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Spillovers between Bitcoin and other assets during bear and bull markets

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ABSTRACT

This article contributes to the embryonic literature on the relations between Bitcoin and conventional investments by studying return and volatility spillovers between this largest cryptocurrency and four asset classes (equities, stocks, commodities, currencies and bonds) in bear and bull market conditions. We conducted empirical analyses based on a smooth transition VAR GARCH-in-mean model covering daily data from 19 July 2010 to ... s are related quite clo... nodities, and therefor... d sign of the spillove... e direction of th... than it transmi... who are consider... ers concern... the global financial system.

KEYWORDS: Bitcoin asset classes return and volatility spillovers asymmetry and smooth transition bivariate GARCH-M

JEL CLASSIFICATION: C11 G15

Disclosure statement

No potential conflict of interest was reported by the authors.

Notes

[1] In a recent press release, Morgan Stanley indicated that the mining of Bitcoin and other cryptocurrencies could require approximately 140 terra watt-hours of electricity in 2018.

[2] For example, Luther and Salter (2017) indicated that the interest in Bitcoin increased considerably following the bailout deal between Cyprus and international lenders.

[3] Before discussing the different hypotheses of interest pertaining to the STVAR-BTGARCH-M model, we tested for linearity versus non-linearity in the data generating process using a bivariate framework consistent with Camacho (2004); see Tables A3 and A4 in the Appendix. The test enabled us to determine which of the two standard transition functions – logistic and exponential – was appropriate for the underlying model.

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