Role of Cryptocurrencies in Mitigating Portfolio Risk

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Abstract

The role of cryptocurrencies in mitigating portfolio risk has not been addressed adequately in existing financial literature. Consequently, cryptocurrencies have been looked upon as an instrument for speculation, rather than an instrument for mitigating or hedging portfolio risk. Our paper focuses on the risk mitigating properties of cryptocurrencies, specifically, Bitcoin. There has been very little research done in the area of the risk/return tradeoff in a portfolio consisting of fixed income assets, stocks, and cryptocurrencies. The objective of this study is a rigorous examination of this issue. The data used in the study are the monthly returns on 4-week US Treasury Bills, S&P Investment Grade Corporate Bond Index, Bitcoin, and the S&P 500 Stock Index. The methodology used in the study is the application of Modern Portfolio Theory to evaluate the risk-adjusted returns of portfolios with varying combinations of these assets, using Sharpe, Treynor, and Jensen Indices, as well as the Sortino and Modigliani measures. The results of the study would include the ranking of various investment portfolios based on their risk/return characteristics. The conclusions of the study would include objective empirical inference for investors who are interested in including cryptocurrency in their asset portfolios but are unsure of the risk/return implications.

Index Terms

Digital Transformation, Financial Economics, Portfolio Diversification, Fixed Income Securities, Cryptocurrency, Stock Indexes