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A Vision Towards the Future of Cryptocurrencies Rooting, its Financial Significance, and Legal Challenges in its Use

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Abstract: Encrypted currencies have become an undeniable reality among investors and speculators in various countries around the world, which necessitates standing on the most prominent issues raised by these currencies, so the researchers decided to discuss in detail the theoretical side of encrypted currencies from various perspectives such as the concept, history, reality, future, and the Islamic perspective on it. In this article, we discuss the notion of financial technology, how it began, and where it has reached, coinciding with the business world seeing a new revolution symbolized by the birth of cryptocurrencies and how the world is rapidly approaching it. Furthermore, we discuss the types of currencies and the most famous cryptocurrencies with their advantages and disadvantages in dealing with their applications, their legal regulation, and the extent of legal liability arising from their misuse, followed by a detailed presentation about the blockchain, we also talk about the relationship between cryptocurrencies, their requirements, risks, and struggles, and finally we will talk about cryptocurrencies from the point of view of investors.

Keywords: Cryptocurrency, Financial technology, Fintech, bitcoin, Ethereum, Blockchain, Altcoins, Virtual Currency, Digital Currency.

1 Introduction

Information technology has evolved into a basic pillar in and of itself, as well as a significant indication among the indicators used to assess the growth of societies and peoples in all aspects of life, whether economic, cultural, or social. In digital currencies" with unprecedented fervor, becoming the preferred location to save time, effort, and direct communication with those virtual markets, whether users are in their homes or offices, or through modern means of communication, which prompted the path of its path towards globalization and penetration of political and geographical borders for ease of use and dealing with it. Through the use of modern means of communication, it became vulnerable to abuse and the target of attacks as a result of its consistent use of modern-era data, resulting in digital or virtual currency transactions that disturb and threaten human societies due to a lack of legal and financial regulation at the national and international levels.

And, despite the importance of information technology in providing a space for trading in digital currencies and the benefits it brings to investment, savings, and wealth exchange, it is not without drawbacks due to its use in the field of crime as a - sometimes exorbitant - tax for this advanced technological machine. It has given criminals a shortcut to the concepts of time and place, so that some have mastered the commission of various types of traditional and modern crimes through these technological means, making it critical to have special legislation and prosecution agencies that ensure the protection of the forms of electronic criminalization generated by them. [1]

And, because the legal and financial system is characterized by reflecting society's needs and desires and addressing all criminal and economic phenomena, developed countries have recognized the seriousness of these crimes, but the developed penal and financial legislation marked by clarity and distance from complexity omitted any references about those virtual currencies to pursue practices that aim to reduce risks, deter perpetrators, and ensure the optimal use of virtual currencies. Considering all of the situations, effects, motives, and reasons that prompted Tech to introduce the category of investment and savings.

The term financial technology was coined in 1972 by Abraham Leo Bettinger, who defined it as "a contraction that combines banking and expertise with information technology." [2] "FinTech is a new term in the finance industry, and its

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purpose is to improve financial services through the use of technology," according to [3], [4]. It is stated that "FinTech is sensationalism, publicity in the media, or an important innovation that can be attributed to the field of finance." According to [5], "it is innovative business models that can transform the finance industry." According to the Oxford Dictionary, FinTech is the provision of traditional financial services through the use of information technology. In the words of [6], "FinTech is the formation of companies or a group of companies that provide modern and innovative financial services through technologies" whereas [7], "FinTech is about both the promotion of technology to enhance the use of finance and the promotion of growth that money has undergone several changes since its inception; Due to the development that occurs in humanity." This development led to the emergence of digital money as a means of electronic payment and digital currencies for cross-border trading, as a result of technological advancements in the technical and banking sectors and the evolution of electronic commerce.

Trading in virtual currencies within the context of information technology raises financial and legal issues that merit scientific investigation in order to find appropriate solutions to these issues and fill the legislative void. Specifically Jordanian law, which does not address this issue, neither locally nor remotely. Consequently, there is insufficient case law and jurisprudential tendencies that can be used to find solutions, despite the critical nature of this issue in the modern era. Due to their effects on the national economy, a legal study was required to monitor the most prominent legal concepts of digital currencies, their financial and legal framework, and their future in order to confront them and identify the most prominent problems of their circulation and dealing with them. [8]

On the other hand, the issue of virtual currencies is one of the unexplored topics in Jordan and has not received its fair share of research and scrutiny at the level of Jordanian jurisprudence, as the majority of aspects of these virtual currencies are still ambiguous and require someone to explore their depths and determine what is going on within them. It is ambiguous because these currencies generally have negative effects on the individual, societal, and international levels.

In an effort to provide potential legal solutions to Jordan's financial and legal legislators, the importance of the topic of this study is evident. We have determined that there is an immediate need to cover these voids by conducting a specialized study on virtual currencies in order to clarify all the financial and legal issues associated with them. Those texts that are tainted with inadequacies and omissions, or by adding new texts, should be sufficiently specific for the broad category of dealers, speculators, and users, particularly legal ones, in the mechanism for dealing with them. [9]

This study seeks to accomplish a number of objectives, the most important of which is defining the concept of digital currencies, their advantages and types, and providing an indication of the mechanisms to combat the disadvantages resulting from their use and circulation, particularly their impact on the virtual economy, as well as the most significant effects that can be achieved as a result of their illegal use and the images of that. Utilization and the method for addressing it in the absence of legal regulation. [10]

Due to the importance of the research problem in determining the approach that the two researchers will take, as well as the specificity of the topic, its repercussions, and the complexity of its problems, our approach in this study combines more than one method of the scientific method, including description, analysis, and rooting, as follows: In this study, the descriptive analytical method was used to characterize the research problem by extrapolating the texts of the relevant legislation that regulated commerce in general and describing it in detail. Then, analyzing these texts and determining what they mean, in letter and spirit, without being satisfied with what is stated in their words, but rather proceeding to what is between the lines and what lies behind the texts, guided by the opinion of legislation, jurisprudence, and the judiciary, if any. Consequently, the study is not merely an explanation of legal texts nor a presentation of some jurisprudential theories, as the subject of the study was described, analyzed, and rooted in its various aspects and dimensions in order to clarify the various characteristics and aspects of virtual currencies.

In an effort to provide a solution to the problem that emerged at the outset of the research, it is necessary to balance these extant texts and this analysis. It fills in the spaces, addresses the deficiencies, and unifies the dispersed texts and laws in order to achieve the new, unambiguous image we desire and the objective we seek: the existence of modern Jordanian economic legislation comparable to international law.

2 The significance of the Research

There is no doubt that the issue of digital currencies is one of the few unexplored topics in scientific research, as there are very few researches and studies that address it. The importance of the study stems from the popularity and spread of digital currencies with their various names and types, as well as the remarkable increase in their value in recent years, as well as the growing number of dealers and traders in it. Consequently, this study serves as a foundation for elucidating key financial and legal aspects associated with it. [11]

In light of the significance of trading in virtual currencies and the illegal economic practices committed in its field, as well as an effort to lay solid foundations for the development of prosperity and economic security in society, and a belief in the necessity of establishing these foundations on the principles of legality and justice, and ensuring their application in a spirit devoted to economic security, and in light of these considerations, it is proposed that: The significance of this study relates to the significance of prevention in this field, the significance of setting appropriate penalties, and the significance of combating and limiting them, all while ensuring equality for individuals, spreading confidence, and establishing the necessary protection for the real financial markets in general. [12], [13]

3 The Problem of the Study

Research in the field of virtual currencies and their significant growth despite concerted efforts to combat them and limit their spread may in the future destabilize confidence in public and private institutions, thereby endangering and possibly destroying the state's economy.

Due to the novelty of these currencies, which were not specified in Jordan's Securities Law No. 76 of 2002, this form of currency and transacting in it raises a great deal of jurisprudential controversy. Investing in the stock market is one of the activities characterized by precision and requiring technical expertise and adequate knowledge. Determining which actions or practices are legitimate and which are not is problematic. And because its merchants are frequently unaware of the regulations, instructions, and laws governing local and foreign stock exchanges, where they must exercise caution and precision, the problematic message can be expressed as follows:

How does the Jordanian legislature determine the financial and legal framework applicable to virtual currencies? Are these currencies applicable to the same rules as tangible currency? Are we facing a new form of trading? How can these practices be combated in their domestic and international dissemination? Were the comparative laws compatible with coping with and combating these virtual currencies? What is the impact of dealing in digital currencies on the national economy on the one hand, and how to legally confront the illegal practices that fall on them or through them, and what is the need for a legal regulation of them that clarifies and demonstrates what they are, the mechanism for working with them, and their circulation in a way that affords legal protection to the group that deals in them.

A number of other sub-questions emerge from the problem of the study, to which we will work on individual answers, as follows:

1. The concept, nature, features and characteristics of digital currencies?

2. The financial and legal nature of it?

3. The mechanisms and legal means available to confront illegal practices arising from the use and trading of digital currencies?

4. What is the impact of the absence of financial and legal regulation of dealing and trading in digital currencies?

4 Structure of the Study

4.1 A Vision Towards Rooting the Financial Regulation of Digital Currencies

The concept of financial technology peaked in late 2019 [14]. Fintech met this need for more security for investors by providing innovative and secure financial services. Another reason for the emergence of Fintech can be attributed to the need for financial services at an affordable cost which provides mobility and a faster pace [15]. The main reason for the emergence of Fintech was the global financial crisis of 2008 [14]. The global financial crisis was the period when people lost faith in the financial system and were looking for something that would give them more confidence regarding their investments.

4.1.1 Virtual currencies and Islamic law

Some Islamic scholars view virtual currencies as permissible, while others view them as forbidden. Which maintains the cryptocurrency within the permitted category, specifies its fundamentals and essence. [16], Clearly, Islamic laws regarding the use of cryptocurrencies in any form of transaction are deficient, and there is a need for a paradigm and system for the Islamic digital currency. There are opinions in favor of maintaining cryptocurrencies in the category of prohibited, such as a violation of the government's constitution, as well as doubts regarding the utility of cryptocurrencies, as disclosed by numerous fatwas and mentioned by numerous researchers. The volatility of cryptocurrency's value, which can fluctuate for a variety of reasons such as a system breach, a technical glitch, etc., is another reason for deeming cryptocurrencies to be prohibited. [16] In accordance with this, the Islamic economic ruling is presented as follows: [17]

1) Cash in Bitcoin: Modern economics has set this custom with a set of criteria, which are the availability of acceptance and performing the functions of cash, and general acceptance may be based on intrinsic value like gold, or it may be based on Compelling the law is like banknotes, and its basis may be people's familiarity with using it as a medium of exchange

for goods and services. As it refuses to deal with Bitcoin, the legal position does not object to the imminent existence of a digital currency that meets the criteria for monetary efficacy. Because the monetary criterion is conventional, and Islam accepts any criticism that meets its monetary requirements.

2) Mining Bitcoin and allowing it to be treated with; this issue is regarded as one of the state's responsibilities and is related to Sharia law; the state should not be complacent in this regard, as monetary stability is the key to economic stability. The most prominent disadvantages of Bitcoin have already been discussed in the previous chapter, including the high economic risks and the absence of oversight and legislation to control these risks, as well as the lack of technical solutions for the Bitcoin network that permit government intervention to control Bitcoin. Countries may not grant permission to deal with Bitcoin at this time, because the atrocities resulting from such transactions outweigh the intended benefits.

3) Bitcoin speculation: The ruling on bitcoin speculation derives from the ruling on the permissibility of bitcoin mining, and the jurisprudential position necessitates the prohibition of bitcoin mining and the prohibition of permission to deal with it; therefore, bitcoin speculation is prohibited.

4.1.2 Virtual Currencies and the Modern Era

A Japanese person, whose pseudonym is Satoshi Nakamoto and whose true identity remains unknown to this day, began issuing "Bitcoin" or (Bitcoin) at a low price that does not exceed a certain number of US cents ten years ago. Despite amazement and derision, the digital currency's launcher was so ingenious that it made it appealing to a large number of people. First, the quantity is restricted, as the supply does not exceed 821 million units. It is being progressively disseminated. Its last release occurred on September 1 of this year (2019), as the current supply has reached approximately 818 million units and there are few remaining until the entire quantity has been issued.

Seven initiatives had collectively raised $30 million by 2014. The largest that year was Ethereum, which generated more than $18 million from the sale of 50 million ether. 2015 was much more peaceful. Seven transactions have brought in a total of $9 million, with Augur bringing in approximately $5 million. On November 23, each Bitcoin cost 5116.39 Jordanian dinars, or 7391.94 U.S. dollars, in Jordan. Obviously, it is less than its utmost price in 2017, which was nearly $20,000 USD.

Clearly, the price is fluctuating significantly at the moment. Despite this, demand remains relatively high. Numerous investors have uncovered in it their desire for risk and adventure, as well as their desire for fast profit. Some may view price volatility as a source of risk, while others may view it as an opportunity for high profits if they know when to buy and when to sell. Facebook's intention to issue a new, competitive digital currency dubbed "Libra" had a significant impact on the price of "B" in the middle of 2019. The announcement was greeted with a range of reactions, with the majority being negative. The second factor that made the "B" currency acceptable was the high level of protection and electronic security that it possesses. Each account, irrespective of its value, is isolated from the other investment accounts in this currency, preventing network intruders from accessing all currency accounts and statements. And if they are successful, they will only gain access to limited accounts, which will allow them to secure themselves. The third aspect is its historical significance. As the first digital currency in history, each "B" coin has become a historical artifact that may have a high future value. The fact that there were more than 1,600 cryptocurrencies at the end of 2018 lends greater significance to this characteristic. [18]

4.2 A Vision Towards the Financial Meaning of Virtual Currencies, their Advantages and Disadvantages

4.2.1 Digital Currency

They are regulated or unregulated currencies that are available exclusively in digital or electronic form [19]. It is also known as digital money, electronic money, and electronic currencies, which are currencies that possess the characteristics of traditional currencies and are regarded as an important means by which their users can conduct diverse commercial and financial transactions. Thus, digital currency is the electronic representation of paper currency and tokens that can be stored in a digital wallet. If necessary, digital currency can be converted into cash by withdrawing cash from any ATM or bank [20]. In fact, it is intangible money with the flow of financial transactions occurring without physical contact between the parties. Financial transactions using the PayPal system or credit cards are examples. If the digital currency is issued in an organized manner by the central bank of a particular country, it is known as the digital currency of the central bank [4]. This currency is issued using an electronic record or a digital code to represent the default form of the country's paper currency. They are governed by the appropriate monetary authority and are thus subject to regulation. Each unit of the central bank's digital currency can also be distinguished in order to prevent forgery, just as paper banknotes are marked with a unique serial number. China, England, and Sweden are among the countries that are considering issuing digital currencies. [21]

4.2.2 Virtual Currency

It is a decentralized digital currency governed by its developers, institution, or network protocol [19]. And it falls under digital currencies, also known as virtual currencies, as they are a type of digital currency that is not subject to regulation, is only available in electronic form, is stored and transacted only through dedicated programs, mobile applications, or computers, or through dedicated digital wallets, and transactions are conducted online via secure and dedicated networks [22]. Virtual currency is a subset of digital currencies, which also includes cryptocurrencies, the encrypted form of digital currency that continues to be extremely volatile on the global investment market. [23]

4.2.3 Digital Money

A cryptocurrency is a digital representation of an encrypted value. It is a virtual currency that uses encryption to secure and verify transactions, as well as administer and control the creation of new currency units.

Instead of being issued and controlled by a central bank, such as the US dollar or the British pound, a cryptocurrency uses a cryptographic mathematical blockchain model, and thousands of other cryptocurrencies based on the same principle have emerged.

Bitcoin may be one of the most prominent cryptocurrencies at present, but there are many others. The markets for cryptocurrencies remain highly volatile and hazardous. Before converting your hard-earned cash to cryptocurrencies, you should conduct research. This means that cryptocurrencies are digital or virtual currencies intended for use as a payment method comparable to government-issued currency and encrypted (secured) using cryptography. The following are some of the most prominent examples of these cryptocurrencies:

1) Blockchain technology

It is an accessible, decentralized database. The data is duplicated and distributed across multiple computers, and the entire block chain is decentralized. This implies that no single person or organization (such as a government or a company) has control over the blockchain; this is a radical departure from centralized databases that are controlled and administered by companies and other organizations.

This indicates that no one individual or organization (such as a corporation or government) has control over the file's contents. While anyone with access to the computer that contains the file you are currently viewing can make any alterations they desire, this is not the case with blockchain. The blockchain can only be released if the network of devices that store separate but identical copies of the blockchain reach consensus. Cryptography, the second fundamental innovation of the blockchain, makes this feasible.

Since the entire blockchain is replicated across multiple computers, every user has access to the entire blockchain. Transactions or records are not processed by a centralized administrator, but rather by a network of users collaborating to verify data and reach consensus. If this sounds familiar, it is because Bitcoin operates in a similar manner. Bitcoin is the first practical application of a blockchain.

In fact, the blockchain can be utilized for anything that requires secure transaction recording. The ability to store government documents such as marriage certificates, business registrations, and health records is one of the benefits of blockchain technology. Governments in countries such as South Korea, Estonia, and Dubai are already implementing these concepts to monitor products, from food to diamonds, as they move through the supply chain from producer to distributor to buyer. Companies such as Walmart and De Beers are already utilizing this to ensure the legitimacy of their supply chains. Verify and monitor ownership of intellectual property from the recording and monitoring of music royalties to the rights to photographs and images Kodak is presently expanding; additional applications include Enable smart contracts, patient record tracking, digital authentication and signature systems, patent systems, local energy distribution, increased charity transparency, frictionless property transfers, and much more. [24]

Negative aspects of blockchain technology as with any new technology, from automation to artificial intelligence, the blockchain is not devoid of difficulties and obstacles.

Due to the complex encryption that must be "solved" by computers in order to enable access to the data, they frequently require a great deal of processing power to function.

Due to the current excitement, blockchain technology is sometimes promoted (by those with a vested interest in selling it) as a panacea for all business problems by those with a vested interest in selling it. While blockchain has numerous intriguing and potentially transformative applications, it is not always the optimal solution.

Implementing blockchains can be difficult, computationally intensive, and costly. In addition, many of its applications remain unregulated as policymakers and legislators attempt to catch up. In addition, I believe that standards still need to be established because there are presently numerous competing blockchain protocols.

2) Cryptocurrency Bitcoin.

Satoshi Nakamoto, an anonymous individual or group who described the technology in a 2008 report, invented Bitcoin. Bitcoin is a digital currency that enables secure peer-to-peer transactions over the Internet. This concept is simple and appealing. It is a digital currency that operates independently of any central authority or government oversight.

Bitcoin was designed to facilitate online money transfers. The purpose of digital currency was to provide an alternative payment system that functions without a central authority but is otherwise utilized similarly to conventional currencies. There is no such thing as a bitcoin or a wallet; rather, ownership of a coin is determined by a network agreement. During a transaction, the private key is used to prove ownership of funds to the network. A concept known as a "brain wallet" allows anyone to simply store their private key and require nothing else to redeem or spend their virtual currency.

Bitcoin is decentralized, unlike services such as Venmo and PayPal, which rely on the traditional financial system for permission to transfer funds and on existing debit/credit accounts. Any two individuals, anywhere in the world, can send bitcoins to each other without the intervention of a bank. Bitcoin payments are fundamentally more secure than debit/credit card transactions due to the cryptographic character of the Bitcoin network. Every Bitcoin transaction is recorded on the blockchain, which is analogous to a bank's ledger or a record of customers' deposits and withdrawals. Simply put, it is a log of every Bitcoin transaction ever conducted. The Bitcoin blockchain, unlike the finance ledger, is disseminated across the entire network. No organization, government, or third-party controls it; anyone can join. Bitcoin is a virtual currency that circulates over the Internet and has no physical presence on the ground; it also experiences a high level of security and privacy. Because it is entirely dependent on encryption. Decentralized currency that is not subject to any central authority, for which no rules or features can be customized within the existing Bitcoin network rules, and for which no intermediaries are used to administer it. Regarding what you should do with your bitcoins, they are adaptable; it depends solely on your personal interests. [25]

One of the disadvantages of using cryptocurrencies is that they operate without a central authority. Due to this, anyone who makes an error with a transaction on their wallet has no recourse. There is no one to turn to if you send bitcoins to the incorrect person or forget your password. Obviously, the eventual advent of quantum computing could render all of this irrelevant. Much of the encryption relies on mathematical calculations that are extremely difficult for conventional computers to perform, but quantum computers may be able to perform these calculations in a fraction of a second. Bitcoin's price is determined by supply and demand, so it has no intrinsic value, and the large fluctuations in its value are a significant hindrance to its popularity and spread. Bitcoin's detachment from any rational monetary policy increases its hazards to the global economy, which hinders the ability of nations to achieve societal goals. As the positions of global central banks have fluctuated between a plurality of opposition and a minority of support, the majority of nations do not recognize it. [26]

3) Ethereum

Ether (ETH) is Ethereum's native cryptocurrency. It is purchased and distributed on the Ethereum network. It is one of the many tradable cryptocurrencies on the Ethereum network. It is also used to compensate miners for adding transactions to the blockchain.

Ethereum is as secure as any other cryptocurrency market; however, as with many financial instruments, it can experience periods of high volatility, which increases traders' vigilance due to the inherent risks. It is always advised that traders utilize volatility protection parameters, as they can assist in reducing trading risks. Traders are also encouraged to learn how to effectively manage risk, as implementing this in their transactions can significantly reduce risk. Vitalik Buterin, a cryptocurrency researcher and programmer who previously worked on Bitcoin in 2013, created Ethereum.

As with other cryptocurrencies, however, 2018 proved to be a challenging year for Ethereum, as its price has steadily declined since the beginning of the year, stabilizing at approximately $130 by the end of the year. Since the beginning of 2019, the value of one ether has increased against the US dollar, reaching $361 per ether in June of this year. And it began to decline until the end of the year, approaching the $139 opening price in January. In 2020, Ethereum's price began to rise again, as it had in 2019, and continued to rise until the end of the year, reaching $751 and ending the year with an increase. However, this is not the most remarkable height! The price of Ethereum attained its all-time peak of $4,812 on November 8, 2021, representing a 540.7% increase from its price in 2020. [27] Due to the aforementioned factors, Ethereum was able to expand by up to 510 percent in 2021, compared to Bitcoin's 93 percent growth. In 2022, Ethereum will migrate to Ethereum 2.0 and transition from a PoW to a PoS consensus model.

Ethereum's benefits include the hosting of smart contracts and decentralized applications (dApps), crowdfunding, financial exchanges, and a clever feature that integrates hardware. However, one of the disadvantages and drawbacks of Ethereum is that it is resource intensive. Ethereum's current use of the PoW consensus protocol is an energy-intensive method for ensuring that all network nodes concur on the blockchain's current state. All smart contracts are stored on all blockchain nodes, and proof-of-work protocol protection also poses a security concern. All parties can see vulnerabilities in smart contracts on a public blockchain, and it may take longer to repair them than to exploit them. This strategy has the disadvantage of concentrating mining capacity among a smaller group of individuals. This allows for greater network manipulation and collaboration but is costly to develop and difficult for those unfamiliar with the technology to employ.

4.2.4 Cryptocurrency Requirements

There are a set of requirements for using cryptocurrency, which are:

1. Safe, that is, digital payment systems must use high-quality encryption techniques to ensure a high level of security, so that workers cannot be forged or altered.

2. Anonymous, i.e. transactions should be private and accessible only to the two contracting parties.

3. Portable i.e. the cryptocurrency should be independent of any physical location and be easily transportable over the network.

4. Users must be able to spend and receive money at any time.

5. Digital money must be fungible and divisible into small units.

4.3 A vision towards the legal meaning of virtual currencies and the challenges in their circulation

The Jordanian legislator in the Hashemite Kingdom of Jordan did not neglect this crucial issue due to the necessity of providing criminal protection for the Amman Stock Exchange and its dealers and investors. The Jordanian Securities Law No. 76 of 2002 stipulated the criminalization of a number of illegal practices that would violate the principle of equality between investors, obscure the transparency of financial transactions on the market, or permit the illegal acquisition of a benefit. legitimate, thereby violating the principles upon which investment on the stock exchange is founded and causing damage to the stock exchange and all of its dealers, whether natural or legal persons. In this regard, he decided to impose various appropriate penalties and vested the Securities Commission with full authority to establish rules, regulations, and instructions (instructions issued in accordance with the provisions of Article (83/a) of Jordanian Securities Law No. 76, 2002 A.D.) to protect the market and its dealers.

The Jordanian lawmaker classifies as prohibited or unlawful actions or practices that would deceive stock exchange dealers. In some sections of Jordanian Securities Law No. 76 of 2002, the terms "fraud or manipulation" and "misleading" were used, while "fraud" was employed elsewhere. [28] Comparative legislation may use corresponding names, but all of these terms adhere to a single template: "any criminal scheme carried out by a financial intermediary, investor, or group of dealers through the practice of investment activity in the trading of securities on the stock exchange or through manipulation of information."

4.3.1 What is stock exchange trading and its components?

As a link in the development of the economic system and a reflection of the level of economic activity in a country, the stock exchange is one of the topics of interest to specialists in numerous countries around the globe. With the savings it accumulates, the investments it attracts, and the excellent sources of financing it provides, it attracts investments and finances initiatives. What exactly is a stock exchange? What are its components?

The stock exchange is a market that engages in financial investments related to securities, whether they are issued for the first time or traded afterward, and it is comprised of three fundamental elements: securities, information, and dealers.

The three types of financial markets are capital markets, money markets, and exchange markets. Capital markets, also known as stock exchanges, are those "Spot or Cash Markets" in which long-term securities are traded or sold for the first time or traded in after their issuance. Futures markets also trade in equities and bonds through contracts and agreements that are executed in the future. [24]

The stock exchange is based on investment in securities, whether they are issued and presented to the public with the intention of selling and marketing them in the "issue market" or they are traded - after issuance - by purchasing and selling on the trading market. They are successively divided into two main markets: the primary market (the issuance market), which is the market associated with new issues issued by business establishments, in which issued securities are sold for the first time, such as when establishing a new company or increasing the capitalization of an existing one. This is typically performed by a sizable financial institution, which is then referred to as the "underwriter" or investment bank. Stment Bank for the security issuer's benefit. It is typically governed by the laws and regulations of the country's competent authorities. [29]

As for the second market: (the secondary market) the “Secondary Market” trading market. It is the market in which securities are bought and sold between investors after the issuance process for the first time. The Jordanian legislator defined the secondary market as: “the trading market” in Article Two of the Securities Law No. 76 of 2002, which states: “Any regulated market or any Periodic or continuous use of means of communication that allows trading in securities and financial assets. These markets are divided into organized markets or stock exchanges and unregulated stock exchanges. [30]

The Stock Exchange is defined as a specific and regulated private market (place) for the trading of securities (buying and selling) issued by public or private legal persons among dealers based on specific information, and by specialized and licensed financial intermediaries, according to laws, regulations and instructions. On the national, internal level of the state, the “local stock exchange.” In the sense of the violation, every stock market outside the territory of the state, whether it is dedicated to trading securities, currencies, or any other financial instruments, is a foreign market called the “foreign stock exchange.” This is confirmed by paragraph (b). From Article 2 of the Jordanian Law No. 50 of 2008 regulating dealing in foreign stock exchanges, which states: “For the purposes of this law, the term “foreign stock exchange” means every financial market outside the Kingdom, whether organized or unregulated, in which securities are dealt with in different ways. types, foreign currencies, precious metals, or any other commodities or financial instruments.” [31]

It can be said - according to the adopted definition of the Stock Exchange - that the Stock Exchange consists of three main elements: Securities, which are the most important investment tools at the Stock Exchange, and are represented by the investor’s possession of a financial asset in the form of shares, bonds, founding shares, savings documents, and others. [32]

Many concepts have been formulated in order to define what is meant by securities, which state in their entirety that the security “is instruments of equal financial value upon issuance. It is ownership like stocks or a debt instrument like bonds, which establishes legal and financial rights for its owner issued by public and private moral persons, which are traded in The stock exchange, in accordance with the procedures drawn up by law, gives its holder the right to obtain part of the return or to obtain part of the company’s assets, or both rights that can be listed and traded on the stock exchange.

As for the categories of securities, the Egyptian Capital Market Law No. 95 of 1992 provides guidance. In Article (16) of the aforementioned law, the legislator has enumerated the securities that are offered on the local stock exchange. Corporate shares, referred to as "property securities," are perhaps the most significant securities transacted on the local stock exchange. Where the law is nearly unanimous: "the shareholder's right to the company's capital according to the instrument confirming this right." There are numerous characteristics of stocks. First: The share is a valuable instrument, as the capital of a public shareholding company is composed of shares of equal value. To simplify the distribution of profits or losses to shareholders, the calculation of the quorum and majority in General Assembly meetings, and the organization of trading. The real or actual value of a share is the value of the share derived from the company's assets, i.e. the share of the share in the company's net assets after deducting its liabilities. The market capitalization reflects the value of an individual share on the stock exchange. The value of the share after the issuance premium, which is the price at which new shares are sold and offered to increase the capitalization of the company. Typically, this value exceeds the face value, and the difference between the two values is known as the issuance premium. The second characteristic is the share's permanence and indivisible nature. The third characteristic is the ability to trade shares and dispose of them by mortgage or sale through registration in the register of the stock exchange (stock exchange) and the register of shareholders at the company's headquarters. Exceptions notwithstanding, a company may not deprive a shareholder of his or her right to engage in unrestricted commerce, as it is deemed essential to the public order. [33]

Bonds are "indebtedness papers" the second type of securities, where the company or the government, or public institutions, or official institutions, or municipalities are forced to borrow to cover the necessary funds; To carry out its activities, or expand it, without the need to increase the number of shareholders, it issues bonds that are offered to the public through public subscription, and they are "debt instruments that grant their owner a financial right." It expresses a relationship of debt. In addition, they are transferable securities because they grant the holder a portion of the return, a portion of the company's assets, or both rights. The loan bonds are comparable to equities in terms of ownership transferability, and they are indivisible. [34]

As for the third type of securities, they are founding shares, or profit shares, which are “negotiable instruments issued by joint-stock companies without a nominal value, giving their holders rights to the company’s profits and perhaps a share of its assets upon liquidation,” in return for the services and efforts they provided during the establishment of the company. They are like stocks and bonds, negotiable instruments based on their form. If they belong to the bearer, they are traded by delivery, and if they are nominal, they are transferred through registration in the company’s records. It is not permissible to trade foundation shares before publishing the balance sheet, profit and loss account, and all documents attached to it for two full years from the founding of the company in order to the public can find out the true financial position of the company. And every disposition or transaction in the foundation shares before the lapse of two years is invalidated.” [35]

The fourth type of securities is represented in investment funds, which are considered a financial container that represents a group of nominal or bearer contractual documents issued at a single and indivisible value, established by banks, insurance companies, or joint stock companies, as it is one of the methods of collective investment that aims to collect funds from Individuals and institutions, in return for issuing investment documents. And using the proceeds of those funds to invest in the stock exchange, achieving efficient diversification and an appropriate return for policyholders, who do not have the ability to manage their investments directly and the opportunity to participate in the global and local markets through financial institutions with experience in managing securities to achieve advantages that investors cannot achieve on their own. The investment fund is either open or closed. Finally, financing sukuk - the fifth type of securities - which are various contractual documents, nominal or to their bearer, negotiable in the stock exchange, issued by joint-stock companies and partnerships limited by shares to meet the financing needs of the company or to finance an activity or a specific operation, which is given to its holders from the same issue. One has equal rights, with the right to convert them into shares if it is agreed upon. [36]

As for the second element, they are the dealers in the stock exchange, and the dealers are divided into: first: members of the market, and second: those involved in the market [37], [38].

The internal information of the joint-stock companies related to the securities issued by these companies constitutes the backbone of the stock exchange, the third element in the stock exchange that plays a major and direct role in making buying and selling decisions by market traders. The efficiency and stability of the stock exchange in any country is measured by the credibility of information and its availability to all on an equal basis and fairness among market dealers. [36]

4.3.2 Legality of trading in cryptocurrencies

There is no doubt that the existence of a stock exchange in any nation is regarded as the mirror that reflects the modern, civilized visage of the economies of nations with a free-market economy and their progress. Experts and specialists in this field are well aware of the crucial role that stock exchanges play in economic life. As a financial market, it contributes to the well-being of all people, whether directly or indirectly, and it is the most significant financial institution that affects the economies of countries, ups and downs, and a reliable indicator of the conditions of the companies involved within its entity. Recently, however, what is known as cryptocurrency trading has emerged, necessitating a stance on it and the legality of its trading.

4.3.3 Legislative directions for cryptocurrency trading

The cryptocurrency has different names with the respective companies that launched it in the market, such as: Bitcoin, Ethereum, etc. [39] Advanced computers are also used to manage the creation and control of new currency units. This process includes validating the data and adding transaction records to the public ledger using the blockchain [40].

Since it is not issued by any central authority, some experts consider it immune from government interference or manipulation, while others consider it a hedge against inflation. It was created with the help of advanced blockchain technology to keep the flow of workers running smoothly [4]. Characteristics of cryptocurrencies are [40], [41]

1) It has no material or physical existence and has no intrinsic value.

2) Decentralized, as it is not subject to a body or institution that regulates and supervises its facilitation.

3) Being circulated through the Internet.

4) The exchange process is based on peer-to-peer technology, without the need for a banking intermediary between them.

5) The possibility of mining (producing) it for its customers according to their technical capabilities and computer processing.

It has advantages that are primarily summarized by its universality, as it is not subject to a controlling party, just as the technology on which it was founded enabled these currencies to be private and confidential. It does not require an actual name or identity, but all information is represented by symbols and numbers. It is also secure, as the Blockchain system prohibits forgery, tampering, and larceny; all records are encrypted. The (decentralization) of these currencies rendered them exempt from fees, in contrast to banks that charge conversion fees. It is also distinguished by the quickness of transfer and documentation, as funds are transferred within minutes regardless of the size of the transaction or operation.

As of the writing of this paper, Germany, Canada, and the United States allow trading in these cryptocurrencies and collect transaction fees, whereas France opposes their use and trading. China prohibits the practice and only permits its exploitation. Regarding the Arab countries, the situation is comparable to that of the rest of the world. Bahrain permits its use and trade, whereas Lebanon criminalizes it and warns Saudi Arabia against using it [42].

Numerous studies have recently warned of the threat that trading these currencies poses to the economic and national security of nations, as terrorist or criminal organizations may be able to expand their political or economic influence by trading and investing in virtual currencies. Fruits in virtual currencies It is still accompanied by great caution in societies due to a lack of technological literacy; however, if the technology underlying virtual currencies becomes more widespread and trustworthy, societies may become accustomed to using them. or if no other option is available [43]. Moreover, the interest of investors is the most influential factor controlling the digital currency market. This is what makes the virtual currency market's volatility so significant [44]. Among the most significant factors that make cryptocurrencies a threat to national security, economic security, cyber security, and environmental security [45] are the lack of technological ignorance regarding virtual currencies and the absence of legislation and regulatory umbrellas. [46]

4.3.4 The position of the Jordanian legislator on cryptocurrencies

Jordanian legislation is devoid of any legal regulation of encrypted currencies, and with reference to the legislation regulating currency trading in general in the Hashemite Kingdom of Jordan, we find that the Central Bank prohibits all forms of dealing in digital currencies, as the Central Bank of Jordan issued a circular prohibiting all forms of dealing and trading in them and opening accounts related to them for clients or Sending remittances to banks and financial institutions and any other entity subject to it (Central Bank of Jordan, Circular No. 1/5/2451) dated 20/2/2014. The reasons for banning the Jordanian legislator from trading cryptocurrencies stem from the risks of using them in terms of the following:

- Investing in cryptocurrencies or tokens is highly speculative and the market is highly unregulated. Anyone considering this should be prepared to lose their entire investment. While many Bitcoins and Ethereum are just examples of cryptocurrencies - digital money transfer systems that use blockchain technology and cryptography - there are subtle differences in how they work and what they can be used for.
- If you are looking to invest for speculative reasons, or even more so if you are considering using either of the two platforms for business, it is important that you understand these differences, as they may be the deciding factor in the transition of a currency (if either) to the accepted standard on the Wide range, which will disappear into obscurity and worthlessness.
- Other cryptocurrency and blockchain projects claim different unique selling points. Ripple, for example, is targeted for use in the financial services industry and has been implemented to some extent by global players including Santander and UBS.
- Another cryptocurrency - Dash - aims to beat Bitcoin by increasing the anonymity of users, and providing additional functionality geared towards enabling smart contracts.
- Other coins have more niche or specialized applications as online gambling tokens are popular as can be expected as well as coins designed to be traded across a large number of online and mobile games.
- All of these currencies attract speculative investment from buyers hoping to get in early on the (next Bitcoin), however any investment in just one currency would be extremely risky.
- No continued legality of cryptocurrencies or digital assets can be guaranteed. In 2017, the People's Bank of China officially banned ICOs, calling them counterproductive to economic and financial stability.
- The volatility of the cryptocurrency markets makes it an ideal place for day traders who buy and sell multiple times a day. Passive or conservative investors should take a different approach, keeping their cryptocurrency holdings to a minimum.
- The future of cryptocurrencies the long-term growth of any cryptocurrency (or indeed a business) depends on the beneficial applications that are found for its assets.
- If Bitcoin continues to become an accepted form of currency, or the Ethereum network becomes an established standard for distributed computing, the value of these assets is likely to continue to grow. On the other hand, in technology, there is always something exploding in the wake of the front runners. Newer and more efficient algorithms can replace Bitcoin or Ethereum.

5 Conclusions

Digital currencies are one of the most prominent challenges facing human societies and affecting the economy and the circulation of capital in the modern era. Today, they have become an undeniable reality among investors and speculators in various countries of the world. And it started to raise controversy among countries in its approval and circulation despite its widespread and steady use, and we summarize the conclusions as follows:

1. Perceptions of cryptocurrencies vary.
2. There are many types of digital currencies, and they differ in their characteristics, functions, advantages and disadvantages.

3. Digital currencies are not confined to national dealings, but rather cross borders.

Recommendation

1. We recommend that the Jordanian legislation establish a clear and specific legal regulation specific to digital currencies, as they have become an undeniable reality.
2. We recommend the Central Bank to allocate a specialized department to monitor trading in digital currencies.
3. We recommend holding specialized courses to learn about digital currencies and increase awareness and culture among speculators.

Conflicts of Interest Statement

The authors certify that they have NO affiliations with or involvement in any organization or entity with any financial interest (such as honoraria; educational grants; participation in speakers' bureaus; membership, employment, consultancies, stock ownership, or other equity interest; and expert testimony or patent-licensing arrangements), or non-financial interest (such as personal or professional relationships, affiliations, knowledge or beliefs) in the subject matter or materials discussed in this manuscript.

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