

## ABSTRACT

This study analyzes the relationship and forecasts the Jakarta Composite Index (IHSG) using the Vector Error Correction Model (VECM) with USD/IDR and the S&P 500 as explanatory variables. The IHSG reflects the performance of Indonesia's capital market and represents domestic economic stability. External factors, such as exchange rate movements and global stock market conditions, influence IHSG fluctuations. In particular, changes in the USD/IDR exchange rate and the S&P 500 index can affect IHSG performance. Therefore, this study applies a multivariate time series approach to capture the simultaneous interactions among these variables. This study treats IHSG, USD/IDR, and the S&P 500 as interrelated multivariate time series data. The study initially considers the Vector Autoregressive (VAR) model. However, since the variables are non-stationary and cointegrated, the study applies the Vector Error Correction Model (VECM). The study conducts cointegration testing to identify the existence of a long-run equilibrium relationship among the variables. This study uses monthly data from January 2015 to December 2025. The study divides the data into training data from January 2015 to December 2024 to estimate the model and testing data from January 2025 to December 2025 to evaluate forecasting performance. The study measures forecasting accuracy using Mean Absolute Percentage Error (MAPE). The results show that the VECM with order 1 and cointegration rank 1 captures both short-run and long-run relationships. The model produces MAPE values of 8.03% for IHSG, 1.81% for USD/IDR, and 5.12% for the S&P 500, indicating good forecasting performance.

**Keywords:** VAR, VECM, Cointegration, Forecasting, Mean Average Percentage Error (MAPE), IHSG, USD/IDR, S&P 500,