rupiah exchange rate plays a crucial role in signaling a positive outlook for an economy experiencing inflation. A depreciation of the Rupiah affects the increase in the cost of imported raw materials and equipment required by companies, leading to higher production costs. This results in reduced company profits and lowers the composite stock price index.

Bank Indonesia states that the exchange rate of a currency is the relative price of that currency against other currencies. There are three systems applied worldwide to determine the exchange rate of foreign currencies: fixed exchange rate, managed floating exchange rates, and free floating exchange rates (Bank Indonesia, 2003:69).

SBI (Bank Indonesia Certificate)

According to Bank Indonesia, SBI is the policy interest rate that reflects the stance or strategy of the monetary policy set by the institution and is routinely announced to the public. The setting of SBI is carried out by the Board of Governors of Bank Indonesia in each monthly meeting, and this is implemented through monetary operations by Bank Indonesia to manage liquidity in the money market, aiming to achieve the operational targets set for the policy.

Keynes, in Mankiw (2014), states that changes in interest rates affect people's willingness to invest, such as in securities, whose prices can rise or fall along with interest rate changes. Theoretically, interest rates and stock prices have an inverse relationship (Tandelilin, 2010). High-interest rates will affect the present value of company cash flows, making the available investment opportunities less attractive. High interest rates also increase the cost of capital that companies must bear and will cause investors to demand higher returns from investments. According to Tandelilin (2001:48), changes in interest rates affect stock prices inversely, *ceteris paribus*. This means that if interest rates rise, stock prices will fall, *ceteris paribus*, and vice versa.

Dow Jones Index

The Dow Jones Index (DJI) is a combination of stocks used to assess the performance of industrial companies in the U.S. stock market. The total market capitalization of Dow Jones is 13,615,709 (USD Million) according to S&P Global (2024), which is estimated to represent one-third of the total equities traded globally. Dow Jones consists of 30 major companies from various sectors, with the largest sectors being Financials at 23.2% and Information Technology at 18.6%, according to S&P Global (2024).

According to Investing.com, Dow Jones is one of the largest stock exchanges, with an average volume of 348,288,200 as of May 8, 2024. This can be compared with the average volume of IHSG, which is 146,920,300 as of May 8, 2024, showing a difference in volume nearly three times larger. As a major economic force, the U.S. economy has the most significant impact on the global economy, including Indonesia. When the Dow Jones Index declines during a crisis, it has a negative impact on the Indonesian stock market, causing a drop in the Composite Stock Price Index (IHSG). The strategy of domestic investors, such as a follower strategy and negative sentiment, leads to a decline in the IHSG (Andiyasa, 2014). As one of Indonesia's export destinations, U.S. economic growth can drive Indonesia's economic growth through exports and capital inflows, both direct investment and capital markets (Sunariyah, 2006). In addition to export destinations, some Indonesian companies listed on the Indonesia Stock Exchange also collaborate with U.S. companies or even have foreign ownership structures or investments. This will naturally affect the Composite Stock Price Index when positive or negative sentiments occur in the DJI. Shevanda (2013) in her research showed that the DJI significantly influences IHSG. Wijayanti (2013) found that DJI has a positive correlation with IHSG. Budi et al. (2013) demonstrated that the influence of DJI on IHSG is positive.

Relationship Between Variables

The Relationship Between Exchange Rates and the Composite Stock Price Index Movement

In economics and finance, studying the relationship between monetary policy, stock price index movements, and exchange rates is an intriguing area to explore. Such research can examine how monetary policies implemented by central banks, such as Bank Indonesia, affect stock price index movements and exchange rates.

Tandelilin (2010) explained that the Rupiah exchange rate plays an important role in signaling positive economic conditions during inflation. A depreciation of the Rupiah increases the cost of importing raw materials and equipment required by companies, leading to higher production costs. Moreover, many companies have debt denominated in foreign currencies. Therefore, a depreciation of the Rupiah increases their debt burden because payments must be made in US dollars, which hold a strong exchange rate, while the weakened Rupiah requires a greater amount of local currency for conversion into US dollars.

(H0): There is no significant influence of the exchange rate on the Composite Stock Price Index (CSPI).

(H1): The exchange rate significantly affects the CSPI movement.

The Relationship Between BI Rate and Composite Stock Price Index Movement

Partially, research has shown that the BI Rate has a negative or inverse effect on the Composite Stock Price Index at the Indonesia Stock Exchange (IDX). In other words, when the BI Rate rises, the CSPI tends to decline, and vice versa. This finding aligns with classical theory as explained by Nopirin (2012:167), where higher interest rates encourage investors to save more, thereby reducing public interest in investing (Wijayaningsih et al., 2016).

Thus, an increase in the BI Rate will encourage people to save their money in the form of deposits due to the attractive interest rates offered. However, this also reduces public interest in investing in stocks and other assets. As a result, stock prices overall, as reflected in the CSPI on the IDX, tend to decrease.

(H0): There is no significant influence of the BI Rate on the CSPI.

(H1): The BI Rate significantly affects the CSPI movement.

The Relationship Between the Dow Jones Index and the Composite Stock Price Index Movement

An increase in the Dow Jones Index indicates improved economic performance in the United States. This improvement is due to rising stock activities in the United States, which bolster the economy. As one of Indonesia's export destinations, economic growth in the United States can stimulate Indonesia's economic growth through export activities and capital inflows, including both direct investment and the capital market (Sunariyah, 2006).

Karim et al. (2008) argued that the Indonesian capital market has become integrated with global capital markets. This suggests a relationship in which the movements of the Indonesian capital market are influenced by global capital market movements, either directly or indirectly (M. Sam-sul, 2008).

(H0): There is no significant influence of the Dow Jones Index on the CSPI.

(H1): The Dow Jones Index significantly affects the CSPI movement.

Research Framework

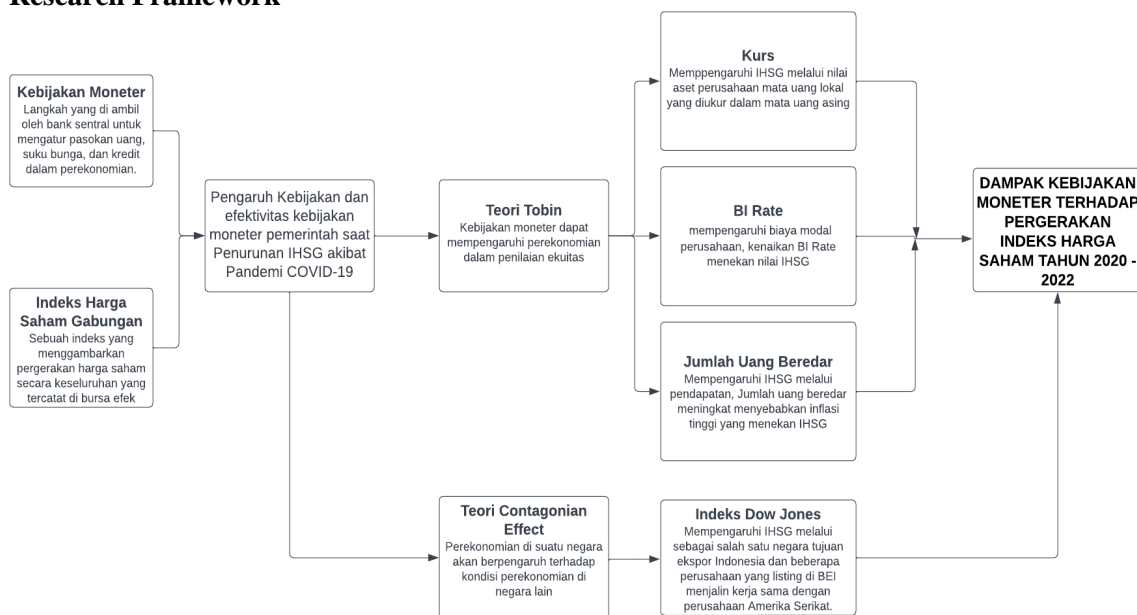


Figure 5. Framework of Thought

Source: Author (2024)

METHODS

This research employs a quantitative approach with a Time Horizon in the form of a Time Series. Observations are conducted using the equation for the 2017–2024 period, utilizing a COVID-19 Dummy variable. The type of data used is secondary data obtained from various sources: www.idx.co.id provides data on the Composite Stock Price Index (IHSG), www.bi.go.id provides data on the BI Rate and Rupiah Exchange Rate, while www.investing.com provides data on the Dow Jones Index.

Table 1. Operational Definition Table

Huruf rata kanan	Angka rata kiri	Persen rata kiri	Skala Pengukuran
Variabel Dependen	IHSG	Gabungan semua saham yang terdaftar di BEI dengan tujuan memberikan kemudahan dalam mengukur kinerja portofolio global investor	Rasio (www.idx.co.id)
Variabel Independen	SBI	Suku bunga yang mencerminkan Stance kebijakan moneter yang ditetapkan oleh Bank Indonesia(BI)	Rasio (www.bi.go.id)
	JUB	Seluruh jumlah kuantitas uang dalam suatu perekonomian yang berada ditangan masyarakat	Rasio (www.bi.go.id)
	Kurs	Harga dari mata uang suatu negara dalam harga mata uang dengan negara lainnya	Rasio (www.bi.go.id)
Variabel Eksternal	Dow Jones	Gabungan 30 saham untuk mengukur kinerja perusahaan industry di pasar modal Amerika Serikat	Rasio (www.Investing.com)
Variabel el Dummy	Covid-19	Masa pandemic wabah COVID-19 saat masuk ke Indonesia sampai wabah dinyatakan Endemi	1 = Saat Masa Pandemi0 = Sebelum dan Pasca Pandemi

Source: Personal Documentation (2024)

Classical Assumption Test

To obtain the best estimates, secondary data must undergo classical regression assumption testing. The purpose of the classical assumption test is to determine whether the independent and dependent variable data in the regression model are normally distributed or not. Normally distributed data is a prerequisite for conducting multiple regression analysis techniques. This classical assumption test consists of normality test, autocorrelation test, heteroscedasticity test, and multicollinearity test. By performing these tests, the reliability and accuracy of the resulting estimates can be ensured.

Normality Test

The normality test aims to determine whether the residuals in the regression model are normally distributed. There are two ways to detect whether residuals are normally distributed: graphical analysis and statistical analysis (Ghozali, 2011:160). This study uses a simple statistical test by examining the kurtosis and skewness values for all dependent and independent variables.

Another test used is the non-parametric Kolmogorov-Smirnov (K-S) statistical test. The K-S test is conducted with the following hypotheses:

H0: Residual data is normally distributed

Ha: Residual data is not normally distributed

If the Kolmogorov-Smirnov value is greater than $\alpha = 0.05$ (5%), then the data is considered normal.

Multicollinearity Test

This test evaluates whether there is a significant correlation between independent variables in the regression model (Ghozali, 2013). According to this study, the absence of multicollinearity can be concluded if the tolerance value of each independent variable is greater than 0.10 and the variance inflation factor (VIF) value is less than 10.

Heteroscedasticity Test

The heteroscedasticity test in regression analysis aims to determine whether there is an unequal variance of residuals across observations (Ghozali, 2011:139). If the variance of residuals is constant across observations, it is called homoscedasticity; if it varies, it is called heteroscedasticity. A good regression model should exhibit homoscedasticity.

To detect heteroscedasticity, the following methods are used:

1. Heteroscedasticity Test: Breusch-Pagan-Godfrey

Graphical Plot and Glejser Test

These methods are essential to ensure the validity of the regression model and to produce more accurate parameter estimates.

Autocorrelation Test

The autocorrelation test aims to determine whether there is a correlation between error terms in period t and error terms in period t-1 (previous period) in the linear regression. The decision-making basis using the Durbin-Watson (D-W) test is as follows (Difarissa et al., 2014):

1. A D-W value below -2 indicates positive autocorrelation.
2. A D-W value between -2 and +2 indicates no autocorrelation.
3. A D-W value above +2 indicates negative autocorrelation.

Multiple Linear Regression Analysis

The analytical technique used in this study is quantitative data analysis, estimating the quantitative impact of multiple independent variables, both simultaneously and individually, on the dependent variable. The functional relationship between the independent and dependent variables can be conducted using multiple regression analysis. The analysis method follows a linear regression model as shown below:

Equation 1

$$Y = c + Q1Kurs + Q2SBI + Q3DowJones + Q4Covid19 + e.....(1)$$

Where:

Y = Composite Stock Price Index (IHSG)

C = Constant

B1, B2, B3, B4 = Regression coefficients

Kurs = Rupiah exchange rate

SBI = BI Rate

DowJones = Dow Jones Index

Covid-19 (D) = Number of COVID-19 cases

Hypothesis Testing

The hypotheses in this study are tested using regression analysis. The hypothesis tests used are as follows:

t-Test

The t-test evaluates the partial influence of independent variables on the dependent variable. If the regression table result is significant ($< \alpha (0.05)$), the hypothesis is rejected. If the regression table result is not significant ($> \alpha (0.05)$), the hypothesis is not rejected (Ghozali, 2018).

F-Test

The F-test or simultaneous hypothesis test examines the impact of variables such as BI Rate, money supply, Rupiah exchange rate, and Dow Jones Index on the Composite Stock Price Index. This test uses a two-tailed significance level of 0.05. If the significance value (sig.) is less than 0.05, the null hypothesis (H_0) is rejected, and the alternative hypothesis (H_1) is accepted, indicating that independent variables collectively have a significant influence on the dependent variable (Ghozali, 2018). If the significance value is greater than 0.05, H_0 is accepted, and H_1 is rejected, implying that the independent variables collectively do not significantly affect the dependent variable.

Coefficient of Determination (R^2)

The coefficient of determination (R^2) is used to measure how much the independent variables explain the variation in the dependent variable. The R^2 value ranges between 0 and 1. A small R^2 indicates that the independent variables have limited ability to explain the dependent variable's variation. A value close to 1 means that the independent variables provide most of the information needed to predict the dependent variable's variation. However, R^2 has a limitation, as it tends to favor models with more independent variables. To address this issue, the adjusted R^2 value is used. The adjusted R^2 may increase or decrease when an independent variable is added to the model, providing a more accurate evaluation of the regression model by considering the number of independent variables included (Ghozali, 2011:97).

RESULTS AND DISCUSSION

Result

Classical Assumption Test Results

Based on the normality test results, the Jarque-Bera value for the equation is 2.96, which is greater than the alpha value of 5% (0.05). This indicates that the residual values of the equation are normally distributed. In the heteroscedasticity test, the probability value (chi-square) for the equation is 0.5914, which is greater than the alpha value of 5%, meaning the research data is free from heteroscedasticity symptoms.

For the multicollinearity test, the estimation results for the first equation show that the VIF values for each variable are less than 10, indicating that the data is free from multicollinearity symptoms.

Based on the regression analysis results, the Durbin-Watson (DW) value for the first equation is 1.81, with dL at 1.24 and dU at 1.72. Thus, $dL < dU < DW$, and it can be concluded that the residuals are independent and uncorrelated. For the second equation, the DW value is 2.1, with dL at 1.55 and dU at 1.75. Thus, $dL < dU < DW$, and it can also be concluded that the residuals are independent and uncorrelated.

Hypothesis Testing

Hypothesis testing in this study includes the t-test (partial), F-test (simultaneous), and coefficient of determination test (R-squared), with regression time series estimation results based on the best model. The researcher uses Table 3 to present the regression results for the first equation and to present the regression results for the second equation, which incorporates the dummy variable for COVID-19. This is done to determine whether the COVID-19 variable has a significant effect on the dependent variable.

Regression Results

Table 2. Regression Test Results for the First and Second Equations

Variable	Coefficient
C	5199.2 (1023)
Ln_Kurs	-0.2005* (0.0499)
Ln_SBI	-151.703* (69.182)
Ln_DowJones	0.1165* (0.0131)
Covid-19 (D)	-328.79* (114.40)
R-square	0.579153
Adjusted R-squared	0.558871
Observation	88
Prob F-statistic	0.00000
F-Statistic	28.55528
* = Signifikan	
(....) = Standar Error	

Source: Primary Data Processing (2024)

Based on the table above, the regression model equation for this study can be formulated as follows:

1. Exchange Rate (Kurs)

In the first equation, the p-value (0.0499) < alpha (0.05), rejecting Ho. This indicates that the exchange rate significantly impacts IHSG. The beta coefficient value in the first equation is -0.200, meaning that if the exchange rate increases by 1%, the IHSG will decrease by 0.200 units.

2. BI Rate (SBI)

The p-value (0.0311) < alpha, rejecting Ho. This indicates that the BI rate has a significant negative effect on IHSG. The beta coefficient value is -151.70, meaning that if the BI rate increases by 1%, the IHSG will decrease by 151.70 units.

3. Dow Jones

The p-value (0.000) < alpha, rejecting Ho. This indicates that the Dow Jones index has a significant positive effect on IHSG. The beta coefficient value is 0.1165, meaning that if the Dow Jones index increases by 1%, the IHSG will also increase by 0.1165 units.

4. COVID-19 (Dummy)

The p-value (0.0051) < alpha (0.05), rejecting Ho. This indicates that COVID-19 significantly affects IHSG. The beta coefficient value is -328, meaning that if the impact of COVID-19 increases by 1%, the IHSG will decrease by 328 units.

F-Test

The F-test in this study is used to identify whether the independent variables as a whole in the model significantly affect the dependent variable simultaneously. The regression analysis results using the best model indicate that the F-statistic probability value is 0.0000 < 0.05. From this condition, it can be concluded that all independent variables (Money Supply, Exchange Rate, BI Rate, Dow Jones) significantly affect the dependent variable (IHSG) simultaneously.

Coefficient of Determination (R-Square)

The coefficient of determination test is used to identify the extent to which the independent variables as a whole explain the dependent variable. The regression analysis results show that the R-Squared value is 0.58. Based on this condition, it can be concluded that all variables (Money Supply, Exchange Rate, BI Rate, Dow Jones) explain the dependent variable (IHSG) by 58%. Meanwhile, 32% is explained by variables or factors outside the study.

Discussion

The Effect of Exchange Rates on the Composite Stock Price Index (IHSG)

In the first equation of this study, the test results show that exchange rates significantly impact IHSG (P-value = 0.0499). This finding is consistent with Silim (2013) and Candra (2015), which highlight a significant relationship between the Rupiah exchange rate, interest rates, and IHSG. According to Tandelilin's theory (2010), the Rupiah exchange rate plays an important role in providing positive signals for an economy experiencing inflation. A decline in the Rupiah exchange rate increases the cost of importing raw materials and equipment needed by companies, leading to higher production costs. This results in decreased company profits and lowers the composite stock price index.

The implications of this study may significantly impact stocks of companies oriented toward exports or imports. For example, a strengthening domestic exchange rate can reduce the competitiveness of exporters, ultimately affecting the stock prices of these companies. To manage risks arising from exchange rate fluctuations, investors and companies can utilize the findings of this study to design more effective hedging strategies. Additionally, exchange rate fluctuations also affect foreign investment flows, where a stable exchange rate tends to attract more foreign investment, ultimately increasing the stock price index.

The Effect of BI Rate on the Composite Stock Price Index (IHSG)

This study provides sufficient evidence to show a significant relationship between IHSG and the BI rate, with the first equation yielding a p-value of 0.0311. This aligns with previous studies by Silim (2013) and Candra (2015), which also indicate a significant effect between IHSG and interest rates. Theoretically, interest rates and stock prices have a negative relationship (Tandelilin, 2010). Excessively high-interest rates impact the present value of a company's cash flows, rendering existing investment opportunities unattractive. High-interest rates also increase the cost of capital borne by companies, leading to reduced returns.

The implications of this study directly influence borrowing costs for companies, where lower interest rates generally encourage investment and business expansion, which can increase stock prices. Additionally, a lower BI rate may boost consumption and investment in the real estate sector, potentially improving the performance of companies in related sectors. A reduction in the BI rate is also often perceived as a positive signal by the stock market, improving market sentiment and increasing trading activity.

The Effect of Dow Jones on the Composite Stock Price Index (IHSG)

The Dow Jones index has a significant effect on IHSG (p-value = 0.000), consistent with research by Karim et al. (2008), which states that the Indonesian capital market is already integrated with global capital markets. Shevanda (2013) found that the Dow Jones Industrial Average (DJI) significantly affects IHSG. Wijayanti (2013) also identified a positive correlation between DJI and IHSG, while Budi et al. (2013) demonstrated that the impact of DJI on IHSG is positive.

This establishes that the movement of Indonesia's capital market is influenced by global capital markets both directly and indirectly (M. Samsul, 2008). The implications of this study indicate that movements in the Dow Jones, one of the main US stock market indices, often reflect global economic conditions. A domestic stock market integrated with global markets will respond to changes in the Dow Jones directly through trade and investment relationships or indirectly through market sentiment. Investors can utilize this information to consider international market conditions in their portfolio diversification decisions. Additionally, movements in the Dow Jones

affect global capital flows, where index fluctuations can influence cross-border investment flows and decisions.

Phenomena Affecting the Composite Stock Price Index (IHSG)

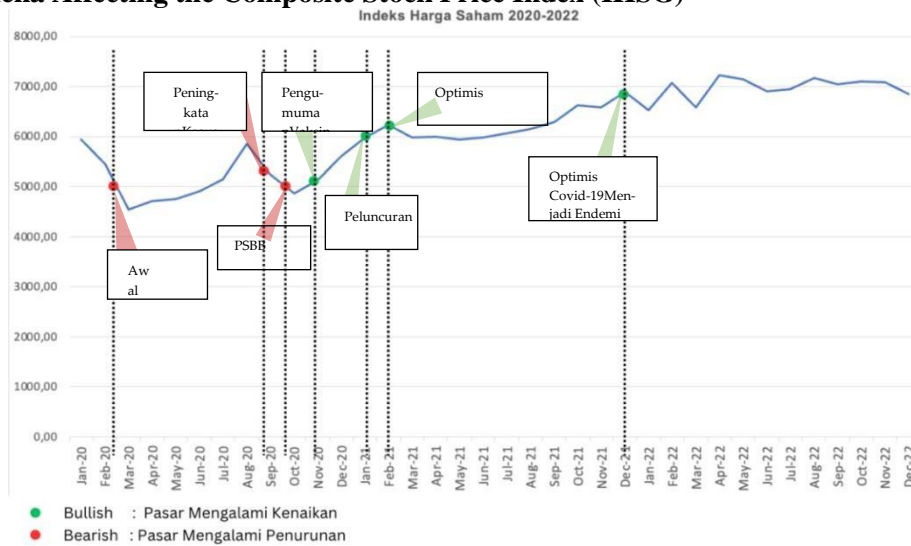


Figure 6. COVID-19 Sentiment Phenomenon 2020-2022

Source: Source: Investing.com and Online Media (Data Processed by the Researcher)

During the COVID-19 pandemic, the movement of the Jakarta Composite Index (IHSG) was heavily influenced by market sentiment related to the developments of the pandemic. In early March 2020, IHSG experienced a sharp decline of 6.5% due to global uncertainty and the surge in COVID-19 cases (Detik.com, 2020, March 5). This decline continued in July 2020, with IHSG dropping by 1.34%, triggered by concerns over a rise in cases and the potential for stricter social restrictions (CNBC Indonesia, 2020, June 12). The reimposition of Large-Scale Social Restrictions (PSBB) in Jakarta in September 2020 caused IHSG to drop significantly by 5.01%, reflecting uncertainty about the economic impact of the policy (Antara News, 2020, September 9).

However, in November 2020, the announcement of positive results from the Pfizer and Moderna vaccines led to a surge in IHSG by 2.53%, signaling hope for the end of the pandemic (Antara News, 2020, November 13). The launch of the vaccination program in Indonesia in January 2021 pushed IHSG up by 0.62%, reflecting optimism about the success of the vaccination effort (Ministry of Communication and Informatics, 2021, December 29). Optimism regarding global economic recovery in March 2021 also boosted IHSG by 1.92% (Ministry of Communication and Informatics, 2021, December 29). Finally, news in December 2021 that COVID-19 might become endemic raised IHSG by 0.85%, showing market confidence that the world could adapt to the virus without significant economic impact (Antara News, 2022, March 4). This phenomenon strengthens the argument that COVID-19-related sentiment, along with monetary policy, has a major influence on IHSG movement.

The movement of the Jakarta Composite Index (IHSG) is influenced not only by monetary policy but also by investor perceptions and expectations regarding the pandemic. The declines in IHSG in March, July, and September 2020 reflect market uncertainty and concerns, while the surges in IHSG in November 2020 and January 2021 showed the positive impact of vaccine announcements and the start of vaccination efforts. Optimism about global economic recovery in March 2021 and the news of COVID-19 becoming endemic in December 2021 also affected the market. The implication of these findings is that market sentiment, influenced by external factors like the pandemic, must be considered in stock movement analysis, alongside monetary policy, to fully understand market dynamics.

CONCLUSION AND SUGGESTIONS

This study shows that the exchange rate has a significant effect on the Jakarta Composite Index (IHSG), reflecting the impact of exchange rate fluctuations in the context of an integrated global market. The BI Rate also significantly influences the IHSG, indicating that domestic monetary policy plays a crucial role in determining the direction of the stock market movement in Indonesia. An increase or decrease in the benchmark interest rate can affect market liquidity and investor behavior, which in turn impacts the IHSG. The Dow Jones also shows a significant influence on the IHSG, highlighting the interconnection between international stock market movements and investor sentiment in Indonesia. These findings emphasize the importance of comprehensive analysis in understanding stock market dynamics and making investment decisions amid global uncertainty, and underline the critical role of appropriate monetary policies in maintaining domestic stock market stability.

Based on the findings of this study, several recommendations for investors, companies, and Bank Indonesia are as follows:

1. Adaptive Benchmark Interest Rate Adjustments Based on the finding that the BI Rate has a significant effect on the IHSG, Bank Indonesia is advised to adjust the benchmark interest rate by considering the overall stock market and economic conditions. Increases or decreases in interest rates should be made carefully and timely to support stock market stability and mitigate negative impacts on investment and consumption.
2. Exchange Rate Stability through Market Intervention Given that the exchange rate significantly influences the IHSG, it is recommended that Bank Indonesia actively maintain the stability of the Rupiah through market interventions when necessary. By keeping the Rupiah exchange rate stable, Bank Indonesia can help reduce stock market volatility caused by exchange rate fluctuations, especially in uncertain global economic conditions.
3. Portfolio Diversification Based on Global Market Indicators Considering the significant influence of the Dow Jones on the IHSG, investors are advised to expand their investment portfolios by including assets related to global markets. Taking into account the movements of major stock markets such as the Dow Jones can help investors mitigate risks arising from domestic market uncertainty. Additionally, investors should remain alert to news and global economic developments that could affect market sentiment in Indonesia.

IMPLICATIONS

The implication of this research is that monetary policy plays an important role in the movement of the stock price index in Indonesia. The government should consider the policy of money supply, interest rates and exchange rates that are issued so that the movement of the stock price index remains stable, especially in times of crisis such as Covid-19.

LIMITATIONS

The limitation of this research is the use of secondary data from the limited period of 2017-2024, and does not consider other external factors such as social policy, public behavior and some indicators may also not fully describe the movement of the stock price index on the Stock Exchange.

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