

Causal relationship between major South Asian foreign currency returns and major cryptocurrency returns

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Abstract

This article investigates the causal relationship between returns on major currencies in Bangladesh, India, Pakistan, and Sri Lanka and return on major cryptocurrencies using daily data from the 9th of November 2017 to the 8th of November 2020. This study used data from the Central Banks of South Asian countries and the Coinmarketcap website. We tested the panel unit root test and panel Granger causality test for the causality analysis. Findings revealed that in Bangladesh, all four cryptocurrency returns lead a unidirectional causality to GBP/BDT returns. ETH and LTC also reflect into EUR a unidirectional causality to Bangladesh's exchange rate returns. In the Indian region, a unidirectional relationship between major cryptocurrencies to USD/INR was observed except for the bidirectional causality running from Bitcoin Cash to USD/INR returns. In Pakistan, unidirectional causality was observed in all four cryptocurrency returns to GBP/PKR returns. The same observations can be seen in Sri Lankan context, and further, ETH and BCH also reflected a unidirectional relationship to EUR/LKR exchange rate returns in Sri Lanka. Bidirectional causality reflects that foreign currency markets can respond similarly to new information (changes in monetary or macroeconomic policy) without one particular foreign exchange market specifically impacting the other. The study also found that exchange markets in South Asian nations have not highly impact on cryptocurrency markets. This finding may be related to the fact that governments have not yet given cryptocurrencies official legal recognition, in addition to the fact that the public does not widely accept them.

Keywords: *Bitcoin, Cryptocurrencies, Foreign Currency, Granger Causality, South Asia*