

International Journal of INTELLIGENT SYSTEMS AND APPLICATIONS IN

ENGINEERING

ISSN:2147-6799 www.ijisae.org Original Research Paper

Analysis of the Effect of USD/IDR Exchange Rate, Inflation, BI Rate, KOSPI, SCI, And S&P500 Index on IHSG

Ardy Ganda Mahardika¹, Edi Subyantoro², Diana Zuhroh³, Wasilatur Rohmah⁴

Submitted: 04/05/2024 Revised: 17/06/2024 Accepted: 24/06/2024

Abtract: This study examines the influence of six factors - USD/IDR Exchange Rate, Inflation, BI Rate, KOSPI Index, SCI Index, and S&P500 Index - on the Jakarta Composite Index (JCI) on the Indonesia Stock Exchange over the period 2018-2023. This research employs a quantitative approach. The data used in this study are weekly time series secondary data obtained from the official IDX website, Bank Indonesia, and other foreign stock price index websites. This study utilizes a causality research design and employs parametric statistical test analysis tools to test and analyze the magnitude of the influence of the independent variable on the dependent variable. The data analysis used in this research is multiple regression. The results showed that the USD/IDR exchange rate has a significant negative effect on the JCI. A weakening of the Rupiah against the US Dollar tends to have a negative impact on the JCI. In contrast, Inflation, BI Rate, KOSPI Index, SCI Index, and S&P500 Index have a significant positive effect on the JCI. This means that an increase in inflation, BI Rate, and foreign stock indices tends to boost the JCI. The findings suggest that the JCI is influenced by a variety of internal and external factors. The weakening of the USD/IDR exchange rate, although having a negative influence, can be interpreted as a potential increase in export competitiveness, foreign capital inflows, and profits of exporting companies. This, in turn, has a positive impact on the JCI.

Keywords: USD/IDR Exchange Rate, Inflation, BI Rate, KOSPI Index, SCI Index, S&P500 Index, JCI

1. Introduction

Investment is a crucial step in preparing for future finances (Sugiyanto & Sarialam, 2022). The global economic development has led to a strong interconnectivity between information technology and investment across nations worldwide. This global economic landscape has facilitated massive financial capital flows, making global macroeconomic factors a significant risk that can influence economies across countries and impact investment in stock exchanges globally (Rianto & Gaol, 2023).

The Jakarta Composite Index (JCI) is a dynamic system that is influenced by a complex interaction between domestic and global factors (Siddiqui, 2017). While domestic factors such as economic growth, inflation and interest rates play a significant role, global economic conditions and the performance of major stock markets around the world also exert considerable influence on the JCI (Suciany & Suhadak, 2020). These linkages arise from the increasing globalization of financial markets and the interconnectedness of the global economy. Global financial market linkages are a well-established phenomenon. Fluctuations in exchange rates, inflation and interest rates in major economies can affect investor sentiment

and investment decisions in emerging markets such as Indonesia (Dahlia Pinem et al., 2023). In addition, the performance of major stock indices such as KOSPI, SCI, and S&P 500 provide an overview of the overall health of the global economy and can affect investor confidence in emerging markets (Chang et al., 1995; Muhamad & Henny, 2021; Nurwulandari et al., 2021).

The USD/IDR exchange rate, inflation, BI Rate, KOSPI, SCI, and S&P 500 index are interconnected and ultimately impact the Jakarta Composite Index (JCI). A weakening Rupiah can cause imported inflation and push the central bank to raise the BI Rate. High inflation can weaken the Rupiah, but the central bank can raise interest rates to control inflation, which in turn can strengthen the Rupiah (Ratnaningrum et al., 2023). However, the Rupiah exchange rate is affected by various factors, making it difficult to predict its movement with certainty, which could potentially impact the performance of regional indices such as KOSPI and SCI. A strong KOSPI or SCI may signal strong regional economic growth, which could potentially strengthen the Rupiah and influence the central bank's decision on the BI Rate (Jamal et al., 2018). A strong S&P 500 may indicate a positive global economic outlook, which could potentially attract foreign investment to Indonesia and strengthen the Rupiah. These interrelated relationships highlight the complex interplay of global economic factors that affect the Indonesian stock market. However, it is important to

1,2,3,4Universitas Merdeka Malang, Malang, Indonesia

note that these correlations are not absolute and are influenced by other factors, requiring further empirical analysis to properly understand their impact on the JCI.

2. Hyphotesis Development

This research is supported by several theories, including technical analysis theory, signal theory and contangion influence theory in relation to the analysis of USD/IDR exchange rate, inflation, BI Rate, KOSPI, SCI, and S&P 500 index on JCI.

Technical analysis is a method used to analyze stocks and securities using statistical analysis to predict future stock market movements (Ong, 2016). Additionally, technical analysis is used to estimate market behavior using historical data, employing price and trading volume data (Artha, 2014). Technical analysts focus on past patterns and trends in stock prices to predict their future movements. They do not attempt to assess the intrinsic value of a stock, but rather use stock charts to identify patterns and trends that may indicate how the stock will behave in the future (Patel et al., 2015). While technical analysis focuses on identifying patterns and trends in historical stock data, signal theory delves deeper into the underlying factors that drive market movements. Signal theory explains the underlying movement of indices or events that may occur based on considerations and signals related to macroeconomic conditions in the country (Spence, 1973). While signal theory focuses on the impact of information on individual market movements, the Contagion Effect Theory explores how crises can spread across borders, even when the underlying economic fundamentals of the affected countries are not directly linked. The Contagion Effect Theory describes the spread of crises between countries that cannot be explained by the economic fundamentals of the affected countries Kaminsky et al., (2000).

A weakening of the exchange rate will result in higher costs for companies, potentially reducing profitability and ultimately lowering share prices. An increasing amount of dollar against the Indonesian rupiah will have a negative impact on issuers that have dollar-denominated debt, leading to a decline in share prices. (Damajanti & Rosyati, 2018). The relationship between stocks and exchange rates is based on the portfolio balance approach. Investors allocate their wealth among alternative assets, including domestic currency, domestic and foreign securities (Kewal, 2012). The USD/IDR exchange rate affects investment costs, foreign investment, and risk perception, while inflation affects corporate costs, real returns on investment, and monetary policy decisions. (Abnaina & Swandari, 2022; Darmawan & Saiful Haq, 2022; Robiyanto et al., 2019).

Inflation is a condition of increasing prices of goods and services that can affect stock prices in the capital market (Raharjo, 2016). Ongoing inflation can affect the income and manufacturing costs of the company. If production expenses exceed the company's revenue, it can reduce profits. When company profits decline, investors may be reluctant to invest (Abnaina & Swandari, 2022). Inflation has a significant and positive effect on JCI (Alvian et al., 2019; Apituley, 2018). But, according to Dahlia Pinem et al., (2023) stated that inflation has no effect on the JCI

The interest rate is one of the solutions for investors to make a decision in investing their capital (Mursalin et al., 2017). Low interest rates encourage investors to choose to invest in the stock market because it has more potential and provides more profit (Sartika, 2017). Low interest rates encourage investors to choose to invest in the capital market as it is more potential and profitable (Fitriaty et al., 2022). According to Dahlia Pinem et al., (2023); Jamal et al., (2018) stated that the BI Rate has a significant and positive effect on JCI.

KOSPI and SCI reflect regional economic health and investor sentiment, which could potentially spill over to JCI through trade and investment linkages. (Ni et al., 2022). The findings of Ni et al., (2022) show that the difference in influence between the KOSPI and SC is due to an overreaction to falling stock prices and oversold trading signals. In addition, political and economic upheavals can influence this, resulting in a sluggish economy negatively affecting the stock market. Authorities, even institutional investors, will withdraw from the stock market if the decline in stock prices results in a sustained phenomenon. Eventually, the index will increase and stock prices will rebound. Due to its linkage with Asian capital markets, the Indonesian capital market attracts foreign investors to buy stocks listed on the Indonesia Stock Exchange, driven by emerging market opportunities (Mosahab et al., 2011). The Chinese government established the Shanghai Stock Exchange to stabilize state-owned companies, maintaining substantial ownership and control over many listed companies (Yu & Wang, 2020). The SSE Index is used as a benchmark for portfolio analysis by investors and plays a crucial role as a barometer of the Chinese economy. Therefore, movements in the SSE Index can influence stock exchanges (Oktarina, 2016; Tita & Stella, 2009). The strong correlation between the Korea Composite Stock Price Index (KOSPI) and the JCI indicates that the KOSPI has a significant influence on the JCI (Andiyasa et al., 2014). The movement of the Shanghai Stock Exchange Composite Index (SCI) has a significant influence on the performance of the Jakarta Composite Index (JCI) (Marjohan, 2015; Tamara, 2012).

The S&P 500 index serves as a proxy for global risk appetite and investor confidence, which impacts investment decisions in emerging markets such as Indonesia (Miller et al., 1994). When Wall Street experiences a decline, it impacts the global market, including Indonesia. Many investors use the S&P500 Index as a benchmark for decision-making (Abnaina & Swandari, 2022). The movement of the S&P 500 significantly affects the movement of the JCI, indicating a close relationship between the two stock indices (Najibullah, 2023). Understanding the individual and combined impact of these variables is crucial to navigating the complexities of the Indonesian stock market and making informed decisions.

3. Data and Methods

This research is quantitative and employs parametric statistical tests. The method used is multiple regression analysis. The study utilizes secondary data obtained from time series data spanning the period from 2018 to 2023. Inflation and BI Rate data were obtained from www.bi.go.id, while USD/IDR exchange rate data, KOSPI Index, SCI Index, and JCI were obtained from www.marketwatch.com and id.investing.com. A total of 313 data points were used as research samples.

This study employs multiple regression analysis as its research method. To ensure the validity of the observed data, classical assumption tests are conducted in four stages: normality, autocorrelation, heteroscedasticity, and multicollinearity. Additionally, the coefficient of determination (R2) test is used to measure the proportion of variation in the dependent variable explained by the independent variables.

This research employs hypothesis testing with a significance level of 5% ($\alpha = 0.05$) to assess the relationship between variables. T-statistics and p-values are used to determine the significance of these relationships. The hypothesis tests employed in this research are the F-test and t-test, which are standard procedures for multiple regression analysis.

4. Result

Normality test

The normality test assesses whether the regression model's residuals are normally distributed. This study employs the Kolmogorov-Smirnov (KS) non-parametric test to evaluate residual normality. A p-value greater than 0.05 indicates a normal data distribution.

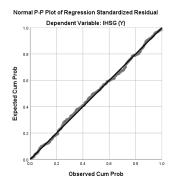


Figure 1. Plot of Normality Test Results

The plot of the Normality Test Results shows that the data points on the QQ plot follow the diagonal line drawn from the bottom left to the top right and the data points follow the diagonal line. This means that the normality test results show that the data is normally distributed.

Table 1. Kolmogorov-Smirnov Normality Test

One-Sample Kolmogorov-Smirnov Test		
	Unstandardiz	
	ed Residual	
N	303	
Asymp. Sig. (2-tailed)	.200 ^{c,d}	

Table 1 presents the results of the Kolmogorov-Smirnov Normality test. The test indicates that the residual data is normally distributed. This conclusion is based on the p-value, which is 0.200 (Asymp. Sig. (2-tailed)), exceeding the significance level of 0.05.

Uji Autokorelasi

Autocorrelation Test

The autocorrelation test assesses whether there are correlations or dependencies between the variables within the linear regression model. This study employs the Durbin-Watson test to determine the presence of autocorrelation among the variables under investigation.

Table 2. Autocorrelation Test

	Durbin-
Variabel	Watson
Independent: USD/IDR Exchange Rate, Inflasi, BI Rate,	.200
KOSPI, SCI, dan S&P500	
Dependent: IHSG	

Table 2 presents the results of the Durbin-Watson test, showing a D value is 0.200, DL is 1.78937, and the DU value is 1.85045, thus showing that D < DL. This indicates a positive relationship between the errors in the model. This finding aligns with investors' statements that investment in the JCI is not only influencedUSD/IDR exchange rate, Inflation, BI Rate, KOSPI, SCI and S&P500. However, investors also consider the history of the IHSG to identify sectors or issuers that have performed well in the past so that information increases investors' chances of making a profit.

Heteroskedatisticity Test

The heteroscedasticity test examines whether there are unequal variances in the residuals of the regression model. This study employs the Glejser test to determine if the independent variable's data exhibits a relationship between the observed values and the predicted values (residuals).

Table 3. Heteroscedatism Test

		BI KATE (A3), KC	` //	` ' '				
Variabel	Koefisien Regresi	Standard Er- ror	Т	mulated in a statisti variable. p	cal model w	rith IHSG(Y	() as the d	lepende
USD/IDR ex-	0.019	489.439	0.235	0.815 Table 5. Multiple Linear Regression Test				
change rate				Variable	Regressi	Standar	Q	р
Inflation	-0.069	0.028	0981	0.327	on	d Error		
BI Rate	0.035	11.315	0.415	0.678	Coeffici ents			
KOSPI	-0.185	16.492	-1.450	0.14 8 (Con-		807.583	11,534	,00
SCI	0.071	0.066	0.602	0.547 ^{stant})				0
S&P500	0.179	0.081	1.494	0.136 ^{USD/ID} R EX-	(0.451)	0.046	(11,19 0)	,00 0
The results o	of table 3. The he	eteroscedasticity t	test shows	CHANG E (1)			ŕ	

The results of table 3. The heteroscedasticity test shows that there is no absolute residual value which is influenced by the independent variables: USD/IDR exchange rate; Inflation, BI Rate, KOSPI, SCI and S&P500. The results indicate that the regression model does not suffer from heteroscedasticity. **Multicollinearity Test**

Multicollinearity test used to determine the existence of correlation in the regression model between independent variables. If there is dense multicollinearity then the independent variables used in this research are invalid and misleading. The condition for data is that there is multicollinearity, if the result is a VIF value > 10 or a tolerance value < 0.10.

Table 4. Multicollinearity Test

Model	Collinearity Statistics		
	Tolerance	VIF	
USD/IDR EXCHANGE (X1)	0.49	2.041	
INFLASI (X2)	0.673	1.486	
BI RATE (X3)	0.459	2.177	
KOSPI (X4)	0.203	4.924	
SCI (X5)	0.236	4.239	
S&P500 (X6)	0.231	4.329	

The multicollinearity test results, as presented in the table, indicate the absence of multicollinearity among the independent variables: USD/IDR exchange rate; Inflation, BI Rate, KOSPI, SCI and S&P500 because the multicollinearity diagnostics indicate that the VIF values are less than ten, and the tolerance values exceed 0.10.

Multiple Linear Regression Analysis

Multiple linear regression analysis is a regression analysis to determine the number of independent variables. This research consists of the USD/IDR exchange rate (X1), inflation (X2), BI RATE (X3), KOSPI (X4), SCI (X5), S&P500 and is for-

Variable 0.327 0.678	Regressi on Coeffici ents	Standar d Error	Q	p
0.148 (Con- 0.547 (Con-		807.583	11,534	,00 0
0.136USD/ID R EX- CHANG E (1)	(0.451)	0.046	(11,19 0)	,00 0
INFLA- TION (2)	0.665	18,670	19,33 7	,00 0
BI RATE (3)	0.320	27,212	7,687	,00 0
KOSPI (4)	0.297	0.109	4,743	,00 0
SCI (X5)	(0.185)	0.134	(3,180	,00 2
S&P500 (X6)	0.755	0.054	12,86	,00 0

$Y=\alpha + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4X4 + \beta 5X5 + \beta 6X6 + e$
Y = 9314.688 - 0.451X1 + 0.665X2 + 0.320X3 + 0.297X4
-0.185X5 + 0.755X6 + e

The α value of 9314.688 is the constant value of the IHSG variable (Y) before being influenced by the independent variables: USD/IDR Exchange Rate (X1), Inflation (X2), BI RATE (X3), KOSPI (X4), SCI (X5), S&P500) . If there are

no independent variables, the IHSG variable value does not change.

The regression model indicates that the coefficients for Inflation (X2), BI Rate (X3), KOSPI (X4), and S&P500 (X6) are respectively 0.665; 0.320; 0.297; and 0.0755, which means that every one point increase in each index will increase the IHSG value by 0.665; 0.320; 0.297; and 0.0755.

Meanwhile, the regression coefficient values for the USD/IDR (X1) and SCI (X5) exchange rates respectively show values of - 0.451 and - 0.185, which means that every one unit increase in each index will affect a decrease of - 0.451 and - 0.185 for IHSG with the assumption that the value of each independent variable is constant.

Coefficient of Determination Test (R2)

The coefficient of determination (R2) assesses the collective influence of the independent variables on the dependent variable. The model's accuracy is indicated by a higher R2 value..

Table 6. R Square Test

Variable	Adjusted Square	R
USD/IDR Exchange Rate, Inflation BI Rate, KOSPI, SCI, S&P500	, ,759	

The results of the determination coefficient test show an adjusted R Square value of 75.9% or 0.759, indicating that the independent variables explain 75.9% of the variation in the dependent variable: USD/IDR Exchange Rate (X1), Inflation (X2), BI Rate (X3), KOSPI (X4), SCI (X5), the S&P500 influences the Composite Stock Price Index by 75.9%. Meanwhile, the influence of 24.1% arises due to other factors that are not found in the independent variables.

Model Accuracy Test (F Test)

Simultaneous Test (F Test)used to determine the existence of a simultaneous influence between independent and independent variables in this research.

Table 7. F test

Model	F	p
Regression	159,924	,000 b
a. Dependent Variable: IHSG		
b. Predictors: (Constant), USD/IDR Exchange Rate, Inflation, BI Rate, KOSPI, SCI. S&P500		

In the F test table, the significance value (P-value) is 0.000 and the calculated F value is 159,924. These results indicate the simultaneous influence of the independent variables: Exchange rateUSD/IDR; Inflation, BI Rate, KOSPI, SCI and S&P500 against IHSG.

Simultaneous Significance Test (F Test)

The t-test is a statistical method employed to examine the individual influence of each independent variable on the dependent variable. In this study, the t-test is utilized to assess the impact of the USD/IDR Exchange Rate, Inflation, BI Rate, Korea Composite Stock Price Index (KOSPI), Shanghai Stock Exchange Composite Index (SCI), and the Standard & Poor's 500 Index on the dependent variable, the Jakarta Composite Index (IHSG).

The t-test decision is based on comparing the calculated tvalue to the critical t-value from the t-table or by examining the significance value (p-value). A significant influence of Variable X on Variable Y is indicated when the p-value is less than 0.05 or the calculated t-value exceeds the critical t-value.

Table 8. Godness of Fit Test (F Test)

Model	F	p	
Regression	159.924	.000b	
a. Dependent Variable: IHSG			
b. Predictors: (Constant), USD/IDR Exchange Rate, Inflasi, BI Rate, KOSPI, SCI, S&P500			

The results of the F-test indicate that the USD/IDR Exchange Rate, Inflation, BI Rate, Korea Composite Stock Price Index (KOSPI), and Standard & Poor's 500 Index have a positive and significant effect on the Jakarta Composite Index (IHSG). Conversely, the USD/IDR exchange rate and the Shanghai Stock Exchange Composite Index (SCI) have a negative and significant influence on the Jakarta Composite Index (IHSG).

Discussion

The Influence of the USD/IDR Exchange Rate on the **IHSG** (Composite Stock Price Index)

The results of the analysis indicate a significant and negative influence of the USD/IDR exchange rate on the Jakarta Composite Index (IHSG). The regression coefficient for this variable is -0.451, suggesting that a one-unit increase in the USD/IDR exchange rate leads to a decrease of 0.451 units in the Jakarta Composite Index.



Figure 2. Movement of the USD/IDR exchange rate against the IHSG

The results in Figure 2 demonstrates a negative and inverse relationship between the USD/IDR exchange rate and the Jakarta Composite Index. This is attributed to the rising cost of raw materials, particularly for companies importing raw materials from overseas, this will increase the costs incurred (Mittal et al., 2020; Jamal et al., 2018; Setyawati & Suroso, 2022).

The Effect of Inflation on IHSG (Composite Stock Price Index)

The analysis reveals a significant and positive relationship between inflation and the Jakarta Composite Index found that there was a significant and negative influence because the resulting regression coefficient value was positive at 0.665. A one-unit increase in inflation leads to a 0.665-unit increase in the index, as shown by the positive regression coefficient of 0.665.



Figure 3. Inflation Movement towards IHSG

The results presented in Figure 3 show that inflation exhibits a positive correlation with the Jakarta Composite Index (IHSG). The period from 2018 to 2023 witnessed growth in sectors like healthcare and staple goods, leading to increased demand for these products. Consequently, inflation has a positive impact on the Jakarta Composite Index (IHSG) as rising prices boost company profits and, in turn, share prices

(Apituley, 2018; Cahyaning Pratiwi et al., 2022; Nordin et al., 2020; Patel et al., 2015; Zhang et al., 2020).

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

The analysis reveals a significant and positive relationship between the BI Rate and the Jakarta Composite Index (IHSG). A one-unit increase in the BI Rate leads to a 0.320-unit increase in the Jakarta Composite Index, as indicated by the positive regression coefficient of 0.320.



Figure 4. Movement of BI Rate towards IHSG

Based on Figure 6, it shows that there is a unidirectional relationship between BI*Rate* and IHSG. In the 2018-2023 period, the increase in the BI Rate did not attract stock market investors to move their money to invest in Bank Indonesia. During that period, however, the increase in the BI Rate resulted in a corresponding increase in the Jakarta Composite Index (IHSG) (Muhamad & Henny, 2021; Novandi & Falah, 2023; Putra, 2016).

InfluenceKorea Composite Stock Price Index(KOSPI)against IHSG (Composite Stock Price Index)

Hypothesis testing revealed a significant positive influence of the Korea Composite Stock Price Index (KOSPI) on the Jakarta Composite Index (IHSG). The regression coefficient of 0.297 suggests that a one-unit increase in the KOSPI leads to a 0.297-unit increase in the IHSG..



Figure 5. KOSPI movement towards IHSG Based on Figure 5 above, it is stated that the Korea Composite Stock Price Index (KOSPI) variable has a significant and

positive effect on the Composite Stock Price Index (IHSG). This happens because stock market investors who invest in the Indonesian and South Korean capital markets often have diversified portfolios in both countries. When the economic outlook in South Korea looks positive, stock market investors tend to increase their investment in the capital market in South Korea by buying shares listed on the Korea Composite Stock Price Index (Ni et al., 2022; Pinem, 2019; Tita & Stella, 2009). InfluenceShanghai Stock Exchange Composite Index (SCI)against IHSG (Composite Stock Price Index)

The results of hypothesis testing in this research The analysis indicates a significant negative influence of the Shanghai Stock Exchange Composite Index (SCI) on the Jakarta Composite Index (IHSG). This finding suggests that Chinese investors, being major players in the Indonesian market, may shift their investments towards China when attractive opportunities and high profitability arise there. Consequently, this could lead to a decline in Indonesian stock market investments, impacting the IHSG (Chow et al., 1999; Chow & Lawler, 2003; Ni et al., 2022). An increase in the Shanghai Stock Exchange A one-unit increase in the Shanghai Stock Exchange Composite Index (SCI) leads to a 0.185-unit decrease in the Jakarta Composite Index (IHSG).



Figure 6. SCI movement towards IHSG

Based on Figure 8, it can be seen that the overall index Shanghai Stock Exchange Composite Index (SCI) has a negative relationship and is in the opposite direction. The results obtained from this study are supported by researchTamara (2012) which states that the Shanghai Stock Exchange Composite Index (SCI) has a significant and negative effect on the Composite Stock Price Index.

InfluenceStandard and Poors 500 Indexagainst IHSG (Composite Stock Price Index)

Hypothesis testing revealed a significant positive influence of the Standard & Poor's 500 Index on the Jakarta Composite Index (IHSG). This arises because America has a large influence on the global capital market, so it has the potential to have an impact on the stock price indices of other countries (Chu & Hsieh, 2002; Natalia, 2020; Switzer et al., 2000). An increase of one point in the Standard and Poor's 500 variable results in a positive increase of 0.755 in the Composite Stock Price Index variable. The results of this research show that there is a correlation that the American Stock Exchange has a positive impact on the Indonesian Stock Exchange because the link between companies in Indonesia and America and the decisions of the United States Central Bank (Federal Reserve System) regarding interest rates and other monetary policies which have an impact on the steady increase in the American Stock Exchange (Bhunia & Yaman, 2017; Ichsani et al., 2019; Siddiqui, 2017).



Figure 7. S&P500 movement towards IHSG

In Figure 7 it can be concluded that the overall index-Standard and Poor500 has a positive and unidirectional relationship. An increase in the Standard & Poor's 500 Index is positively correlated with an increase in the Jakarta Composite Index (JCI). These findings align with the results of previous research Najibullah (2023) which states that there is a positive correlation between the Standard and Poor's 500 Index and the Composite Stock Price Index.

Conclusion and Suggestions

Conclusion

The model's R-squared value of 75.9% indicates that the independent variables: USD/IDR exchange rate, inflation, BI Rate, Korea Composite Stock Price Index (KOSPI), and Standard & Poor's 500 Index - collectively explain 75.9% of the variation in the Jakarta Composite Index (IHSG). This suggests a significant simultaneous influence of these variables on the IHSG.

The macroeconomic variables USD/IDR exchange rate, inflation, and BI rate have a significant influence on the Jakarta Composite Index (IHSG). However, the USD/IDR exchange rate exhibits a negative relationship with the IHSG, meaning that an increase in the exchange rate leads to a decrease in the index value.

Meanwhile, stock price indices from other countries, including the Korea Composite Stock Price Index (KOSPI), the Shanghai Stock Exchange Composite Index (SCI), and the Standard & Poor's 500, have a significant influence on the Jakarta Composite Index (IHSG). However, the SCI exhibits a negative relationship with the IHSG, meaning that an increase in the SCI leads to a decrease in the IHSG.

Suggestions

It is hoped that the findings of this research will serve as a source of inspiration for future studies and similar research regarding the analysis of the influence of the USD/IDR exchange rate, inflation, BI Rate Korea Composite Stock Price Index, Shanghai Stock Exchange Composite Index, Standard and Poor's on the Composite Stock Price Index.

In addition, it is hoped that the findings of this research will provide valuable insights for the Financial Services Authority (OJK) in determining financial monetary policy and investment in the capital market. Meanwhile, it is hoped that investors and financial institutions can use the results of this research as a reference in determining the right decisions in investing in the capital market.

In this study, only six independent variables were used, consisting of: USD/IDR exchange rate, inflation, BI rate, *Korea Composite Stock Price Index*(KOSPI), Shanghai Stock Exchange Composite Index (SCI), and *Standards and Poors* 500to analyze its effect on the Composite Stock Price Index (IHSG). It is hoped that future research can add new variables such as the Global Stock Price Index and other macroeconomic factors.

References

- [1] Abnaina, E., & Swandari, F. (2022). Pengaruh Variabel Makroekonomi Dan Variabel Global Index Tehadap Indeks Harga Saham Gabungan (IHSG). *Jurnal Manajemen Dan Bisnis Performa*, 19(01), 83–92. https://doi.org/10.29313/performa.v19i01.9724
- [2] Alfira, N., Fasa, M. I., & Suharto, S. (2021). Pengaruh Covid-19 terhadap Indeks Harga Saham Gabungan (IHSG) dan Nilai Tukar Rupiah. *Al-Kharaj : Jurnal Ekonomi, Keuangan & Bisnis Syariah*, *3*(2), 313–323. https://doi.org/10.47467/alkharaj.v3i2.356
- [3] Alvian, L. A., Azari, C., & Herman, H. (2019). Pengaruh Inflasi, Nilai Tukar Dan Tingkat Suku Bunga Terhadap Indeks Harga Saham Gabungan (Studi pada Bursa Efek Indonesia Periode 2015-2017). *Aplikasi Administrasi: Media Analisa Masalah Administrasi*, 22(2), 18. https://doi.org/10.30649/aamama.v22i2.128
- [4] Andiyasa, I. G. A., Purbawangsa, I. B. A., & Rahyuda, H. (2014). Pengaruh Beberapa Indeks Saham dan Indikator Ekonomi Global terhadap Kondisi Pasar Modal Indonesia. *E-Jurnal Ekonomi Dan Bisnis Universitas*

Udayana, 3(4),182–199.

- https://ojs.unud.ac.id/index.php/EEB/article/view/7806/6415 [5] Apituley, M. R. (2018). the Effect of Rupiah Exchange Rate and Inflation Rate Towards Composite Stock Price Index in Indonesia Stock Exchange. *Russian Journal of Agricultural and Socio-Economic Sciences*, 78(6), 53–58. https://doi.org/10.18551/rjoas.2018-06.05
- [6] Artha, D. R. (2014). Analisis Fundamental , Teknikal Dan Makroekonomi. *Jurnal Manajemen Dan Kewirausahaan*, 16(2), 175–183. https://doi.org/10.9744/jmk.16.2.175
- [7] Bhunia, A., & Yaman, D. (2017). Is There a Causal Relationship Between Financial Markets in Asia and the US? *The Lahore Journal of Economics*, 22(1), 71–90. https://doi.org/10.35536/lje.2017.v22.i1.a4
- [8] Cahyaning Pratiwi, A., Kusuma Wardhana, A., & Rusgianto, S. (2022). Application of Vector Error Correction Model on Macroeconomic Variables toward Changes in the Composite Stock Price Index. *Daengku: Journal of Humanities and Social Sciences Innovation*, 2(2), 219–229. https://doi.org/10.35877/454ri.daengku883
- [9] Chandrawinata, V., & Handoyo, S. E. (2022). Pengaruh Suku Bunga, Indeks Dow Jones, dan Indeks Hang Seng terhadap Pergerakan IHSG di BEI. *Jurnal Manajerial Dan Kewirausahaan*,4(3),637–646. https://doi.org/10.24912/jmk.v4i3.19701
- [10] Chow, G. C., Fan, Z. Z., & Hu, J. Y. (1999). Shanghai Stock Prices as Determined by the Present-Value Model. *Journal of Comparative Economics*, *27*(3), 553–561. https://doi.org/10.1006/jcec.1999.1601
- [11] Chow, G. C., & Lawler, C. C. (2003). A time series analysis of the Shanghai and New York stock price indices. *Annals of Economics and Finance*, 4(1), 17–35.
- [12] Chu, Q. C., & Hsieh, W. L. G. (2002). Pricing Efficiency of the S&P 500 Index Market: Evidence from the Standard & Poor's Depositary Receipts. *Journal of Futures Markets*, 22(9), 877–900. https://doi.org/10.1002/fut.10037
- [13] Damajanti, A., & Rosyati, Y. (2018). The Effect Of Global Stock Price Index and Rupiah Exchange Rate on Indonesian Composite Stock Price Index (CSPI) in Indonesian Stock Exchange (IDX). *Economics & Business Solutions Journal*, 2(2), 49–58. http://investing.com
- [14] Darmawan, S., & Saiful Haq, M. S. (2022). Analisis pengaruh makroekonomi, indeks saham global, harga emas dunia dan harga minyak dunia terhadap Indeks Harga Saham Gabungan (IHSG). *Jurnal Riset Ekonomi Dan Bisnis*, *15*(2), 95. https://doi.org/10.26623/jreb.v15i2.4381
- [15] Donthu, N., & Gustafsson, A. (2020). Effects of COVID-19 on business and research. *Journal of Business Research*, *117*(June), 284–289. https://doi.org/10.1016/j.jbusres.2020.06.008
- [16] Edianto Ong. (2016). *Technical Analysis For Mega Profit*. PT Gramedia Pustaka Utama.

- Fitriaty, Saputra, M. H., & Elliyana, D. (2022). [17] Analisis Faktor - Faktor Yang Mempengaruhi Keputusan Investasi Selama Covid-19 Di Bursa Efek Indonesia. Jurnal Manajemen Terapan Dan Keuangan, 11(2), 324–334. https://doi.org/10.22437/jmk.v11i2.18604
- Ichsani, S., Mariana, C., & Andari, D. (2019). Does [18] the Indonesia composite index get affected by the Asia composite index? International Journal of Innovation, Creativity and Change, 6(7), 1–13.
- [19] Jamal, A., Salim, J., Seftarita, C., Mahmud, M. S., Daud, W. M. N. W., Ghazali, P. L., & Rashid, N. (2018). Does Monetary Policy and Asean Stock Market Affect Jakarta Composite Index (IHSG)? International Journal of Academic Research in Business and Social Sciences, 8(12), 1236–1248. https://doi.org/10.6007/ijarbss/v8-i12/5210
- Kewal, S. S. (2012). Pengaruh Inflasi, Suku Bunga, Kurs, Dan Pertumbuhan PDB Terhadap Indeks Harga Saham Gabungan. Jurnal Economia, 8(i), 53-64. https://doi.org/http://dx.doi.org/10.21831/economia.v8i1.801 Mittal, N., 'Kumar, R., & 'Batumalai, M. (2020). [21]
- Impact of Macroeconomic Factors on Stock Market. Recent Trends in Business and Tourism, 4(July), 30–35.
- [22] Mosahab, R., Mahamad, O., Ramayah, T., RA Nur Amalina. Pengaruh Indeks Bursa Saham Regional Asia Pasifik terhadap Indeks Harga Saham Gabungan (IHSG) pada Bursa Efek Indonesia (BEI) Periode Tahun 2009-2011. Jurnal Akuntansi Multiparadigma, 4(3), 410–419.
- Muhamad, Y., & Henny, M. (2021). The Impact of [23] Exchange Rate, Bank Indonesia Certificate and Global Indexes on the Composite Price Index (IHSG) in Indonesia. Journal Asian Finance, 651-0660. https://doi.org/10.13106/jafeb.2021.vol8.no6.0651
- Muklis, F. (2016). Perkembangan dan Tantangan [24] Pasar Modal Indonesia. Economic Reviews Journal, 1(2), 147-157. https://doi.org/10.56709/mrj.v1i2.24
- Najibullah, N. (2023). Pengaruh Indeks Global Terhadap Indeks Harga Saham Gabungan (Ihsg): Bukti Empiris Menggunakan Data Harian. Jurnal Mahasiswa Akuntansi Samudra, 4(4),171–178. https://doi.org/10.33059/jmas.v4i4.8303
- Natalia, I. (2020). Pengaruh Pasar Saham Amerika Serikat, Tiongkok Dan Indonesia Selama Perang Dagang 2018-2020. Akurasi: Jurnal Studi Akuntansi Dan Keuangan, 3(2), 95–108. https://doi.org/10.29303/akurasi.v3i2.49
- Ni, Y., Day, M. Y., Cheng, Y., & Huang, P. (2022). Can investors profit by utilizing technical trading strategies? Evidence from the Korean and Chinese stock markets. **Financial** Innovation, 8(1), 1-21.https://doi.org/10.1186/s40854-022-00358-1
- Nordin, N., Nordin, S., & Ismail, R. (2020). The [28] Impact of Commodity Prices, Interest Rate and Exchange Rate on Stock Market Performance: An Empirical Analysis From Malaysia. Malaysian Management Journal, 18, 39-52.

- https://doi.org/10.32890/mmj.18.2014.9015
- Novandi, A. K., & Falah, M. F. (2023). The Influence of Inflation, Interest Rates, and Exchange Rates on the Composite Stock Price Index (IHSG) in Indonesia. ASIAN Economic and Business Development, 6(1), 43-48. https://doi.org/10.54204/aebd/vol6no1august2023006
- Oktarina, D. (2016). Pengaruh beberapa indeks global dan indikator makroekonomi terhadap saham pergerakan IHSG. Journal of Business & Banking, 5(2), 163. https://doi.org/10.14414/jbb.v5i2.701
- Patel, J., Shah, S., Thakkar, P., & Kotecha, K. (2015). Predicting stock and stock price index movement using Trend Deterministic Data Preparation and machine learning techniques. Expert Systems with Applications, 42(1), 259-268. https://doi.org/10.1016/j.eswa.2014.07.040
- Pinem, D. B. (2019). Analysis of Global Stock Exchange Index, Foreign Exchange Rate, Interest Rate and Inflation Rate Influences CSPI in Indonesia Stock Exchange (Period of January 2014 - 2015). European Journal of Management and 4(6), **Business** Research, https://doi.org/10.24018/ejbmr.2019.4.6.162
- Putra, D. A. A. (2016). The Effect of Rupiah/US\$ [33] Exchange Rate, Inflation and SBI Interest Rate on Composite Stock Price Index (CSPI) in Indonesia Stock Exchange. *International Conference on Education*, 1(1), 202–214.
- [34] Raharjo, S. (2016). Pengaruh Inflasi, Nilai Kurs Rupiah, dan Tingkat Suku Bunga Terhadap Harga Saham Di BEI. Pengaruh Inflasi, Kurs, Dan Tingkat Suku Bunga Terhadap Harga Saham Di BEI, 1(1), 1–16.
- [35] Rianto, T., & Gaol, L. (2023). Pengaruh Risiko Luar Negeri Terhadap Pasar Saham Indonesia Menggunakan Analisis ARDL. Jurnal Akuntansi Keuangan Dan Bisnis, 16(1), 2023. https://jurnal.pcr.ac.id/index.php/jakb/
- Sartika, U. (2017). Pengaruh Inflasi, Tingkat Suku Bunga, Kurs, Harga Minyak Dunia Dan Harga Emas Dunia Terhadap Ihsg Dan Jii Di Bursa Efek Indonesia. BALANCE Jurnal Akuntansi Dan Bisnis. 2(2),285. https://doi.org/10.32502/jab.v2i2.1180
- Setyawati, I., & Suroso, S. (2022). IDX Interest Rate, [37] Inflation, Exchange Rate and Its Effect on the Composite Stock Price Index (JCI) for the Period January 2016 to August 2020. 1st Virtual Workshop on Writing Scientific Article for International Publication Indexed SCOPUS, August 2020, 481-486. https://doi.org/10.2478/9788366675827-084
- [38] Siddiqui, K. (2017).Globalization, liberalisation and the Issues of Economic Diversification in the Developing Countries. Journal of Business & Economic Policy, 4(4),https://www.jbepnet.com/journals/Vol_4_No_4_December_ 2017/4.pdf
- Spence. (1973). Job Market Signaling Author (s): [39] Michael Spence Published by: Oxford University Press Stable URL: https://www.jstor.org/stable/1882010. The

- Quarterly Journal of Economics, 87(3), 355–374.
- Sugiyanto, E., & Sarialam, M. (2022). Pengaruh Variabel Makro Ekonomi, Indeks Dow Jones Industrial Average (DJIA), Kospi dan Harga Minyak Dunia Terhadap Indeks Harga Saham Gabungan (IHSG) Di Bursa Efek Indonesia Tahun 2016-2020. The 5 Th Business and Economics Conference in Utilization of Modern Technology, 1007-1022. https://journal.unimma.ac.id
- Switzer, L. N., Varson, P. L., & Zghidi, S. (2000). Standard and poor's depository receipts and the performance of the S&P 500 index futures market. Journal of Futures Markets, 20(8), 705-716. https://doi.org/10.1002/1096-9934(200009)20:8<705::AID-FUT1>3.0.CO;2-K
- Tamara, S. F. (2012). Pengaruh Dow Jones Industrial [42] Average, Deutscher Aktienindex, Shanghai Stock Exchange Composite Index, dan Straits Times Index Terhadap Indeks Harga Saham Gabungan di Bursa Efek Indonesia (Periode 2010 - 2012). Jurnal Ilmiah Mahasiswa Fakultas Ekonomi Brawijaya, Dan Bisnis Universitas 1(2),https://jimfeb.ub.ac.id/index.php/jimfeb/article/view/341
- [43] Tita, D., & Stella. (2009). Harga Saham Gabungan Bursa Efek Indonesia. Journal The Winners, 10(1), 22-30.
- [44] Yu, X., & Wang, P. (2020). Government control and the value of cash: evidence from listed firms in China. Review of Quantitative Finance and Accounting, 55(4), 1341-1369. https://doi.org/10.1007/s11156-020-00876-y
- Zhang, J., Shao, Y. H., Huang, L. W., Teng, J. Y., [45] Zhao, Y. T., Yang, Z. K., & Li, X. Y. (2020). Can the Exchange Rate Be Used to Predict the Shanghai Composite Index? *IEEE* Access, 8, 2188-2199. https://doi.org/10.1109/ACCESS.2019.2962221