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A Journal Devoted to the Problems of Capital Investment

Volume 65, 2020 - [Issue 2](#)

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Crypto-assets portfolio optimization under the omega measure

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Pages 114-134 | Published online: 24 Sep 2019

🗨️ Cite this article 🔗 <https://doi.org/10.1080/0013791X.2019.1668098>



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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.

Acknowledgments

We thank Felipe Van de Sande Araújo for helpful suggestions in the literature review on crypto-currencies.

Notes

1 We thank the Editor in Chief for suggesting this proof

Additional information

Funding

This work was supported by the National Council for Scientific and Technological Development - CNPq Brazil (grant n° 305422/2014-6) and the Foundation for Research Support of the State of Rio de Janeiro (FAPERJ) (grant E-26/202.868/2018).

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