

The Effect of Economic Growth and Inflation on the Composite Stock Price Index for the Period 2020-2023

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ABSTRACT

This investigation aspires to procure empirical substantiation concerning the repercussion of economic expansion and inflation upon the Composite Stock Price Index (IHSG) on the Indonesia Stock Exchange (IDX) throughout the span of 2020–2023. The methodological framework employed is regression analysis within a quantitative paradigm, grounded in archival data of IHSG reports. The research cohort was delineated through a total sampling technique, yielding 48 monthly observations consonant with the stipulated criteria. The findings disclose that economic expansion exerts a constructive and statistically momentous influence on the IHSG, evidenced by a t-statistic of 12.638 surpassing the critical threshold of 2.01410, with a probability value of $0.000 < 0.05$. Accordingly, hypothesis (H1) is corroborated while the null proposition is repudiated. In contraposition, inflation likewise manifests a significant effect on the IHSG, with a t-statistic of $12,905.184 > 2.01410$ and a probability value of $0.003 < 0.05$, thereby validating hypothesis (H2). Conjointly, economic expansion and inflation were discerned to wield a simultaneous and notable effect on the IHSG, with an F-statistic of 121.218 exceeding the tabular benchmark of 3.204 and a significance level of $0.000 < 0.05$, affirming hypothesis (H3). Thus, the inquiry elucidates that economic expansion assumes a pivotal role in augmenting the IHSG, while inflation also imparts a consequential individual impact. Nevertheless, under a joint analytical lens, both determinants conjointly demonstrate a substantive influence upon the trajectory of the IHSG.

Keywords: Composite Stock Price Index, Economic Growth, Indonesia Stock Exchange, Inflation, Total Sampling

1. Introduction

Economic growth is a long-term process that reflects an increase in per capita output and public welfare, known as Modern Economic Growth. This increase is closely related to purchasing power, consumption, and the production of goods and services (Ivic, 2015). In Indonesia, economic development is geared towards achieving high and equitable growth in order to improve the standard of living of the people (Mulyo et al., 2024). However, economic growth is often accompanied by the challenge of inflation, which can reduce purchasing power, hamper investment, and worsen income distribution (Khan & Naushad, 2020).

Inflation itself is a monetary phenomenon that affects macroeconomic stability, including exchange rates, export competitiveness, and domestic savings (McKinnon, 1988). In a global context, inflation and economic growth influence each other and require balanced policies (Salim & Fadilla, 2021; Suryani & Sudarsono, 2024). The COVID-19 pandemic in the 2020-2023 period created significant economic dynamics that affected growth and inflation and had an impact on the Composite Stock Price Index (IHSG) (Ofika et al., 2025; Silalahi & Sihombing, 2021). Factors such as supply chain disruptions, global commodity prices, and fiscal and monetary policies also played a role (Diaz et al., 2024).

Extant scholarly inquiries have consistently demonstrated that economic expansion generally engenders a favorable influence on the IHSG, while inflation likewise exerts a significant and positive bearing on its fluctuations. Hence, the present study possesses substantive practical relevance for investors, policymakers, and academicians, as it elucidates the nexus between economic growth, inflation, and capital market dynamics, particularly salient amid the prevailing climate of global economic volatility and uncertainty.

Drawing upon the contextual framework delineated above, the investigative inquiries of this study are articulated to examine the relationships between macroeconomic variables and stock market performance. Specifically, the research seeks to determine to what extent Economic Growth exerts an influence on the Composite Stock Price Index during the period 2020-2023, to what extent Inflation impacts the Composite Stock Price Index over the same period, and to what extent Economic Growth and Inflation jointly modulate the Composite Stock Price Index within the 2020-2023 timeframe. In alignment with the aforementioned problem formulation, the objectives of this inquiry are correspondingly articulated to ascertain the effect of Economic Growth on the Composite Stock Price Index for the 2020-2023 interval, to elucidate the influence of Inflation on the Composite Stock Price Index throughout the same period, and to examine the concomitant effect of Economic Growth and Inflation on the Composite Stock Price Index during 2020-2023.

2. Literature Review

The IHSG constitutes a principal barometer frequently employed by investors in their decision-making within the Indonesian capital market. As a composite stock price index, the IHSG is methodically constructed and computed to encapsulate prevailing market trajectories (Sim & Kaluge, 2023; Tarigan et al., 2025). The index value represents a synthesized numerical abstraction, facilitating comparative analyses of stock price fluctuations across temporal intervals (Liman et al., 2024).

2.1. Factors Affecting the Composite Stock Price Index

Factors affecting stock prices are divided into internal and external factors (Akbar, 2022). Internal factors are factors that are directly related to the performance or condition of a company. Meanwhile, external factors are exogenous elements that do not originate from within the firm but arise from the broader environment, encompassing variables such as interest rates, the principles of supply and demand, news and speculative reports, stock market indices, and fluctuations in foreign exchange rates (Arafat. A et al., 2024). Economic growth, in turn, may be conceptualized as the progressive and sustained transformation of a nation's economic conditions toward an enhanced state of prosperity over a delineated temporal horizon. An economy is said to be growing if current economic activity is higher than in the previous year (Akbar, 2022).

Economic growth theory is divided into four theories, namely: classical growth theory, Schumpeter theory, Harrod-Domar theory, and neo-classical growth theory. In addition to the above factors, there are several other factors that can influence economic growth factors, including: natural resources, the number and quality of the population and labour force, capital goods, and the level of technology.

Inflation denotes the phenomenon of a sustained escalation in the general price level within an economy. Within macroeconomic theory, it is predominantly quantified through the Consumer Price Index (CPI), which encapsulates the average variation in prices of goods and services consumed by households. The inflation rate is customarily articulated as the annualized percentage change in the CPI and is evaluated over a specified temporal interval, with the rate of change potentially exhibiting acceleration or deceleration contingent upon prevailing economic conditions. In Indonesia, inflation metrics are systematically tracked and disseminated on a monthly basis by Bank Indonesia (BI) (Sutandi et al., 2020).

2.2. Types of Inflation

Types of inflation are divided into three categories: 1.) Types of inflation based on severity, which are divided into: mild inflation, moderate inflation, severe inflation, and very severe inflation. 2.) Types of inflation based on nature, which are divided into creeping inflation, galloping inflation, and hyperinflation. 3.) Types of inflation based on origin, which are divided into: Domestic Inflation and Imported Inflation. This study was conducted to determine the independent variables, namely: Economic Growth (X1) and Inflation (X2), on the dependent variable, namely the Composite Stock Price Index (Y).

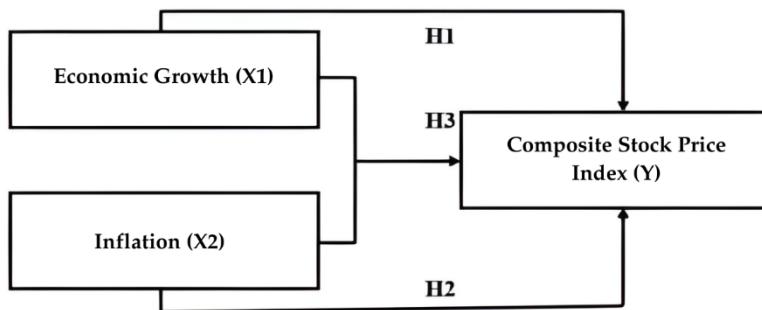


Figure 1. Thought Framework Chart

The research hypothesis is formulated as follows:

H1: It is suspected that economic growth has a significant and positive effect on the Composite Stock Price Index 2020-2023.

H2: It is suspected that inflation has a significant and positive impact on the Composite Stock Price Index 2020-2023.

H3: It is suspected that economic growth and inflation have a significant and positive impact on the Composite Stock Price Index 2020-2023.

3. Methodology

This study employs a quantitative research approach. The data utilized are secondary in nature, obtained indirectly from official institutional sources. The data acquisition procedure employed in this study utilizes the documentation method, entailing the systematic retrieval and extraction of annual financial reports disseminated by the Indonesia Stock Exchange for the period 2020–2023. The research population encompasses the entirety of data pertaining to Economic Growth, Inflation, and the Composite Stock Price Index (IHSG) on the Indonesia Stock Exchange over the 2020-2023 interval. The original dataset, recorded in daily frequency, was subsequently aggregated into monthly observations, yielding a total of 48 monthly data points (4 years × 12 months). The sample, representing the entirety of the population's characteristics, consists of 48 monthly observations. The sampling technique employed is total sampling, given that all population data were included in the analysis.

4. Results and Discussion

4.1. Classical Assumption Test

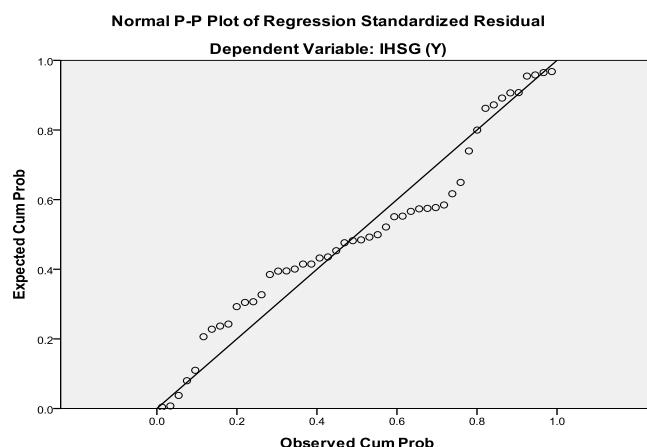


Figure 2. Graph P-P Plot Testing N

Source: Data processed independently using SPSS version 19

Based on the graph presented above, it can be observed that the independent variables, namely Economic Growth and Inflation, align closely with the diagonal line. This indicates that the data for both variables satisfy the assumption of normality, thereby allowing the research to be further analyzed using regression techniques. This finding is further corroborated by the results of the One-Sample Kolmogorov-Smirnov Test, which was employed to statistically assess the normality of the data distribution. The outcomes of the Kolmogorov-Smirnov Test are presented in table 1 as follows:

Table 1. Kolmogorov-Smirnov Test Results

One-Sample Kolmogorov-Smirnov Test			Unstandardized Residual
N			48
Normal Parameters ^{a,b}		Mean	.0000000
		Std. Deviation	36630.59060895
Most Extreme Differences		Absolute	.143
		Positive	.143
		Negative	-.112
Kolmogorov-Smirnov Z			.989
Asymp. Sig. (2-tailed)			.282

a. Test distribution is Normal.

b. Calculated from data.

Source: Data processed independently using SPSS version 19

Based on the results presented in the table above, a significance value of 0.282 was obtained, exceeding the conventional threshold of 0.05. This outcome indicates that the residuals conform to a normal distribution, thereby satisfying the assumption underlying the Normality Test. Prior to conducting the normality test, the dataset was examined for outliers, and necessary treatments were applied to ensure data validity. Furthermore, a multicollinearity test was performed to assess potential correlations among the independent variables. The criteria state that multicollinearity is present if the Variance Inflation Factor (VIF) value exceeds 10. In this study, all variables exhibited VIF values below 10, thereby confirming that the regression model is free from multicollinearity. The detailed results of the multicollinearity test are presented in table 2 as follows:

Table 2. Multicollinearity Test Results

	Model	Coefficients ^a		Collinearity Statistics	
				Tolerance	VIF
1	Economic Growth (X1)			.832	1.202
	Inflation (X2)			.832	1.202

a. Dependent Variable: IHSG (Y)

Source: Data processed using SPSS version 19

The multicollinearity assessment, as presented in the table, reveals that all independent variables exhibit tolerance values exceeding 0.10 and corresponding Variance Inflation Factor (VIF) values below 10. Specifically, the Economic Growth and Inflation variables display tolerance values of 0.832 and VIF values of 1.202. These findings substantiate that the regression model is devoid of multicollinearity issues, thereby affirming its appropriateness for subsequent analytical procedures within this study.

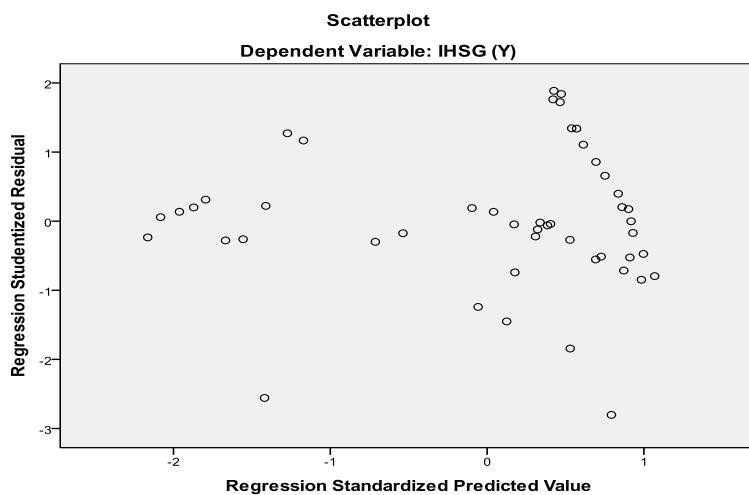
**Figure 3. Heteroscedasticity Test Result**

Figure 3 shows the heteroscedasticity test result. From perusal of the scatterplot herein, the plotted observations appear dispersed in a haphazard and symmetrical fashion around the zero (0) ordinate, devoid of discernible configuration or agglomeration in any singular locus. Such a disposition intimates that the regression construct is unencumbered by heteroscedastic perturbations. Ergo, the exogenous determinants, economic expansion and inflationary momentum, may be judiciously employed in the prognostication of the composite equity price index.

Table 3. Durbin Watson Test Results

Model Summary ^b						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson	
1	.918a	.843	.836	37435.754719	.461	
a. Predictors: (Constant), Inflation (X2), Economic Growth (X1)						
b. Dependent Variable: IHSG (Y)						

Source: Data processed independently using SPSS version 19

The Durbin-Watson assay which summarized in table 3 yielded a coefficient of 0.461, a magnitude that resides within the tolerable interval of -2 to +2. This outcome signifies that the regression schema is exempt from both affirmative and adverse autocorrelative distortions. Consequently, it may be inferred that the model fulfills the stipulation of autocorrelation absence and is thus deemed apt for deployment in the present inquiry.

4.2. Multiple Linear Regression Analysis

Table 4. Multiple Linear Regression Test Results

Model	Coefficients ^a					
	Unstandardized Coefficients		Standardized Coefficients		T	Sig.
	B	Std. Error	Beta			
1	(Constant)	592981.851	8870.804		66.846	.000
	Economic	21593.507	1708.591	.817	12.638	.000
	Growth (X1)					
	Inflation (X2)	12905.184	4138.761	.202	3.118	.003

a. Dependent Variable: IHSG (Y)

Source: Data processed independently using SPSS version 19

The table 4 shows multiple linear regression test result, the exegesis elucidates that Economic Expansion manifests an affirmative nexus with the Composite Equity Price Index, whilst Inflation likewise imparts a consequential and beneficent influence upon said index. Hence, the posited multiple regression formulation may be delineated in the ensuing manner:

Formula: $Y = a + b_1X_1 + b_2X_2 + e$

$$Y = 592981.851 + 21593.507X_1 + 12905.184X_2 + e$$

Explanation:

Y = Composite Stock Price Index

a = Constant Value

b1/b2 = Regression Coefficient

X1 = Economic Growth

X2 = Inflation

E = Error (error rate)

The constant value of 592,981.85 signifies that if the independent variables, namely Economic Growth (X_1) and Inflation (X_2), are equal to zero, the Composite Stock Price Index (Y) is estimated to be 592,981.85. The regression coefficient (b_1) for Economic Growth, valued at 21,593,507, indicates that for every one-unit increase in Economic Growth, assuming all other variables remain constant, the Composite Stock Price Index (Y) is projected to increase by 21,593,507. The regression coefficient for Inflation (b_2) is 12,905.184, indicating that for every one-unit increase in Inflation, assuming Inflation remains constant, Economic Growth will increase by 12,905.184.

4.3. Hypothesis Testing

Table 5. Determination Test Results or R Square (R2)

Model Summary ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.918a	.843	.836	37435.754719

a. Predictors: (Constant), Inflation (X2), Economic Growth (X1)
b. Dependent Variable: IHSG (Y)

Source: Data processed independently using SPSS version 19

The correlation coefficient (R) of 0.918 bespeaks an exceedingly robust concordance betwixt the exogenous determinants, Economic Growth and Inflation, and the endogenous variable, namely the Composite Stock Price Index. This denotes that the regression apparatus embodies a pronounced degree of interrelation, intimating that fluctuations in Economic Growth and Inflation are intricately entwined with oscillations in the Composite Stock Price Index. The R Square value of 0.843 indicates that only 84% of the variability in the Composite Stock Price Index can be explained by the independent variables, namely Economic Growth and Inflation. The remaining 16% is influenced by other factors not included in this model, such as Stock Prices and international business.

The Adjusted R Square value of 0.836 is lower than the R Square value, indicating that after considering the number of predictors in the model, the percentage of variability in the Composite Stock Price Index that can be explained decreases slightly. This suggests that the model may not be sufficient in explaining the data. The standard error estimate value of 0.37435.754719 indicates how far the model's predictions may vary from the actual values. The smaller this value, the more accurate the model is in predicting the Composite Stock Price Index.

The t-test hypothesis analysis is conducted to assess whether the independent variables, namely Economic Growth and Inflation, individually exert a significant influence on the dependent variable, the Composite Stock Price Index. The detailed results of this analysis are presented in the following table 6:

Table 6. T-test results

Model	Coefficients ^a			t	Sig.
	B	Unstandardized Coefficients	Standardized Coefficients		
		Beta			
(Constant)	592981.851	8870.804		66.846	.000
1 Economic Growth (X1)	21593.507	1708.591	.817	12.638	.000
Inflation (X2)	12905.184	4138.761	.202	3.118	.003

a. Dependent Variable: IHSG (Y)

Source: Data processed independently using SPSS version 19

Based on the t-test results in the table above, the following regression model can be explained:

- 1) The inaugural postulate (H1) was scrutinized via the t-test outcomes delineated in the tabulation. The inquiry produced a t-statistic of 12.638, surpassing the critical t-benchmark of 2.01410, with an attendant probability value of $0.000 < 0.05$. This corroborates that Economic Growth yields a materially affirmative impact upon the Composite Stock Price Index. Ergo, the premier hypothesis (H1) attains acceptance.
- 2) The subsequent postulate (H2) underwent analogous appraisal through the t-test results. The derived t-statistic of 12,905.184 transcends the tabular threshold of 2.01410, accompanied by a significance quotient of $0.003 < 0.05$. Such findings attest that Inflation exerts a statistically consequential influence upon the Composite Stock Price Index. Accordingly, the secondary hypothesis (H2) is likewise ratified.

The evidentiary outcomes evince that Economic Growth imparts a salient and affirmative impetus upon the Composite Stock Price Index. Simultaneously, Inflation likewise manifests a statistically consequential bearing on the trajectory of the Composite Stock Price Index.

Table 7. F-test results

Model	ANOVA ^b				
	Sum of Squares	df	Mean Square	F	Sig.
Regression	3.398E11	2	1.699E11	121.218	.000a
1 Residual	6.306E10	45	1.401E9		
Total	4.028E11	47			

a. Predictors: (Constant), Inflation (X2), Economic Growth (X1)

b. Dependent Variable: IHSG (Y)

Source: Data processed independently using SPSS version 19

Perusal of the foregoing tabulation which summarized in table 7 discloses an f-computed magnitude of 121.218, which surpasses the f-tabular benchmark of 3.204, with a concomitant probability level of $0.000 < 0.05$. The superiority of the f-computed value relative to its critical counterpart, coupled with the sub-threshold significance, intimates that Economic Growth and Inflation exert a conjoint influence upon the Composite Stock Price Index. Hence, the tertiary postulate (H3) stands duly corroborated.

5. Conclusion

The exegesis reveals that Economic Growth (X_1) exerts a markedly affirmative impact upon the Composite Stock Price Index (Y) over the 2020–2023 horizon, as attested by a t-statistic of 12.638, exceeding the critical threshold of 2.01410, with a concomitant significance of $0.000 < 0.05$. This substantiates the ratification of the inaugural hypothesis (H1). In parallel, Inflation (X_2) was discerned to wield a statistically consequential effect on the Composite Stock Price Index, demonstrated by a t-statistic of 12.905 surpassing the critical tabular value of 2.01410, accompanied by a significance of $0.003 < 0.05$, thereby legitimizing the secondary hypothesis (H2). Moreover, the joint assessment illustrates that Economic Growth and Inflation, in tandem, impart a notable influence on the Composite Stock Price Index, as evidenced by an F-statistic of 121.218, transcending the F-table criterion of 3.204, with a significance quotient of $0.000 < 0.05$. Collectively, these outcomes corroborate the tertiary hypothesis (H3) and intimate that, although the discrete impacts of the variables exhibit variation, their conjoint dynamism constitutes a pivotal determinant in modulating the vicissitudes of the Composite Stock Price Index.

Based on the conclusions and discussion, several suggestions can be put forward. For companies, considering the proven impact of economic growth and inflation on the Composite Stock Price Index, it is important to pay close attention to these macroeconomic indicators in order to avoid mistakes in formulating strategies and policies that support business sustainability. For investors, this study is expected to serve as a useful reference in making investment decisions, where careful analysis is necessary to ensure that capital invested in the Indonesian capital market can provide optimal returns. Investors should also remain vigilant regarding economic issues, both domestic and global, that may affect the movement of the Composite Stock Price Index to minimize potential risks. Lastly, for future researchers, it is recommended to expand the scope of research by incorporating additional variables such as individual stock prices, international trade, GDP growth, and other relevant economic indicators that may influence the Composite Stock Price Index, thereby producing more comprehensive and accurate research findings.

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