

Volatility Concerns for Crypto Currency Investments in India Amid Fears of Inflation

Sandeep Bhattacharjee¹
Kaushik Mitra²

Abstract

Purpose : The burgeoning cryptocurrency market offers an extremely profitable means of generating high-returning investments in a sector that is increasingly in demand. The goal of this research study was to examine the volatility of four cryptocurrencies, Bitcoin, Ethereum, Tether, and BNB, and determine how these fluctuations affected inflation for Indian investors.

Methodology : The purpose of this research study was to examine the volatility of four cryptocurrencies, Bitcoin, Ethereum, Tether, and BNB, and to determine how these fluctuations affected inflation for Indian investors ("Cryptocurrency prices in India Today," 2023). To analyze volatility margins and determine trading volumes during such periods, data were retrieved using the MS Excel function, and Bollinger Bands were generated using the R console 4.4 open access program.

Findings : To analyze volatility margins and determine trade volumes at such times, Bollinger Bands were constructed using R console 4.4 open access software and data for bitcoin transactions was gathered using an MS Excel function. While Tether and BNB showed only mild volatility, Bitcoin and Ethereum were shown to be quite volatile.

Practical Implications : The findings of this research paper could prove to be very useful for academicians, investors (existent and prospective), and policymakers in the present and future markets.

Originality : The goal of this research was to identify safer cryptocurrencies, which is a major problem rather than just one of utility. This is one of the very few research studies that focused on examining safer cryptocurrencies to buy in the upcoming years.

Keywords : investments, cryptocurrency, trade, volatility, volumes

JEL Classification Codes : G11, E42, F10, G12, D40

Paper Submission Date : January 15, 2024 ; **Paper sent back for Revision :** February 15, 2024 ; **Paper Acceptance Date :** February 25, 2024

Although cryptocurrencies have the potential to create enormous wealth, there is also a great deal of danger and uncertainty involved (Research and Markets, 2022). A few of the volatility issues with cryptocurrency investments in India are related to inflation fears:

✦ **High Volatility :** The prices of cryptocurrencies are known to change dramatically over short periods because of their high volatility. As a result, estimating the future value of a Bitcoin investment could be difficult.

✦ **Inflation Hedge :** Since cryptocurrency values typically rise in tandem with declines in the value of fiat

¹ Assistant Professor, Amity University, Kolkata, Major Arterial Road, Action Area II, Kadampukur Village, Rajarhat, Newtown - 700 135, Kolkata. (Email : sandeepbitmba@gmail.com) ; ORCID iD : <https://orcid.org/0000-0002-6686-3947>

² Assistant Professor & Research Scholar, Amity University, Kolkata, Major Arterial Road, Action Area II, Kadampukur Village, Rajarhat, Newtown - 700 135, Kolkata. (Email : mitras1983@gmail.com)
ORCID iD : <https://orcid.org/0000-0002-3507-5999>

DOI : <https://doi.org/10.17010/ijrcm/2024/v11i1/173823>

currencies, some individuals think they can be a hedge against inflation. The argument is supported by scant historical evidence, though, as cryptocurrencies are still a relatively new asset class, and there is no guarantee that this will always be the case.

↳ **Regulatory Uncertainty** : The Indian government may eventually put more stringent controls on cryptocurrencies, as the regulatory environment in this country is still developing. Due to this, trading cryptocurrencies or even owning them all may become more challenging (Tambe, 2024).

The rise of alternative currencies appears to be a way to invest in the middle of this unstable economic climate (Bhattacharjee & Kaur, 2015). Numerous research has demonstrated that cryptocurrencies have emerged as one of the most significant investment tools (Narayanaswamy & Karthika, 2018). The goal of the current research is to find several cryptocurrencies that exhibit sustained performance potential even during unpredictable economic periods. Despite the fact that a lot of studies have been done on cryptocurrencies and volatility, there seems to be a big gap in the literature about real, practical investing opportunities in the market. A fresh perspective on recognizable cryptocurrencies is provided by this study, which may provide investors with lucrative investing possibilities. The planned study can, therefore, provide a new paradigm for investigation and support the increasing need for safer and more profitable Bitcoin investments.

Literature Review

We have divided the literature into different parts, namely:

Cryptocurrency Market in the World

A renowned researcher proposed the existence of Web 3.0, the future internet architecture for decentralized ownership (Chohan, 2022). Web 3.0 proponents argued for a blockchain-based internet design that prioritizes user ownership and engagement. Harvey et al. (2021) talked about decentralized finance, or DeFi, as a threat to the status quo and as a potential remedy for a variety of issues with the conventional financial infrastructure. It was argued that of the various fintech initiatives, those that adopt the current financial system are likely to have a limited lifespan. As we argue, the most promising projects to shape the financial landscape of the future are those that use decentralized approaches, especially blockchain technology.

Since the sharp increase in the value of Bitcoin, there has been a lot of interest in researching cryptocurrencies. The results indicate that 483 different authors wrote 151 articles. These clusters were created via the *Finance Research Letters* co-citation analysis of 151 papers authored by 483 distinct authors, and these clusters were then utilized to examine fluctuations in the cryptocurrency market (Sharma et al., 2024).

Mohsin (2021) examined the various difficulties surrounding the global adoption of cryptocurrencies. The long-term consequences of the widespread use of cryptocurrencies continue to raise concerns. Many detractors and environmentalists worry that because Bitcoin mining consumes a lot of energy, it may raise carbon emissions and worsen climate change. The banking industry has witnessed a significant transformation with the widespread adoption of Bitcoin. Furthermore, it has global implications. Whether you support cryptocurrencies or not, there is no doubt that Bitcoin and other proof-of-work block networks use a substantial amount of energy. The ramifications of the CBDC were the subject of another study, which gives central bankers further insight into the CBDC's architectural features. They argued that central bankers need to establish what goals they want to accomplish with the CBDC before creating it with those features. To meet changing central bank goals, the CBDC should be able to be redesigned and reinvented whenever feasible (Ozili, 2022).

A study of the Bitcoins movement in major developed economies using returns on higher-frequency data and

daily returns revealed extreme movements on either side and posed serious thoughts in terms of the protection properties of the cryptocurrency portfolio. Chopra and Saldi (2022) found that the findings also indicated that investors should exercise considerable caution during this procedure.

Cryptocurrency Market in India

With 2023 revenue predictions of US\$222.70 million and a compound annual growth rate (CAGR) of 9.83% from 2023 to 2027, the digital currency market in India is set to grow rapidly. A multitude of factors are expected to propel the market, such as the further advancement of DeFi and other blockchain-based systems and the growing adoption of cryptocurrencies by businesses and consumers. Around 47.6 trillion (US\$620 billion) is the estimated market value of all cryptocurrencies in India by July 2023. The top three cryptocurrencies in use in India are Tether, Ethereum, and Bitcoin. The Indian cryptocurrency industry is still in its infancy; therefore, there are still a lot of obstacles to overcome before it can grow to its full potential. These challenges include:

- ✧ The absence of regulation in the cryptocurrency sector: India's Bitcoin industry is still uncontrolled. This has led to a lack of openness and uncertainty for businesses and investors.
- ✧ The high price volatility of cryptocurrencies: Due to the substantial price fluctuations of these virtual currencies, investing in cryptocurrencies may be hazardous.
- ✧ A shortage of knowledge about cryptocurrencies: There is still a severe lack of awareness about cryptocurrencies in India. As a result, businesses could find it difficult to attract new customers and investors.

These challenges notwithstanding, it is expected that the Indian cryptocurrency market will grow over the coming years. The rising adoption of cryptocurrencies by consumers and businesses, along with the ongoing development of DeFi and other blockchain-based platforms, will likely drive this expansion.

Investment Methods in Cryptocurrencies

Some of the common investment methods in cryptocurrencies:

- ✧ **Buying and Holding (HOLDING)** : This is a long-term investment strategy where investors purchase cryptocurrencies and hold them in the hopes that their value will increase over time. Because they believe in the long-term potential of some digital currencies, holders are less concerned about short-term price fluctuations (Yogarajah, 2022).
- ✧ **Trading** : Trading cryptocurrency requires making quick buys and trades in order to profit from price swings. Many tactics are used to make trades, including market sentiment and technical analysis (Cocco et al., 2017).
- ✧ **Dollar-Cost Averaging (DCA)** : Investors that employ the DCA strategy regularly allocate a fixed amount of money into cryptocurrencies at predefined periods, regardless of the state of the market. With this approach, investors can progressively accumulate cryptocurrency assets while mitigating the effects of short-term price volatility (Constantinides, 1979).
- ✧ **Staking** : A proof-of-stake (PoS) consensus method is used by several cryptocurrencies, enabling holders to take part in the network's validation process and receive incentives in the form of more coins. Staking produces passive income; therefore, it may be viewed as an investing strategy (Tosh et al., 2018).
- ✧ **Mining** : Network security and transaction validation are aided by the processing power that mining provides.

Miners receive newly created currencies in exchange for transaction fees. Small investors may find mining to be unfeasible due to its resource-intensive nature (Aste et al., 2017).

✍ **Initial Coin Offerings (ICOs) and Token Sales :** In the past, new ventures would generate money by selling their native tokens through token sales and ICOs. However, because of regulatory uncertainty and fraud, ICOs are becoming less and less popular (Howell et al., 2020).

✍ **Decentralized Finance (DeFi) Yield Farming :** DeFi platforms provide a variety of ways for investors to participate in liquidity provision and other DeFi protocols in order to earn a return on their cryptocurrency holdings (Chohan, 2021).

✍ **Cryptocurrency Funds and ETFs :** Exchange-traded funds (ETFs) and cryptocurrency funds are products of certain investing firms that let investors invest in cryptocurrencies and get exposure to a diverse portfolio without having to hold any of them directly (Brito et al., 2014).

Cryptocurrency Volatility

In a research, Yermack (2015) examined the historical development of cryptocurrencies and examined the factors that contribute to their volatility and their potential implications. When the value of digital assets like Bitcoin and other cryptocurrencies fluctuates suddenly and erratically, it is referred to as cryptocurrency volatility. The cryptocurrency market is notorious for its volatility, which may cause large price changes in a short period. The volatility of cryptocurrencies is influenced by a number of variables, including market sentiment, regulatory changes, macroeconomic trends, technical improvements, and general market liquidity (Hayes, 2017). One of the research articles looks at the factors influencing the price of Bitcoin as well as the relationship between mining costs and price. A greater understanding of mining expenses can aid in understanding the price fluctuation of Bitcoin (Hayes, 2015). Moreno-Sánchez et al. (2018) conducted a study that examined the factors that impact cryptocurrency prices, such as technological improvements, legislative changes, and market dynamics.

In their study article, Kong et al. (2023) investigated the return and volatility characteristics of Bitcoin using high-frequency transaction-level data. Another important study examined the risk-return trade-off in the cryptocurrency market by examining the relationship between volatility and possible returns (Bouri et al., 2018). Sakunia and Parida (2023) conducted a study that aided in the comprehension of the intricate correlation between social media engagement and cryptocurrency prices. The study's findings underscored the necessity of conducting comprehensive research and taking into account various factors, including social media engagement, when making investment decisions in the cryptocurrency market.

Impact of Volatility on Inflation

The relationship between volatility and inflation is complex. Higher volatility generally has the potential to lead to higher rates of inflation. This is because corporations may find it more difficult to set prices when there is volatility, which could lead to more uncertainty and inflation.

Some of the notable effects that have been seen are as follows:

✍ **Wealth Effect :** Cryptocurrency volatility can have an impact on the wealth of investors who possess sizable holdings of digital assets. Increases in cryptocurrency prices increase investor wealth, which could lead to increased investment and consumption. On the other hand, during periods of market collapse, investors' wealth may decline, which may lead to lower investment and expenditure. These shifts in investment and consumption patterns could have an impact on inflationary pressures in the economy (Chuen et al., 2018).

⇒ **Speculative Activity** : The unstable cryptocurrency market may be attractive to speculative activity, in which investors buy and sell cryptocurrency based on momentary price fluctuations. Although price bubbles may not directly affect consumer prices, they may have an impact on financial stability, asset valuations, and collapses caused by this speculative activity. These speculative bubbles have the potential to trigger financial crises that result in inflation in extreme circumstances (Baur et al., 2018).

⇒ **Currency Substitution** : Some people may use cryptocurrencies as an alternative store of value and means of trade in nations with high inflation or unstable currencies. If the central bank keeps printing money, this “currency substitution” can lower the demand for the local currency and exacerbate inflationary pressures (Ammous, 2018).

⇒ **Monetary Policy and Regulatory Impact** : The monetary policy decisions made by central banks may be impacted by the volatility of cryptocurrencies. Because of the increasing volatility and risks associated with cryptocurrencies, central banks may take precautionary measures to preserve financial stability and limit inflation. Governmental reactions to the cryptocurrency market may also affect investor sentiment, liquidity, and overall economic conditions (Meaning et al., 2021). A research study expressed concern about investing in Bitcoin and other cryptocurrencies, citing concerns about value and the possibility of destabilizing the economy's objectives related to regulation and investment returns (Shah, 2018).

From the above literature review, there seems to be a certain gap between early crypto stock volatility as compared to recent crypto market realities. Therefore, we need to understand certain facts related to major crypto stocks, such as:

- ⇒ Bitcoin crypto stocks performance and volatility during the period of April 1, 2021 to March 31, 2023.
- ⇒ Ethereum crypto stocks performance and volatility during the period of April 1, 2021 to March 31, 2023.
- ⇒ Tether crypto stocks performance and volatility during the period of April 1, 2021 to March 31, 2023.
- ⇒ BNB crypto stocks performance and volatility during the period of April 1, 2021 to March 31, 2023.

Related alternate hypotheses have also been developed that include:

- ⇒ **H1** : Bitcoins crypto stocks are highly volatile over a longer period.
- ⇒ **H2** : Ethereum crypto stocks are highly volatile over a longer period.
- ⇒ **H3** : Tether crypto stocks are highly volatile over a longer period.
- ⇒ **H4** : BNB crypto stocks are highly volatile over a longer period.
- ⇒ **H5** : Crypto stocks in the same cluster behave similarly in a similar period.

Research Methods and Tools

The primary source of data for the study was secondary research conducted through transactional tracking. The data was gathered between April 1, 2021, and March 31, 2023, using the stock history () function in MS Excel 2020 Enterprise Edition. Additionally, the data tools included the calculation of volatility using Bollinger Bands and the graphical representation of the volume of sales patterns for four major cryptocurrencies: Bitcoin, Ethereum, Tether, and BNB, over 513 stock trading days. This tool represents equities traded at different prices and in varied volumes, and it is regarded as one of the basic methods for extracting stock data from stock market indices globally. From now on, stock data was gathered and arranged methodically using Microsoft Excel 365 Version (2023) and its functions.

Analysis and Results

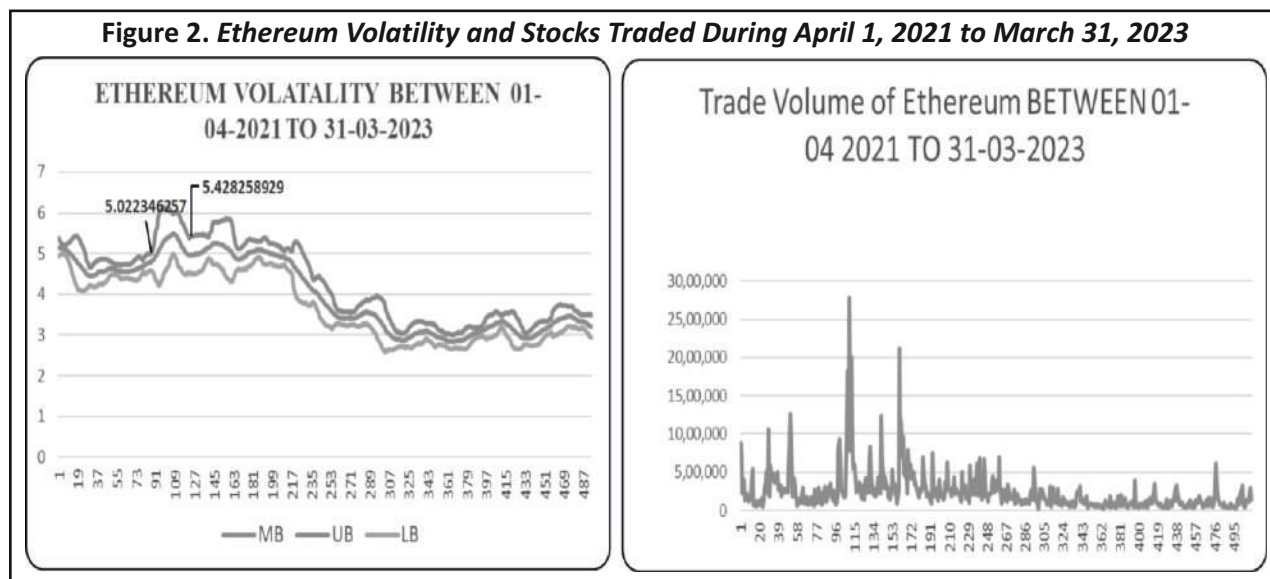
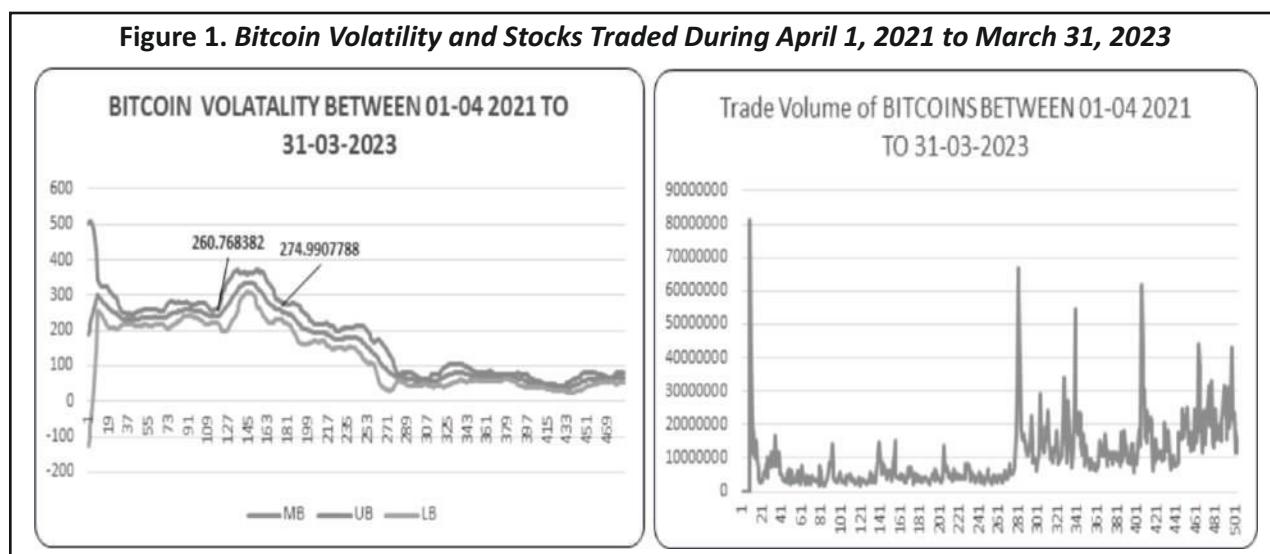
The analysis in the form of a graphical representation can be seen as:

Bitcoin Volatility

The volatility ranged from 260.76 to 274.99, or from the 128th to the 178th day, as shown in Figure 1, with stocks trading between 2,174,748 and 3,410,449 units, respectively.

Ethereum Volatility

Figure 2 illustrates how volatility fluctuated between 5.022 and 5.428, or the 88th and 128th day period, when equities traded between 139,784 and 149,496 units, respectively.

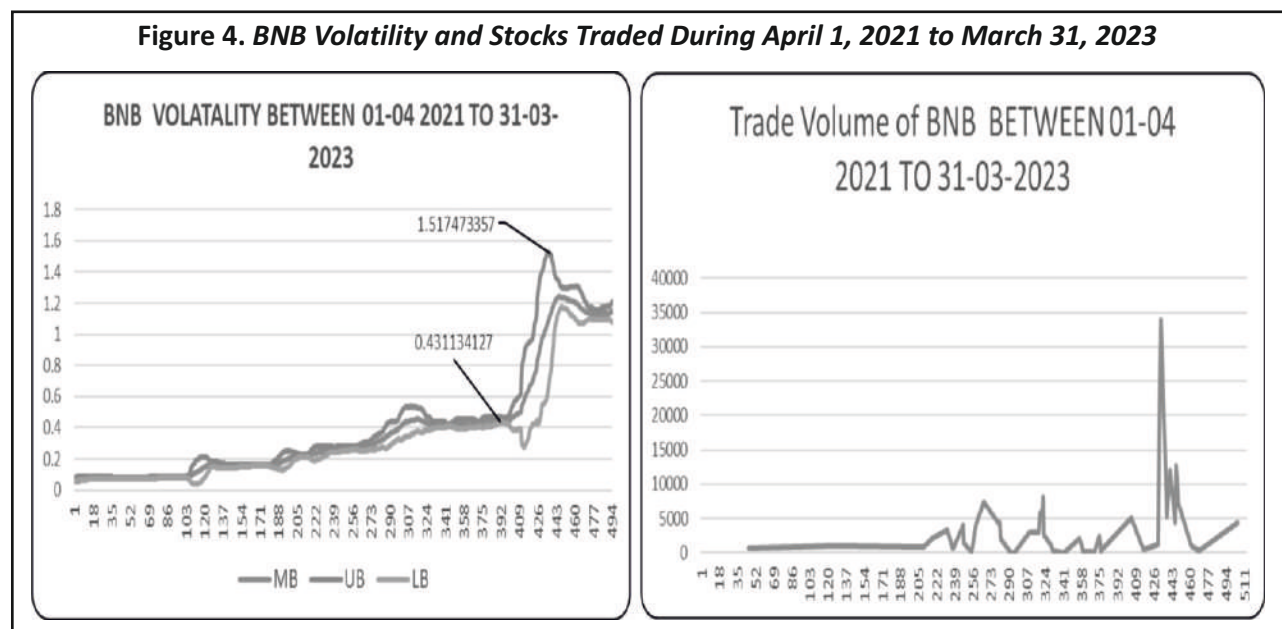
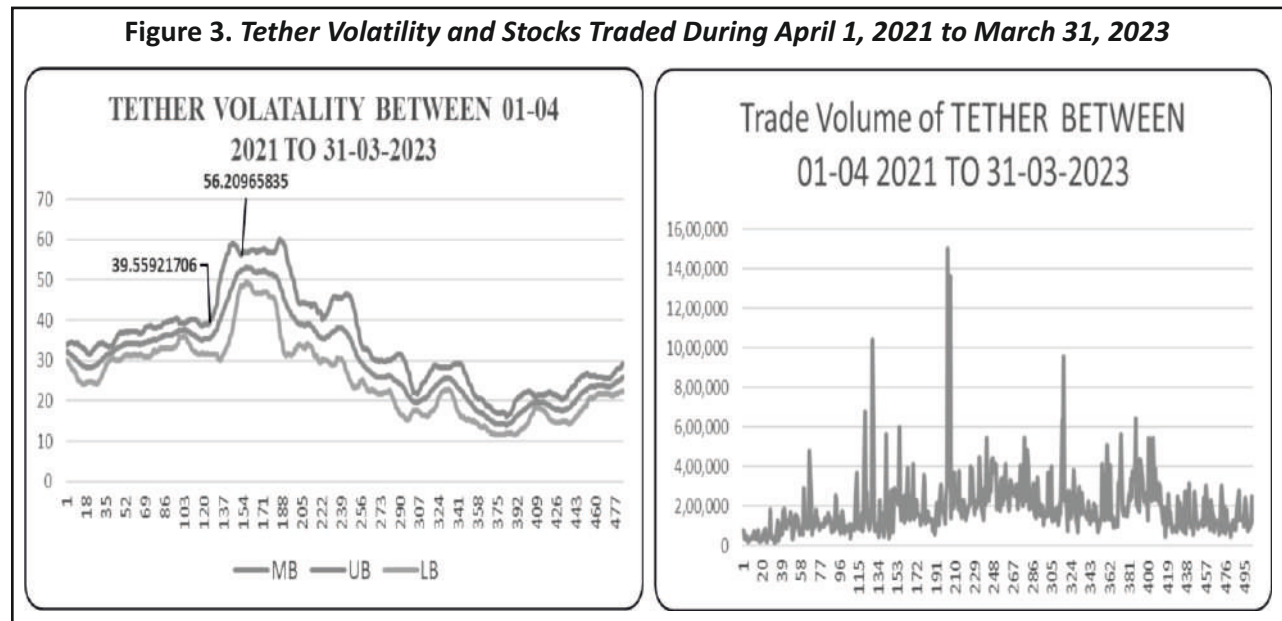


Tether Volatility

Figure 3 illustrates how volatility changed between 39.55 and 56.20, from the 126th to the 154th day, when stocks traded between 110,158 and 212,027 units, respectively.

BNB Volatility

The range of volatility, as shown in Figure 4, was 0.4311 to 1.51, or the 392nd to 434th day, during which the value of the stocks traded fluctuated between 5,000 and 34,000 units, respectively.



Findings

The results as per analysis reveals:

- ↳ It appears that Bitcoins are very volatile since a prolonged period of volatility lasts for a sizable amount of time (refer to Figure 1).
- ↳ Ethereum also seems to be highly volatile as a long period of volatility persists over a considerable period (see Figure 2).
- ↳ Tether seems to be moderately volatile as a medium period of volatility persists over a certain period (see Figure 3).
- ↳ Although less volatile initially, BNB has started to pick up higher volatility in recent times (see Figure 4).
- ↳ Most of the considered crypto stocks seem moderate to highly volatile to a high extent.

Conclusion and Suggestions

According to the results, there is more volatility in Bitcoin, Ethereum, and Tether throughout a comparable time frame for stock trading days. On the other hand, as of late, BNB has exhibited less volatility during a comparable span of stock trading days. Thus, we may say that H1, H2, and H3 are true, whereas H4 and H5 are still up for debate and might require an extended timescale for a more thorough examination. Two main issues that investors in India are concerned about are the volatility of cryptocurrencies and the regulatory uncertainty that surrounds them. Some investors, however, think that the possible benefits of cryptocurrency investing exceed these dangers. Cryptocurrency may provide additional inflation protection to a well-diversified investment strategy. Cryptocurrencies are a useful tool for diversification because of their little correlation with conventional asset classes such as bonds and stocks.

Therefore, it is reasonable to conclude that investors—individuals as well as institutions—should exercise extreme caution when purchasing cryptocurrency equities due to the frequent possibility of volatility shocks. The academic community, potential and current investors, and legislators in the market can all benefit greatly from this research study.

Managerial and Theoretical Implications

The results of this study broaden our understanding of cryptocurrency research and complement the body of current work. The acceptability and adaption of safer stocks during bitcoin portfolio investments are facilitated by this study's clear visibility of volatility and volume aspects. It also raises the probability of the possible inclusion of a higher percentage of safer cryptocurrency stocks by fund managers or individual investors. In terms of wealth management, reining in speculative bubbles, and minimizing the effects of currency substitution, taking into account safer equities will also prove to be crucial.

Limitations of the Study and Scope for Further Research

The current study examines the number of transactions and volatility for the four cryptocurrencies—Bitcoin, Ethereum, Tether, and BNB—during a certain time frame from April 1, 2021 to March 31, 2023. The outcome of this investigation is therefore restricted to this time frame. Furthermore, a much larger range of cryptocurrency stocks over a longer period may provide further information on these safer cryptocurrency stocks. Since it is clear,

we suggest extending the time horizon in subsequent research and looking at other cryptocurrency equities. Doing so could help investors, both individual and institutional, find safer options.

Authors' Contribution

The concept was created by Sandeep Bhattacharjee, who also created the qualitative and quantitative designs for the empirical investigation. After extracting highly regarded research articles and filtering them using keywords, Kaushik Mitra created concepts and codes that were pertinent to the study design. Sandeep Bhattacharjee oversaw the research and confirmed the analytical techniques. Sandeep Bhattacharjee did the analysis; portions were done in English and some in colloquial language. The material was then translated and transcribed into English by both authors. For the numerical computations, Sandeep Bhattacharjee used Microsoft Excel 2020 Enterprise Edition. Once the other author was consulted, Sandeep Bhattacharjee wrote the manuscript.

Conflict of Interest

The authors certify that they have no affiliations with or involvement in any organization or entity with any financial interest or non-financial interest in the subject matter or materials discussed in this manuscript.

Funding Acknowledgment

The authors received no financial support for the research, authorship, and/or for the publication of this article.

References

- Ammous, S. (2018). Can cryptocurrencies fulfil the functions of money? *The Quarterly Review of Economics and Finance*, 70, 38–51. <https://doi.org/10.1016/j.qref.2018.05.010>
- Aste, T., Tasca, P., & Di Matteo, T. (2017). Blockchain technologies: The foreseeable impact on society and industry. *Computer*, 50(9), 18–28. <https://doi.org/10.1109/MC.2017.3571064>
- Baur, D. G., Hong, K., & Lee, A. D. (2018). Bitcoin: Medium of exchange or speculative assets? *Journal of International Financial Markets, Institutions and Money*, 54, 177–189. <https://doi.org/10.1016/j.intfin.2017.12.004>
- Bhattacharjee, S., & Kaur, H. (2015). An overview of alternative currency: The bitcoin. *Indian Journal of Finance*, 9(6), 51–60. <https://doi.org/10.17010/ijf/2015/v9i6/71162>
- Bouri, E., Shahzad, S. J., Raza, N., & Roubaud, D. (2018). Oil volatility and sovereign risk of BRICS. *Energy Economics*, 70, 258–269. <https://doi.org/10.1016/j.eneco.2017.12.018>
- Brito, J., Shadab, H. B., & Castillo O'Sullivan, A. (2014). *Bitcoin financial regulation: Securities, derivatives, prediction markets, and gambling*. Available at SSRN. <https://doi.org/10.2139/ssrn.2423461>
- Chohan, U. W. (2021). *Decentralized finance (DeFi): An emergent alternative financial architecture*. Available at SSRN. <https://doi.org/10.2139/ssrn.3791921>
- Chohan, U. W. (2022). *Web 3.0: The future architecture of the Internet?* Available at SSRN. <http://dx.doi.org/10.2139/ssrn.4037693>

- Chopra, M., & Saldi, R. (2022). Investment in Bitcoin: A delusion or diligence? *Indian Journal of Finance*, 16(7), 8–22. <https://doi.org/10.17010/ijf/2022/v16i7/170632>
- Chuen, D. L., Guo, L., & Wang, Y. (2018). Cryptocurrency: A new investment opportunity? *Journal of Alternative Investments*, 20(3), 16–40. <https://doi.org/10.3905/jai.2018.20.3.016>
- Cocco, L., Concas, G., & Marchesi, M. (2017). Using an artificial financial market for studying a cryptocurrency market. *Journal of Economic Interaction and Coordination*, 12, 345–365. <https://doi.org/10.1007/s11403-015-0168-2>
- Constantinides, G. M. (1979). A note on the suboptimality of dollar-cost averaging as an investment policy. *The Journal of Financial and Quantitative Analysis*, 14(2), 443–450. <https://doi.org/10.2307/2330513>
- Cryptocurrency prices in India Today: Compare Bitcoin, Ethereum, Dogecoin, Litecoin, Ripple prices across CoinSwitch, Coinbase, WazirX and other major exchanges (2023, July 21). *Gadgets 360*. <https://www.gadgets360.com/finance/crypto-currency-price-in-india-inr-compare-bitcoin-ether-dogecoin-ripple-litecoin>
- Harvey, C. R., Ramachandran, A., & Santoro, J. (2021). *DeFi and the future of finance*. Available at SSRN. <http://dx.doi.org/10.2139/ssrn.3711777>
- Hayes, A. S. (2015). *A cost of production model for Bitcoin*. Available at SSRN. <http://dx.doi.org/10.2139/ssrn.2580904>
- Hayes, A. S. (2017). Cryptocurrency value formation: An empirical study leading to a cost of production model for valuing bitcoin. *Telematics and Informatics*, 34(7), 1308–1321. <https://doi.org/10.1016/j.tele.2016.05.005>
- Howell, S. T., Niessner, M., & Yermack, D. (2020). Initial coin offerings: Financing growth with cryptocurrency token sales. *The Review of Financial Studies*, 33(9), 3925–3974. <https://doi.org/10.1093/rfs/hhz131>
- Kong, X., Ma, C., Ren, Y.-S., Narayan, S., Nguyen, T. T., & Baltas, K. (2023). Changes in the market structure and risk management of Bitcoin and its forked coins. *Research in International Business and Finance*, 65, 101930. <https://doi.org/10.1016/j.ribaf.2023.101930>
- Meaning, J., Dyson, B., Barker, J., & Clayton, E. (2021). Broadening narrow money: Monetary policy with a central bank digital currency. *International Journal of Central Marketing*, 17(2), 1–42. <https://www.ijcb.org/journal/ijcb21q2a1.pdf>
- Mohsin, K. (2021). Cryptocurrency & its impact on environment. *International Journal of Cryptocurrency Research*, 1(1), 1–4. <https://doi.org/10.51483/IJCCR.1.1.2021.1-4>
- Moreno-Sánchez, P., Modi, N., Songhela, R., Kate, A., & Fahmy, S. (2018, April). Mind your credit: Assessing the health of the ripple credit network. In *Proceedings of the 2018 World Wide Web Conference* (pp. 329–338). <https://doi.org/10.1145/3178876.3186099>
- Narayanaswamy, T., & Karthika, P. (2018). Cryptocurrency: Invisible or invincible currency – Answers for unanswered questions. *Indian Journal of Finance*, 12(6), 63–73. <https://doi.org/10.17010/ijf/2018/v12i6/128140>
- Ozili, P. K. (2022). *Central bank digital currency research around the world: A review of literature*. Available at SSRN. <https://ssrn.com/abstract=4001852>

- Research and Markets. (2022). *India cryptocurrency market - Forecasts from 2022 to 2027*. <https://www.researchandmarkets.com/reports/5681935/india-crypto-currency-market-forecasts-from>
- Sakunia, D., & Parida, B. (2023). Is social media engagement and sentiments the right metric for investing in cryptocurrencies? Implications for entrepreneurs and investors. *Indian Journal of Research in Capital Markets*, 10(1), 8–14. <https://doi.org/10.17010/ijrcm/2023/v10i1/172801>
- Shah, K. K. (2018). Microeconomic analysis of Bitcoin pricing and establishing theoretical conditions for the possibility of a bubble or a crash. *Indian Journal of Research in Capital Markets*, 5(1), 54–61. <https://doi.org/10.17010/ijrcm/2018/v5/i1/122909>
- Sharma, D., Ghosh, R., & Sharma, C. S. (2024). Cryptocurrency in the light of sentiments: A bibliometric approach. *Indian Journal of Finance*, 18(2), 60–75. <https://doi.org/10.17010/ijf/2024/v18i2/173521>
- Statista. (2024). *Cryptocurrencies – India*. <https://www.statista.com/outlook/dmo/fintech/digital-assets/cryptocurrencies/india>
- Tambe, N. (2024, April 2). All you need to know about India's crypto bill. *Forbes Advisor*. <https://www.forbes.com/advisor/in/investing/crypto-currency/crypto-bill/>
- Tosh, D. K., Shetty, S., Foytik, P., Kamhoua, C. A., & Njilla, L. (2018). CloudPoS: A proof-of-stake consensus design for blockchain integrated cloud. In, *2018 IEEE 11th International Conference on Cloud Computing (CLOUD)*, San Francisco, CA, USA (pp. 302–309). IEEE. <https://doi.org/10.1109/CLOUD.2018.00045>
- Yermack, D. (2015). Is Bitcoin a real currency? An economic appraisal. In, *Handbook of digital currency* (pp. 31–43). Academic Press. <https://doi.org/10.1016/B978-0-12-802117-0.00002-3>
- Yogarajah, Y. (2022). 'Hodling'on: Memetic storytelling and digital folklore within a cryptocurrency world. *Economy and Society*, 51(3), 467–488. <https://doi.org/10.1080/03085147.2022.2091316>

About the Authors

Prof. Sandeep Bhattacharjee is currently working as an Assistant Professor in the applied analytics domain in Amity University, Kolkata for more than eight years. He has more than 15 years of experience, with 13 plus years in academics and a year of corporate experience. He takes keen interests in academic development with teamwork as the essence of it. His research areas include applied data mining in marketing and other social areas of development with applied analytics. He has also conducted training on SPSS, Matlab, and R modules for academics and industries. He is also a certified business intelligence tools and data analytics professional.

Prof. Kaushik Mitra is currently working as an Assistant Professor in the business management department in Amity University, Kolkata for more than eight years. He has more than 15 years of experience in information technology and has rich experience in the corporate sector. His research interests are in the fields of cryptocurrency and computer networks. He has also worked in various computer science projects including some in the government sector. He is also an Oracle certified professional.

INDIAN JOURNAL OF RESEARCH IN CAPITAL MARKETS

Statement about ownership and other particulars about the newspaper "INDIAN JOURNAL OF RESEARCH IN CAPITAL MARKETS" to be published in the 1st issue every year after the last day of February.

FORM 1V (see Rule 18)

1. Place of Publication	:	NEW DELHI
2. Periodicity of Publication	:	QUARTERLY
3. 4,5 Printer, Publisher and Editor's Name	:	S. GILANI
4. Nationality	:	INDIAN
5. Address	:	Y-21,HAUZ KHAS, NEW DELHI - 16
6. Newspaper and Address of individual	:	ASSOCIATED MANAGEMENT
Who owns the newspaper and partner of	:	CONSULTANTS PRIVATE LIMITED
Shareholder holding more than one percent.	:	Y-21, HAUZ KHAS, NEW DELHI-16

I, S.Gilani, hereby declare that the particulars given above are true to the best of my knowledge and belief.

DATED : March 1, 2024

Sd/-
S. Gilani
Signature of Publisher