

# ANALYSIS OF DETERMINANTS OF COMPOSITE STOCK PRICE INDEX THROUGH STOCK TRANSACTION VOLUME ON THE INDONESIA STOCK EXCHANGE

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## Abstract

This study aims to analyze the influence of macroeconomic factors on the Composite Stock Price Index (IHSG) through the volume of stock transactions on the Indonesia Stock Exchange (IDX) during the period 2017–2023. The independent variables used in this study are the BI interest rate, the US dollar exchange rate, and inflation; transaction volume acts as an intervening variable, while the IHSG is the dependent variable. This study uses a quantitative method with a causal and explanatory approach. The analysis model used is the Error Correction Model (ECM) to identify short-term and long-term relationships between variables. The results of the study show that in the short term, inflation has a positive and significant effect on stock transaction volume, while the BI interest rate and exchange rate do not have a significant effect. In the long term, the BI interest rate and exchange rate have a significant effect on transaction volume. Meanwhile, on the IHSG, the BI interest rate and exchange rate have a significant effect in the long term, while transaction volume is only significant in the long term. The Sobel test shows that transaction volume significantly mediates the effect of the BI interest rate and exchange rate on the IHSG in the long term, but not in the short term. These findings underscore the importance of macroeconomic stability and market liquidity in influencing the performance of the Indonesian capital market. This study provides theoretical contributions to the development of literature on the role of macroeconomic variables in the capital market, as well as providing practical implications for investors, regulators, and issuers in formulating investment strategies and economic policies that support stock market growth.

**Keywords:** IHSG, BI Interest Rate, Exchange Rate, Inflation, Transaction Volume, ECM, Capital Market

## 1. INTRODUCTION

The capital market functions to connect parties who have funds with parties who need funds. The Indonesia Stock Exchange (IDX) is where companies raise funds by issuing shares that are sold to investors. The Composite Stock Price Index (IHSG) is an important indicator of capital market performance in Indonesia, reflecting overall stock price movements. The value of the IHSG is influenced by monetary policy, global economic conditions, and transaction volume. From 2017 to 2023, the IHSG has fluctuated, including a decline in 2020 due to the Covid-19 pandemic. Investors use the IHSG as a reference in making investment decisions to maximize profits and minimize risks. The IHSG trend fluctuates every year. In 2017, the highest value reached IDR 1,809,592 billion. In 2018 and 2019, the transaction value increased from IDR 2,040,086 billion to IDR 2,230,919 billion. However, in 2020, the transaction value decreased to IDR 2,228,798 billion, then increased again in 2021 and 2022 to IDR 3,302,932 billion and IDR 3,617,896 billion. The volume of stock transactions is the main factor affecting the IHSG and reflects the level of liquidity and investor interest. In addition, the strong US dollar and global market uncertainty have weakened almost all currencies, including the Rupiah. In financial literature, risk is part of every investment decision and is defined as the uncertainty of possible outcomes that differ from expectations. Investment risk is divided into systematic risk, which cannot be eliminated through diversification because it is influenced by macroeconomic factors, and unsystematic risk. The theory of systematic risk is the basis of the Capital Asset Pricing Model (CAPM), which explains the linear relationship between systematic risk and expected return, measured by the beta coefficient (Bodie, 2014). According to Jogiyanto (2017), the volume of stock trading transactions is the number of shares traded

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in a certain period, reflecting investor activity in the capital market. High volume indicates good liquidity and strong investment interest. When volume increases along with rising stock prices, this indicates strong buying pressure, and conversely, if prices fall, there may be selling pressure due to negative sentiment. Trading volume is also used in technical analysis through indicators such as On-Balance Volume (OBV) and Volume Rate of Change (VROC) to predict stock price trends. Dalimunthe (2015) stated that trading volume shows the ratio between the number of shares traded and the number of shares outstanding. High volume illustrates a better market. Ong (2011) added that trading volume reflects stock liquidity. Trading Volume Activity (TVA) is used to measure trading activity, with a comparison before and after a stock split for statistical analysis. Investment is the placement of funds in financial instruments for future profits. There are two categories, namely real assets and financial assets (Bodie, 2018). While modern portfolio theory explains diversification to maximize returns with minimal risk (Morkowitz, 1952). The capital market is an important mechanism for the allocation of financial resources. Fama's efficient market theory states that stock prices reflect all information. The IHSG shows the performance of stocks on the Indonesia Stock Exchange and is influenced by various factors, including economic conditions and investor expectations (Brigham, 2019). Irawati (2022) explains that interest rates are the rate of return on low-risk assets that investors can use as a benchmark for investing. Sadalia (2021) stated that inflation is a process of continuous increase in general prices of goods. The most important thing is that there is a continuous increase in general prices of goods during a certain period. An increase that occurs only once is not inflation. Sukirno (2007) said that the exchange rate is the value of the domestic currency needed to equalize its value with one unit of foreign currency. In trade transactions between countries, the exchange rate is very important. So the exchange rate has an influence on the economy in Indonesia.

## 2. RESEARCH METHODOLOGY

This study uses quantitative research with causal and explanatory methods. This study was conducted at the Indonesia Stock Exchange with the scope of research objects of all companies included in the Composite Stock Price Index (IHSG). The time of this study was carried out from January 2017 to December 2023 for a period of 84 months.

## 3. RESULTS AND DISCUSSION

1) R Square Table

Variables	First Equation		Second Equation	
	Adjusted R-squared		Adjusted R-squared	
Short-term		0.207		0.333
Long-term		0.330		0.537

2) Sobel Test Table

Indirect Effect	Short-term		Caption	Long-term		Caption
	Test Statistics	P-value Sobel Test		Test Statistics	P-value Sobel Test	
X1 – Z – Y	-0.577	0.563	Not Significant	-4,495	0.0000	Significant
X2 – Z – Y	-0.085	0.931	Not Significant	3,954	0.0000	Significant
X3 – Z – Y	1,178	0.238	Not Significant	0.828	0.4072	Not Significant

## 4. CONCLUSION

Based on the results of the explanation above, it can be concluded that:

1. BI interest rates do not have a significant effect on stock transaction volume. However, in the long term, BI interest rates have a negative and significant effect on transaction volume.
2. The dollar exchange rate does not have a significant effect on transaction volume in the short term, but in the long term it has a positive and significant effect.
3. Inflation has a positive and significant effect on transaction volume in the short term, but is not significant in the long term.
4. BI interest rates do not have a significant effect on the JCI. However, in the long term, BI interest rates have a positive and significant effect on the JCI.
5. The dollar exchange rate has a negative and significant effect on the IHSG in the short term, but is not significant in the long term.

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- 6. Inflation does not have a significant effect on the IHSG in the short term, but in the long term it has a positive and significant effect.
- 7. Transaction volume does not have a significant effect on the JCI in the short term, but has a positive and significant effect in the long term.
- 8. Transaction volume cannot mediate the influence of BI interest rates on the IHSG in the short term, but acts as a significant mediator in the long term.
- 9. Transaction volume does not mediate the effect of exchange rates on the IHSG, but in the long term, transaction volume significantly mediates the effect of exchange rates on the IHSG.
- 10. Transaction volume cannot mediate the influence of inflation on the JCI, either in the short or long term.

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