Volatility Dynamics of BITCOIN amidst COVID-19 through GARCH Modelling[1]

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Abstract

Bitcoin becoming more popular among investors as it provides high returns but due to unregulated property, it is highly volatile in nature. Amidst pandemic spread across world, anyone who hold bitcoin would have keenly watched market with alarming fluctuations recently. Investors are looking for assets that are not impacted by slowdown triggered by lockdown. The study aims to analyze volatility dynamics of Bitcoin from FY2015 to FY2020 by performing general GARCH analysis for modelling by extracting Daily price data from coinmarketcap.com. The study incorporates Augmented Dickey Fuller test for checking stationarity of the series, ARCH LM test for heteroskedasticity and Ljung Box test for determining the mean equation and estimating the variance equation with GARCH (1,1) model in EVIEWS. The results approve that GARCH model is better model works better in period of the high volatility.

I. Introduction

CRYPTOCURRENCIES, OFTEN REFERRED to as virtual currencies, are digital forms of trade that are encrypted using cryptography. The name "crypto" originated from the Greek word "kryptós," which means "secret" or "restricted." There are numerous advantages to a cryptocurrency that is developed and used by private individuals or organizations. Cryptocurrencies, unlike other currencies, are completely digital. There is no cryptocurrency which print money or mint coins. All is done through the internet. It is generated, exchanged, and governed by the individuals who use it. Cryptocurrencies are generated using only digital mining.

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