

ABSTRACT

Investment is an activity that is expected to generate financial returns in the future through the allocation of a certain amount of funds at the present time. Investors need to design strategies to maximize returns through the formation of an optimal portfolio. This study aims to construct a portfolio using the Capital Asset Pricing Model (CAPM) and the Single Index Model (SIM). The efficient frontier curve and the Capital Allocation Line (CAL) are used to identify the position of the tangency portfolio as the optimal portfolio, which serves as the basis for estimating portfolio weights. The data used in this study consist of monthly closing stock prices from the ESG Quality 45 IDX KEHATI index, the Composite Stock Price Index (IHSG), and the Bank Indonesia interest rate (BI Rate) for the period from December 2021 to October 2025. The results show that the portfolio constructed using the CAPM method consists of two stocks, namely AKRA with a weight of 45.59% and JPFA with a weight of 54.40%. Meanwhile, the SIM method produces a portfolio consisting of three stocks, namely JPFA with a weight of 48.19%, AKRA with 34.99%, and ANTM with 16.80%. Performance evaluation using the Sharpe Index indicates that the CAPM portfolio has a value of 0.063206, while the SIM portfolio has a value of 0.069914. Both values are positive, indicating good portfolio performance. The maximum potential loss for a one-month investment of IDR 1,000,000 is IDR 60,761 (6.0761%) for the SIM portfolio and IDR 73,822 (7.3822%) for the CAPM portfolio at a 95% confidence level.

Keywords: Tangency Portfolio, CAPM, SIM, Sharpe Index, VaR