

MEASURING THE GROWTH RATE OF DEVELOPMENT IN THE MARKET VALUE OF GLOBAL CRYPTOCURRENCIES AND ITS IMPACT ON TRADING VOLUME

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Abstract

The study aims to measure the growth rate of development of the market value of global cryptocurrencies and its impact on trading volume and to explain the justifications and origin of cryptocurrencies and trading volume, and the factors affecting them. The currencies "DOGE - Bitcoin - ETH - USDT-" were chosen to be the study sample, extending from the year (2016) to (2022). After delving into the study, I concluded by calculating and analyzing the growth rate of the market value of cryptocurrencies (Ethereum (ETH)). (To the presence of various fluctuating contradictions with rises and falls in the currency, as this was indicated in the years of the study sample if the average price of the currency in the year 2016 was at a rate of (577.4225) US dollars, and it decreased over the course of the year 2017 if it reached a rate of (4342.045) US dollars by A little while in the year 2018, the average price of the currency rose at a very significant level to (16,589.42) US dollars. This fluctuation continued in the rise and fall of the currency price over the years (2019-2020-2021) and at a successive rate of (177.7458333-308.7541667-2744.1025) US dollars, and it decreased. The growth rate of the currency's market value in the year 2022 is at a rate of (1922.254167) US dollars. When analyzing the growth rate of the cryptocurrency's market value (Dogecoin (DOGE)), we notice a large fluctuation between the years (2021) and (2022), as very high trading levels were indicated. Unlike previous years, this is an indication of the increase in trading in those years, as the rate of increase reached (0.2076) (0.0970241). Analysis of the growth rate of the market value of cryptocurrencies (Tether (USDT)) indicated significant fluctuation and decline between the years (2021) and (2022), as low levels of trading were indicated at a very low level, unlike previous years, and this is an indication of a decrease in trading in the two years mentioned, amounting to (0.917058), (0.916791). When analyzing the trading of the cryptocurrency (Bitcoin), it increased significantly in the year (2021), as very high levels of trading were indicated, unlike the previous and subsequent years, and this is an indication of the increase in trading in that year, as it reached (47,124.99). The study recommends the importance of drawing attention to the information industry and financial technology for global financial markets, especially in developing countries such as Iraq. Since financial technology is the actual means of achieving development, information specialists are being prepared who are trained and prepared to develop stock market financing in the context of contemporary financial technology.

Keywords: cryptocurrencies - types of cryptocurrencies - trading volume.

Introduction

Cryptocurrencies came about in the context of the academic movement concerned with monetary reform, following waves of inflation in the 1970s, and growing doubts about the feasibility of central banks monopolizing the authority to issue money. Historical experience indicates that at every step of the development of money and monetary systems, technological development played an important role in determining the monetary standards used by humans. Recently, technological development has imposed the reality of encrypted digital currencies, and the experience of the past fourteen years has proven the futility of ignoring or preventing “Bitcoin,” especially in light of international agents not being subject to national monetary policy controls. Much of the literature has gone beyond talking about justifications for banks’ coexistence. Centralization with the reality of cryptocurrencies, to research the mechanisms for interacting with this new reality, in light of the risks and challenges that cryptocurrencies pose to monetary policy and financial stability, taking into account the clear growth of these currencies, and that technological development can correct the shortcomings in monetary policy (Al-Demerdash, 2023:5). Trading volume of a coin or token can be used to measure how active an asset is over time, usually in a single trading day. Trading volumes and prices of cryptocurrencies are usually related to each other. Cryptocurrency asset prices rise along with their presence in the market, especially when they... This is at an unusual rate that I have shown in the past, and journalists and sellers are crowding the market in response. Increased trading volume is a sign of improved order execution, increased liquidity, and a more lively market that brings buyers and sellers together. On the other hand, lower trading volume may be a sign of a lack of interest in the market, and thus It can be affected by liquidity and other trading factors (Corbet et al., 2018:3-4). Cryptocurrency trading volume varies across different exchanges. Therefore, the importance of the study is that it examines a contemporary and vital topic that is of interest to researchers, investors, and financial authorities, which is encrypted virtual currencies, which have become the topic of the hour, and what are the complexities inherent in them in terms of their financial, technical, and legal aspects in global trading volume. Therefore, the researcher proposed dividing this study into three sections. The first section presented the methodology of the study and previous literature, the second section presented the two theoretical literatures of the study, and the third section presented the analytical study (the scientific method of measurement), then the conclusion..

1. Study methodology and previous literature

1.1. Study problem

Due to the advantages that virtual currencies have and the risks they entail, they differ radically from traditional tools due to the complexity of their technical, financial, monetary, and legal aspects. Therefore, the researcher proposes the problem by asking: Does the growth rate of development of the market value of global cryptocurrencies affect the trading volume?

2.1The importance of the study

The importance of the study lies in the fact that it examines a contemporary and vital topic that is of interest to researchers, investors, and financial authorities, which is encrypted virtual

currencies that have become the topic of the hour and the complexities inherent in them in terms of their financial, technical and legal aspects in global trading volume.

3.1 Objective of the study

The study aims to measure the growth rate of development of the market value of global cryptocurrencies and its impact on trading volume and to explain the justifications and origin of cryptocurrencies and trading volume, and the factors affecting them.

4.1 Study hypothesis

The study hypothesis proposes that “measuring the growth rate of the development of the market value of global cryptocurrencies will increase the trading volume in global financial markets”.

5.1 Study sample

The sample of the study on global cryptocurrencies was carefully and precisely selected, namely “DOGE - Bitcoin - ETH - USDT”. It extended from the year (2016) to (2022) to be the study sample.

6.1 Previous literature

- **Study(Lucrezia, 2018)** The aim of the study is to analyze the potential capabilities (.and effects of digital currencies issued by central banks on the financial and monetary system the results of the study, based on The sample of the study is the European Central Bank, and our analysis, can be said that the financial system has become more complex, as new innovative payment systems have made transactions easier and faster, which has led to an increase in social welfare, and as long as private internal funds are denominated in currency Sovereign and properly regulated and structured, central banks need not worry and can ensure that influences set the right course for the economy, institutions, citizens and society as a .whole, while also not stifling innovation
- **Study(Maganus, 2019)** This study aims to further develop the understanding of (some of the return drivers for cryptocurrencies, by studying whether investor interests or basic values have a greater impact on the prices of cryptocurrencies. The study sample represents the financial markets, and the research periods chosen in which The January2018 market crash is included. The study concludes that while innovation plays a major role in the technological progress of cryptocurrencies, the metric used does not fully capture this progress and as a result has little impact on weekly returns. The growth in supply and liquidity is pushing returns downward, as largely with traditional financial instruments; In contrast to ,the traditional stock market, there is no specific trading day that shows above-average returns and the momentum in returns data suggests that novice investors tend to overreact or .underreact to price fluctuations that can last for up to three days. Ten days
- **Study (Mansour2022)** This study aimed to identify the concept of cryptocurrencies (and their characteristics, state the opinion of countries, international bodies, and central banks on issuing virtual currencies, explain the repercussions of using virtual currencies and their impact on financial and banking stability, and indicate the future prospects of dealing with

virtual currencies or not, and concluded Research indicates that there is a difference between virtual currencies and the standards of traditional and digital money, that the standards of money functions are not met in them, and that there are many challenges and risks for virtual currencies. However, there is a global trend that envisages banning the use of encrypted virtual currencies. The researcher recommends that it be studied by an international committee consisting of specialists in various technical, legal, banking, and financial fields to establish the necessary controls for its use while preserving the global banking and financial .system

▪ **Study (Sami, Ami2022)** This study aims to identify encrypted digital currencies (and find out the impact of encrypted digital currencies on the market value of shares of The sample of the study represents financial technology .financial technology companies companies by shedding light on the Bitcoin currency during the period2016 -2021 and the , results of the study are that encrypted currencies, including Bitcoin, have had a significant impact on the market resulting from the price fluctuations they witness daily, and this impact .has extended to companies. Financial technology, especially the market value of its shares Financial analysis was conducted and a simple linear regression model was applied to determine the impact of Bitcoin on the market value of financial technology companies. The study concluded that there is a statistically significant positive effect of Bitcoin price fluctuations on the market value of financial technology companies

Theoretical literature for study

1.2Justifications and origins of cryptocurrencies:

The emergence of new ideas and concepts for new payment methods and taking advantage of electronic space and what can be used to simplify transactions and find means of payment that suit the new reality coincided with the growth of the Internet and led to the emergence of electronic and encrypted cash currencies. In the nineties of the last century, eCash was introduced, which is the first encrypted currency. Centrality. The eCash system, which was accessible through many banks and smart cards in different countries, gradually evolved into the cryptocurrency it exists today and many developments were made during this time to reach its current state (David & Linda, 2018:37). With subprime mortgage crisis, cryptocurrencies entered a new phase of development. The year 2008 marked an important turning point in the history of the global financial system due to the crisis of confidence that struck the country, revealed the weakness and fragility of the contemporary financial system, and shattered public confidence in governments, banks, and other financial organizations considered essential. for financial system transactions (Jefferson et al., 2021:6). During the global financial crisis (GFC), cryptocurrencies witnessed a new birth. The global financial crisis began with the publication of an idea or blog containing the concept (NickSzabo, 2008) and suggested the possibility of extracting gold and recording the parts in an electronic ledger. The proposed economic incentive scheme requires members to resolve the concerns of a trusted third party. With it, which is the general premise of blockchain, investing resources to extract valuable information from the digital ledger without any hindrances. The distributed nature of the protocol and the history of the great financial crisis distinguished its approach from previous cryptocurrencies, and as a result, cryptocurrencies were stimulated and brought into existence

by the financial crisis more than it was like in the past (David & Linda, 2018:38). The topic has been covered in a wide range of articles and concepts, for example (Back, 1997; Dai & Hashcash, 1998) (Szabo, 2008) who talked about the concept of money, and who wrote about the partial payment system (Shirky, 2000). Perhaps the greatest method to summarize the above concepts is by Steven (1993), who asserts that people see a future in which every piece of information about a person, from opinions to medical records, is stored in a fingerprint that cannot be found unless the person concerned decides to reveal it via a global network. In opposition to any attempt to violate privacy, the only way to achieve this goal is to use encryption on a large scale. But is this technically possible? It is certainly possible, but political barriers will prevent some of the most powerful government forces from allowing the use of these tools. In other words, there is an ongoing war between those who want to liberalize cryptocurrency and those who want to suppress it (the central authorities), although the front lines of the battle seem far away. However, the risks are great; The outcome of this struggle could determine the extent of our freedoms in the 21st century. A person who accesses a computer network using encryption to protect privacy is known, especially by government agencies, as a "cypherpunk," and they assert that freedom is a worthwhile risk in our society (David & Linda, 2018:38).

2.2 Cryptocurrencies or crypto assets

Still lack harmonized definitions and classifications that can be classified according to their novelty. Different international and national regulatory bodies propose different approaches to classifying cryptocurrencies and then defining them, either as a subcategory of broader digital currencies, especially by the Bank for International Settlements (2015), the World Bank (2017), or as part of precisely defined virtual currencies, especially the European Banking Association, the European Central Bank (2015), the European Securities and Markets Authority (2018), and the International Monetary Fund (2016), according to which all organizations agree that what distinguishes currencies Cryptocurrency is distinct from other financial instruments because its issuance mechanism is independent, and is not accepted by official administrative bodies (Al-Yudawi, 2023:18). Cryptocurrency is a type of virtual or digital money that is not produced by a central body and uses encryption for protection, making it unaffected by government measures. (Katherine et al., 2017:5) There is no governing legal body, unlike central banks, because it is leveraged via a decentralized computer network that connects the user to the processes of issuing and settling transactions (Javad et al., 2021: 20). In many cases, the sender and recipient are anonymous, purchases and transfers cannot be traced, and they can be used to complete a wide range of transactions, as long as the transacting parties agree to their use (Al-Aqoun and Mubarak, 2021:712). Cryptocurrencies are defined as "a digital currency that has no characteristics." Tangible physical documents, are issued by persons not authorized by the state, and have no legal system regulating them. They are created through special programs via the Internet, and are negotiable, but do not enjoy general acceptance" (Al-Zaabi, 2018 10). He defined them as (Carmelo et al. al.,2020:386) "Cryptocurrencies are new market regulations that combine the advantages of emerging cryptographic technologies such as Blockchain with some features of financial assets".

It is also “one of the innovations in the field of trade finance by improving the consumer experience by reducing transaction times, eliminating manual transactions, and eliminating useless intermediaries (Ahmed, 2021:5”).(

Through the previous definitions, cryptocurrencies can be defined as “a virtual digital currency that is protected by cryptography and is issued by developers instead of a central bank or any other government agency and is recognized as a form of payment despite its lack of physical balance or physical presence electronically. It can be exchanged or saved.” Or transfer it, as it is a program written in a specific programming language and using global encryption techniques that make the process of hacking and tampering with it almost impossible. 3.2 Characteristics of Cryptocurrencies

The characteristics of cryptocurrencies and their many requirements are what give cryptocurrencies their specifications, the most important of which are listed below (Tobi and Sharafi, 2021: 185-184):

1. Its value is derived from individuals’ acceptance of it as a medium of exchange, a payment mechanism, a store of value, and a tool for concluding receivables.
2. It is not based on any central authority, unlike electronic money, which is subject to central banks.
3. The supply of digital money is determined through computer protocols and its networks are not operated by a specific entity or institution.
4. The operational infrastructure for digital currencies depends on blockchain technology and distributed consensus, which is classified as the most important technical innovation after the Internet, which is expected to bring about a new revolution in the field of business.
5. The value is transferred from the payer to the beneficiary using the peer-to-peer principle without resorting to an intermediary, which allows for reducing, accelerating and facilitating the costs of transactions, and enabling them to bypass all forms of central legal and regulatory control. The value of digital currencies is determined by the law of supply and demand, but their intrinsic value is non-existent.

4.2 Types of cryptocurrencies

Many virtual currencies are exchanged between users, whether natural or legal, and most of these types are based on the principle of Bitcoin, and the differences between them are simple, some of which are related to mining and the method of distribution and others to the time of trading, and there are types related to the mining algorithms responsible for the encryption process, and the types can be reviewed. Virtual currencies, for example, are not limited to the following (Abdul Hamid and Ibrahim, 2021: 79-78):

1. Bitcoin: Bitcoin, symbolized by the symbol BTC, is one of the most famous virtual currencies since it was issued by Satoshi Nakamoto in 2008. It contains a digital address that is linked to an electronic wallet. When purchasing Bitcoin, the customer just clicks on the button and uses the electronic signature to transfer the cryptocurrency from the wallet. The seller to his own portfolio (Marie et al., 2010:2).
2. Litecoin: Its symbol is LTC. This type of virtual currency was introduced in 2011 by its developer, Charlie Lee, and relies on different algorithms in the encryption process, in

addition to the ease of exchanging it compared to Bitcoin, which increased its exchange between users and the number of coins issued (84). Million pieces.

3. Ripple: Its symbol is xRP. This currency appeared in 2013 by Ryan Fugger and Chris Larsen, and it ranked third among virtual currencies in terms of liquidity. It is distinguished from Bitcoin in that it works to preserve the traditional banking system while Bitcoin is displacing it.

4. Ethereum: Symbolized by the symbol ETH. This type was introduced in 2015 by Russian programmer Vitalik Buterin and is considered the second largest decentralized cryptocurrency with a capital of more than one billion units. These types are distinguished by the system's ability to create smart contracts that mimic traditional contracts. It is estimated at (18,000,000) million pieces.

5. Zcash: This type first appeared in 2016 and distinguishes itself from other currencies by including the identities of the buyer and seller as well as the value of the transaction in secure private wallets that can only be accessed by those with the necessary access.

6. Bitcoin Cash: The digital currency denoted by the symbol BCT is the third most popular currency. The currency first appeared in 2017 and a total of (12,000,000) million pieces were manufactured (Rafaaibrahim et al., 2019:5).

5.2 The concept of trading volume

Stock trading volume is a critical element that affects investment choices and is considered one of the main components of technical analysis. Much research has made use of a range of trading volume metrics. We will attempt to define trading volume and highlight key performance indicators in this section. Trading volume can be defined as the total... The number of shares that were exchanged, including all calls and offers, during a given period, which could be any time period, such as one minute, fifty-one minutes, an hour, or a day. In other words, it is how many shares were sold in five minutes or within an hour, for example, as long as this is the number of shares sold, it is also the number of shares purchased. The stock must have a buyer to be sold, and it must have a seller to be purchased. Therefore, the volume shows us the number of shares executed out of the total offers and orders (Hantoush, 2021: 443). (Al-Hasnawi, 2022:20) defined that trading volume "is the number of shares on which transactions were conducted during a certain period, which may be years, months, weeks, days, or even minutes. In other words, it is the number of shares that were traded (i.e. Sold (within hours or a number of minutes, for example, although the number of shares sold is the same as the number of shares purchased from another party, so the trading volume of the shares that were executed is from the total orders and offers, and therefore is the number of shares traded in the financial market. It shows the size of the financial market during A certain period." Trading volume is also defined as the average number of transactions conducted by a trader or the market during a certain period of time (Manex, 2013:10). (Fadel, 2017:18) defines trading volume as the number of shares traded in a specific market during a specific period, and the measure of the number of shares traded for a specific company during a specific time period is the most common measure in studies that dealt with the relationship of volume to stock prices.

We see the trading volume of securities exchanged during a specific period of time. In other words, it indicates the flow of securities purchased and sold and is considered an important indicator of the volume of trade and the degree of market liquidity. 6.2 Factors affecting trading volume

There are many factors that affect the trading volume on the stock exchange, and the most important of these factors are the following (Mashkour and Sadiq, 2019: 384-383): -

1. Political climate: The relationship between the political climate and stock market performance is not clear, nor is it constant or proportional like the previous relationship. Also, the political climate is not an indicator of economic prosperity in the stock market, and instability is not necessarily a reason for its collapse, and it is the reason behind this unclear relationship. It is that influential political events usually have two sides, meaning that what harms one party may be beneficial to another party.

2. Rumors: It is an unofficial news agency that informs investors about information in which they may find a danger, a source of threat, or an opportunity for quick profit.

3. Economic situation: The relationship between the economic situation and the level of performance on the stock exchange is a direct relationship, so it is natural for trading on the stock exchange to increase in a situation in which the country's economy is in a state of prosperity, and the reason for this is that the country's thriving economy will It provides investors with a state of safety within the country and reduces the risk of not investing, which leads to an increase in the volume of investment within the country.

4. Transparency: Transparency means speed and efficiency in transmitting information to all investors at the same time in the stock exchange, as the transparency factor reflects the integrity and efficiency of transmitting information within the stock exchange. Therefore, transmitting information quickly and with complete efficiency will ensure that there is no opportunity for any investor to exploit it. To obtain personal gain without others.

5. Supply and demand: The theory of supply and demand is one of the oldest economic theories, as well as one of the most important factors influencing the stock market and determining stock prices, as well as the prices of securities on the stock exchange.

7.2 Cryptocurrencies and their impact on financial stability and trading volume

Rapid technological progress has led to a number of recent transformations and revolutions that have accelerated the rate of development of inventions and technologies. In addition to what this technology is witnessing at the level of the banking and financial industry, technological progress has also led to a radical change in the way financial institutions are managed, especially in the field of payment. And transferring funds through advanced payment and settlement systems (Allawi, 2020: 174). The most prominent of these changes that have occurred in the global monetary system in recent years has been the emergence of digital currencies, the most famous of which are virtual (encrypted) currencies, despite the widespread concerns surrounding them due to their highly fluctuating values. Even with these risks, their value is increasing by gaining traders' confidence in them. The Internet, due to its decentralized issuance and circulation, along with associated financial services through widely dispersed trading platforms, has made it easier for some international institutions to accept it as a form of payment (Claeys et al., 2018:2). Despite the massive revolution in financial technology brought about by cryptocurrencies, they will ultimately have a

fundamental impact on financial markets because they have the potential to change the structure of the economy and finance as well as the way banking and financial institutions operate in developed nations (Mandeng, 2018:3 The trading volume of a currency or token can be used to measure how active an asset is throughout the time, usually in a single trading day. Trading volumes and prices of cryptocurrencies are usually related to each other, and the prices of crypto assets rise along with their presence in the market, especially When you do this at an extraordinary rate that you have shown in the past, and journalists and sellers crowd the market in response, increased trading volume is a sign of improved order execution, increased liquidity, and a more vibrant market that brings buyers and sellers together. On the other hand, decreased trading volume may be a sign of a lack of interest in the market. , and can therefore be affected by liquidity and other trading factors (Corbet et al., 2018:3-4). Cryptocurrency trading volume varies across different exchanges. There are several factors responsible for this disparity, such as the number of users on each exchange and the trading tendencies of these users. The largest exchange, Binance, had a total cryptocurrency trading volume of around \$35 billion, representing 25% of the total market trading volume. Smaller exchanges are responsible for the rest of the volume, including OKX (~5%), BingX (~5%), and Coinbase (~1%), among others (<https://blackbull.com>).

3: Analytical study (scientific method of measurement)

3.1 Study sample

This chapter is used to measure and analyze the values of global cryptocurrencies as a sample of the study. These currencies were carefully and accurately selected, namely “(DOGE - Bitcoin -ETH -USDT-).” If the analysis years are chosen for a period of (7) years extending from the year (2016) to (2022).

3.2 Limitations of the study

- Spatial boundaries: - The researcher considered that the spatial boundaries of the study are (DOGE - Bitcoin - ETH - USDT-).
- Time limits: - Global cryptocurrencies were chosen with time limits from (2016) to (2022).

3.3 Results of analyzing the growth rate of the market value of cryptocurrencies and its impact on trading volume

1. Calculating and analyzing the growth rate of the market value of cryptocurrencies (Tether (USDT)) for the years 2016-2022

It is clear through calculating and analyzing the growth rate of the market value of cryptocurrencies (Tether (USDT)) for the years from (2016) to (2022) that there are various fluctuations with rise and fall in the currency, as this may have been indicated in the years of the study sample if the average price of the currency in the year 2016 At a rate of (1.00) US dollars, it decreased over the course of the year 2017 if it reached a rate of (0.9977333) US dollars. In the year 2018, the average price of the currency increased to (1.0004833) US dollars. This fluctuation continued in the rise and fall of the currency price over the years 2019-2020. -2021) at a successive rate of (1.00737-1.001-0.917058) US dollars. The growth rate of the currency's market value decreased in the year 2022 at a rate of (0.916791) US

dollars. This indicates a decline in the price in the global financial markets for currencies. The results of the analysis can be shown in Table No. (1).

Table No. (1) Calculating and analyzing the growth rate of the market value of cryptocurrency (Tether (USDT)) for the years 2016-2022

2022	2021	2020	2019	2018	2017	2016	Paragraphs
1.0006	1.0005	1.0037	1.0099	0.9987	1.00	1.00	31/1
1.0015	1.0001	1.0013	1.008	0.9977	1.00	1.00	28/2
1.0002	1.0012	0.9964	1.0107	0.9966	0.9996	1.00	31/3
1.0002	0.9998	1.0072	0.9947	1.0002	0.9346	1.00	30/4
0.9992	0.0009	1.0029	1.0015	1.0002	1.0128	1.00	31/5
0.9996	1.00	0.9996	1.0012	0.9974	1.0104	1.00	30/6
0.0003	1.0003	0.9977	1.0036	0.9993	0.9998	1.00	31/7
1.00	1.0006	1.0018	0.9976	1.0015	1.0047	1.00	31/8
1.00	1.00	1.0012	1.047	1.0015	1.0004	1.00	30/9
1.0002	1.0004	1.001	1.0064	0.9964	0.9999	1.00	31/10
1.00	1.0006	1.0012	1.0018	0.9966	1.0029	1.00	30/11
0.9997	1.0003	1.0004	1.0061	1.0197	1.0077	1.00	31/12
11.0015	11.0047	12.0144	12.0885	12.0058	11.9728	12	Annual total
12	12	12	12	12	12	12	Number of months
0.916791	0.917058	1.001	1.00737	1.0004833	0.9977333	1.00	growth rate

The following figure shows the rise and fall in the growth rate ofThe following figure shows the rise and fall in the growth rate of the market value of the cryptocurrency (Tether (USDT)) for the years (2016-2022)

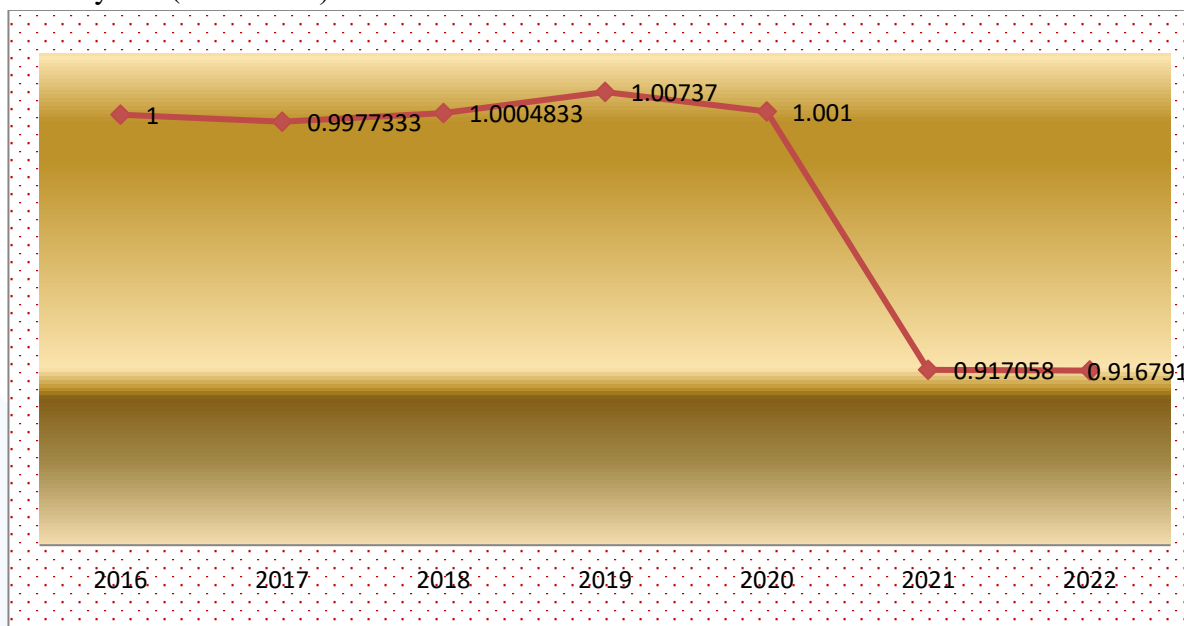


Figure (1) Growth rate of the market value of cryptocurrency (Tether (USDT)) for the years (2016-2022)

From the figure, we notice a significant fluctuation and decline between the years (2021) and (2022), where low trading levels were indicated at a very small level, unlike previous years, and this is an indication of a decline in trading in the two years mentioned, amounting to (0.917058), (0.916791) in the previous figure and table.

2. Calculating and analyzing the growth rate of the market value of cryptocurrency (Ethereum (ETH)) for the years 2016-2022

It is clear through calculating and analyzing the growth rate of the market value of cryptocurrencies (Ethereum (ETH)) for the years from (2016) to (2022) that there are fluctuating and different contradictions with rise and fall in the currency, as this may have been indicated in the years of the study sample if the average price of the currency in the year 2016 at a rate of (577.4225) US dollars, and it decreased over the course of the year 2017 if it reached a rate of (4342.045) US dollars by a small amount. In the year 2018, the average price of the currency rose at a very large level to (16589.42) US dollars. This fluctuation continued in the rise and fall of the currency price. Over the years 2019-2020-2021, at a successive rate of (177.7458333-308.7541667-2744.1025) US dollars, the growth rate of the currency market value decreased in the year 2022 at a rate of (1922.254167) US dollars. This indicates a decline in the price in the global financial markets for currencies. The results of the analysis can be shown in Table No(2).

Table No. (2) Calculating and analyzing the growth rate of the market value of cryptocurrencies (Ethereum (ETH)) for the years 2016-2022

Figure No. (2) reviews the rise and fall in the growth rate of the cryptocurrency market value and the levels of volatility (Ethereum (ETH)) for the years (2016-2022).

2022	2021	2020	2019	2018	2017	2016	Paragraphs
2549.59	1369.09	161.18	105.41	11174.9	920.96	378.86	31/1
2621.17	1459.86	226.83	149.35	10287.3	1180.72	424.63	28/2
3401.53	1819.47	123.58	135.45	3969.23	1044.58	416.76	31/3
2936.78	2748.65	198.18	155.17	5247.73	1348.3	449.71	30/4
1792.18	2414.07	219.93	251.72	8674.07	2159.43	453.52	31/5
1193.25	1981.39	222.91	310.68	107696.93	2590.57	640.52	30/6
1681.45	2302.08	321.14	211.12	9548.18	2763.24	654.49	31/7
1553.76	3430.76	321.83	173.96	10126.3	4341.05	575.55	31/8
1328.18	3001.13	434.87	174.68	8246.04	4341.05	606.24	30/9
1590.48	4322.74	360.31	184.4	9241.71	5754.44	657.68	31/10
1216.93	4447.77	382.82	148.4	7571.62	10978.3	736.28	30/11
1201.75	3632.22	731.47	132.61	7289.03	14681.9	934.83	31/12
23067.05	32929.23	3705.05	2132.95	199073.04	52104.54	6929.07	Annual total
12	12	12	12	12	12	12	Number of months
1922.254167	2744.1025	308.7541667	177.7458333	16589.42	4342.045	577.4225	growth rate

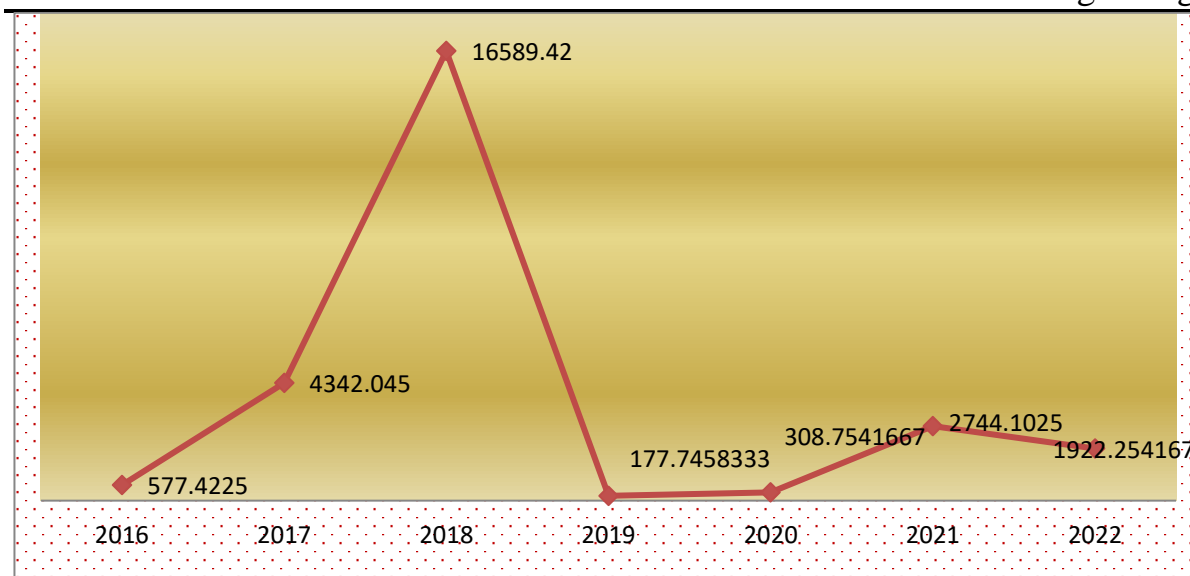


Figure (2) Growth rate of the market value of cryptocurrency (Ethereum (ETH)) for the years 2016-2022

From the figure, we notice the large fluctuation between the figure, we notice a large fluctuation between the years (2017) and (2018), where very high trading levels were indicated, unlike the previous and subsequent years, and this is an indication of the high trading in those years, as was explained previously.

3. Calculating and analyzing the growth rate of the market value of cryptocurrency (Bitcoin) for the years 2016-2022

It is clear by calculating and analyzing the growth rate of the market value of cryptocurrencies (Bitcoin) for the years from (2016) to (2022) that there is a very large increase in the currency, as this was shown in the years of the study sample if the average price of the currency in the year 2016 was at a rate of (598.19). (US dollar, which increased over the course of the year 2017, reaching a rate of (4293.8) US dollars. In 2018, the average price of the currency rose to (7331.5875) US dollars. This fluctuation continued in the rise and fall of the currency price over the years 2019-2020-2021) and at a rate Respectively, (7351.813 - 12073.741 - 47124.99) US dollars. The growth rate of the currency market value decreased in the year 2022 at a rate of (27250.65) US dollars. This indicates a decline in the price in the global financial markets for currencies. The results of the analysis can be shown in Table No. (3). years 2019-2020-2021) At a rate of (7351.813-12073.741-47124.99

) US dollars, respectively, the growth rate of the currency's market value decreased in the year 2022 at a rate of (27250.65) US dollars. This indicates a decline in the price in the global financial markets for currencies. The results of the analysis can be shown in Table No. (3).

Table No. (3) Calculating and analyzing the growth rate of the market value of cryptocurrencies (Bitcoin) for the years 2016-2022

2022	2021	2020	2019	2018	2017	2016	Periods
37780.71	32564.03	8443.72	3443.9	11174.9	920.96	378.87	31/1
39213.08	48612.11	9687.71	3878.7	10287.7	1180.72	424.63	28/2
44349.86	57750.13	6467.25	4156.92	7171.45	1044.58	416.76	31/3
38605.86	54030.3	8672.78	5247.73	9290.24	1250.45	449.41	30/4
29251.14	38795.78	9528.36	8674.70	7592.3	2159.43	453.52	31/5
19820.47	34679.12	9270.99	10796.93	6737.88	5290.57	640.59	30/6
23845.21	39907.26	11099.83	9548.18	8176.85	2763.24	654.49	31/7
20050.5	48834.85	11485.61	10126.3	7043.76	4345.1	575.55	31/8
19427.78	43234.18	10795.52	8246.04	6495.29	3796.15	605.24	30/9
20778.8	61850.49	13271.3	9241.71	6336.99	6036.66	908.11	31/10
17168	54813.02	18801.74	7571.62	3822.47	8789.04	736.28	30/11
16716.4	50428.69	27360.09	7289.03	3849.22	13948.7	934.83	31/12
327007.81	565499.96	144884.9	88221.76	87979.05	51525.6	7178.28	Annual total
12	12	12	12	12	12	12	Number of months
27250.65	47124.99	12073.741	7351.813	7331.5875	4293.8	598.19	growth rate

Figure No. (3) shows the rise and fall in the growth rate of the cryptocurrency market value and the levels of volatility (Bitcoin) for the years (2016-2022).

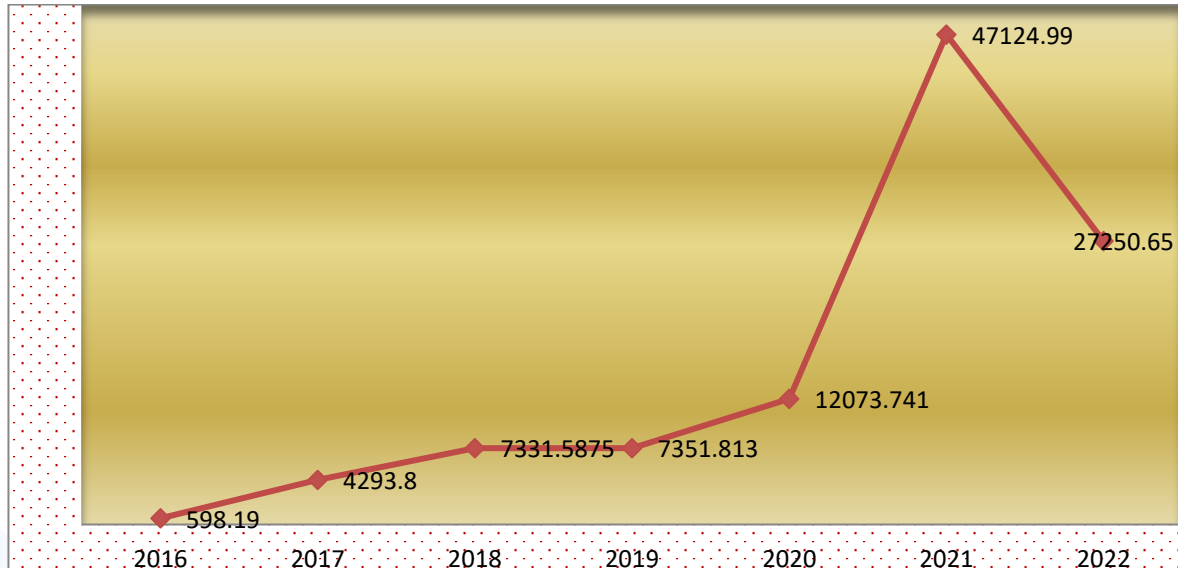


Figure (3) Growth rate of the market value of cryptocurrency (Bitcoin) for the years 2016-2022

From the figure, we notice a significant increase in the year (2021), as very high levels of trading were indicated, unlike the previous and subsequent years, and this is an indication of the increase in trading in that year, as it reached (47,124.99), as was explained previously.

4. Calculating and analyzing the growth rate of the cryptocurrency market value (Dogecoin(DOGE))

It is clear by calculating and analyzing the growth rate of the cryptocurrency market value (Dogecoin (DOGE)) for the years from (2016) to (2022) that there is fluctuation in the rise of the currency, as this was indicated in the years of the study sample if the average price of the currency in the year 2016 was at a rate of (0.00023) US dollars, and it increased over the course of the year 2017 if it reached a rate of (0.001426667) US dollars. In the year 2018, the average price of the currency increased to (0.003958333) US dollars, and this increase continued over the years 2019-2020-2021) at a successive rate of (0.002425). -0.0027416-0.2076) US dollars. The growth rate of the currency's market value has decreased in the year 2022 at a rate of (0.0970241) US dollars. This indicates a decline in the price in the global financial markets for currencies. The results of the analysis can be shown in Table No. (4).

Table No. (4) Calculating and analyzing the growth rate of the market value of the cryptocurrency (Dogecoin (DOGE)) for the years 2016-2022

2022	2021	2020	2019	2018	2017	2016	Paragraphs
0.1431	0.0031	0.0023	0.0019	0.0074	0.0002	0.00017	31/1
0.1237	0.048	0.0026	0.0019	0.0062	0.0002	0.00025	28/2
0.1447	0.053	0.0018	0.002	0.0027	0.0027	0.00025	31/3
0.1378	0.3911	0.0024	0.0025	0.0052	0.0007	0.00022	30/4
0.08225	0.3337	0.0025	0.003	0.0034	0.00026	0.00023	31/5
0.07222	0.2649	0.0023	0.0032	0.0024	0.00026	0.00029	30/6
0.06669	0.2061	0.0031	0.0029	0.0034	0.0017	0.00024	31/7
0.06175	0.2846	0.0032	0.0026	0.0024	0.0002	0.00023	31/8
0.06062	0.2	0.0025	0.0022	0.0059	0.0001	0.00023	30/9
0.1216	0.3	0.0025	0.0026	0.0041	0.0001	0.00022	31/10
0.08147	0.221	0.0032	0.0023	0.002	0.0019	0.00021	30/11
0.06839	0.1867	0.0045	0.002	0.0024	0.0088	0.00022	31/12
1.16429	2.4922	0.0329	0.0291	0.0475	0.01712	0.00276	Annual total
12	12	12	12	12	12	12	Number of months
0.0970241	0.2076	0.0027416	0.002425	0.003958333	0.001426667	0.00023	growth rate

The following figure shows the rise and fall in the growth rate of the cryptocurrency market value (Dogecoin (DOGE)) for the years (2016-2022)

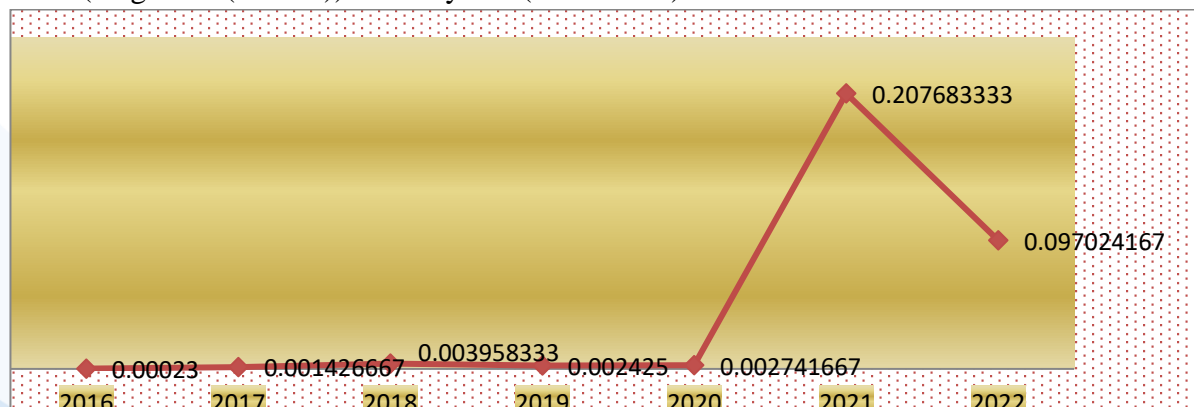


Figure (4) Growth rate of the cryptocurrency market capitalization (Dogecoin (DOGE)) for the years (2016-2022)

From the figure, we notice a large and high fluctuation between the years, we notice a large and high fluctuation between the years (2021) and (2022), where very high levels of trading were indicated, unlike previous years, and this is an indication of the increase in trading in those years. The rate of increase reached (0.2076) (0.0970241) as was explained previously. Through the analyses referred to in Tables (1-4), it becomes clear to us that measuring the growth rate of the development of the market value of global cryptocurrencies increases the volume of trading in global financial markets. Therefore, the hypothesis of the study can be proven, which states: "Measuring the growth rate of the development of the market value of cryptocurrencies Globalization will increase the volume of trading in global financial markets."

3. 4 Conclusions and suggestions

1. Conclusions

- While cryptocurrencies will not pose a threat to central bank-managed currencies, they will also not pose a threat to major international currencies, which have fiat status, years of stable pricing, and excellent standards. However, one might expect a rise in the sentiment and use of cryptocurrencies as they develop. The underlying algorithms, the global and automated nature, and the risk of lack of political control represent a better need for money.
- Digitization reduces the importance of traditional money, expands financial inclusion alternatives available to emerging countries, and reduces the risks and operating expenses related to dealing with physical currencies.
- The use of Blockchain technology enhances freedom of access to financial information and the digital financial reports it contains for coordination for ease of use.
- Trading volume of a coin or token is used to measure how active an asset is over time, usually in a single trading day. Trading volumes are linked to cryptocurrency prices. When crypto asset prices rise, so does their media presence.
- Digital currencies issued by central banks affect financial stability, through their impact on the stability of commercial bank deposits, as citizens see legal digital currencies as the safest alternative.

§ It is clear through calculating and analyzing the growth rate of the market value of cryptocurrencies (Ethereum (ETH)) for the years from (2016) to (2022) that there are fluctuating and various contradictions in the rise and fall of the currency, as this may have been indicated in the years of the study sample if the rate of the currency price in... In 2016, it reached a rate of (577.4225) US dollars, and it decreased throughout 2017, reaching a rate of (4,342,045) US dollars by a small amount. In the year 2018, the average price of the currency rose at a very large level to (16,589.42) US dollars. This fluctuation continued in the rise and fall of the price. The currency over the years 2019-2020-2021) at a successive rate of (177.7458333-308.7541667-2744.1025) US dollars. The growth rate of the currency's market value decreased in the year 2022 at a rate of (1922.254167) US dollars. This indicates a decline in the price in the global financial markets for currencies. When analyzing the growth rate of the market value of the cryptocurrency (Dogecoin (DOGE)) for the years 2016-2022, we notice a large fluctuation between the years (2021) and (2022), where very high levels of trading were indicated, unlike previous years, and this is an indication of high trading in those years, as The rate of increase reached (0.2076) (0.0970241). Analysis of the growth rate of the market value

of cryptocurrencies (Tether (USDT)) for the years 2016-2022 indicated significant fluctuation and decline between the years (2021) and (2022), as low trading levels were indicated at a very low level, unlike previous years, and this is an indication of a decline in trading in The two years mentioned amounted to (0.917058), (0.916791). When analyzing the trading of the cryptocurrency (Bitcoin), it increased significantly in the year (2021), as very high levels of trading were indicated, unlike the previous and subsequent years, and this is an indication of the increase in trading in that year, as it reached (47,124.99).

2. Recommendations

§ Intensifying international cooperation in accordance with the rules and directives that apply to all countries to combat crimes that could be linked to some cryptocurrency transactions.

□ Courses and programs must be provided to develop the skills of central bank employees in order to keep pace with digital developments in cryptocurrencies.

□ Blockchain technology represents the basis of strong government and banking financial systems.

□ The importance of drawing attention to the information industry and financial technology for global financial markets, especially in developing countries such as Iraq. Since financial technology is the actual means of achieving development, information specialists are being prepared who are trained and prepared to develop stock market financing in the context of contemporary financial technology.

□ In order to protect the rights of those dealing with digital currencies and reduce sharp fluctuations in prices, efforts must be made to determine the most appropriate mechanism to provide an official and legal cover for dealing with some of these currencies, which are considered good and known for their capabilities and wide range of direct trading, as this will help in establishing... A regulatory framework based on good scientific principles.

Conclusion

The importance of the study lies in the fact that it examines a contemporary and vital topic that is of interest to researchers, investors, and financial authorities, which is encrypted virtual currencies that have become the topic of the hour and the complexities inherent in them in terms of their financial, technical and legal aspects in global trading volume.

The study aims to measure the growth rate of development of the market value of global cryptocurrencies and its impact on trading volume and to explain the justifications and origin of cryptocurrencies and trading volume, and the factors affecting them. The currencies "DOGE - Bitcoin - ETH - USDT-" were chosen to be the study sample, extending from the year (2016) to (2022). After delving into the study, I concluded by calculating and analyzing the growth rate of the market value of cryptocurrencies (Ethereum (ETH)). (To the presence of fluctuating and various contradictions with rise and fall in the currency, as this was indicated in the years of the study sample, if the average price of the currency in the year 2016 was at a rate of (577.4225) US dollars, and it decreased over the year 2017 if it reached a rate of (4342.045) US dollars by A little while in the year 2018, the average price of the currency rose at a very significant level to (16,589.42) US dollars. This fluctuation continued in the rise and fall of the currency price over the years (2019-2020-2021) and at a successive rate of (177.7458333-

308.7541667-2744.1025) US dollars, and it decreased. The growth rate of the currency's market value in the year 2022 at a rate of (1922.254167) US dollars. When analyzing the growth rate of the cryptocurrency's market value (Dogecoin (DOGE)), we notice a large fluctuation between the years (2021) and (2022), as very high trading levels were indicated. Unlike previous years, this is an indication of the increase in trading in those years, as the rate of increase reached (0.2076) (0.0970241). Analysis of the growth rate of the market value of cryptocurrencies (Tether (USDT)) indicated significant fluctuation and decline between the years (2021) and (2022), as low levels of trading were indicated at a very low level, unlike previous years, and this is an indication of a decrease in trading in the two years mentioned, amounting to (0.917058), (0.916791). When analyzing the trading of the cryptocurrency (Bitcoin), it increased significantly in the year (2021), as very high levels of trading were indicated, unlike the previous and subsequent years, and this is an indication of the increase in trading in that year, as it reached (47,124.99). The study recommends the importance of drawing attention to the information industry and financial technology for global financial markets, especially in developing countries such as Iraq. Since financial technology is the actual means of achieving development, information specialists are being prepared who are trained and prepared to develop stock market financing in the context of contemporary financial technology.

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