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THESIS

THE IMPACT OF THE FEDERAL OPEN MARKET COMMITTEE (FOMC) NEWS ON THE VOLATILITY OF THE S&P 500, IHSG, GOLD, AND BITCOIN USING GARCH-MODEL

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ABSTRACT

This study examines the effect of Federal Open Market Committee (FOMC) policy announcements on the conditional volatility of the S&P 500, Indonesia Composite Index (IHSG), gold, and Bitcoin. A quantitative approach was applied using daily secondary data from 2020 to 2024. Daily closing prices were transformed into logarithmic returns, while FOMC announcements were measured using a dummy variable adjusted to the trading calendar of each asset. Each asset was analyzed separately using the EGARCH(1,1) model, with the FOMC dummy included in the conditional variance equation. Data analysis included descriptive statistics, the Augmented Dickey-Fuller test, the ARCH-LM test, EGARCH estimation, and post-estimation diagnostic testing using Stata 17. The results show that FOMC announcement days have a positive and statistically significant effect on the conditional volatility of the S&P 500 and gold. The effect on IHSG is positive but statistically insignificant, while the effect on Bitcoin is negative and statistically insignificant. The post-estimation ARCH-LM test shows no remaining ARCH effects in the standardized residuals. These findings indicate that the S&P 500 and gold are more sensitive to FOMC policy announcements than IHSG and Bitcoin.

Keywords : FOMC Policy Announcements, Conditional Volatility, S&P 500, IHSG, Gold, Bitcoin, EGARCH.

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