
Digital Currencies in Light of Artificial Intelligence, Effects and Negatives: Iraq is An Example

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Abstract

The digital monetary system in the modern era is based on money. It occupies a leading position in economic studies and in all current economic transactions. It is a digital cash system, an advanced system for electronic money that was invented by unknown parties in 2008. The main goal behind its invention was to get rid of the capitalist system and the official authorities' control over the issuance of digital currencies and to come up with a new technology that, with its technological confidence, replaces the role of control and supervision in central banks, that is, in light of artificial intelligence. Dealing with it has been banned in Iraq because it leaves effects and problems on the economic level that cannot be easily overcome. This topic was addressed through two sections. The first dealt with research into encrypted digital currencies in terms of their economic nature, while we devoted the second section to researching and clarifying how to invest in them and their negative and positive economic effects digital currencies electronic money, artificial intelligence.

Keywords: Cryptocurrencies, Virtual Currencies.

Introduction

The cash system is based on the virtual world and is based on the foundations of encryption. It is a system of encrypted electronic currencies that are traded between two electronic devices using peer-to-peer technology, that is, the codes are traded between two parties, one of which knows the other using codes only, and it is not required to disclose the real identities of the users.

The discovery of digital currencies was considered the beginning of the digital monetary system in order to demonstrate the renaissance of the system The new monetary system for the global economy, which in itself represents a revolution against the central monetary system based on issuing currencies with an official license from governments only, which contributed to the development of the monetary system. Digital.

The Digital Cash system goes beyond that towards a global economy without borders, whose basic base is the Internet, and then witnessed commercial dealings via the Internet and the emergence of cryptocurrencies as a result of the spread of social networking sites around the world, and the dominance of the dollar over all financial transactions. Individuals turned to creating the system. Digital Cash is a unified platform for trading and completing buying and selling operations, and its only place is the Internet, meaning the system is created Digital Cash contributes to its positive and negative economic effects on the economy and is outside the control of central banks in countries, and this is precisely what helped the spread and growth of digital currencies throughout countries, including Iraq.

Research Importance

The importance of the research is evident in the urgent need to improve the economic situation, especially the digital monetary system Therefore, we decided to try to

justify the appropriate texts from the Banking Law and the Civil Law regarding the obligations arising from the system. Digital Cash keeps pace with developments economic, especially monetary transactions with economic regulation, so we decided to try to address encrypted digital currencies in Iraq to keep pace for developments electronic technology and understanding its impact on the Iraqi economy in light of artificial intelligence.

Reasons for Choosing the Research Topic

There are many reasons why this topic was chosen as the title of this article. The research is mainly represented by its novelty The spread of dealing in digital currencies at the present time, which prompted us to want to know more about it.

Due to the lack of economic regulation Because of these encrypted digital currencies in Iraq, the difficulty of tracking their operations, and their widespread use by outlaw parties in criminal operations manifested by money laundering and drug and weapons smuggling, will the regime lead Digital Cash What are the usual cash functions in Iraq? Will there be an alternative to the regime? Paper money in Iraq.

Research Problem

Based on the above, the main problem can be presented and formulated as follows:

Economic implications of the use of digital currencies in Iraq - Consequently, sub-questions revolve around the following points:

- What is the economic nature of Cryptocurrencies?
- What are the characteristics of encrypted digital currencies?
- What is the extent of acceptance and spread of encrypted digital currencies at the Iraqi level?

- What are the effects? What is the positive economic impact resulting from the use of encrypted digital currencies in Iraq as a modern means of payment?
- What are the risks of using encrypted digital currencies in Iraq?

Research Assumes

In light of the general research problem and partial questions, the following hypotheses were formulated:

- Growth of hard currency in Iraq.
- There are no difficulties that limit the application of encrypted digital currencies in Iraq by individuals and companies.
- Maybe for encrypted digital currencies to work, the system provides for them the speed and transparency and safety necessary that encourages many people to deal with it, So what? What are encrypted digital currencies? gesticulate the effects of economic negativity and positivity.

Research Aims

Through research, we aim to achieve the following:

- Description of encrypted digital currencies in terms of the theoretical framework.
- Knowing the drivers of the spread of encrypted digital currencies and the factors affecting their prices in Iraq in light of artificial intelligence.
- Explaining the economic effects of encrypted digital currencies on the Iraqi economy, and do their advantages outweigh their negative effects? Will the risks be so great that we should stop using it and ban it completely? Will it establish its own position like other currencies? or will it enter the world of investment like any valuable commodity or security? Is it possible to trade it on official stock exchanges or is it a... Are you satisfied with appearing in the world of foreign markets? Will it leave unparalleled effects on the Iraqi economy

Research Limits

In order to reach more accurate conclusions that are closer to reality, the limits and dimensions of the research were summarized as follows:

- The spatial boundaries of the research touch on encrypted digital currencies, and for further diagnosis, we chose Iraq as a limit.
- Temporal limits: The temporal scope of this research is to determine the date of the value of encrypted digital currencies in Iraq in 2009 until 2020 in its first form.

Research Methodology

Economic umbrella to regulate the dealing in encrypted digital currencies and in an effort to reach economic solutions that suit the economic nature of them, we will follow in our research the descriptive and analytical approach to track encrypted digital currencies and the extent of their ability to absorb the economic transactions imposed on its users and the extent of the risk of dealing with them and to what end. Will you arrive? And for the sake of standing up to the truth about cryptocurrencies is that we... We will divide this search on Two research papers. We deal in the first with What are the digital currencies in cryptocurrencies? under Intelligence Artificial, and statement Economic impacts (negativity and positivity) on the Iraqi economy.

First: The Concept of Virtual Money

The concept of virtual currency refers to digital data issued by private developers as a special unit of account that can be stored, obtained and dealt with electronically and can be used for a variety of purposes with the agreement of the parties dealing with it Habermeire (2016, p32). It can also be defined as a digital representation of value not issued by the central bank or credit institutions, which can be used in some circumstances as an alternative to money European Central Bank, (2015, p215). The

International Monetary Fund defined it as a digital representation of value issued by private developers and denominated in their unit of account He et al (2016, p45).

While some have defined it as a completely electronic currency that is traded over the Internet only without a physical presence, it also differs from traditional currencies in that there is no central regulatory body behind it, but it can be used like any other currency for purchases over the Internet or even converted into traditional currencies Hassan Muhammad (2017, p. 54).

Basel Conference in 1996 defined it as “monetary value in the form of credit units stored electronically or on an electronic tool held by the consumer.” The European Central Bank defined it as “an electronic store of monetary value on a technical means that is commonly used to make payments to contractors other than the one who issued them, without the need to It requires the presence of a bank account when a transaction is made and is used as a prepaid portable instrument. This has been approved by the Basel Committee for International Settlements, especially since its definition combines technical, technical, economic and legal matters at the same time, so the term used in this field has differed. In some studies, electronic money is called virtual cash, meaning virtual cash. Some call it electronic cash, and some call it electronic money because of its common use in electronic transactions.

As is known, traditional electronic payment systems rely on multiple parties to conduct transactions, such as commercial banks, credit institutions, and card issuers, that is, relying on reliable institutions to complete their daily electronic transactions. This results in institutions bearing the costs of completing electronic transactions and thus imposing fees borne by consumers.

While we find that virtual currencies have a special payment system that can remove the need for third parties, it allows users to deal directly with each other on a “peer-to-peer” basis, or the receiver and the sender, without relying on an intermediary

party and using only electronic media such as computers and smart devices, that is, removing central parties. From the exchange process and containing trust from institutions to a distributed network of computers that use complex encryption Department of Finance, (2018, p98).

Bitcoin is the most famous cryptocurrency on the Internet, and its idea is based on downloading the Bitcoin program on users' computers and starting to produce non-replicable currencies through specialized programmers called mining operations, and they are run on special servers designed to issue a specific amount on an annual basis, and this amount is reduced by half. Every four years.

The quality and strength of the mining process depends on the power of the computer processor. The more powerful the device's processor is, the better the mining process is, and thus results in greater currency generation. Every transaction that takes place on Bitcoin is recorded in a public register called (Blockchain), which includes information about accounts, exchange operations, and units. Bitcoins that are exchanged, in order to analyze these transactions and ensure that dealers are not dealing in the same units (Al-Bahout, 2017, pp. 1-16)

The produced currencies are stored in each user's wallet, and an electronic signature is added to the transfer process, and after a few minutes the process is verified by its system and stored in an anonymous encrypted form in the network (Adnan Al-Bar, 2018, p. 33).

Bitcoin can buy goods and services from the Internet only (through people and sites that accept and deal with it), and it can also be converted into traditional cash currencies through specialized sites or through people who want to obtain them or exchange them for traditional currencies.

The global digital monetary system has also witnessed radical developments in recent years, the most prominent of which is related to the emergence of providers

of virtual assets and virtual currencies. Despite the global concerns that these currencies have raised due to the extreme fluctuations in their value, in addition to the presence of many risks associated with them, they have begun to have Gradually, the confidence of some traders within the Internet has gained due to its decentralization and flow in its issuance and circulation, in addition to the possibility of benefiting from the financial services associated with it easily and conveniently through the trading platforms spread across the Internet. Which prompted some institutions around the world to accept it as a means of payment, including Bitcoin.

At the regional level, the use of virtual currencies in the Middle East and North Africa region is still limited, and this may be due to the lack of support for these currencies by central banks and monetary authorities regionally and taking the necessary measures to prevent the use of these currencies. In this regard, the Central Bank has banned The Iraqi Bank prohibits all banks and financial institutions subject to its control and supervision from dealing in virtual currencies in any way, or exchanging them for any other currency, or opening accounts for their clients to deal with them, or sending or receiving transfers in exchange for them, or for the purpose of buying or selling them, as they are illegal virtual currencies.

We can define it as the process through which individuals or entities can communicate via the Internet using some technology to issue a new means or encrypted currency for some purpose, whether buying or selling goods or services personally, subject to the rule of satisfaction and acceptance, using recognized international currencies in order to complete the process. This process is done without referring to the official banking authorities.

Second: The origin and formation of virtual currencies and methods of obtaining them

1- The origins of virtual currencies

The idea of virtual currencies appeared through a computer programmer who used a pseudonym, Satoshi Nakamoto, and he presented this through research that he published in 2007 under the title Bitcoin, the peer-to-peer electronic currency system. This research showed how the Bitcoin currency works and the mechanism for protecting it from counterfeiting and double spending (Al-Adayla, 2020, p. 34), and Bitcoin provides a solution to exclude the third intermediary, such as financial institutions and banks, especially when the global financial crisis occurs. Some have stated that until now it is not known who was behind the creation of Bitcoin (Rabai, 2020, p. 247), and whoever the inventor of the virtual currency Bitcoin was, it was created according to the concept of the blockchain, with a study entitled The Peer-to-Peer Electronic Cash System Bitcoin (Othman, 2021, p. 6). Through the Internet using free programs that perform complex mathematical operations, they are extracted through the Bitcoin mining process, after which the result is transferred to the blockchain digital ledger to become a ready and protected digital currency and converted into an asset in a digital financial wallet, which is then traded over the Internet and monitored. The movement of currency trading between users and documenting the process with an electronic signature that cannot be forged, changed or deleted, without recording any personal data (Abu Salah, 2018, p. 3).

2- Configure virtual currencies

Virtual currencies are formed through mining, which is done by miners. They are available and the mining process is not limited to a central party or specific people. Rather, it is for everyone and anywhere in the world, but it requires time and a fast computer with high, super-powerful specifications that consumes enormous energy

that allows downloading the free mining program.” Or Bitcoin. Using this program, a number of puzzles can be solved, and they are called algorithms. They are a set of mathematical, logical, and sequential steps necessary to solve a problem. After completing the solution of these algorithms, the program issues a Bitcoin currency and adds it to the electronic wallet of the person who mined it (Nour El-Din, 2018, p. 226). This mining process is called mining, and it is a special application that the user installs on any computer, so that the application slowly produces new currencies, through which the user can obtain virtual currencies (Al-Siddiq, 2021, p. 43), and the mining process is not It is limited to a specific entity or people, but rather it is for everyone, as previously said, but it requires time and a fast computer with certain available specifications (Salah, 2021, p. 34).

The more excavations, the more difficult the puzzles become. Each transaction is recorded in a public register called “Block Chain”, which includes information about the accounts that were used in mining and the number of currency units that were exchanged. It is stored in each user’s wallet and an electronic signature is added to the transfer process. After a few minutes, the transfer process is verified and stored in an anonymous, encrypted form. The mining process takes place approximately every ten minutes, and the mining process requires high costs, represented by the value of the devices and electrical energy expended to issue one unit of virtual currencies (Mushuka, 2021, p. 22).

It should be noted that most cryptocurrencies operate on the basis of three main pillars: encryption for authentication, a peer-to-peer (P2P) protocol for exchange and a public ledger with the so-called. Blockchain (Davis, 2017, p8).

As for how the value of virtual currencies is determined, their value is determined through the open market, just like the exchange rate between different global currencies, and the fluctuation of the price of virtual currencies is a major reason for

undermining user confidence and the growth of this system for producing them (Marshall, 2015, p. 93). The system lacks a central administrative authority, so the price fluctuation is due only to changes in market demand, and 14 million units were produced, as 25 million Bitcoins are produced around the world every minute (Mohammed, 2017, p. 5)

Third: Characteristics of virtual currencies (Virtual Currency Risk Assessment Report, 2013, pp. 4-12)

- 1- Digital currency, that is, it has no physical existence, but rather its presence is limited to cyberspace. It is stored in digital wallets in which all information related to the user (account holder) is stored and is accessed through a mobile application, computer program, or service provider.
- 2- The speed of completion and low cost is due to the fact that they are just electronic files transmitted over the Internet, which makes them quickly transferred across borders. The transfer of cryptocurrency units between digital wallets takes only a few minutes, unlike traditional payment systems for transferring funds between accounts by banks and financial services companies. The peer-to-peer feature also allows... For peer-to-peer, which results in the absence of a third party as an intermediary, a decrease in the transfer commission. In addition, transaction fees are often optional due to what are known as miners, which serves as an incentive to ensure the validity of transactions.
- 3- Decentralized control: It is subject to a decentralized government system to ensure that no individual or entity has control over it. Bitcoin, for example: requires the approval of all its users around the world not to introduce any change in the system for dealing with their identity, and it is guaranteed that a person does not use the same monetary unit to make more than A transaction at

the same time through the function hash system, which is reached through a process called Bitcoin mining.

- 4- Pseudonymity or Secret Identity, which is an address for currencies only, as the digital wallet creates an address similar to the bank account number, called the wallet address, which is a unique alphanumeric sequence that is not repeated. It is also an address and therefore there is no information that can determine personal identity. For the sender and recipient, such as the name and address, the identity here is hidden and cannot be traced. Therefore, these transactions are characterized by security privacy, unlike electronic payment systems in their traditional forms.
- 5- Special Determinants of the Exchange Rate: The determinants of the exchange rate of virtual assets have a special nature, as demand plays a fundamental role in determining their price, more than supply, due to the limited size of their supply. The greater the demand for currencies, the greater their price, and vice versa. There is also another factor that greatly affects the price. The exchange of these currencies is the amount of energy consumed to complete each transaction, as securing the trading process requires intensive use of energy. For example, the amount of energy consumed in the Bitcoin system has reached the equivalent of the consumption of a small country.
- 6- Peer to Peer: This feature allows for the exchange or sharing of information, data, or access without participation or supervision by intermediaries. The PYP system is a basic system in the world of encryption and encrypted currencies, where users can exchange encrypted currencies with each other privately without using any intermediary such as banks or the like. This system also allows users to conduct asset trading without hassle. Instead of using an order book to pair buy and sell orders and control the underlying assets on the

platform, it follows the PYP model for users to deal with each other directly without using an intermediary to hold funds or process them.

- 7- Open-Source Software: it means that anyone has access to all the code and modify it at any time. It also adds the possibility of improvement as cryptocurrencies are operated using open-source software. It is easily available through official websites and can be installed on a device. Open code has enabled the development of services and applications, for example, and also opens the door to a significant expansion of innovations.
- 8- Modernity of Legal Regulation: Despite its widespread and adoption by some countries, many countries still have concerns and fears regarding it, fearing the possibility of its use in tax evasion operations.
- 9- Generality and limitedness: They are of a general nature and are not linked to a specific geographical location. As for the limited number, they are limited in number such that the number of this Bitcoin currency does not exceed 21 million units within the limits of circulation.
- 10- Using Blockchain Technology: The digital currency (Bitcoin) uses its own database, which represents an accounting book through which transactions are processed and recorded, allowing all parties to track information through a secure network that does not require third-party verification, and these records cannot be modified or changed.

Fourth: Types of virtual currencies

There are many and varied encrypted virtual currencies, most of which are based on the principle of Bitcoin and are clones of it, and the differences between them are often minor, some of which are related to the time the trading process takes, some of which are related to the method of mining and distribution, and some of which are

related to margin algorithms (which are the algorithms responsible for the encryption process), and there are a number of A limited number of these currencies can be described as major based on the number of those dealing with them, the breadth of the sites that accept them, and the number of places through which virtual currency can be exchanged for paper currencies (Al-Bahouth, 2017, p. 28).

According to (Coinmarketcap 2017), there is congestion in the virtual currency scene, especially since it is a rapidly developing topic that arouses the interest of many stakeholders. The number of virtual assets increased and reached 5,500 currencies in July 2021. In the end, it is not possible to limit the exact number of virtual currencies, because there is no law regulating their issuance, or a specific entity responsible for issuing them that can be referred to, and for this reason we also find them varying in terms of dealing with them.

Here we explain some types of encrypted virtual currencies to clarify the difference between them in terms of issuance, use, or spread among dealers. Among these types are:

- 1- Bitcoin, which is the most famous virtual currency in the world, will be activated later.
- 2- Litecoin: It is the second largest currency in terms of size and market value. It was issued in 2011 by MIT graduate Charlie Lee, who previously worked as an engineer at Google. (Al-Aqeel, 2019, 5) The "Litecoin" currency presented itself as a silver currency compared to the "golden" Bitcoin currency, and specialists say that transactions with this currency are faster than the "Bitcoin" currency, but in terms of fame and market value, the "Bitcoin" currency remains in the lead.
- 3- Ripple: Established in 2013, the digital currency "Ripple" is one of the most important and famous current digital currencies in the world, as it ranks third

in the world in terms of liquidity, where money flows completely freely. A network has been created for the “Ripple” currency to allow the transfer of any form of currency that is smooth, easy and easy, whether it is the dollar, pound, yen or Bitcoin. According to the testimony of many economists, time is the only factor in the rise in its price in the near future, and it is likely that it will replace banks in the future in terms of the speed and ease of financial transfers.

- 4- Ethereum: It is a decentralized virtual currency that allows the creation of smart contracts, in a way that simulates the conclusion of traditional contracts, but it requires conditions and requirements for their implementation without the need for a specific authority or body to control its operations. It was proposed by the Russian programmer Vitalik Buterin in 2013, and in 2014 a Swiss company worked on the Ethereum currency project until it was officially launched in 2015 (Amer, 2019, pp. 274-275).
- 5- Bircoin: This currency was introduced in 2012 and the “Bircoin” currency itself is marketed with the advantage of consuming less energy and being more environmentally sustainable than other currencies on the market. The currency was also designed so that its inflation rate is 1% and the treatment in this currency is significantly different from other currencies. Previous (Al-Aqeel, 2019, p. 4)
- 6- Nimcoin: Established in April 2011, it is based on open-source Bitcoin technology, characterized by high scarcity, decentralization, security, and privacy.
- 7- Novacoin: It was created in February 2013 and is based on open-source code, and on the Internet Protocol (peer-to-peer), but it differs from most alternative digital currencies to Bitcoin in that it integrates protection programs within the core of the currency, which prevents attack by mining and prospecting groups.

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- 8- Feathercoin: It is an open-source virtual currency, similar to Bitcoin and Litecoin, and is characterized by adjusting the difficulty of mining often. It is also distinguished by the fact that it is regularly updated to incorporate new features and improvements into it, including protection from abuse resulting from crowd mining.
 - 9- Edinarcoin: It entered the exchange market for virtual currencies on September 27, 2016. It works on modern open-source technology and is characterized by continuous updating of its mining system to increase security for its users.
 - 10- Zicash: The protocol was launched in October 2016 and is based on the source of the Bitcoin core testing program. It is characterized by the feature of protecting the anonymity of the sender and recipient, and the value of. Transactions on all private blocks can only be viewed by those who have the correct key, so the contents can be viewed. (Al-Aqeel, 2019, p. 7)
 - 11- Dash Currency: This currency appeared in 2014. This virtual currency offers many advantages over Bitcoin as it is more confidential than it, so that Dash provides more anonymity because it operates on a decentralized MasterCard network, and enables transactions not to be tracked, and by 2018 its ceiling value reached \$1 billion in 2019, with a nominal value. \$266.58 (BIS, 2017, p76)
 - 12- Ethereum: Developers use it to pay for helping each other build applications. Instead of competing with Bitcoin, Ethereum is based on complementing Bitcoin, and is used to create platforms dedicated to crowdfunding. (Everette, 2017, p65)
 - 13- Project of Facebook's Libra currency, which will be used in payments made through social media applications (Facebook, WhatsApp, Instagram) such as

transferring money between users or to carry out buying and selling transactions that take place through these applications. (CIMAL, 2018, p23)

Stablecoins are designed to have a more fixed value than regular cryptocurrencies. This is because they are tied to other assets, such as the US dollar or gold, and can therefore have the benefits of being a cryptocurrency without the extreme volatility associated with it – and this would go a long way in helping cryptocurrencies be seen as a viable way to actually buy something. If traditional cryptocurrencies are like investing in high-risk stocks, then stablecoins are like withdrawing cash from ATMs (Ernest G, 2018, p98).

These are examples of some of the famous digital currencies circulating on the Internet, but “Bitcoin” remains the most famous and important currency in the eyes of economists and ranks first in the world because of the large size it represents in its market value.

Digital currencies based on distributed ledgers share several key features that distinguish them from traditional electronic money schemes, which can be identified as follows (Payments & Infrastructures, 2015, p6):

- 1- In most cases, cryptocurrencies are assets and their value is on supply and demand, similar to commodities such as gold. However, unlike commodities, unlike traditional electronic money, it has no intrinsic value. It is not the responsibility of any individual or institution, is not backed by any authority and its value depends solely on the belief that it can be exchanged for other goods or services, or a certain amount of sovereign currency, at any given time. Later. The creation of new units is usually determined by a computer protocol determined by algorithms.
- 2- How value is transferred from payer to payee until recently, exchange between parties to a transaction took place in the absence of trusted intermediaries and

was usually limited to money in physical form. Electronic representations of money are exchanged in centralized infrastructures, where a trusted entity clears and settles transactions. The main innovation of some of these digital currencies is the use of distributed ledgers to allow remote peer-to-peer exchange of electronic value in the absence of trust between parties and without the need for intermediaries.

- 3- Their institutional arrangements. In traditional e-money schemes, there are several service providers that are core to or integrated into the operation of the e-money scheme (e-money issuers, network operators, specialized hardware and software suppliers, e-money acquirers and more) for e-money transactions. In contrast, no many digital currencies are operated by any specific individual or organization.
- 4- Central administrative, so the price fluctuation is due only to changes in market demand, and 14 million units have been produced so far, as 25 bitcoins are currently produced around the world every 10 minutes (Quarterly, 2020, p. 248).

Fifth: Ways to obtain virtual currencies

It is obtained through the following: (Muhammad, 2017, p. 41)

- 1- They are purchased from websites or electronic sales platforms specialized in selling these currencies on the Internet. It is an easy method and available to anyone. As soon as you create an electronic account and an electronic wallet on your computer or even on your phone through the available applications, it is done. Pay the price of the unit purchased in any currency, such as the dollar, for example. This method is considered easy, accessible, and available to everyone (Al-Adayla, 2020, p. 37).
- 2- It is created and exists through what is known as mining or prospecting, which is a very difficult and complex method that no one can do. It is called mining or

prospecting by analogy to the process of extracting gold from the ground and through very advanced computer devices (Amer, 2019, p. 274).

- 3- It can be obtained through ATMs that were made specifically for virtual currencies, and the first ATM was installed for the first time in the Canadian city of Nancouver. Bitcoin ATMs have spread in many countries, reaching 55 countries, and the number of devices reached about 953 devices at the end of 2016 (Coinmarket cap, 2017, p86).

The Second Section: The economic effects of digital currencies on the Iraqi economy

First: The Positive Economic Effects of Digital Currencies on the Iraqi Economy

The emergence of digital currencies occurred recently, during the year 2009. They were characterized by many advantages that were the reason for individuals and customers' interest in them. The most important thing that distinguishes these currencies is the following:

- 1- Its scope has expanded across the world without restrictions: The size of the virtual currency market has expanded, with its market value reaching about (2.5) trillion dollars, and despite its expansion, it is considered limited compared to the volume of global liquidity amounting to (80) trillion dollars in (2013) (Ayman Saleh, 2021: 13).
- 2- Low cost: Low cost of issuing, transporting and storing virtual currencies, as these operations cost the United States annually about \$60 billion. As for the most important costs of issuing virtual currencies, such as the costs of issuing the large electrical energy needed during the mining process, there are incalculable costs that the state bears. In environmental pollution, individuals bear the issuance

expenses, which include paying for the use of electricity during the installation of the program or downloading it from the virtual currency website, and then the user needs to purchase a package containing tokens (codes) to decode currencies, and to mine currencies, and it takes a long time to decode the code and enormous energy, Increased use of the computer can lead to its damage due to the large electrical pressure used in currency mining. These expenses benefit telecommunications companies and electronic currency sites. (Abdel Samad, 2019, 137)

- 3- Enhancing competition: its circulation reduces barriers to trade and international borders, and the possibility of its use is linked to simply connecting to the global information network.
- 4- They are subject to supply and demand: Digital currencies are not subject to exchange rates, currencies, or transaction fees, but rather are subject only to the mechanism of supply and demand.
- 5- Speed and privacy: There is no doubt that there is a high speed for any financial transaction or cross-border transfer for a period of time ranging between (10-15) seconds maximum, which provides business flexibility and speed of completion. There is complete privacy and no oversight for banks or any public regulatory body, as no country can attend it because it is subject to its control, and therefore it cannot be seized or confiscated, such as legal or bank currencies that are confiscated in the case of transfers in questionable traditional currencies.
- 6- Decentralization: Since it is two-dimensional, it is transferred from the consumer to the merchant without the presence of a third party between them, so it is not subject to a specific central authority with no intermediaries, which reduces transfer fees between the sender and the receiver.
- 7- Not susceptible to fraud: as a result of using complex encryption methods, which makes it resistant to fraud. (Alawi, 2020: 177).

- 8- Ease of settling transactions: The use of electronic money allows financial exchanges to be completed by transferring the monetary value stored electronically to another electronic device easily without obtaining permission from anyone, and through it the value of goods and services is paid without the need for physical financial pieces (Qader, Latif, 2020: 196).
- 9- Low risk of inflation: One of the most prominent problems of the current dollar with the traditional currency is inflation, as currencies lose their purchasing power, and therefore countries are forced to print more money, which essentially constitutes a tax on accumulated wealth, while with the digital currency there will be no problem if it is done. The system was designed by making the number of the last currency limited (Al-Jawarin, Shehab, 2021: 80).
- 10- 10-Easy to carry: Any large monetary value that may exceed a billion dollars in digital currency can be carried from the card's memory in the pocket, and this cannot be done with cash or gold.
- 11- Encryption and complete confidentiality: Virtual currencies use mathematical equations or so-called encryption algorithms, as data is transformed from readable data to unencrypted data in order to block access to it by people who are not authorized to read it and deal with it (Shatta, 2022: 1808).
- 12- The ability to exchange currencies easily: This is one of the most important advantages of digital currencies, which gives these currencies real value in the midst of physical transactions, as they can be exchanged for regular currencies as a corresponding exchange value. Which means that each of them has a variable exchange rate with the major world currencies.
- 13- Not tied to a specific country or region: Because this money is global, as it is issued by programmers to be traded on the Internet without recognition of political borders or geographical regions.

14- Transparency and security: The virtual currency program stores all the transactions that are performed in electronic records, and anyone who owns a virtual currency wallet can know the number of currencies owned by the other customer, and the number of transactions that took place through the wallet, so everyone can see the currency transfers. Virtualization between wallets. The system for creating or mining virtual currencies also provides security for customers because it relies on two principles:

- The first principle: electronic signature, meaning controlling the ownership of virtual currencies and confirming the transaction. Every owner of virtual currencies has a wallet with an account number and a secret number that resembles an electronic signature.
- The second principle: P2P uses the currency once, and it cannot be used in more than one purchase transaction with the same currency to protect the seller.

We cannot forget that virtual currencies provide an element of transparency. Every person who owns an electronic wallet can know the history of the currency since it was mined and traded.

15- Achieving imaginary profits: As part of investors' search for alternative tools that achieve high returns and enable them to create great wealth in a short period, investors are therefore turning to trading and speculation in virtual currencies (trading and mining), taking advantage of their high prices. Since its launch, the price of Bitcoin was equivalent to (1 Bitcoin) and equal to (10.0) dollars, and in the year (2011) the price of Bitcoin rose to (1) dollar, and within three years the price of Bitcoin rose to reach (1000 dollars) in the year (2013). . For example, billionaire Joseph Lubin achieved a huge fortune of millions of dollars as a result of working in the virtual currency market, and Cameron and Tyler were able to

achieve wealth after investing \$11 million in 2013, earning a billion each in 2017 from speculation on the Bitcoin currency. (Abdul Masih, 2021:2021 -2022)

Second: The Negative Economic Effects of Digital Currencies on The Iraqi Economy

From Observer, the position of the government Iraqi has changed towards electronic cash system in a way big during the few past years, where seem a consideration digital e-currency is acceptable as a commodity maybe Sell it and buy it. Digital Currencies may lead to antiquities Economical Negative impact on the Iraqi economy by looking to nature her job No Central. And we find here That The state must arise with a ban Use Currencies encrypted or until Investment In which. There are many economic effects arising from the transaction The digital cash system is represented by its impact on monetary policy in the country and the significant inflation it reflects on the economy, in addition to the conflict that occurs between its use alongside traditional currencies. This is undoubtedly the reason for the emergence of these problems that can be explained as follows:

The economic impact of digital currencies on money laundering

The Digital Cash System impacts on more wash Money And financing Terrorism from during Its nature the unknown, Money laundering increases the threat of monetary instability, with its negative impact on Currencies and interest rates, as by smuggling money abroad, the supply of the national currency increases in exchange for the demand for foreign currencies, which leads to a decrease in the value of the national currency. Also, the increase in the supply of the national currency with the increase in demand for foreign currencies leads to the depletion of currency reserves (Zaghloul, 2022, 432).

The Dgital Cash System encourages the circumvention of rules related to combating money laundering and terrorist financing and the anonymity of transfers that can be

used for criminal purposes (online sale of illegal goods or services) or for the purposes of money laundering or financing of terrorism. Money laundering activities related to the digital currency market have witnessed a tremendous increase. Over the years as a result of technological developments and economic hardship, such as the 2008, 2014, and 2020 crises.

Although currencies are not recognized as legal transactions and investments in Iraq, global trends indicate that Iraq will have access to currencies in the future with measures to encourage non-cash payments. Cryptocurrency is a suitable tool for money laundering because it provides relative anonymity to the owner of the currency.

The economic impact of digital currencies on the Iraqi stock market

Here we will find the reality of the Central Bank of Iraq in confusion, as it has no order to issue it nor control over it as long as it is issued and circulated by unknown parties, which makes its automated policy directly affect the general money situation in the country and the rise in prices that denounces the inevitable danger, and creates the digital monetary system. There is great competition in the financial markets because competitiveness depends on the principle of innovation

It should be noted that the Iraqi legislator regulated the securities market with Law No. 24 of 1991, followed by Temporary Law No. 74 of 2004, and that this law did not stipulate electronic trading, which remained the need to find rules governing electronic trading, and the instructions for trading securities in Iraq stipulated For the year 2007 on electronic trading, and then the instructions for trading securities in Iraq for the year 2015 were regulated. Securities were defined as ((stocks, bonds, and warrants issued by the government and public institutions in the country and any other financial instruments, local or non-local, accepted by the Authority)) and from this definition we conclude The Iraqi legislator did not mention virtual currencies in

his definition of securities that are allowed to be traded in the stock market, but with careful consideration of the last part of the definition, any other local financial instruments, and once they have gained the acceptance of the Securities Commission, they can enter the Iraqi Stock Exchange, unless a circular The year (2017) explicitly stated the prohibition of trading and dealing in digital currencies and closed the door on any other interpretation of what was stated therein. Thus, Iraq is one of the countries that does not accept dealing in digital currencies on its stock exchange.

It is worth noting that digital currencies are exposed to large fluctuations in their value, and this leads to a significant impact on the financial markets. For example, an increase in the value of digital currencies may attract investors and increase interest in digital currencies, while a sharp decrease in their value may cause a decline in the market. We notice that there is a negative impact of digital currencies on the performance of the stock market. Table (1) shows the trading volume, which in the year 2009 reached a modest value (411,928) million. The reason is due to the development of the market, the increase in the number of shares traded, the increase in the rate of stock turnover, and the stability of the political situation. The economic and economic situation in Iraq, and in 2020 the trading volume reached (330,385) million, and the reason is due to the spread of digital currencies and the decline in their value, which affected investors and trading companies, whether local or foreign alike, as all global financial markets suffered from Decrease in trading volume due to the sudden shock of the spread of the pandemic.

Table (1) Stock market indicators in Iraq for the period 2009-2020

Source: Prepared by researchers based on data from the Securities Commission www.isc.gov.iq

Stock turnover (%) rate	Number of companies	General indicator (point)	Market value (million) (dinars)	Number of shares traded (million) (dinars)	Trading volume (million) (dinars)	the year
13.17	78	100.86	3125921	211290	411928	2009
11.61	85	100.98	3446713	255659	400359	2010
19.09	87	136.03	4930232	492371	941198	2011
15.96	85	125.02	5597363	625639	893825	2012
24.8	83	113.15	11451367	871182	2840220	2013
9.43	74	92	9520626	743852	898315	2014
5.36	76	730.56	8503943	579640	456640	2015
4.56	97	649.48	9354696	917542	426788	2016
4.72	101	580.54	8190983	631420	386879	2017
4.1	104	510.12	11350356	832629	466481	2018
2.44	102	493.76	11661912	460392	284813	2019
2.35	104	508.03	14033993	403315	330385	2020

While the market value of the market in the year 2009 reached 9 (3,125,921) million as a result of trading electronic digital currencies. There is a relationship between fluctuations in the prices of digital currencies and fluctuations in the values of stock indices. These external incidents caused a kind of stagnation in the performance of the general market, and this situation continued with slight rises and falls in the market value for subsequent years, and after the end of the crisis, the market value returned to its previous rise as a result of the increased activity of the sectors, especially the sector. The increase in demand and supply operations and the demand for buying and selling by traders reached (11,661,912, 14,033,993) respectively in 2019 and 2020. This indicates that digital currencies are considered an alternative to investing in stock markets.

By reviewing the prices of digital currencies during the same period (Table 2), we find that they increased significantly as a result of their increased use, as the trading volume in these currencies increased significantly, which helped improve the efficiency of the markets for those currencies that are traded in high volumes over time.

The listed companies in 200 reached 9 (78), and in 2020 the number of companies reached (104), which is the highest number in the study sample. This is due, firstly, to the increasing role of the influence of financial markets in the local and global economy, and secondly to companies' awareness of the importance of financial markets as an important source for satisfying financing needs, whether through ownership instruments (stocks) or debt instruments (bonds), and we notice the impact of the number of companies and their effectiveness within the market. In terms of trading volume, number of shares, and stock turnover rate.

The turnover rate continued to increase slightly in subsequent years with normal increases and declines, and in 2013 (24.8) the turnover rate witnessed the highest percentage within the study sample, and this is due to the increase in buying and selling operations as a result of the stability of the Iraqi market and the entry of new companies into it, as investors and companies began continuous trading operations Hoping to obtain capital gains, after that and in subsequent years, the turnover rate continued its continuous declines, reaching in the years 2020 and 2019 (2.44%, 2.35%) respectively, and this is due to the Corona crisis and the resulting slowdown in all economic sectors, including the financial markets in all countries. The world, including Iraq, as indirect foreign investment decreased, and the trading of local investors and listed companies decreased due to the cessation Global economic activity in general.

Third: The economic impact of digital currencies on price volatility

Cryptocurrencies and their platforms operate in an unclear regulatory environment, lacking a clear legal status and the absence of central control over the quantity and price of cryptocurrencies or even their equivalent deposits, and are subject to supply and demand, which makes It leads to price fluctuations, and this may make it an attractive option for currency speculators. Therefore, there is uncertainty about the price of virtual currencies, and therefore these currencies are closely linked to exchange rate risks, as well as any defect in the implementation of the protocol. Bitcoin can cause significant losses to the investor (Shatta, 2022, 1826).

Due to the increasing number of electronic currencies circulating, maybe that form is amazing work coming a tool used in Speculation. In addition, as a result of the Central Bank's commitment to the policy of reducing the dollar exchange rate, it had regressive effects, represented by an increase in the parallel exchange rate from (1182) Iraqi dinars per dollar in 2009 to about (1351) Iraqi dinars per dollar in 2020. Which was reflected in the low exchange rate gap (104.7), as a result of the rise in food prices and rents, as these two items have exceptional importance in the components of the basket of Iraqi consumer goods. At the end of the period in 2020, the inflation rate recorded a negative degree of (104.5). As shown in Table (2).

Table (2) Price development in the Iraqi economy for the period 2009-2020

Source: Central Bank of Iraq, General Directorate of Statistics and Research, Annual Economic Report of the Central Bank of Iraq for the years 2009-2020

(\$)	Price	Bleached currencies	Consumer price index	Parallel exchange rate	real interest rate	Nominal interest rate	the year
64.774.37		Bitcoin	122.1	1182	(0.01)	0.07	2009
3.158.33		lithium	125.1	1185	0.04	0.06	2010
1.00		Tether	132.1	1196	0.00	0.06	2011
572.82		BNB	140.1	1233	0.00	0.06	2012
151.29		Solana	124.7	1232	0.04	0.06	2013
1.00		USDC	145.9	1214	0.04	0.06	2014
3.155.71		STETH	148.0	1247	0.05	0.06	2015
0.52855		Xrp	104.1	7512	0.034	0.04	2016
0.16258		Dogecoin	104.3	1258	0.04	0.04	2017
6.18		Toncoin	104.7	1209	0.04	0.04	2018
0.504592		Cardano	104.5	1196	0.04	0.04	2019
			104.5	1351	0.04	0.04	2020

To achieve economic stability by the Central Bank of Iraq after 2009, it contributed to strengthening the value of the Iraqi dinar and reducing the inflation rate. As a result of these measures, inflation rates decreased to reach (148) in 2015. Then the inflation rate recorded an increase in the year 2020, reaching about. .(104.5)

Because the digital monetary system is an unstable system, characterized by its universality and monetary value, and exists alongside the paper monetary system, it may lead to the accumulation of the problem of inflation because the addition made by the digital monetary system is not considered a product, but rather money added to existing money, contrary to those who believe that the presence of the digital monetary system alongside the system. Paper money supports it and eliminates the problem of inflation.

After that, the interest rate began to decline to reach (6) since the year 2010, which had a positive impact on the commercial banks' balance of capital to finance private

sector projects and support development. The interest rate continued at this level until the year 2015, but it decreased in the year 2016 to reach (4). This percentage remained (4) until 2020.

The economic impact of digital currencies on monetary policy

The electronic digital currency affects monetary policy through its impact on its functions and objectives. Digital currencies affect the issuance function of the central bank because the demand for paper money will be affected due to the issuance of different types of digital currencies, and therefore the central bank's revenues will decrease from issuance operations. The digital currency also affects the function of the central bank in its capacity as the bank of banks, as it supervises and regulates the banking system, in addition to many other functions carried out by the central bank, which will be affected in light of the spread of the digital currency, which will lead to the central bank retreating from carrying out its role (Ali , 2019, 76).

Electronic digital currencies affect monetary policy because they witness a deviation from the monetary policy line represented by the issuance of currency by the Central Bank of Iraq, supported by the state and international supervision. Thus, they limit the role of banks in settling obligations and completing payments, as this system witnessed the issuance of electronic cash away from the control of the government and the bank. The Central Bank, and this matter, will naturally affect the policy of the Central Bank, which is accustomed to governance and control. The emergence of the system will have a significant impact on the monetary supply and interest rates, and its spread could lead to a weak demand for money issued by banks, and this, by its nature, will threaten the role of banks in assuming monetary policy.

The Iraqi legislator did not stipulate the necessity of obtaining a license to issue electronic digital currency and did not address it in its effective legislation. The existence of electronic digital currency will affect open market operations afterward

among the financial instruments that the Central Bank of Iraq uses to approve monetary policy.

Its impact on open market operations: In Table (3) there is an explanation of all open market operations carried out by the Central Bank of Iraq during the period (2009-2020), for a period of (91 days). In the year (2009) the Central Bank conducted (22) auctions (Central Bank of Iraq Annual Statistical Bulletin, Various Years) Total value reached (2400) billion dinars, with a growth rate this year (33), and the Central Bank of Iraq continued to conduct auctions in the following years, this causes some economic sectors to rely on these electronic digital currencies. This has led to a move away from traditional money, and this is what causes commercial banks to try to return the money that exceeds their need to the Central Bank of Iraq for the purpose of increasing its reserve ratio, and this limits the bank's ability to carry out buying and selling operations and thus to weaken his ability to grant credit.

Table (3) Monetary policy in Iraq for the period (2009-2020)

Source: Table prepared by researchers based on the Central Bank of Iraq, General Directorate of Statistics and Research, bulletins. Annual statistics, various years.

Discount rate %	Legal reserve % ratio	% growth rate	Open market operations (million dinars)	the years
7.44	25	(33)	2.400	2009
5.36	15	(43)	1.363	2010
7.1	15	76	2.400	2011
5.1	15	63	3.900	2012
5.29	15	(15)	3.307	2013
4.96	15	5	3.482	2014
4.73	15	39	4.832	2015
2.5	15	(99)	65	2016
2.5	15	200	195	2017
2.5	15	(28)	140	2018
2.5	15	147	346	2019
2.5	15	(42)	199	2020

The numbers in parentheses are negative

It recorded an increase in the value of auctions in certain years and a decrease in other years, due to the failure of economic units to use electronic currencies. Despite this, an auction was held for a period of (182) days, (Central Bank of Iraq Annual Statistical Bulletin, various years) where operations were recorded the market increased, recording a growth rate of (200), which is the highest rate recorded during the year 2017. Open market operations continued at this rate until the year (2020), when the Central Bank held four auctions during which it recorded a value of (199) billion dinars, with a growth rate of (42-). (Central Bank of Iraq Annual Statistical Bulletin, various years)

It is clear from the above that the impact of electronic digital currencies on open market operations through artificial intelligence depends on the extent to which these currencies are used by economic sectors.

Its impact on the legal reserve

In Table (3) there is an explanation of the legal reserve ratio in Iraq and the changes that occurred to it during the period (2009-2020) . In the year 2009, it was issued The Central Bank of Iraq provides instructions on the reserve ratio that must be maintained for the purpose of formulating monetary policy Stable, as it unified the ratios and made them one ratio, which is (25), as of March 2009, as the bank maintains a ratio (20%) at the Central Bank of Iraq and (5) in the bank's vaults, and it was done Informing banks to direct these amounts for investment purposes away from monetary policy tools. As for the year (20 20), In implementation of the monetary policy followed by the Central Bank of Iraq and with the aim of encouraging investment and motivating banks to move towards the market, the Central Bank of Iraq reduced the mandatory reserve ratio on government deposits twice during this year, from (25) to (15) as of April 2010 on all Bank deposits,

whether government or private sector deposits, are distributed, and the Central Bank of Iraq continued at this ratio until the year (2020). He causes The increase in the use of electronic digital currencies , which negatively affected the legal reserve policy, that is, the increase in their use led to an increase in the volume of deposits and then led to an increase in excess reserves, which in turn led to an increase in the volume of liquidity in commercial banks, which reduced of the volume of demand for the reserves held by the Central Bank of Iraq , so the use of electronic digital currencies had a negative impact on the effectiveness of Legal reserve policy in light of artificial intelligence .

Its effect on the discount rate

In Table (3) we also note a statement of the discount rate set by the Central Bank during the period (2009-2020)., In the year 2009, the discount rate was (7.44), and this rate began to decline because the Central Bank resorted to this tool with the aim of influencing the ability of commercial banks to grant credit. The occurrence of recessions, the reluctance of investment projects, and the weak demand for bank loans. The Central Bank deliberately increases the ability of banks to grant credit by reducing the rediscount rate, as it reached (2.5) in the year (2016), which is the lowest discount rate during the research period, because individuals were able to From buying cryptocurrencies in exchange for paper currencies, and this money has entered the treasury of commercial banks because most of the exporters of electronic digital currencies in Iraq deposited their money as a result of buying and selling these currencies with commercial banks that increased their reserves with the Central Bank of Iraq, and this matter made commercial banks buy Assets from the Central Bank of Iraq because these banks worked to stabilize the interest rate on short-term assets. In this way, it worked to use its money to reduce the discount rate in order to confront the Central Bank of Iraq, thus making it difficult for it to control electronic digital

currencies or limit their spread, and this rate continued until the year (2020) in light of the spread of artificial intelligence.

The economic impact of digital currencies on monetary stability

As a result of the development of the electronic monetary system, the Iraqi monetary authorities established a set of foundations and rules and took many measures at the monetary level. The main goal of the Iraqi monetary authority was to strive to achieve and maintain stability in the general level of prices, and to work to create a competitive financial system based on the market economy. (Central Bank of Iraq, 2008: 25).

However, from the data in Table (4), it is possible to observe the growth occurring in the money supply (the quantity of money in its two parts (1-2)) and compare it to the growth rate of the gross domestic product. This indicates that the Iraqi economy is recording a significant increase in the size of means of payment, as it is noted that the rate The growth in money supply recorded a state of growth throughout the period (2009-2020), and this indicates the presence of a state of cash surplus. An increase in the volume of means of payment through the use of electronic currencies in an amount that exceeds the local capabilities in providing services and goods, which makes price trends rise. It is dangerous and thus the occurrence of a state of monetary instability in the shadow of artificial intelligence.

The impact of electronic digital currencies on open market operations and monetary stability: Through the data shown in Table (4), we notice that the monetary stability factor (both parts), in most of the years of the research, was in a state of fluctuation with the changes occurring in open market operations, in the year (2009) Both monetary stability factors were in a state of decline , recording deflationary pressures, then each of them returned to rise in the following years until the year (2019). The monetary stability factors recorded inflationary pressures, as well as open market

operations, which recorded an increase during this period. Then the stability factor returned to record deflationary pressures in 2020.

As for the liquidity rate, it is clear from Table (4) that the large fluctuations occurring in open market operations were offset by a small change in the liquidity rate, which ranged between inflation and deflation. In the year 2009, the liquidity rate recorded (2,7) and this percentage decreased in the year. Next, as for open market operations, they recorded an increase this year. In the year (2020), the liquidity rate was at A case of increase, in contrast to open market operations, which recorded a decline during that period.

Table (4) Money supply in Iraq for the period (2009-2020)

Source: Table prepared by researchers based on the Central Bank of Iraq, General Directorate of Statistics and Research, Annual Statistical Bulletins, various years.

% growth rate M2	Cash offer M2	Growth rateM1 %	Cash offer M1	the years
30	45.437	32	37.300	2009
33	60.386	39	51.743	2010
20	72.177	21	62.474	2011
5	75.466	2	63.736	2012
16	87.679	12	73.830	2013
3	90.728	(2)	72.692	2014
(9)	82.595	(10)	65.435	2015
7	88.081	8	70.733	2016
2	89.441	1	71.161	2017
(3)	87.175	(3)	68.766	2018
19	103.400	36	86.800	2019
16	119.900	19	103.400	2020

The numbers in parentheses are negative

The impact of the electronic cash system on the legal reserve ratio and monetary stability: The legal reserve ratio in 2009 recorded a percentage of (25), but despite this stability in the legal reserve ratio, the monetary stability coefficients were fluctuating between inflationary and deflationary pressures, in the year (2020). The legal reserve ratio recorded a decrease, reaching (15), while the monetary stability factor recorded fluctuations between high and low during the period in which the legal reserve was stable.

Table (5) Monetary stability in Iraq for the period (2009-2020)

Source: Table prepared by researchers based on the data in Table (4)

Liquidity % rate	Monetary stability factor M2	Monetary stability factor M1	growth rate(%)	GDP (Billion dinars) (at current prices)	years
27	(2.82)	(2.91)	(11)	139.330	2009
23	2.30	2.79	14	159.253	2010
30	0.60	0.64	33	211.300	2011
25	0.24	0.11	19	251.907	2012
27	2.12	2.00	8	271.100	2013
28	(0.77)	0.40	(5)	258.900	2014
31	0.46	0.50	(20)	207.900	2015
35	(3.45)	(4.00)	(2)	203.900	2016
32	0.14	0.09	11	225.700	2017
27	(0.20)	(0.23)	13	254.800	2018
31	2.05	2.89	9	277.885	2019
52	(0.65)	(0.67)	(28)	198.774	2020

The numbers in parentheses are negative

As for the liquidity rate, it is clear from the previous table that the liquidity rate was in a state of fluctuation between inflation and deflation during the research period, despite the stability of the legal reserve ratio in most of the years of the research. In

the year (2010) the legal reserve recorded a significant decrease, but the liquidity rate rose and recorded inflationary pressures during this period. In the following years, the legal reserve ratio was constant until 2020, but during... During this period, the liquidity rate recorded significant changes between inflation and deflation.

The effect of the electronic cash system on the rediscount rate and monetary stability: From the previous table we notice that the rediscount rate was on the rise during the year 2009, in contrast to the monetary stability factor of both types, which recorded a decrease. In the year (2016), the rediscount rate recorded a decrease, as well as the coefficient Monetary stability, which decreased significantly, registering deflationary pressures. In the following years, the rediscount rate was fixed, but despite this, the monetary stability factor, both types, fluctuated between inflationary and deflationary pressures. Regarding the liquidity rate, we notice that it takes a path opposite to the direction of the rediscount rate. For example, during years in which the rediscount rate is in a state of decline, the monetary stability factor is in the state of high and vice versa In the year (2009) , the rediscount rate was on its way to rising, in contrast to the liquidity rate, which began to decline from the standard liquidity rate of (27), while in the following years the rediscount rate began to decline until it reached (2.5%) in the year (2016) and continued. This percentage continues until the year (2020), and the liquidity rate began to stabilize after the year (2016), but the liquidity rate continued to fluctuate between high and low during this period.

This deterioration in monetary stability indicates the failure to adopt a real stability goal by monetary policy Most of the measures taken by monetary policy in terms of managing and directing monetary variables towards monetary stability, especially with regard to the spread of digital currencies, are incorrect measures that have led to deteriorating growth rates of the gross domestic product. This is evidence of the absence of real directions to achieve stability, and the lack of seriousness of monetary

policy that It was followed in these years because it was unable to overcome the emergency conditions that the Iraqi economy faced during this period, which had a fundamental role in the weakness of economic performance and the fluctuations in stability. Monetary policy, especially with regard to the spread of digital currencies and their subsequent impact on monetary policy in light of the presence of artificial intelligence.

The use of electronic digital currencies has had a negative impact on the Iraqi economy due to the difficulty of controlling these currencies or limiting their spread. Investing in these currencies has led to an increase in transactions in the markets and instability of economic activity and exchange rates. There is no doubt that the increase in investment operations in electronic cash currencies raises doubts about their ability to improve the reality of the economy. The increase in their transfer and purchase operations with funds equivalent to their value in the US dollar or other currencies has led to... Draining Iraqi funds abroad for the purpose of expanding investment operations, which negatively affected investment due to the lack of financing and an imbalance in supply and demand, and then increasing rates of inflation and economic stagnation.

Conclusion

Thus, we noticed the great impact that electronic currencies have had since their inception in the world of economics and how speculation on them affected monetary policy in Iraq and the emergence of financial weaknesses and systemic risks that affect the level of financial stability. How do you denounce the high rates of inflation and economic stagnation while creating a gap between the real and virtual economy so that we can say that speculation on cryptocurrencies involves (speculative) risks, that is, it is the category of risks in which profit and loss are possible, examples of which include risk in interest rates, stock prices, exchange, or currencies.),

Cryptocurrencies They carry high risks, perhaps the most important of which is facilitating money laundering operations through the secrecy of transactions, as it can facilitate the work of arms and contraband dealers and money laundering. It can be said that digital currencies bear both types based on the effects they have left on the world of economics, as they carry positive effects in addition to negative effects. What it brought about was represented above all by being a transitional boom in the world of economics.

REFERENCES

First: Arabic sources

- 1- Abu Salah, Ayman Ezz El-Din, 2018, Digital currencies and their relationship to electronic commerce (case study: United Arab Emirates) Dubai), Master's thesis, Department of Accounting, College of Business Administration, Middle East University, June.
- 2- Rabai, Abdullah Ahmed Muhammad Abdullah, 2020, The truth about Bitcoin and the ruling on dealing with it (a comparative jurisprudential study), Journal of the College of Islamic Studies for Boys in Aswan, Al-Azhar University, third issue, Jumada al-Ula.
- 3- Al-Bahout, Abdullah bin Salman, 2017, Virtual money: its concept, types, and economic effects, Scientific Journal of Economics and Trade, Issue (2), Ain Shams University, Egypt.
- 4- Central Bank of Iraq, Economic Report, 2008.
- 5- Central Bank of Iraq, General Directorate of Statistics and Research, annual statistical bulletins, various years.
- 6- Central Bank of Iraq, General Directorate of Statistics and Research, Annual Economic Report of the Central Bank of Iraq for the years 2009-2020.
- 7- Al-Aqeel, Abdullah bin Muhammad, 2019, Jurisprudential rulings related to electronic currencies (Bitcoin), Islamic University, Medina.
- 8- Al-Jawarin, Adnan, Shehab, Ali Talib. ((2021). The economics of digital currencies, the theoretical and conceptual framework, and their future prospects, Gulf Economist Journal, University of Basra, Center for Basra and Arab Gulf Studies, Issue (47).

- 9- Al-Adayleh, Asim Adel Muhammad, 2020, Virtual digital currencies are a way to finance terrorism, Al-Zaytoonah University of Jordan Journal for Legal Studies, Al-Zaytoonah University, Jordan, Volume (1), Issue (1).
- 10- Shatta, Mansour Ali. (2022). Encrypted virtual currencies and their impact on the future of transactions (reality and future prospects), Journal of the Faculty of Sharia and Law, Tanta, Egypt, Issue (37), Part One.
- 11- Shorsh, Qadir Ali, The impact of the use of digital currency in monetary policy, Journal of Human Development, 2019, Volume (5), Issue, 1, Journal of the University of Human Development.
- 12- Saleh, Ayman. (2021) The reality of digital currencies, Arab Monetary Fund, Abu Dhabi, United Arab Emirates, Issue (10).
- 13- Sweilhi, Nour El-Din, 2021, The Impact of Bitcoin Mining and Virtual Currencies on the Stability of the Global Monetary System, Afaq Alima Magazine, Amin Al-Aqal University Center, Haj Musa Ak Akhmouk, Tamangset, Volume 10, Issue 2, Algeria.
- 14- Tariq Ahmed Maher Zaghoul (2022), "The Risks of Cryptocurrencies and Money Laundering, Bitcoin as a Model," an original, analytical, comparative study between the international approach and the American and Egyptian response, The Legal Journal.
- 15- Amer, Basem Ahmed, 2007, Digital currencies (Bitcoin as a model) and their compatibility with money controls in Islam, University of Sharjah Journal for Sharia Sciences and Islamic Studies, Volume (21), Issue (2), University of Sharjah.
- 16- Othman, Anwar, 2021, "The Economic Implications of Blockchain Technology and Financial Stability in Arab Financial Markets," Arab Monetary Fund, November.
- 17- Allawi, Simaa Mohsen. (2020). The impact of virtual currencies on monetary policy and the central bank, Journal of the Baghdad University College of Economic Sciences, College of Administration and Economics, Iraqi University, a special issue of the Scientific Conference of the Department of Accounting Sciences.
- 18- Abdel Samad, Hawalef. (2019). Legal and economic aspects of virtual currencies, Ajman Legal Sciences Journal, United Arab Emirates, Issue ((10). Volume (5).

- 19- Abdel Masih, Sally Samir. (2021). Investing in virtual currencies, Legal Journal, Faculty of Law, Ain Shams University, Cairo., Volume 10, Issue (7).
- 20- Qadir, Asu Baha Al-Din, Latif, Asu Muhammad. (2020). Network marketing through virtual currency, one coin as a model, Kirkuk University Journal of Administrative and Economic Sciences, Volume (10), Issue (2).
- 21- Muhammad, Hassan, 2017, Bitcoin and its role in financing terrorist operations, King Faisal Center for Research and Islamic Studies.
- 22- Securities Commission www.isc.gov.iq.

Second: English sources

- 1- D. he and Karl habermeier, "virtual currencies and beyond (initial consideration), " international monetary fund, 2016
- 2- European central bank, "virtual currency schemes further and analysis ," 2015
- 3- Department of finance, "virtual currencies and Blockchain Technology ," discussion paper dublin, 2018.
- 4- Russ Marshall, Bitcoin: Where Two Worlds Collide, Bond Law Review, Volume 27 | Issue 1 Ar5cle 5,2021/10/2015,1avalibe at: <http://classic.austlii.edu.au/au/journals/BondLawRw/2015/5.pdf>
- 5- Glyn Davis, Bitcoin: Currency but not money, Cryptocurrencies (as illustrated by Bitcoin) in the Electronic Money Directive and the Payment Services Directive in light of the European the
- 6- Electronic Money Directive and the Payment Services Directive in light of the European Court of Justice Hedqvist ruling on Bitcoin, op,cit,2017,p8
- 7- Russ Marshall, 2015, Bitcoin: Where Two Worlds Collide, Bond Law Review, Volume 27 | Issue 1 Ar5cle 5,p93. Available at: <http://classic.austlii.edu.au/au/journals/BondLawRw/2015/5.pdf>
- 8- BIS. (1996). Implications For Central Banks Of The Development Of Electronic Money. Bis, October,16.

- 9- Everette, J. (2017). Risks and Vulnerabilities of Virtual Currency Cryptocurrency as a Payment Method 2017 Public - Private Analytical Exchange Program..
- 10- CIMAI. (2018). Cayman Islands Monetary Authority Issues a Statement on Virtual Currencies (Issue April)
- 11- Ernest G., D. M. (2018). Do We Need Central Bank Digital Currency? Economics, Technology and Institutions Edited. SUERF/BAFFI CAREFIN Centr Conference.
- 12- Payments, C., & Infrastructures, M. (2015). Committee on Payments and Market Infrastructures Digital currencies.

Third: Internet sources

- 1- Virtual Currency Valuation Risk Assessment Report, 2013, pp. 4-12, available on the website <https://aml.iq/wp-content/uploads/2023jrvdv>
- 2- Salah, Abdel Fattah Muhammad Ahmed, 2015, Bitcoin (an encrypted electronic currency that may cause a new global economic crisis), International Islamic Economics Journal, Research Center for the Jurisprudence of Islamic Transactions, Syria, Issue (33), December, accessed on 11/2021. 24 Available at: [h-ps://iefpedia.com/arab/?p=400108](https://iefpedia.com/arab/?p=400108), p. 226.
- 3- Taheri, Al-Siddiq, 2021, The spread of digital currencies in light of the Corona pandemic, Bitcoin model, Daftar Boudex Magazine, Algeria, Volume / 10, Issue (433), November 2021, accessed on 11/29/2021, available at the link: [h-ps://www.asjp.cerist.dz/en/ar5cle/157109](https://www.asjp.cerist.dz/en/ar5cle/157109)
- 4- Information available on the Bitcoin website, 2019, www.litecoin.org
- 5- Mashouqa, Hamza Adnan, 2021, Digital Money from an Islamic Economic Perspective, Bitcoin Models, Council for Fatwa, Research and Islamic Studies, Jordan, accessed on 11/12/2021, available at the link: [h-ps://www.aliMaa.jo/Research.aspx?ResearchId=231](https://www.aliMaa.jo/Research.aspx?ResearchId=231)