

The Impact of the Introduction of Bitcoin Futures and their Role in Price Discovery

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Abstract

Unlike traditional assets, the role of futures contracts in the price discovery process of crypto assets is still little explored due to their recent existence. The existing literature is not consistent in its findings and is largely based on very short observation periods, which seems questionable especially with regard to the analysis of long-term price equilibria. This paper analyzes the introduction of futures contracts for Bitcoin and their long-term role in price discovery for the asset in an indirect and a direct way based on cointegration approaches. First, comparing pre- and post-futures periods it is found that the introduction of Bitcoin futures has changed price discovery among the leading spot markets. Secondly, it is shown that the futures markets have taken over the role of the main contributor in Bitcoin price formation after their introduction. The higher information efficiency of futures markets is attributed, among other factors, to the influx of institutional investors, who are assumed to be better informed than private investors, driven by the introduction of corresponding indirect investment vehicles. The findings of the paper are not only relevant for investors and traders, but also for regulators who have in the past held back on approving corresponding indirect investment products such as Bitcoin spot ETFs due to a lack of understanding of Bitcoin's pricing mechanisms.

Keywords

Bitcoin, Futures, Price Discovery, Information Efficiency, Cointegration