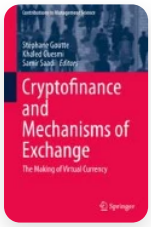
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Cryptofinance and Mechanisms of Exchange

Sinan Krückeberg & Peter Scholz

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Abstract

Cryptocurrencies are a new emergence at the intersection of technology and finance. It is therefore of particular interest whether cryptocurrencies can form a new asset class or need to be subsumed under an existing one. We find that cryptocurrencies show characteristics of a distinct asset class based on strong internal correlation, an absence of correlation with any traditional asset class as well as sufficient market liquidity, while market stability has room for improvement. Adding cryptocurrency to traditional portfolio structures may lead to significant and persistent risk-adjusted outperformance. These results support the careful introduction of cryptocurrencies into the asset management mainstream.

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Notes

1. Bleeding edge alternatives such as the ‘Tangle’ and ‘Hashgraph’ are emerging, see Popov (2017) and Baird (2016) respectively.

2. While alternative timeframes of 6, 9 and 12 months have been examined, results of the 3 month window are robust to such changes. Therefore, we limit our analysis to the three most recent months.

3. The organizations participating in the SRO are: BATS Exchange, Inc.; BATS Y-Exchange, Inc.; NASDAQ OMX BX, Inc.; Chicago Board Options Exchange, Incorporated; C2 Options Exchange, Incorporated; Chicago Stock Exchange, Inc.; EDGA Exchange, Inc.; EDGX Exchange, Inc.; Financial Industry Regulatory Authority, Inc.; International Securities Exchange LLC; The NASDAQ Stock Market LLC; New York Stock Exchange LLC; NYSE Amex LLC; NYSE Arca, Inc.; National Stock Exchange, Inc. and NASDAQ OMX PHLX LLC.

4. We also performed a check on Minimum-Variance optimization. Due to the high volatility levels of cryptocurrencies, we did not find any significant volatility reduction.

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