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Crypto-assets portfolio optimization under the omega measure

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Abstract

Crypto-currencies, or crypto-assets, represent a new class of investment assets. The traditional portfolio analysis approach of Markowitz is not appropriate for use with portfolios containing crypto-assets, as the model requires that the investor have a quadratic utility function or that the returns be normally distributed, which isn't the case for crypto-assets. We develop a portfolio optimization model based on the Omega measure which is more comprehensive than the Markowitz model, and apply this to four crypto-asset investment portfolios by means of a numerical application. The results indicate that these portfolios should favor traditional market assets over crypto-assets. In the case of portfolios formed only by crypto-assets, there is no clear preference in favor of any crypto-asset in particular.

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Notes

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Additional information

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