

Analysis Of Bitcoin Price Fluctuations During The Covid-19 Pandemic: Is It A Safe Haven?

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Abstract

Our research paper aims to analyze Bitcoin price fluctuations as global cumulative confirmed cases rise and confirm whether Bitcoin is a safe haven during the pandemic. We test the hypothesis that investors are turning to Bitcoin because of the increase in global confirmed cases in light of the widespread of Covid-19.

From January 22, 2020 to May 01, 2022, a descriptive analysis of daily data shows that Bitcoin did not act as a safe haven during the pandemic and that investors do not resort to Bitcoin out of fear and confusion over the large number of cumulative confirmed cases across the world, but rather due to herd behavior and unconfirmed information.

Key words: Bitcoin; Safe haven; Descriptive analysis; Covid-19.

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Introduction:

The Covid-19 pandemic emerged as a health crisis that resulted in more than 87.6 million cumulative confirmed cases. Then, it evolved into an economic crisis that severely affected financial markets compared to previous crisis with the unprecedented spread of the epidemic and the chaos it has created. Investors have been forced to flee to traditional safe havens and have been boasting of gold to preserve their wealth. The first discovery was that gold had lost its luster despite being a safe haven in previous crises. Therefore, investors had an opportunity to use cryptocurrencies, especially Bitcoin - which came in response to the 2008 global crisis - as a safe haven after crossing «Black Thursday (March 12)" and as an alternative to traditional havens. In this regard, our study aims to demonstrate the effectiveness of Bitcoin as a safe haven asset during the Covid-19 pandemic. This research revolves around answering the following research question: Does investing in Bitcoin help maintain the value of the investment during the Covid-19 pandemic?

In the context of the general hypothesis: Bitcoin price movements are in line with the global cumulative confirmed case movement of the Covid-19 epidemic, and more specifically, investors are resorting to Bitcoin because of the increase in global confirmed cases in light of the widespread of Covid-19. The present study used a descriptive analysis, tracking events and facts to prove or refute the hypothesis of our research. The remainder of this paper is structured as follows: I: Bitcoin and cryptocurrencies II: Safe haven III: Data and Descriptive Analysis IV: Results V: Conclusion.

Firstly.Overview of Bitcoin:

This section presents an overview of cryptocurrencies and Bitcoin in particular.

1.1. The concept of Bitcoin:

Bit Coin -□- is made up of two words "bit" and "coin, if you cut the information in side computers into smaller pieces you will find "1's and" 0's" these are called *bit*; you already know about coins (M, 2021).

Bitcoin is" a peer-to-peer electronic cash system (Nakamoto, 2009); white paper (Mazer , 2015, p. 3) ; a cryptocurrency it uses cryptography and software algorithms to (Nibley, 2021); in 2008 (Prasad Kosgi, 2016, p. 22); a digital currency which & the operates free of any central control oversight of bank or governments (Sparkes, 2021) decentralized digital

cash that eliminates the need for intermediaries like banks and governments; using instead a peer-to-peer computer network to confirm purchases directly between users (Voigt & Rosen, 2014); we define an electronic coin as a chain of digital signatures (Nakamoto, 2009); is the first digital decentralized currency (D'andrea , 2018, p.4); is an open-source, peer-to-peer digital currency (Brito & Castillo , 2013, p. 3).

1.2. The History of Cryptocurrencies & Bitcoin:

The concept of cryptocurrencies is new to the global economy; it was created in 2009, yet it has received a significant amount of attention, especially in 2013 they witnessed turbulent changes in their exchange rates. The cryptocurrencies belong to the group of virtual currencies, and it is considered as a digital medium of exchange based on principles of cryptography allowing performance of secure decentralized and distributed economic transactions (Vejačka, 2014, p. 1), but the first implementation of a concept called "cryptocurrency" was first described in 1998 by "Wei Dai" on the cypherpunks mailing list suggesting the idea of a new form of money that uses cryptography to control its creation and transactions rather than a central authority (Vyas & Lunagaria, 2014, p. 10).

Originally introduced in November 1 2008 by a group of programmers under the pseudonym "Satoshi Nakamoto" (Eng-Tuck & Fry, 2015, p. 32) to an unknown date Satoshi Nakamoto is whether an individual or a pseudonym for a group of individuals (Leemoon, 2017, p. 5) and released to the public on January 8th, 2009 (wang, 2020) Nakamoto mined the first block of Bitcoins with a reward of 50 bitcoins; this block is commonly referred to as the "genesis block" "Hal Finney" downloaded the bitcoin client and received the first 10 bitcoins from Nakamoto; which represented the first Bitcoin transaction in history. "Nick Szabo &Wei Dai" were also expressed strong support for Bitcoin after its release (Chohan, 2017, p. 3) As to the reason why he wrote the code and made it an open source and why he did not patent his invention, Nakamoto suggested that "he wrote the code after becoming upset by the financial crisis that began in 2007/2008 and governments reactions to it (Leemoon, 2017, p. 5). The following table summerizes the most important stages that Bitcoin has gone through:

Table N°01: The most important stages of Bitcoin

Timeperiod	Details
03/2010	the first Bitcoin transaction in history- legendary pizza-
18/07/2010	Major BTC exchange MG ox opens 0.05USD
31/05/2011	Foundation of BTC payment service provider BitPay 8.80USD
10/06/2011	Height of the first" BTC" bubble first legal concerns 28.92USD
28 /11/2012	Bitcoin has first "halving day." 12.20 USD
28 /03/2013	Btc market cap surpasses usd 1 billion 88.92USD
11 /09/2013	Number is accepting btc exceeds 1,000 -12
02 /10/2013	Fbi shuts down silk road, seizes colossal amount of btc 125.49USD
29 /10/2013	First Bitcoin ATM starts operation in Vancouver 187.87 USD
18/11/ 2013	Us senate holds hearing on bitcoin 476.29USD
19/11/2013	Day after senate hearing on bitcoin us\$781.83 (high)
30 /11/2013	Btc market cap. Exceeds usd 14.4 billion us\$1,120.40
11 /12/2013	Number of merchants accepting btc exceeds 15,000 us\$990.00
24 /02/2014	Mt. Gox goes offline us\$604.58
28/02/2014	Mt. Gox files for bankruptcy us\$576.70
25 /03/ 2014	Irs declares bitcoin is property for tax purposes us\$586.27
14/06/ 2015	Bitcoin prices hits nadir of bear market us\$170.21
15 /08/2015	Bitcoin fork bitcoin xt released us\$264.87
14 /06/2016	Developer mike hearn quits bitcoin us\$432.04
09 /07/2016	Bitcoin has second halving day us\$664.74
02 /08/2016	Bitfinex loses nearly 120,000btc us\$607.37
08 /11/2016	Donald trump elected u.s. president us\$704.02
10/03/ 2017	Sec denies Winklevoss etf us\$1,191.81
01 /04/2017	Japan recognizes bitcoin as legal tender us\$1,079.75
04/09/ 2017	China bans icons us\$4,631.69
15/09/ 2017	China shuts down cryptocurrency exchanges us\$3,226.41
31/10/ 2017	Cme announces plans to offer bitcoin futures us\$6,121.80
11/12/ 2017	Bitcoin futures start trading on cboe us\$15,036.96
17 /12/2017	Bitcoin prices hit all-time high us\$19,783.21
08/06/ 2018	Coinmarketcap removes south Korean data from prices us\$16,178.49
30 /06/2018	Facebook prohibits cryptocurrency ads us\$11,158.39
14 /03/2018	Google bans cryptocurrency ads us\$9,144.15
26 /03/2018	Twitter prohibits cryptocurrency ads us\$8,449.83
11 /05/2018	Authorities raid up bit, south Korea's largest crypto exchange us\$9,014.61
10/06/ 2018	Hackers steal nearly us\$40 million from crypto exchange coinrail us\$7,497.34
26 /09/2018	Crypto miner bitmain files for ipo us\$6,434.65
15 /11/ 2018	Bitcoin cash hard for us\$5,536.84

15 /12/2018	Bitcoin hits 2018 low us\$3,122.34
31 /12/2018	Bitcoin finishes year at us\$3,690.19
06 /01/2019	Bitcoin surpasses us\$4,000
02/04/ 2019	Bitcoin climbs nearly 20%, surpasses us\$5,000
10 /04/2019	Bitcoin hits 400 millionth transaction
25/04/ 2019	NY ag announces bitfinex/tether court order us\$5,054.90 (daily low)
8 /05/2019	Bitcoin surpasses us\$6,000, reaching highest since November 2018
11 /05/2019	Bitcoin surpasses us\$7,000
13 /05/2019	Consensus, arguably the industry's largest cryptocurrency conference, begins
13 /05/2019	Bitcoin exceeds us\$8,000, reaching highest since July 2018

Source:(FXCM Group, 2021)

1.3. Handling Mechanism with Cryptocurrency:

Cryptocurrencies run on a distributed public ledger called block chain a record of all transactions updated and held by currency holders, Units of cryptocurrency are created through a process called mining which involves using computer power to solve complicated mathematical problems that generate coins; users can also buy the currencies from brokers then store and spend them using cryptographic wallets, if you own cryptocurrency you don't own anything tangible What you own is a key that allows you to move a record or a unit of measure from one person to another without a trusted third party (Kaspersky, 2022) We explain this in the Bitcoin working mechanism, hence, the following terms are to help understanding the way cryptocurrency works:

Blockchain:

Bitcoin is powered by open-source code known as "blockchain" which creates a shared public ledger of transactions organized into "blocks" that are "chained" together to prevent tampering. This technology creates a permanent record of each transaction and it is at the heart of more than 10,000 cryptocurrencies that have followed in bitcoin's wake (Voigt & Rosen, 2014). The blockchain is a shared public ledger on which the entire Bitcoin network relies, all confirmed transactions are included in the block chain; it allows Bitcoin wallets to calculate their spendable balance so that new transactions can be verified thereby ensuring they're actually owned by the spender the integrity and the chronological order of the block chain are enforced with cryptography (bitcoin, 2022).

- **Private and public keys (Transactions):**

A Bitcoin wallet contains a public key and a private key, which work together to allow the owner to initiate and digitally sign transactions; providing proof of authorization (Voigt & Rosen, 2014) A transaction is a transfer of value between Bitcoin wallets that gets included in the block chain; Bitcoin wallets keep a secret piece of data called a "private key or seed" which is used to sign transactions providing a mathematical proof that they have come from the owner of the wallet, the signature also prevents the transaction from being altered by anybody once it has been issued all transactions are broadcast to the network and usually begin to be confirmed within 10-20 minutes, through a process called "mining" (bitcoin, 2022).

- **Processing – mining:**

Miners or members of the peer-to-peer platform — then independently confirm the transaction using high-speed computers, typically within 10 to 20 minutes (Voigt & Rosen, 2014)is a distributed consensus system that is used to confirm pending transactions by including them in the block chain, it enforces a chronological order in the block chain protects the neutrality of the network and allows different computers to agree on the state of the system, to be confirmed; transactions must be packed in a block that fits very strict cryptographic rules that will be verified by the network these rules prevent previous blocks from being modified because doing so would invalidate all the subsequent blocks. Mining also creates the equivalent of a competitive lottery that prevents any individual from easily adding new blocks consecutively to the block chain in this way; no group or individuals can control what is included in the block chain or replace parts of the block chain to roll back their own spends (bitcoin, 2022).

1.4. Cryptocurrency Value Sources:

Cryptocurrencies are volatile and news about the recent highs and lows of cryptocurrencies are emerging every day, providing the general impression that cryptocurrency is something difficult to deal with. However, investing in cryptocurrency is still a profitable investment opportunity if you know how its value is formed the following piece summarizes the common factors that affect value and reflects its true value; Bitcoin prices are affected by the following factors:(BLOOMENTHAL, 2021)

- Bitcoin supply and market demand.
- The cost of producing bitcoin through the mining process.
- Rewards are issued to bitcoin miners for verifying transactions to the blockchain.
- The number of competing cryptocurrencies.
- Regulations governing its sale and use.
- The state of her internal judgment.
- News Developments.

1.5. Advantages and Challenges of Bitcoin:

Bitcoin and most cryptocurrencies have many advantages that are the source of their strength and popularity and this is due to their being peer-to-peer networks and decentralized nature.

1.5.1. Sources of strength and popularity: (Nibley, 2021):

➤ Easy Transactions

Crypto transactions can be made easily at low cost and in a manner more private than most other transactions, using a simple smartphone app hardware wallet or exchange wallet anyone can send and receive a variety of cryptocurrencies.

➤ Incredible Security

Because they are based on cryptography and blockchain security decentralized cryptocurrencies tend to make for secure forms of payment; crypto security is determined in large part by hash rate the higher the hash rate the more computing power it would take to compromise the network.

➤ Short Settlement Times and Low Fees

Cryptocurrency transactions anywhere cost several dollars or much less and may reach cents; most cryptocurrencies are settled in seconds or minutes, unlike banks and their money.

➤ Exponential Industry Growth

The cryptocurrency industry is one of the fastest growing markets with the total market capitalization of the cryptocurrency market in 2013 being around \$1.6 billion. By June 2021, it had risen to more than \$1.4 trillion.

➤ **More Private Transactions**

Privacy in cryptocurrency through crypto is an important advantage compared to fiat currency with third-party payment processors, but encryption and its methods are intended for more advanced users and not for the general public.

➤ **Inflation Hedge**

Mineable cryptocurrencies with a limited supply cap such as Bitcoin and Litecoin are believed to be good hedges against inflation the price of these fixed-supply currencies as measured in dollars has a higher chance of rising Bitcoin. Also, it is designed to keep those coins scarce regardless of what happens with monetary policy .

➤ **Cross-Border Payments:**

Cryptocurrencies cross borders and anyone in a country can send coins to anyone else in the world without any difficulty compared to bank transfers and others.

➤ **A More Inclusive Financial System:**

Here people don't need permission from any financial authority or government to use the cryptocurrency ecosystem; they don't necessarily need a bank account.

➤ **Transactional Freedom**

This means that it can be used to exchange value between two parties, this can be done independently of any third party (intermediary such as a bank and others) and makes the transaction freer, and since there is no central authority that controls Bitcoin and most other cryptocurrencies, it is very difficult to prevent anyone from using them.

➤ **24/7 Markets**

Most traditional financial markets close their markets unlike commercial crypto markets are open 24 hours a day. Seven days a week, except for some circumstances that can interrupt a person's ability to trade cryptocurrency, such as power outages, internet outages, or central exchange outages..

Despite the advantages that Bitcoin and cryptocurrencies offer, there are potential disadvantages as well. The most important ones are economic and technical problems.

1.5.2. Disadvantages: (KryptoMoney Staff, 2017):

➤ **Degree of acceptance:**

Many people are still unaware of Bitcoin. Everyday more business organizations are accepting bitcoins but the list remains small and still needs to grow in order to benefit from network effects.

➤ **Volatility:**

A Bitcoin price are very volatile and increases/decrease at a very high pace. Speculators wish to take advantage of it but genuine investors think of it as too risky and therefore all the investors do not invest in Bitcoins.

➤ **Ongoing development:**

Bitcoin software is with many incomplete features in active development new tools, features, and services are being developed to make Bitcoin more secure convenient and accessible to the masses; some of these are still not ready for everyone most Bitcoin businesses are new and still offer no insurance.

➤ **Possible Government Interference:**

Well, the government may not take your Bitcoins away but can ban them in the country which forces bitcoin wallets and companies to shut down. The bitcoins in these wallets are frozen and access to them becomes difficult.

➤ **Deflationary:**

One of the potential negative factors associated with Bitcoin is due to deflation. Which means if it falls into the hands of the speculator, a massive recession will come in Bitcoin. The latter is limited in number, and if the main part is held by speculators and investors, which they will hold it for a longer period of time they will not release it on the market and therefore when the supply of Bitcoin is short and the demand continues to increase this eventually will increase the price of Bitcoin. Accordingly, speculative investors may benefit.

➤ **Lack of recourse:**

If you lose your bitcoin wallet you have lost all of your bitcoins in that wallet; you cannot regain it and they are simply lost forever until and unless you have backed up the wallet with a backup phrase code this backup phrase code can be used to recover the lost bitcoin wallet balance in case a credit card/debit card stolen, which is called the merchant, to

cancel the card and request a new one but in the case of Bitcoins as it is decentralized and no one has control over it; we don't have any person/organization to call.

➤ **Money Laundering/Black Market:**

Initially, bitcoins were used for money laundering and people operating in black markets, which did not want to reveal their personal information and get payment secured in money laundering, middlemen/intermediaries would collect money from one source and transfer it to another source through Bitcoins.

Secondly.Safe havens overview:

A safe haven or (Safe Harbor); is an investment that either stays constant or increases during the times of market turbulence, it is chosen to limit the losses during market downfalls it is worth noting that it is a versatile term that can have multiple meanings depending on the context in which it is used.

2.1. Safe haven concept:

A safe haven asset is defined as an investment instrument that shows zero or negative correlation with other assets in periods of severe market turmoil, this way, investors that hold a true safe haven asset in their portfolios will shield themselves from extreme losses at extreme market failures, to capture the safe haven asset feature of an investment Instrument (Bulut & Rizvanoghlu, 2019).

A strong (weak) safe haven is defined as an asset that is negatively Correlated (uncorrelated) with another asset or portfolio in certain period only (Baur & McDermott, 2010, p. 1889)is a type of investment that is expected to retain or increase in value during times of market turbulence (CHEN, 2021) the definition of a safe haven proposed above is consistent with the definitions provided by Webster's dictionary the word "haven" is defined as a harbor or port; a place of safety and a place offering favorable opportunities or conditions; a safe haven is thus a place of safety that offers investors shelter(i.e., nonnegative returns)in extreme market conditions (Baur & Lucey, 2010, pp. 219-220).

2.2. Safe haven Terms:

There are certain characteristics that assets often and contribute to their reputation as a safe-haven which include: (IG, 2019)

➤ **High Liquidity:** the asset needs to be easily convertible to cash at any time.

- Endured performance: the asset needs to have a use that will continually provide long-term demand.
- Limited supply: the growth of supply should never outweigh the demand (scarcity).
- Certainty of demand: the asset is unlikely to be replaced or become outdated.
- Permanence: the asset should not decay or rot over time.

But not every safe-haven will have all of these characteristics. Therefore, investors are to make judgment about the most suitable safe haven for the economic climate. Also, it is crucial to remember that what makes a good safe-haven for one market downturn may not show the same results in another. Hence, investors are required to understand what they want to gain from using safe-haven investments.

Thirdly. Analytical part:

Bitcoin was proposed as a safe haven for investors during crises, and the Covid-19 pandemic was a platform for testing and examining the veracity of this information. Therefore, we analyzed objectively and realistically the impact of Bitcoin's price on global cumulative confirmed situations, and whether Bitcoin has been resorted to as a truly safe haven or is there anything else.

3.1. Data:

This paper examines the extent to which Bitcoin is a safe haven during the Covid-19 pandemic, more precisely; we study the dynamic relationship between the market capitalization of Bitcoin and the severity of the Covid-19 pandemic during the period from January 22, 2020, to May 01, 2022 at a daily rate.

In our research paper, we used market capitalization (unadjusted) in US dollars for bitcoin prices; It was retrieved from the St. Louis Federal Reserve Bank of Economic Data website: Coinbase Bitcoin (CBBTCUSD) | FRED | St. Louis Fed (stlouisfed.org), the severity of Covid-19 is measured and determined by the globally confirmed contagion variable (the cumulative confirmed number of people infected) the data was retrieved from the Statista website: <https://www.statista.com>

3.2. Descriptive analysis of variables:

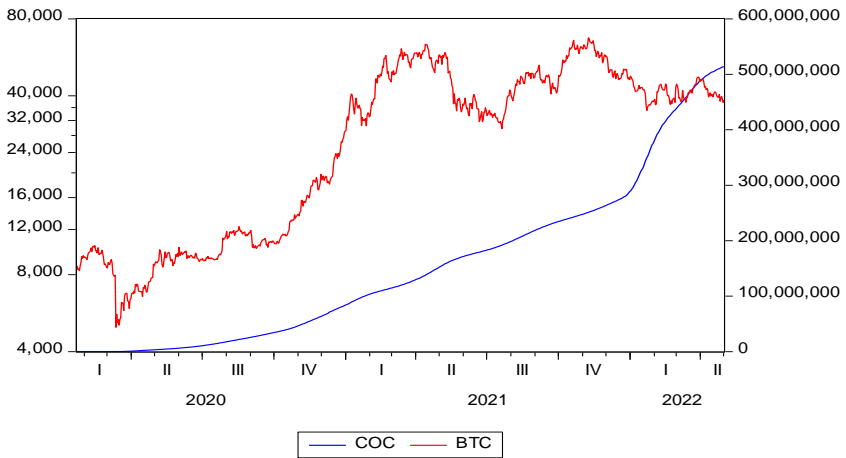
Investing in safe havens during crises works to maintain value or "achieve positive returns and at worst be close to zero and be a safe option for investors" (Cheema & al, 2020) with the emergence and unprecedented spread of the Covid-19 pandemic investors fled safe

assets and gold was traditionally the first safe haven to mitigate their losses, but "gold fell during the pandemic" (Cheema & al, 2020). Bitcoin emerged as a serious competitor to gold and assessed the characteristics of bitcoin's safe haven. Bitcoin was found to be similar to gold (Harris, 2018).

Our study examines the effectiveness of Bitcoin as a security haven during the Covid19 pandemic. And our analysis includes the movement of bitcoin's market value and symbolization (BTC) and the cumulative confirmed cases we symbolize (COC).

Based on the figure below, we note that the two variables (COC; BTC) takes us in an upward trend but the independent variable (COC) is moving in a positive direction with an inflationary increase; the "BTC" variable sees clear fluctuations during the period studied with the beginning of covid19 (or Coronavirus as first known) Bitcoin prices were trading at just under "\$8,000 to \$10,000" until Bitcoin on "Thursday March 12, 2020" suffered a major collapse in its short history reaching "\$4,600" or nearly half (46.5%) most likely the pressure of the sale has lowered the price of Bitcoin (McIntosh, 2021). According to the chart Covid19's confirmed injuries are rising very sharply; Bitcoin has rising above "\$7,000 &\$8,000" by April 2020, and in May it started at "\$10,000". The recovery of the price of Bitcoin lies in quarantine policies and a policy of total closure imposed that has caused the world to shift towards digitization and the use of digital technology (KUCCHAR, 2021)? with "WHO" promoting the idea that Covid19 could be transmitted through traditional money (JEMIMA, 2021) this has led to increased adoption of financial services remotely in return this has reinforced the adoption of Bitcoin (KUCCHAR, 2021).

Figure N°01: Daily data series for Bitcoin prices and global cumulative confirmed cases; both the "BTC" & "COC" series are Standardized a starting on 22/01/2020 to 01/05/2022.



Source: Eviews10 outputs

Bitcoin was also subject to the third half process i.e. a bonus reduction for each block mined on May 11, 2020 (bitcoinblockhalf, 2021). Given the rise in Bitcoin, it can be said that Bitcoin has recovered what it lost in the collapse in a month and a half (Lanz, 2021)as the number of confirmed infections around the world increased and the epidemic spread further; Bitcoin recorded slight rises, certainly, with slight declines - not comparable to collapse - By October 2020, it had reached \$13,000 and jumped rapidly in November 2020 to nearly \$20,000 due to the prospect of a Covid19 vaccine and economic stimulus policy by the Federal Reserve (Royal, 2022)it continued to rise slightly during December 2020 and closed in 2020 at \$29,026.97.

Bitcoin started the first and second quarter of 2021 strongly, reaching an all-time high of more than "\$60,000" in March 2021 and April 2021, a 500% rise due to its Federal Reserve policy which gave unbridled optimism to cryptocurrencies and stocks (Royal, 2022), "Tesla" announced a \$1.5 billion investment in Bitcoin and "Micro -Strategy" ; "PayPal" ; "BlackRock" , "MasterCard" and " JPMorgan" (Dasgupta & al, 2021) also raised the issue of investing in them it's called "institutional accreditation" (Orr & al, 2021) "Coinbase" is ready for IPO (de Best, 2022)and it has to flock a lot of people on trading platforms to buy cryptocurrencies and this turnout has doubled the price of Bitcoin.

The price of Bitcoin in the third quarter of 2021 began to decline; beginning in "May" as China issued warnings to cryptocurrency buyers that it would press the industry and announced a ban on cryptocurrency trading by financial institutions and payment platforms. Bitcoin's reaction to this news was the collapse losing 50% of its value (Royal, 2022) and Elon Musk's tweets in early June 2021 helped lower the price (McGleenon, 2022). Consequently, Bitcoin fell to its lowest level in a few months, but in the fourth quarter, Bitcoin recovered in September 2021 and with the announcement of the entry into force of the Bitcoin Law in "El Salvador" gave a glimmer of hope to rise, but shortly after there was a decrease in the reason why the Bitcoin law did not come into force (McGleenon, 2022). As of October 2021, Bitcoin had recorded more than "\$60,000" reaching an all-time high of "\$67,510.06" in early November 2021 the rise was linked to the launch of Bitcoin "ETF" (de Best, 2022) which gives investors exposure to Bitcoin returns through futures contracts despite the lack of official approval from the U.S Securities and Exchange Commission (Franck, 2021) In addition to the first activation of the promotion of Bitcoin "Taproot" (beigel, 2022), Bitcoin was known after this rise falling from mid-November 2021. As it did in December 2021, when the price was trading just above "\$45,000 and less than \$60,000" the decline is due to the Federal Reserve slowly reducing its bond purchases in order to slowly drain liquidity from financial markets by doubling the monthly open "FOMC" rate at which asset purchases are reduced amid high inflation (Royal, 2022) as well as the discovery of the new variant of the virus Covid-19 called "Omicron" which reduced Bitcoin by 20% (pascale & Reuters, 2021) Bitcoin ended 2021 at "\$46,244.63".

The situation continued to decline in the first four months of 2022, with a slow downward trend as the price of Bitcoin bounced back just above "\$36,000" and just under "\$48,000". The decline is due to rumors about the U.S. government's anticipated strategy to regulate digital assets that led to a major market sell-off and the Federal Reserve's measures to control inflation which negatively affected Bitcoin (GARNETT, 2022).

Fourthly. Results:

The main focus of this research paper was to analyze bitcoin value fluctuations during the Covid 19 pandemic as well as to confirm whether Bitcoin is a safe haven through its increasing face value and demand in light of the high incidence of cumulative global confirmed infections. A daily data set was used to confirm its accuracy and the impact of investor prices Bitcoin price changes in addition to investment decisions.

In short the results of the analysis concluded that:

➤ The presence of factors resulting from the pandemic that affected the price and demand for Bitcoin. That is the popularity of the idea of transmission of the virus through traditional money and thus the trend towards the adoption of financial services remotely. Bitcoin has emerged as a great option especially since it does not require a bank account to deal with it.

➤ There is a rise in the price of Bitcoin and demand during the pandemic linked to "the Herd Behavior Act". Which means that large reliable companies invest in Bitcoin or declare their intention to invest in it i.e. the emergence and acceleration of institutional adoption "Coin bies" willingness to IPO has led to collective interest and high demand for it; "the uncertain information " hypothesis also had a crucial role in Bitcoin's rise as it experienced a slight rise and that's during the vogue of news of the possibility of reaching a vaccine for Covid19 and the Federal Reserve's announcement promises of liquidity which have produced unbridled optimism in cryptocurrency markets and elsewhere. Moreover, the " El Salvador" announced the possibility of the legitimacy of Bitcoin in its transactions as for the launch of Bitcoin futures "ETF" it has reached an all-time high this is despite the lack of official approval from the "U.S" securities and exchange commission.

➤ Lack of strong evidence that there is a link between Bitcoin's rise and global cumulative confirmed infections most heights are driven by feelings; Bitcoin's price and demand rise during the period of unbridled optimism i.e. amid the news and the perfect promises and push it to the highest limits; at the stage of fear it drops strongly amid bad news and pressure.

➤ The decline in Bitcoin during the pandemic is linked to two well-known assumptions: "overreaction" and "unconfirmed information."

➤ Bitcoin did not act as a safe haven during the pandemic. We do not mean to point out that the pandemic did not get involved in increasing the price of Bitcoin and demand for it, on the contrary, but not in the way it's meant to be some kind of safe- haven which investors resort to and compete with when they are worried about the rise in confirmed global cumulative infections.

Conclusion:

In general, we analyzed the suggestion that Bitcoin is a safe haven during the Covid 19 pandemic in which the pandemic has become an essential ground for examining and testing Bitcoin's safe haven properties, and by analyzing and tracking causes and facts. Our results

indicate that Bitcoin did not act as a safe haven during the period studied and that most of bitcoin's high price and demand process are largely driven by feelings. Investors are not fleeing to Bitcoin because of fear and concern about the rise in confirmed cumulative global casualties, However, according to the hypothesis of " unconfirmed information" and the follow-up to the " Herd Behavior Act" Investing in Bitcoin does not help maintain the value of the investment but investors can lose more because of the large fluctuations in Bitcoin. Therefore, the study hypothesis is rejected.

Recommendations:

The current study seems to be a step in the right direction to discover whether Bitcoin is a safe haven during the pandemic. While the findings have explored some potential policies and measures that may have impacted Bitcoin prices, it is clear that more research is needed to truly understand the topic. Quantitative analysis of bitcoin prices before, during, and after the pandemic is essential to gain a better understanding of how they work and respond.

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