ABSTRACT

This study aims to analyze the construction and performance of a multi-asset portfolio consisting of the Indonesia Composite Index, gold represented by the Philadelphia Gold and Silver Index, and cryptocurrency represented by Bitcoin. The method used is the Capital Asset Pricing Model to determine the optimal portfolio weights based on the relationship between return and systematic risk (beta). The data used are secondary data in the form of weekly closing prices from January 1, 2021 to December 31, 2025, which are converted into Indonesian Rupiah. The analysis is conducted through several stages, including the calculation of returns and expected returns, multivariate normality testing, correlation analysis, beta estimation, Capital Asset Pricing Model expected return calculation, and portfolio weight optimization using the variance-covariance matrix. Portfolio performance is evaluated using the Sharpe Index, Treynor Index, and Jensen's Alpha. In addition, this study compares two investment strategies, namely buy and hold and rebalancing with annual, semi-annual, and quarterly frequencies. The results show that the optimal portfolio consists of 44.89% Indonesia Composite Index, 36.56% Philadelphia Gold and Silver Index, and 18.55% Bitcoin, with an expected portfolio return of 0.21% and a risk level of 2.77%. Positive Sharpe and Treynor values indicate that the portfolio generates favorable excess returns, while a near-zero Jensen's Alpha suggests that the portfolio performance aligns with Capital Asset Pricing Model predictions. In terms of strategy comparison, annual rebalancing delivers the best performance with the highest return of 148.07%, outperforming the buy and hold strategy. This finding indicates that periodic rebalancing improves portfolio efficiency in the presence of market volatility.

Keywords: *Multi-asset portfolio,* Capital Asset Pricing Model, Indonesia Composite Index*, gold,* Bitcoin*, rebalancing, portfolio performance, diversification*