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Кафедра міжнародних економічних відносин

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на тему:

Криптовалюта як новий етап у розвитку світової валютної системи.

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_____ **Камал Мохамед**
(підпис)

_____ Науковий керівник
(підпис) **к. е. н., доц. Миронова М.І.**

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LVIV UNIVERSITY OF TRADE AND ECONOMICS

Department of international economic relations

QUALIFICATION WORK

on the topic:

Cryptocurrency as a new stage in the development of the world monetary system.

Performed by: student of the first
(bachelor's) level of higher education
specialty 292 “International Economic Relations”
_____ Kamal Mohamed

Supervisor
PhD in Economics, Associate Professor
_____Mariana Myronova

Lviv - 2024

АНОТАЦІЯ

Камал Мохамед. Криптовалюта як новий етап у розвитку світової валютної системи: Кваліфікаційна робота.

У кваліфікаційній роботі досліджено принципи діяльності ринку криптовалют у світовому фінансовому секторі. Проведено аналіз динаміки та тенденцій на світовому ринку криптовалют, а також розглянуто ризики операцій з ними. Визначено перспективи розвитку криптобізнесу в світовій економіці, включаючи переваги та недоліки використання криптовалют та їх вплив на економічну ситуацію для країн світу, а також шляхи покращення розвитку ринку криптовалют у глобальній фінансовій світовій індустрії.

Ключові слова: криптовалюта, біткоїн, блокчейн, світова фінансова система, криптобізнес.

SUMMARY

Kamal Mohamed. Cryptocurrency as a new stage in the development of the world monetary system: Qualification work.

The qualification work examines the principles of the cryptocurrency market in the global financial sector. The dynamics and trends in the global cryptocurrency market are analyzed, and the risks of operations with them are considered. The prospects for the development of crypto business in the global economy, including the advantages and disadvantages of using cryptocurrencies and their impact on the economic situation for countries of the world, as well as ways to improve the development of the cryptocurrency market in the global financial industry are determined.

Keywords: cryptocurrency, bitcoin, blockchain, global financial system, crypto business.

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INTRODUCTION

Relevance of the research topic. The global market economy is going through a period of irreversible transformations. A completely new type of economic and social relations is emerging. All this is characterized by new knowledge, the integration of new technologies and the development of decentralized information networks. Financial market problems associated with excessive centralization call for the transformation of the existing system of international banking cooperation and logistics financial flows. Blockchain technology became an alternative solution. It is a distributed database that is formed in the form of an ever-growing chain of blocks from records transactions. Electronic imprint these transactions became the basis for the development of cryptocurrency. The most famous and widespread example of a decentralized blockchain network is Bitcoin. The Bitcoin cryptocurrency has become extremely popular due to a number of reasons. One of the most important factors was the mistrust of market participants in the global financial system. It is necessary to analyze the prospects and risks of the development of cryptocurrency in financial markets and evaluate the possibilities of using blockchain technology in other areas of activity.

In recent years, the trend of a number of financial institutions to include cryptocurrencies in their portfolios has accelerated. Cryptocurrencies are the first pure digital assets to be incorporated by asset managers. Although they share some features with more traditional assets, they have their own distinct nature and their behavior as an asset is still in the process of being understood. Therefore, it is important to summarize the available research and results on cryptocurrency trading, including available trading platforms, trading signals, trading strategy research and risk management.

Scientific work, dedicated study cryptocurrency, has mainly fragmentary nature and most often are limited analysis technologie blockchain and bitcoin as the main cryptocurrency. In particular, the study of certain aspects of the functioning of the cryptocurrency market was carried out by such domestic and

foreign scientists as Aiazbekov A., Gaponenko G. I., Vasylenko V. Y., Yevtushenko O. V., Shamara I. M., Erceg A., Damoska Sekuloska J., Kelić I, Narayanan A., Bonneau J., Felten E., Miller A., Goldfeder S. and others.

The purpose of the qualification work is to study the world market of cryptocurrencies and their impact on the economic growth of countries in the current conditions of stagnation of the world economy.

In accordance to delivered purpose we identified **the main tasks:**

- define the concept of cryptocurrency as a means of payment and an object of intellectual property;
- to investigate varieties history and reasons occurrence cryptocurrency;
- to analyze the development of cryptocurrencies in conditions of stagnation world economy;
- determine the principles of cryptocurrency market activity in the global financial sector;
- to follow dynamics and trends on the world market cryptocurrency;
- evaluate cryptocurrencies according to market capitalization indicators in conditions of stagnation of the world economy;
- to investigate the methods of securing cryptocurrency and the risks of operations with cryptocurrencies;
- to reveal the advantages and disadvantages of using cryptocurrencies and their impact on the economic situation for the countries of the world;
- determine ways to improve the development of the cryptocurrency market in the global financial industry;

The object of the study is the development of the world cryptocurrency market in conditions of stagnation of the world economy.

Subject research is world market cryptocurrency.

Research methodology. The methodological basis of the study is the fundamental provisions of the global cryptocurrency market. In the first chapter, methods from abstract to concrete, combination of analysis and synthesis, structural-systemic approach, method, cause-and-effect relationships were used to

reveal the essence and conceptual concepts of cryptocurrencies. In the second section of the work, in the analytical part, where were investigated and were analyzed Indexes and dynamics of the current state of the cryptocurrency market, methods of logical and historical, quantitative and qualitative analysis, statistical methods, methods of comparative analysis were used. In the final third chapter, the main scientific method was the method of causal, logical and functional relationships and dependencies, as well as correlation-regression analysis to reveal the impact of cryptocurrencies on the world economy and on the economy of Ukraine.

The theoretical basis of the work was made up of legislative and sub-legislative legal acts on the regulation of operations with crypto-assets in Ukraine, statistical materials of the Ministry of Finance of Ukraine, the State Fiscal services of Ukraine, State services statistics of Ukraine, materials and analytical reports of international companies: Ernst&Young, KPMG, World Investment Report, BCG, annual reports international organizations: The United Nations Conference on Trade and Development (UNCTAD), the International Bank for Reconstruction and Development (IBRD), the International Monetary Fund (IMF), the World Trade Organization (WTO), and the World Bank (WB).

The structure of the qualification work. The qualification work consists of an introduction, three chapters, conclusions and a list of bibliographic references of the used sources. The work contains 3 tables and 6 figures. The bibliographic reference list of used sources includes 52 titles on six pages.

SECTION 1
THEORETICAL AND METHODOLOGICAL BASIS OF CRYPTOCURRENCY MARKET RESEARCH

1.1. Cryptocurrencies as pay means and object intellectual property: concepts, types, history and causes of emergence.

In 2008, someone under the pseudonym "Satoshi Nakamoto" published a paper describing the implementation of a digital currency called bitcoin, which uses blockchain technology. More than a decade later, hundreds of cryptocurrencies and countless other applications of blockchain technology have become available.

The rise of cryptocurrencies poses an existential threat to many traditional functions in finance. Cryptocurrencies use a peer-to-peer mechanism and effectively eliminate the "intermediary", which can be a financial institution. For example, a bank account or credit card not are needed for implementation transactions in world of cryptocurrencies. Indeed, a cryptocurrency "wallet" performs the same function as a bank vault. With the telephone and the Internet, there is the potential to revolutionize the financial world, given that more than two billion people are unbanked.

However, this technology goes far beyond providing banking services to the unbanked. It has the potential for cheap, secure and near-instant transactions, enabling billions of people join to the world online commerce, paying goods or services beyond traditional banking and credit card infrastructure. [1] Transactions with cryptocurrencies potentially allow carry out micropayments almost in real times Credit cards not assigned for use for one cent to download, for example, a product or service from the Internet. Cryptocurrency systems promise to make micropayments seamless and allow businesses to offer real-time payment for the use of their products, such as video, audio, mobile phone services, utilities, and more.

A cryptocurrency like Bitcoin can be considered as a decentralized

autonomous organization (DAO), a peer-to-peer, open-source, rule-enforcing digital network which ones she created In this DAO setup, the supply of money is set by an algorithmic rule, and the integrity of the network replaces the need to trust the integrity of human participants. Thus, the rise of cryptocurrency technology challenges traditional monetary authorities and central banks, as shown by the market valuation of Facebook's Libra pre-issue coin (Taskinsoy, 2021). Central banks understand this, and many have initiated their own national cryptocurrency initiatives.

As with any new technology, there are risks. In the nascent cryptocurrency market, one challenge is the anonymous nature of transactions with some cryptocurrencies, which could allow malicious actors to conduct illegal business or, worse, pose a broader threat to our society and institutions. Benefits such as low transaction costs, security and fast processing are easy to measure, but the risks are not so easy to quantify. [2]

The concept of additional, alternative or digital currency not is is new, but the concept of an open source currency without a central point of trust, such as a central distribution agency or government master control, is new.

A cryptocurrency is a digital asset designed to operate as a medium of exchange using cryptography to secure transactions, control the creation additional units cost and checks transfers assets, not depends from none central body, example government or the bank Exist many different cryptocurrencies, each with its own set of rules. Differences between cryptocurrencies may include, for example, the choice of consensus mechanism, latency, or cryptographic hashing algorithms.

Cryptography for confidential payments started to be used since 1990 in the DigiCash system of David Chom, whose firm went bankrupt in 1998 year. This payment system was centralized.

For the first time, the term "cryptocurrency" began to be used after the appearance of the "Bitcoin" payment system, developed in 2009 by a person or a group of people under pseudonym Satoshi Nakamoto. Wide spread term "cryptocurrency" was acquired after the publication of Andy Greenberg's article

entitled "Crypto Currency" in Forbes on April 20, 2011. [3]

Forks appeared: Namecoin (decentralized DNS for registration inside the .bit domain zone), Litecoin (uses scrypt hashing), PPCoin (uses a hybrid proof-of-work/proof-of-stake mechanism, not has an upper limit on the amount of emission), (similar to PPCoin, but uses scrypt) and many others.

Until July 2013, the software of all cryptocurrencies except Ripple was based on the open source code of the Bitcoin system. Since July 2013, other platforms began to appear, which, in addition to cryptocurrency, support a variety of infrastructure - stock trading, shops, messengers, and others. Such crypto-platforms include: Bitshares, Mastercoin, Nxt. Other platforms are also being announced.

Altcoins (from the English Altcoin, alternative coin) refer to all cryptocurrencies that appeared after Bitcoin.

The first altcoins appeared in 2011: Litecoin and Namecoin. Their developers sought to overcome a number of problems inherent in Bitcoin (for example, Litecoin has a higher transaction speed) or use blockchain technology in others regions (namecoin was developed for buildings alternative root DNS servers).

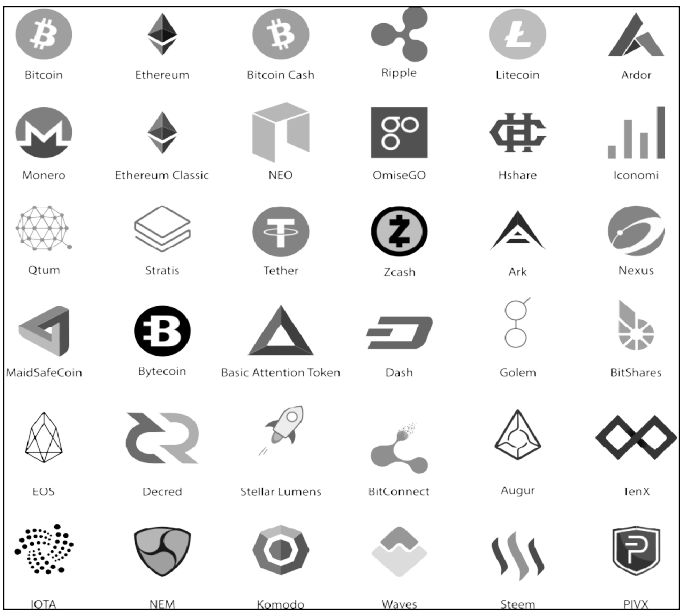

Fig. 1.1. The most popular altcoins

Note. Built by data Currency.com . [Electronic resource]. - 2023. Regime access to resource: https://currency.com/.

Many altcoins are very similar in nature to Bitcoin, have similar characteristics and can be operated with the same hardware as Bitcoin, but some cryptocurrencies have significant differences. Ethereum has turned into a crypto platform thanks to the use of "smart contracts". Even stronger independence from Bitcoin is seen in Ripple, which is effectively a centralized system. Number cryptocurrencies, such as Dash, have emphasized increasing anonymity.

Sometimes a new cryptocurrency appears as an offshoot from other cryptocurrencies by changing parameters that make the data of the old one incompatible and new systems Usually, When part participants passes on new protocol and some adhere to the old. At the same time, both cryptocurrencies may have a common transaction history that accumulated before the moment of their separation. [4]

A currency with no intrinsic value, such as a cryptocurrency like Bitcoin, can only function if there is sufficient market acceptance and if there is a belief that the currency has value attributed to it. In a conventional fiat system, money has value because people trust the central bank. For cryptocurrency, additions to the public ledger are validated by a crowd of participants. There is no central bank, and participants do not need to trust each other – trust only applies to the algorithm and network that defines a particular blockchain. A transaction is valid only if the output is equal to the input, that is, the transactor actually has the funds she or he wants to transfer. The only exception is new ones cryptocurrency issues that are determined algorithmically. We demonstrated the ease of creating a SHA-256 hash to link one block to another. Why same then massive computing power is needed to support the bitcoin network? The necessary authority is related to the concept of proof-of-work consensus. The danger of using plain SHA-256 is that a nefarious actor could modify the historical block and all subsequent blocks, essentially rewriting history by ensuring that all hashes match. To make this unlikely, Nakamoto (2008) proposed the idea of requiring “work”. So instead of just providing any SHA-256 output, you need a special SHA-256 output that has a lot of leading zeros. In other words, proposed hash SHA-256 has be lower or is equal

to the current goal for the block to be accepted by the network as the next block to be added to the blockchain. This "complexity" ensures that a new block is added on average every 10 minutes to the Bitcoin blockchain. To find this special hash, certain nodes, called miners, take a group of verified transactions and iterate over the numbers, say 1, 2, 3, . . . [very large numeric], until Entrance SHA-256 not will be have sprat leading zeros. It numeric, which one is added to digest transactions, is called disposable.

The computing power requirements arise from the fact that the leading zeros are determined using a rough search. The probability of one leading zero is 1/16, but the probability of, say, 18 leading zeros is a very small number (1/16). What requires enormous computing power. [5]

The first miner to find 18 leading zeros, as in our example, represents its transaction group and a unique network number. Checking that transactions plus nonces provide leading zeros is easy. After each node verifies a block candidate, a new block is added to the Bitcoin blockchain. This process is the Bitcoin consensus mechanism. A miner who finds a winning block is rewarded with newly "minted" Bitcoin. If the technology evolves or additional computation joins the network's mining effort, so that blocks are solved in less than 10 minutes, the algorithm adjusts the difficulty, perhaps up to 19 leading zeros If computing power leaves network, difficulties can be reduced.

Thus, cryptocurrency mining is similar to gold mining. Gold mining is expensive. Cryptocurrency miners spend computing power to find the hash as described above. A gold digger gets a reward only if gold is found. Cryptocurrency miners are only rewarded if they are the first to find the winning hash. Like gold mining, cryptocurrency mining is risky. Continuous consumption of resources such as equipment and energy during long period without reward, is an inherent risk.

Confirmation work does unlikely what historical bloc and all subsequent blocks may be changed, but providing the highly specialized computing power required to rewrite history is now unlikely. Nakamoto (2008) states that if a single entity receives 51% of the computing power, it is possible. [6]

Proof of work is only one approach to consensus, there are many alternative mechanisms, and they cannot incur the high hardware and energy costs that Bitcoin miners face.

The other leading cryptocurrency, ethereum, uses a similar proof-of-work mechanism. However, Ethereum has committed to moving to a proof-of-stake mechanism. Instead that in order to distribute mining blocks in proportion to the relative hashing power, the proof-of-stake protocol allocates blocks in proportion to the current supply. As a result, participants with the most cryptocurrency have a vested interest in doing the right thing to keep the system running and healthy. This method promises significantly improved latency and significantly lower power consumption. Member who owns 1% cryptocurrencies, may to mine in average 1% blocks proof-of-stake. Ethereum has a number of other differences from Bitcoin. Ethereum blocks are added approximately every 14 seconds, rather than every 10 minutes, and importantly, Ethereum allows smart contracts or small computer programs to be deployed on its blockchain. These smart contracts are executed redundantly on each node.

Many other consensus mechanisms are currently available: STEEM's proof of brain rewards participants for creating and curating content on their social network (STEEM.io Bluepaper) and Slimcoin's proof of burn downloads one cryptocurrency from another, showing proof that they have "burned" some units value by departure some amount to a verified non-spendable address (Slimcoin Whitepaper) or various implementations of Byzantine fault tolerance, which was first described as the Byzantine generals problem by Lamport et al. (1982), used by systems such as NEO, Stellar, and Hyperledger Fabric.

Not all cryptocurrencies are the same. Cryptocurrencies can be grouped into seven broad classes. Bitcoin falls into the first category. It was originally developed as mechanism transactions. Gold 2.0. Litecoin very similar on bitcoin and was one with the first alternatives bitcoin Blocks Litecoin added every 2.5 minutes on average, compared to every 10 minutes for Bitcoin. [7]

Ethereum belongs to the second class: a distributed computing token. As

mentioned earlier, you can run a computer program on the Ethereum network. Think of it as a computer on the Internet, where small programs, smart contracts, execute when called on each node. Other examples in this class include Tezos, EOS, and DFinity.

The third class of cryptocurrency is called a utility token. Utility - it is a programmable blockchain asset. One example is Golem, a currency that allows a user to buy computing power from a network of users or sell excess power to others. Storj is similar and allows the user to rent out unused disk storage. Other examples in this class are Sia and FileCoin.

A fourth class of cryptocurrency is the security token, a token that represents stocks, bonds, derivatives, or other financial assets. The new security token offerings are called STOs. This type of token can lead to a significant increase in the efficiency of both clearing and settlement.

The fifth class is called interchangeable tokens. The most popular is called ERC-20, which is issued on the Ethereum blockchain. Here, a small amount of ETH represents something else – and more valuable.

An irreplaceable token – the sixth classification. IN this case each one the token is unique and not interchangeable with others. One popular protocol is ERC-721 Ethereum. Dhrama debt deals fall into this classification. Two other examples of immutable tokens are Cryptokitties and Decentraland (LAND). [8]

The last class of cryptocurrencies is called stablecoins. There are four categories. The first category is provided with fiat currency. This includes stable coins, such as Tether (USDT) and USDC Circle. These cryptocurrencies developed for complete software deposits in dollars USA. LBXPeg pegged to the pound sterling. Mongolia, an emerging market, has a cryptocurrency called Candy pegged to its currency. This class also includes national cryptofiats. As mentioned earlier, many central banks are exploring potential Fedcoin (US Federal Reserve System), Eurocoin (European Central Bank), CADCoin (Bank of Canada) e.g. Venezuela has already released national cryptocurrency called Petro.

The second category of stablecoins is backed by real assets. Examples

include currencies that are backed by gold (Digix Gold, DGX), a basket of seven precious metals used in technology (Tiberia Coin, TCX), or even Swiss real estate (Swiss Real Coin, SRC).

The third category of stablecoins is collateralized cryptocurrency. A leading example is the secured debt positions offered by MakerDAO, which allow their DAI coin to be pegged to the US dollar.

The last category of stablecoins has no collateral. An example of this type of initiative is the Basis project and their basecoin, which was suspended due to regulatory issues.

This list of classifications is not exhaustive, as many cryptocurrency concepts such as Overlay or Libra from facebook, not easy fit in into this taxonomy of seven categories. Cryptocurrencies have many uses and characteristics that go beyond traditional cryptocurrencies such as Bitcoin and Ethereum. [9]

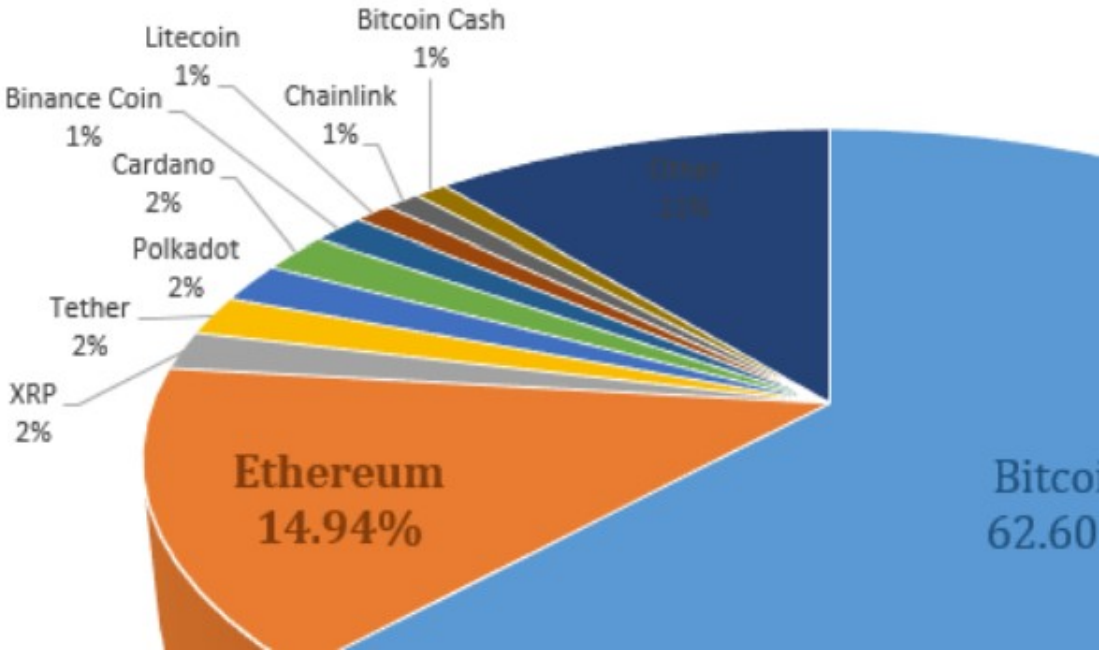

Fig. 1.2. Top ten cryptocurrencies by market capitalization

Source: https://coinmarketcap.com/currencies/bitcoin/historical-data/

So, cryptocurrencies are an intriguing financial innovation and offer many possible avenues of exploration. As in the case with with many new technologies, there is considerable confusion about both the basic concept of cryptocurrencies

and the approaches to their valuation. It must be emphasized that there are many different classes of cryptocurrencies – very often cryptocurrency is summed up as Bitcoin. However, cryptocurrencies vary and can be tokens that represent shares of traditional assets, provide direct utility such as computing power, and even represent by myself fiat currency. The computing power requirements arise from the fact that the leading zeros are determined using a rough search. The probability of one leading zero is 1/16, but the probability of, say, 18 leading zeros is a very small number (1/16). What requires enormous computing power. [10]

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2017 saw a surge in initial coin offerings (ICOs), similar to initial public offerings (SEC-approved). ICOs are a potentially new funding channel for entrepreneurs (Cong and He, 2017). The space also attracted a lot of attention because some investors buy ICO, not understanding the technology completely, and also some companies offer ICOs without economically significant option using cryptocurrencies (Ernst & Young, 2017; Amsden and Schweitzer, 2018). Indeed, cryptocurrencies have the potential to significantly reduce cost, complexity, and simultaneously increase the speed of trading and settlement processes in a secure manner. Cryptocurrencies are tokens, but other assets, such as company shares, can also be tokenized and sold.

Overall, 329 ICOs out of 2,027 ICOs listed on tokendata.io failed (16.23%). In the sample used by Bourveau et al. (2018) approximately 85% of ICOs are successful. It also explores the main alternatives to traditional banking services, which have cryptocurrency basis Credit chain based on the blockchain, where the transfer of credit between the sender-receiver pair takes place on demand. Distributed Credit Networks (DCNs) are distributed systems of trust between users where a user provides financial credit or guarantees assets to other users, whose he deemed creditworthy, with credit extended proportional to the amount of trust that exists between users – essentially a peer-to-peer lending network where users lend, borrow money and goods from each other directly, minimizing the role of banks, clearing houses or stock exchanges. They present preliminary experiments and

scalability analysis based on their proposed DCN framework.

So, cryptocurrencies are an intriguing financial innovation and offer many possible avenues of exploration. As in the case with with many new technologies, there is considerable confusion about both the basic concept of cryptocurrencies and the approaches to their valuation. It must be emphasized that there are many different classes of cryptocurrencies – very often cryptocurrency is summed up as Bitcoin. However, cryptocurrencies vary and can be tokens that represent shares of traditional assets, provide direct utility such as computing power, and even represent by myself fiat currency.

1.2 Development cryptocurrency in conditions stagnation world economy.

Global market cryptocurrency affects on functioning financial markets and has huge implications for entire economies. The huge interest in cryptocurrencies arises for two reasons. First of all, it is related to the idea of freedom and independence from third parties, such as the state or financial institutions. Secondly, from the point of view of possible investment profits, both legal and illegal. One with the main ones features cryptocurrency is that it acts as a virtual currency. The owner of such cryptocurrency keeps it on his own computer or in application for smartphone called a "wallet" to which only he has access. If he/she wishes to carry out transaction, it happens electronically, directly between him/her and the contractor. Each one unit cryptocurrencies has unique code, which contains information that prevents its copying or reuse.

The concept of cryptocurrencies is also that there is no regulator in circulation. Thus, there is no Central Bank of cryptocurrency, which could decide, for example, to increase the supply of cryptocurrency and thereby reduce its value. The originator decides what part of this cryptocurrency is in circulation at the stage of creating the system. Its value is found in hands free market. Trade cryptocurrencies happens in electronic form, without the participation of any banking system directly between by users cryptocurrencies, i.e by peer-to-peer

technology. This means that the transaction is not monitored in any way. Thus, there is no organization that will inform the tax authorities authorities, if someone wants to sell a large amount of cryptocurrencies, as happens in the case of banking transactions for an amount that exceeds equivalent 15 000 euro. No one can block our account, and the bailiff will not come. Considering the above, it turns out that the mission of cryptocurrency really boils down to one word - "freedom". [14] Cryptocurrencies are electronic currencies that are completely free from the control of politicians, domestic or international financial institutions, whose turnover is not controlled in any way and is subject only to a powerful system of electronic, automated securities.

Cryptocurrencies are first and foremost a disruptive Internet technology, and using it as a means of payment is just one possible application. It is a system founded on peers networks, i.e fully scattered, with no central unit, organization, or place controlling it. The users of the system, their computers, are nodes of the network through which exchange, authorization and settlement of transactions are carried out. This system stores information about the state of ownership in contractual units of cryptocurrency. Possession of this cryptocurrency is associated with separate portfolios containing information about the user's cryptocurrency. The wallet is created automatically during the first user authorization in the system. Only the owner of the corresponding encrypted private key has control over the portfolio. Advanced mathematical and cryptographic methods prevent double emission of cryptocurrency, counterfeiting or theft. The entire system is based on blockchain technology.

Cryptocurrency is the first invention in the financial system that was developed outside of financial institutions and even without any cooperation with them. It is innovative, simple and does not use existing financial systems. Moreover, it poses a threat to the status quo of the financial system. Therefore, many market regulators, including countries and international financial institutions, see this system as a threat primarily to their own revenues and generally recognized power and authority. For this reason, we see very different

reactions from countries around the world. [15]

Starting with Japan (as an example of the most far-reaching regulation), we can point to a rapid evolution of the approach of Japanese regulators. Starting from recognition cryptocurrencies paid means butmore not currency, introduced by law about payment services from 25 May 2016, until the adoption in April 2018 of new regulations that fully recognize cryptocurrencies as legal tender. More in addition, the Central Bank of Japan began work on the creation of its own digital currency, the working name of which is J-Coin. However, there is also a contrast. For example, there is a ban on the manufacture of cryptocurrencies in China, but Bangladesh and Nepal have implemented regulations to punish the marketing of cryptocurrencies. In Bangladesh, the use of cryptocurrencies is currently considered a violation of money laundering regulations and is punishable by up to 12 years. In Nepal, the first arrests for such activities took place after the introduction of changes prohibiting the circulation of crypts.

So far, many countries do not have regulations on this issue and, in principle, are considering which side to turn to regarding cryptocurrencies. For example, in Europe, no country has yet banned the trading of cryptocurrencies, but many countries are preparing the corresponding law, because they know the facts that indicate the rapid growth of transactions with cryptocurrencies. Most countries see this primarily as a threat to the system, which would assume the role of management, having an obvious opportunity to influence financial and economic phenomena. Perhaps a system in which, due to a change in rules, there is no oversight of specific organizations is a good direction for development. However, this is definitely not a cryptocurrency system where one person can play such a role. [16]

At the moment, the most popular cryptocurrency in the world is Bitcoin. It has the highest market capitalization and the highest exchange rate, and often when discussing this topic, cryptocurrencies are used as the flagship example. The most popular cryptocurrency in the world bitcoin was created in 2008, its

creator is unknown. Almost simultaneously, three IT specialists (King, Oxman and Brown) patented decision, similar to those on whose was the bitcoin system was founded, so we see that bitcoin is fourteen years old. An overview of Bitcoin's history is presented below:

2009 year

Cryptocurrency mining began in 2009. However, Bitcoin was not sold anywhere. Back then, there were no cryptocurrency exchanges at all. Technically, the price of Bitcoin in 2009 was $0. USA.

2010 year

Throughout 2010, Bitcoin failed to reach the $1 mark. USA, but the price started to rise even then. The most interesting event of that year was the moment when the American Laszlo Hanech bought two pizzas for 10,000 BTC (then 1 BTC cost 0.0025 dollars USA). If Laszlo kept this amount of bitcoins for another 10 years, then in 2021 year he had would more 450 million dollars USA Also in 2010, the infamous cryptocurrency platform Mt.Gox appeared, which would later become a target for hackers.

2011 year

2011 was a turning point for BTC: in stories course bitcoin on years it occupies almost a more prominent place than the record 2017. First, Bitcoin finally managed to reach the $1 mark. USA. After the highly specialized Slashdot and Hacker News wrote about the cryptocurrency, the Bitcoin.org site received a wave of new users from Twitter.

In early 2011, unusual events occurred: from February 25th to February 27th, the hashrate of the Bitcoin network skyrocketed from 401 gigaheshes per second to 628. Then, until March 1st, the hashrate dropped to 392 g/s before rising to a record high of 774 g/s.

What is unusual about this? The fact is that the hash rate - it an indicator of the speed with which mining devices in blockchain networks solve mathematical problems. Simply put, an increase in hash rate means an increase in the number of miners in the market. [17]

Such a sharp jump could be explained by the fact that someone used a

supercomputer or some network bot, which will later be called a "mystery miner" in the cryptocurrency community. This "mysterious miner" became reporting point gradual growth hash rate network bitcoin. On April 16, 2011, TIME first mentioned Bitcoin, devoting an entire article to it with the headline "Online Money Bitcoin May Challenge Governments and Banks." At the beginning of June of the same year, after the appearance of the cryptocurrency in the media, the price of bitcoin soared in six days to almost 32 dollars. USA, but then fell to 10 dollars USA.

In the same month, the well-known resource WikiLeaks began accepting donations in bitcoins.

On June 19, 2011, the Mt.Gox hack occurred, which caused the price of Bitcoin to fall from $17. USD to 0.01 USD. USA. It affected the accounts of 60,000 users for a total of more than 8.7 million dollars USA. By week trading on Mt.Gox has resumed, and the post-hack price drop was the largest in bitcoin history.

2012 year

By 2012, the price of Bitcoin had fallen to $4.6. USA, but during the year it recovered to 13.44 dollars. USA. In the same year, the first Bitcoin halving took place.

2013 year

In 2013, Bitcoin reached the 1,000 mark dollars USA. 30 November In 2013, the price of Bitcoin rose to its first major high of $1,153. USA. Repeated she him only by sprat years - 5 January 2017 year [18]

2014 and 2015 years

After a great year for the cryptocurrency industry in 2013, the culminating event in Bitcoin's criminal history occurred. In February 2014, Mt.Gox was hacked again, this time stealing 744,000 bitcoins. This is an absolute record and the biggest stock exchange hack to date.

As a result of the hack, Mt.Gox declared bankruptcy and shut down, creating panic in the Bitcoin market. From that moment began the first protracted fall of Bitcoin, which is called the "cryptocurrency winter".

2016 year

2016 marked on duty halving, the first hacking Bitfinex on120 thousand bitcoins and the appearance of Craig Wright, who announced himself as Satoshi Nakamoto. To things Wright still is invoked to developers Bitcoin Core and Bitcoin Cash, which, as a result of the Mt.Gox hack, deprived him of access to two crypto wallets.

2017 year

A turning point in the history of the bitcoin exchange rate. At the beginning of 2017, Bitcoin still cost $960. USA, in September he passed the mark 5 000 dollars USA, and on December 17, the peak of the price of bitcoin was recorded at levels 19 483 dollars USA. Bitcoin's market capitalization exceeded $330 billion that year. USA (Fig. 1.2).

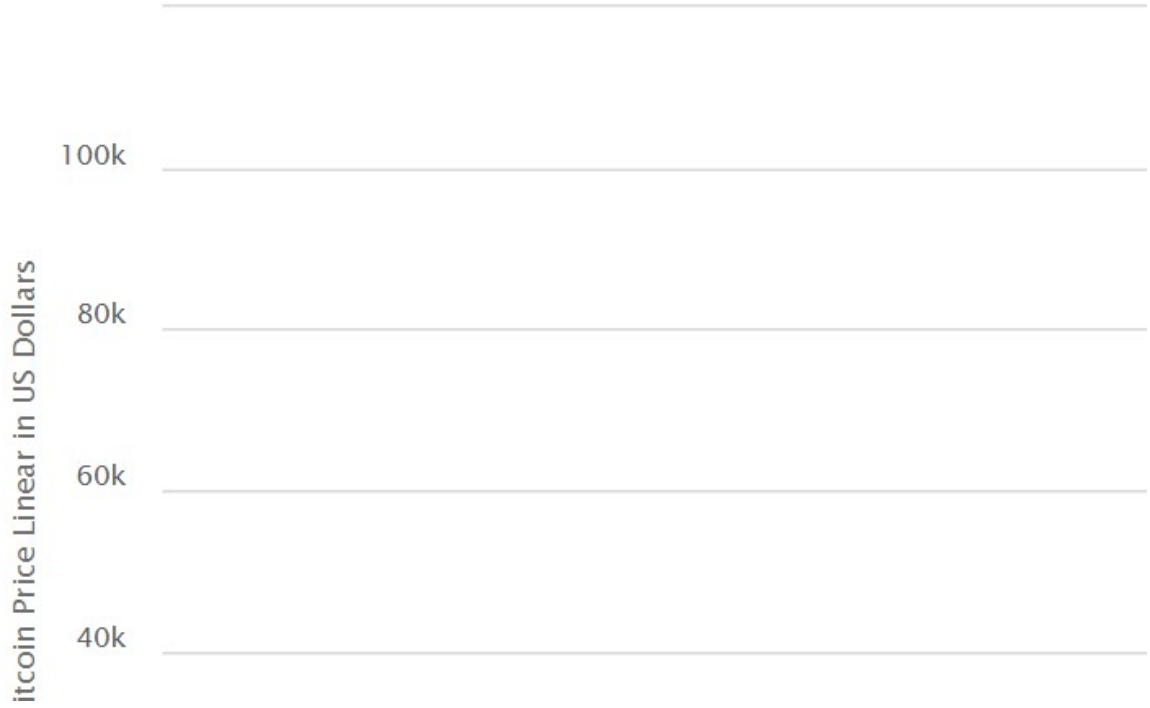

Fig. 1.2. Dynamics prices bitcoin with 2012 on 2024 years

Note. Built by data Currency.com . [Electronic resource]. - 2024. Regime access to resource: https://currency.com/.

2018 year

At the beginning of the year, Bitcoin was worth about $13,800 USA and this is the maximum price for the coin. By the end of the year, it was trading at about 3 800 dollars USA . This year was remembered by the collapse of

cryptocurrency and another cryptocurrency in winter On January 17, 2018, the coin rate fell to $9,800. USA .

On January 30, Facebook, Twitter, and Google banned advertising of cryptocurrencies, ICOs, and binary options on their platforms. After that, the price of Bitcoin continued to fall.

In the summer of the same year, Facebook revised its attitude to the ban on cryptocurrency advertising and allowed it, but after moderation. However, this did not help the coin market to recover in price. By the end of 2018, Bitcoin had fallen by almost 80% compared to the same period in 2017. Miners were selling their businesses in droves as they were making losses.

2019 year

In June 2019, Bitcoin tried to overcome crisis but not managed with resistance at the level of $13,785 . USA . The main topic in the community was legal issues, the struggle of the US Securities and Exchange Commission (SEC) with Bitcoin ETFs and hope on launching institutional bitcoin service Bakkt. IN In September, Bakkt finally launched, but did not attract much attention among institutional investors, provoking fall with 10 036 dollars USA to 6 657 dollars USA in just a few months. [19]

2020 year

2020 allowed cryptocurrencies to initially stabilize, and then to start growing despite the severe economic crisis around the world related to the coronavirus. Bitcoin and other cryptocurrencies seemed to go against all traditional assets and rose when markets fell.

In January, bitcoin traded at a price of 7.2 thousand dollars. USA , in February 10.5 thousand dollars. USA , but then there was a sharp drop to 3.8 thousand dollars. USA . During the year, the price increased and in December 2020, the coin was worth about 19 thousand dollars. USA .

For such powerful growth bitcoin was sprat reasons First, monetary mass American dollars grew up on 22%. Because business activity has greatly decreased due to the coronavirus, this has led to currency devaluation.

Against this background, institutional investors began to invest in Bitcoin.

So, the Ruffer company invested 2.5% of its assets in the coin. A letter from a British investment fund to its investors said, what this step needed as insurance against the devaluation of world fiat currencies.

In 2020, one of the largest payment systems, PayPal, allowed the use of cryptocurrencies for payments on its platform. This decision was met with great demand, the company had to increase the transaction limit several times.

2021 year

The rise of the first cryptocurrency continued in 2021, with Bitcoin setting records every month. In mid-January, 1 BTC cost $40,700 . USA , on February 20, the price reached $57,600 . USA , 13 March - 61 100 dollars USA , 13 April - 63 600 dollars USA .

However, after that, the digital asset fell down on 14 thousand dollars USA – the coin was traded in the area of 48 thousand dollars. USA In the first days of May, the value of bitcoin rose again to 58,000 dollars, only to fall to 32,500 dollars in the following weeks. USA.

Then the first cryptocurrency several times tried again take frontier in 40 thousand dollars USA , but it did not manage to stay above the mark for a long time until August. It was then that a new growth cycle began in Bitcoin, which lasted until the first numbers of September. On September 7, the first cryptocurrency reached a local record of $52.5 thousand. USA. The successful end of the summer was followed by an autumn fall – by mid-September, bitcoin had fallen to $ 43,000 . USA , then briefly returned to the $ 48,000 mark . USA. Then the cryptocurrency went to peak again, coming close to 40 thousand dollars USA. By the end of the month, the bitcoin exchange rate hovered around $ 40,000 . USA . [20]

All has changed 30 September Cost bitcoin headed above and with ease punched frontier in 50 thousand dollars USA. Next local peak in in mid-October, the mark was 62.5 thousand dollars. USA , and on October 20, bitcoin was traded at a record price of 66.4 thousand dollars. USA However, the first cryptocurrency did not think of stopping already in November, the world saw how

Bitcoin once again broke the value record. 9 November by one a coin gave 68.3 thousand dollars USA , and the next day course cryptocurrencies broke through mark 69 thousand dollars USA. After that, the value of bitcoin decreased slightly, and by November 15, it was trading at $65.8 thousand. USA.

The volatility of Bitcoin largely depends on news from companies and banks. Tesla announced that it bought $1.5 billion worth of coins. USA - the price has gone up. Soon after, the company changed its mind about accepting bitcoins as payment, and the value of BTC fell by 10%.

Later, other events affected the Bitcoin rate, such as the new restrictions in China that were introduced in May. Initially, the country's authorities banned banks and payment systems from providing services with cryptocurrencies. And a few days later, China announced new bans for miners and traders, as a result of which there was a large-scale flight of miners from the country. The network's hashrate plummeted, and with it the value of Bitcoin.

The rate was also affected by the adoption of the first cryptocurrency as legal tender in El Salvador. Before the world's first government-backed bitcoin, its value rose, but soon after the law came into effect, it collapsed.

And 2021 is another important year event for bitcoin – for the first time the US Securities and Exchange Commission and exchange (SEC) allowed release to traditional exchanges fund (ETF) based on the first cryptocurrency. Experts have not reached a consensus on what the dynamics of the price of Bitcoin will be. JPMorgan bank analysts believe that bitcoin may reach $ 146,000 in – the future . USA. However, for this cryptocurrency needs to become less volatile.

2022 year

Since the beginning of the year, the first cryptocurrency went to the red zone several times. First collapse happened on background news about protests in Kazakhstani. Then $ 42,000 USA. The fact is that Kazakhstan ranks second in the world in BTC mining.

The fall of Bitcoin was also influenced by the meeting of the US Federal Reserve Commission (FED). At the beginning of January, it became known that

the American regulator plans to increase interest rates and reduce the balance of the country's central bank. The value of bitcoin fell to $ 40,000 USA. The next big collapse happened on January 22. The value of the first major currency fell below $ 36,000 . USA , at the moment it reached the mark of 34.5 thousand dollars. USA.

The decline of BTC was influenced by the general collapse of the stock market due to the expectation of a tightening of US monetary policy. Earlier, Goldman Sach reported that it expects a tighter rate from the Fed in 2022. The bank's analysts predict a four-fold increase in interest rates per year and reduction balance in summer for struggle with inflation, which reached in US record figures for the first time in forty years. [21]

The price of Bitcoin was also affected by the news about the possible ban of the cryptocurrency in Russia, which was discussed by the Central Bank. On January 27, the Ministry of Finance proposed a more loyal concept of cryptocurrency regulation in the country. The ministry believes that a complete ban will destabilize the industry.

On January 24, the value of bitcoin reached a mark below 33.4 thousand dollars. USA for the first time since the summer of 2021. Along with Bitcoin, the rest of the crypto market collapsed. In February, the value of the main cryptocurrency grew above 45 thousand dollars. USA , then fell again to 35,000. dollars USA on background geopolitical deterioration. The turning point came on March 22, when Bitcoin took a bullish course. At its peak on March 28, the coin's value almost reached $ 48,000 . USA for the first time since the beginning January IN April price something adjusted, however, Bitcoin is still trading above $42,000. USA. Analysts believe that now the main goal of Bitcoin is the level of 52 thousand dollars. USA , the rise above which will allow to break the medium-term downward trend. So, the first phase that is visible on the charts of all new cryptocurrencies is the so-called phase acquisition confidence It can be seen on schedules cryptocurrency, which passed to the following phases: the second (interest, growth) and the third (determining the maximum value for the period).

Time between consecutive phases different for specific cryptocurrency and depends from many factors IS many examples of cryptocurrencies that rose and fell in the first phase of the life cycle. There are also many examples, often of local cryptocurrencies, that have entered the third phase, where a maximum value is seen, followed by a very rapid drop or even an instant drop, and the cryptocurrency ceases to function. It's us too we see on examples the most popular cryptocurrencies – bitcoin There are many examples where there is not as much interest from investors and co-funding as in the case of Bitcoin, causing the system to go bankrupt and crash these cryptocurrencies. This caused a lot of damage to the credibility of the cryptocurrency system and gave arguments to its opponents, showing using systems to create financial pyramids and other scams. The same negative consequences for the system were caused by the collapse of exchanges and exchange of cryptocurrencies.

Although in this case it often happens that the defenders of the current system, that is, the state and financial institutions, are also responsible for these events. For example, additional taxes are introduced in Poland, and financial institutions such as banks refuse give services such organizations Analyzing the history of the most popular cryptocurrency, we see that countries have different approaches to the cryptocurrency system, from a complete ban and imposition of penalties to full recognition. Some countries often use the tax burden imposed on cryptocurrencies, but do not intend to establish specific legal provisions in this regard, although they consider this activity to be legal.

1.3 Principles of cryptocurrency market activity in the global financial sector

Monetary systems on basis blockchain have potential for impact on the macro economy, as new payment systems challenge the traditional roles that banks have always played. Cryptocurrencies can be viable competition for fiat currencies during periods when the central bank is perceived as weak or unreliable. However, the technology behind cryptocurrencies has the potential to

improve the work of central banks and can serve as a platform for launch own cryptocurrencies. Petromondea (petro), issued by the Venezuelan government, is an early example of these so-called central bank digital currencies (CBDCs).

Cryptocurrencies are not controlled by governments or central banks. Countries usually use two tactics. Some have adopted an ostrich strategy, hoping the fad will take its course and, as rule, not does not introduce any regulations on this subject, only those arising from the legislation of the associated countries, that is, concerning, for example, the member states of the European Union, as in the case of Poland. Another part, however, wants to try and partially take control and profit from it. For example, in Japan, bitcoin has become a full-fledged payment instrument. However, thanks to experience (the collapse of the stock market stock exchange Mt. Gox in 2014 year and disappearance of 850,000 bitcoins) the Japanese government has made the rules clear. For example, organizations that want to launch cryptocurrency exchange services must be registered with the Financial Services Agency of Japan, which provides additional oversight. Such countries as Russia, Ukraine, Belarus and Lithuania are in favor of earning. These countries located close to Poland, due to restrictions and unclear actions of government authorities, will simply capture the participants of the cryptocurrency market, and they will make money, and the Polish government is not involved in the real activity. True, the chaos associated with the tax interpretation of the cryptocurrency market is finally over part resolved but doubts finally not resolved It negatively affects on investors, because

Polish government stated what not going to give general tax interpretation on this issue. According to analysts, such carelessness (lack of legislative regulation) and lag simply lose the opportunity to receive a large income. For example, in 2016, the cryptocurrency industry in Poland paid more than PLN 100 million in taxes. [22]

An example is the cryptocurrency Auroracoin (the national coin of Iceland), introduced in 2014. During the year, half of all coins were distributed to the citizens of Iceland. Everyone was interested (the population of Iceland is

about 330,000 people), and received 31 coins worth about $380. The goal of the creators is to decentralize control over money and revive the local economy, which has long been struggling with the fall in the value of the Icelandic krona. All eyes will be on Iceland in the coming years. What Icelanders do – whether they become interested in the coin and start trading it – may depend on the future of national cryptos in other countries. According to the Wall Street Journal, at the moment in cryptocurrencies invest over 70 hedge funds, and every day the value of bitcoin transactions is 750 million dollars. The development of the cryptocurrency market will require solutions that increase the security of cryptocurrencies, which is another fundamental problem that needs to be solved.

The most important factors that fundamentally affect cryptocurrencies include:

1. Trust of users and investors - cryptocurrencies are virtual money that does not settle in any physical form. Their cost is justified mainly by the supply and demand of users. If the demand for cryptocurrencies increases, so do they course. AND vice versa, if people get rid of cryptocurrencies, their rate will go down.

2. Use of Cryptocurrencies – Cryptocurrencies were created as a virtual currency for fast and cheap online transactions. The more providers that support and accept cryptocurrencies, the more they are used on practice and those bigger will be community users.

By long growing value cryptocurrency they all more often are used for investment purposes. In countries with unstable economies, virtual currencies are bought to preserve the value of their own money. Some cryptocurrencies (e.g. ethereum) are also used by so-called smart contracts. Cryptocurrencies without practical use sooner or later cease to exist.

3. Regulatory and Supervisory Intervention – If the government of an economically significant nation starts to support cryptocurrencies, user confidence will usually increase, which will also increase the value of that cryptocurrency. For example, when Japan recognized Bitcoin as a legal currency

in April 2017, its value increased significantly. But it working and vice versa. Restrictions or bans of cryptocurrencies by government authorities could start a sharp market decline. For example, in September 2017, China banned cryptocurrencies, which caused the exchange rate to fall. Regulations on Bitcoin and cryptocurrency are also being developed by the European Central Bank.

4. Media attention - information about the rise in the value of cryptocurrencies attracts new investors, which then increases demand, and the price of the cryptocurrency rises. The views of famous personalities and companies also influence the increase or decrease in prices. An example was the opinion of JP Morgan CEO Jamie Dimon from September 2017, who called Bitcoin a fraud and said that Bitcoin owners will suffer big losses in the future. The Bitcoin market reacted to this announcement with a decline.

5. Manipulation courses - investors use a manipulation technique known as "pump and dump". This technique involves the purchase of cryptocurrency at a low rate and its further distribution in the media. This will attract new investors who will raise the rate. In the case of liquid markets, we can also increase the price by buying the currency in large quantities. When people notice that the rate of this cryptocurrency is increasing, they will start investing, what will increase him. Tim sometimes we we can gradually buycryptocurrency by at a price lot higher, than price shopping. Without propaganda media and other investors cryptocurrency will start to fall, but it does not concern us, ago what we already sold currency Often it concerns and themselves creators, or the organizers and managers of many cryptocurrencies that appear in order to create such a specific financial pyramid, only for the purpose of their own income. This method (buy low - to convince others to buy - sell high). Unfortunately, the natural development of cryptocurrencies does not contribute to stability and increases the high volatility of cryptocurrencies.

6. Technological factors (creators, managers, regulators) – the exchange rate can also be manipulated by changes in the source code, for example by introducing various improvements or changing the number of coins available in

the market.

7. Organizational factors – for example, factors affecting cryptocurrency mining (difficulty with mining or the price of energy, which, according to studies in the literature, reaches huge values comparable to energy necessary for pleasure thousands households) [23].

8. Substitutes - because even the assets on the exchange affect each other, some believe that the increase in interest in Bitcoin is related to the fall in the price of gold, etc. The value of Bitcoin affects the rates of other cryptocurrencies, which have become an alternative to other investments or speculations. [36]

On June 18, 2019, Facebook announced the release of its own cryptocurrency in 2020 called "Libra". Central authorities were quick to criticize the move, with governments including the United States, France, Britain, Germany and Japan expressing outrage and scepticism. However, the spread of a systemic banking crisis caused by the endless propensity of too-big-to-fail financial institutions to take greater risks was a strong reason for the birth of cryptocurrencies more than a decade ago and the creation of Libra with its management network of 28 high-profile firms, which already take participation in projects, are similar on Council managers of the Federal reserve systems, to composition which are included twelve federal Reserve Banks in the United States - with the difference that they are in the hands of private actors, not the government.

Cryptocurrencies can also increase financial inclusion and stimulate economic activity in emerging markets, especially in sub-Saharan Africa, where only 34% of adults had a bank account in 2021. The ability to use this technology to attract non-banking companies could enable billions to join today's world of online commerce and spur the creation of new businesses.

There are hundreds of cryptocurrency exchanges in the world. Some of the most famous are: Binance, Bitfinex, Kraken, Bitstamp, Coinbase, Bitflyer, Gemini, itBit, Bittrex and Poloniex. Each of these exchanges has its own characteristics. Kraken claims to be the largest Bitcoin exchange in terms of

volume and liquidity in Euros, and is the first cryptocurrency bank to partner with Germany's BaFin-regulated bank Fidor. Shapeshift, on the other hand, is an exchange that allows trade without registration accounting recording Gemini, being a fully regulated and licensed bitcoin and ether exchange in the US, has met its capital requirements by placing all USD deposits in an FDIC insured bank. Coinmarketcap lists 218 exchanges, but even measuring trading volume is controversial. A recent filing with the SEC (2019) claim that 95% of Bitcoin trading volume is fake. The study identifies 10 exchanges with actual volume (out of 81), Binance, Bitfinex, Kraken, Bitstamp, Coinbase, Bitflyer, Gemini, itBit, Bittrex and Poloniex. [24]

Due to the large number of exchanges with an ever-increasing number of cryptocurrencies, there are price discrepancies due to market inefficiencies. The low level of regulation and sentiment-driven prices make price differences greater than in other financial markets, such as fiat currency exchanges and stock exchanges. However, if you go beyond the ten exchanges from reliable volume, some disagreements in prices they can be unreal. The global financial crisis brought a significant expansion of financial regulation, including many previously unregulated areas, accompanied by reforms of micro- and macro-prudential regulation and increased consumer protection. The concern for financial stability against a background of serious concerns about the functioning of markets has shaped regulation and in many cases brought about a new fundamental and more protective and intrusive approach to financial regulation, accompanied by an intellectual and philosophical shift. Therefore, opaque and unstable nature cryptoassets and the association with illicit transactions has drawn particular regulatory attention.

Regulation of crypto-assets should be closely aligned with regulations for comparable financial institutions, activities and instruments. The main regulatory concerns regarding cryptoassets relate mainly to consumer and investor protection, money laundering and terrorist financing, and the potential impact on financial stability. Firms carrying out investment services and activity in sphere

financial crypto-assets, must be subject to financial regulation and supervision; cryptoassets that qualify as financial assets must also be subject to financial regulation. The regulation should cover provisions on customers, financial crimes and market abuse in addition to other institutional and standard measures. [25]

Regulatory initiatives have been undertaken at the multilateral and national levels. Possible regulatory approaches remained mostly at the consultation stage, with the exception of Malta and Switzerland. In July 2018, the FSB published a broad framework limited to monitoring the development of cryptoassets. Other standard-setting bodies are revising their regulatory approaches.

Principles regulation should lean on concept equal contribution based on “the same services, the same risks, the same rules and one supervision" and limit regulatory arbitration. Principles assume that to ensure the integrity of the financial system, the same risks must attract the same risks. rules and what regulation should be neutral with respect to technological developments and business models.

The notion of the legitimacy of cryptoassets needs to be clearly advertised. Crypto-assets are legal in many jurisdictions unless there is an express prohibition.

5 basic principles regulation cryptoassets include:

1. Constructive involvement: The universe of cryptoassets is associated with fraud and excessive revelry. Many crypto-asset projects have failed and investors have suffered heavily losses, and fraud became widespread. However, many projects produced positive results and offered real technological innovations. Regulation should not be overly biased against bad actors, but instead support a constructive approach to the orderly integration of crypto-assets into existing financial arrangements. Although crypto-assets can be used in illegal transactions, the principle that the use of physical cash in illegal transactions does not entail criminal liability for the issuer should apply equally to crypto-assets.

Classification: Crypto-assets can be functionally classified into crypto-vouchers, crypto-currencies, crypto-currency papers and crypto-collective investment

schemes. The classification of cryptoassets remains controversial, and the language that designates cryptoassets is excessively imprecise. The term crypto-instrument is proposed here because the commonly used terms cryptocurrency and crypto-assets inappropriately convey the concepts of currency and financial assets, respectively, to which many crypto-assets do not correspond. Existing classifications of cryptoassets vary, but usually do not distinguish between different cryptoassets. The CFTC considers cryptoassets goods the IMF believes bitcoins non-financial an asset BaFin denotes bitcoins as calculation unit. Protection of consumers and investors: the regulation of activity related to crypto-assets should be subject to the principle of conducting any financial business. They include general principles of integrity, financial prudence, orderly market conduct, transparency, protection of client assets and avoidance of conflicts of interest. Where cryptoasset issuers or cryptoasset exchanges take over customer money, joint fiduciary duties apply, including anti-money laundering and anti-terrorist financing provisions. For exchanges, this also includes provisions for orderly price discovery, strict segregation of customer funds, and the formation and avoidance of collusion and electioneering. New contractual agreements strictly based on rules, e.g. smart contracts and Decentralized Autonomous Organizations (DAOs) should be scrutinized for their legal content and applicability (smart contracts should not be contracts). Contract enforcement, like a derivative contract, must be guided by a legal regime to ensure adequate investor protection. If enforcement leads to mixed results, new legislation may be needed. Legal certainty in agreements is important. The legality of claims and liabilities related to crypto-assets will not necessarily differ from ordinary financial and other contractual agreements. Claims made against a network without authorization may not be enforceable.

2. Cryptography and Technology: Regulation has be based strictly on the functions of cryptoassets, rather than being guided by the underlying technology. Application of cryptography not is limited cryptoassets. DLT, one from approaches whose is the blockchain applied to many cryptoassets, should

not itself lead to financial regulation and should not be a common factor from a financial regulatory perspective.

3. Consistency: Regulation of crypto-assets and related activities should be transparent, stable and predictable. Uncertainty can unduly hold back the orderly integration of the sector. [26].

SECTION 2. ANALYSIS MARKET CRYPTOCURRENCIES AS WAREHOUSE PARTS OF THE WORLD FINANCIAL SYSTEM

2.1. Dynamics and trends on the world market cryptocurrency

A number of world, geopolitical, state, regional crises, the negative consequences of globalization motivate both individuals and entrepreneurs search alternative means storage and multiplication funds The modern consumer has a particularly urgent need for efficiency, security of calculations, security, absence of third parties, independence of the value of the monetary unit from the political situation in the country, and cryptocurrencies satisfy these needs. Users in the process of using cryptocurrencies increasingly recognize their effectiveness.

In recent years, the world financial system became a witness new a way to make payments using virtual currencies, otherwise known as cryptocurrencies. The main idea behind the design of Bitcoin (BTC) is to create a censorship-resistant and irreversible payment system, and it is assumed that there should be no central authority that can say "you shouldn't" or "you should". An important development in the advancement of encryption and networking has been the emergence of digital currencies, which are facilitating transformational changes in the global economy.

Digital currencies enable instant domestic and international transactions and serve as an efficient means of direct peer-to-peer electronic payment that prevents transactions and fees from going through a financial intermediary. Allowing direct transactions without intermediaries between by two parties, this process may make transactions faster and cheaper. The most popular example and the largest cryptocurrency is BTC (bitcoin). Being non-traditional unit of exchange, investors in this new assets should understand behavior and simulation of these currencies. [27]

A defining feature cryptocurrencies consists of in her organic nature; being a decentralized currency that is outside the control of economic systems and central banks, it is consequently insulated from political influences usually

applied or instigated by governments and corporations. Innovations related to decentralized currencies will promote the welfare of customers, significantly reduce the income of banks from fees for currency trading and reduce the income of governments from taxes on currency trading.

However, digital currency is designed to serve as a medium of exchange, using cryptography to ensure the security of transactions and to control the subsequent creation of additional units of the currency. With the growing interest in this digital asset comes the need to quantify its changes. It is common knowledge that cryptocurrencies are very volatile compared to conventional currencies. Cryptocurrencies are extremely volatile compared to mainstream investment instruments. Of course, their exchange rates cannot be considered independent and equally distributed.

The computer currency market has grown significantly since 2008 in terms of the number of new digital currencies, user base and transaction frequency. The digital asset has turned into a unique market in which many enter and compete players Example, after . and trade BTC in In 2009, several other currencies continued to appear and seemed to change the situation, improving the shortcomings of existing currencies. [28]

Currency competition is nothing new, nor is electronic delivery of value, and a private currency like BTC can fit into this context of many competing virtual ones currencies However in balance one type one currency should not supplant the other–rather, both are required for all intended trade to take place. The top selling cryptocurrencies besides BTC include Litecoin (LTC), Ripple (XRP), Ethereum (ETH), Peercoin (PPC), Namecoin (NMC), Bitcoin Cash (BCH), Feathercoin (FTC), Terracoin (TRC), Dash, EOS, Novacoin (NVC), etc. The sophistication of digital currencies and their free entry into the market may have created network effects where a winner-takes-all dynamic is inevitable and very expected When act network effects, possible convergence to one digital asset Such way When a certain currency becomes more popular, it is perceived as more useful, and also easily attracts new ones users.

The reinforcement effect describes a situation where the most popular cryptocurrency, by and large, is expected to gain even more recognition and possibly dominate the entire market. Conversely, a user's preference for one currency over another may be due to competition. Later ones currency, maybe, eliminated disadvantages in existing currency and, as a result, could have relatively better attractiveness comparatively with other currencies on the market. This is called the substitution effect. [29]

The presence of better or differentiated cryptocurrencies allows for a substitution effect, when it will be profitable for users to replace one cryptocurrency with another. So far, empirical research on network effects and competition is sketchy and still evolving.

According to a June 2021 Fidelity Investments survey, 36% of 744 large clients surveyed in the US and Europe added digital assets to their portfolios. Institutional investors began to actively purchase cryptocurrencies. Among recent ones investors: Square (SQ), MicroStrategy (MSTR), Tesla, Meitu, insurance giant MassMutu and others. The largest owner of cryptocurrency is the investment company Grayscale Investments.

The last sometimes some companies start accept cryptocurrency as payment for your goods and services. Here are examples of some of them:

- Microsoft allows you to use bitcoins to top up your personal account.
- Wikipedia accepts contributions in bitcoins
- American travel agency "Cheapair" accepts bitcoins online .
- KFC Canada for certain period sells "Bitcoin bucket" for bitcoins.

However subsequently volatility may much to go down thanks to the following factors:

1. More long period functioning market = better understanding the specifics.
2. Further growth of interest of individual and of institutional investors = growth of market depth + professionalism of participants.
3. Regulation, improve standards, abbreviation manipulations

4. Spread cryptocurrency = gradual elimination speculative demand for investments and deals.

5. Development technologies stabilization exchange rate fluctuations, the spread of stable coins. [30]

As for transaction costs, high commissions are a "fee for mistrust" and a security element. Another drawback is the low bandwidth of centralized cryptocurrencies, however, various solutions to the scalability problem, such as increasing the block size, sidechains, and more, are being developed and improved. The main point of discussion is the issue of control and regulation of cryptocurrency circulation in the world is her decentralization. Advantage decentralization is that it is easier to implement certain standards for the emission of this type of currency and its distribution at the local level. However, decentralization opens wide access to personal control of these users of cryptocurrencies, control of their cash flows, and, accordingly, to technological danger and the destruction of the world economy.

Highly developed countries seek to regulate electronic payments, taking them under state control, introducing taxes, and reducing risks in the process of their application. Weak economies are not ready for such implementation payment systems/

Table 2.1

Using cryptocurrency countries the world

Free using	In Japan and Switzerland, cryptocurrencies are officially equated with foreign currencies, everyone has the opportunity settle/accept to cryptocurrency calculation. At the same time, they are not legal tender.
Limited	Tanzania, Angola, South Africa, Namibia, Zimbabwe, Canada, Argentina, Brazil, Chile, Venezuela, Kyrgyzstan, Uzbekistan, UAE, Israel, Saudi Arabia, South Korea, Singapore, Philippines, Thailand, Germany, Austria, Czech Republic, Estonia, Sweden, Norway, Australia, USA
It is forbidden	Algeria, Egypt, Morocco, Nigeria, Mexico, Bolivia, Colombia, Ecuador, Russian Federation, Great Britain, India, Nigeria, China

Note. Built by data Binance Academy. [Electronic resource]. - 2023.
Regime access to resource: https://academy.binance.com/uk .

Therefore, it is important to create a clear regulatory mechanism. One of the main problems is the lack of terminology, definitions and classifications, which can become a key barrier to the creation of a reliable regulatory framework and can prevent further harmonization of regulatory decisions in different jurisdictions. The lack of agreed and coordinated regulatory measures allows cryptocurrency market participants to exploit loopholes in regulation and circumvent strict rules. International regulatory cooperation can reduce the potential harm of regulatory arbitration by creating a more agreed, harmonized and coordinated regulatory framework in addition to enforcement actions across jurisdictions. It is necessary to improve the quality of regulatory supervision. At the national level, it is necessary to define the boundaries of regulatory authorities and their responsibilities to ensure further clarity of regulatory oversight for both investors and intermediaries and users. Increasing the clarity of regulatory requirements can have a significant impact on the development of the cryptocurrency market: it is believed that clearer regulatory oversight will help build trust and attract new types of customers, such as institutional investors.

2.2 Rating cryptocurrency by indicators of market capitalization in conditions of stagnation of the world economy

Five years ago, if you wanted to inquire about the state of the cryptocurrency market, the first question you would most likely ask would be about the price of Bitcoin. Although Bitcoin had already lost its synonymy with cryptocurrency and blockchain technology in general, it was still considered a key anchor of the industry and the most reliable indicator of things to come.

Fast forward to today and things have changed a bit. While still the most prominent cryptocurrency in terms of price per unit and total market capitalization, Bitcoin alone accounts for well under 50% of all crypto asset value.

In 2022, when asked about the state of the cryptocurrency market, the first question will be the total market capitalization of the entire landscape. And the answer is quite impressive – the total market capitalization of cryptocurrencies in 2022 is estimated to be around $2 trillion, more than double the level of a year ago, but significantly lower than in November 2021, which was around $3 trillion.

This puts the total value of all cryptocurrencies side by side with the largest in the world public corporate giants such as Microsoft, apple, Amazon etc. Simultaneously, high rating causes sprat questions about market value, most prominently in how that value is determined.

The stock market capitalization is usually calculated by multiplying the last trading price by the total number of shares in public circulation. In the case of "traditional stocks," the value of the stock is supported by economic indicators such as total assets (liquid assets, tangible assets, and intangible assets) and projected future cash flows. Today, there is a large selection of different cryptocurrencies on the financial market, the number of which only increases every year. This is because digital money is attracting a lot of interest from both the general population and large investors ready to invest funds in a rapidly developing market segment. Naturally, the main role in creating such a situation was played by the success of Bitcoin, which is currently the most famous, popular and sought-after cryptocurrency. However, other types of virtual money are also deservedly considered quite promising.

The ranking of the popularity of cryptocurrencies is undoubtedly led by Bitcoin. It has the largest capitalization, popularity and demand. However, the various top lists of digital currencies today include several dozen currency names, some of which appeared quite recently, while others were created after Bitcoin.

Ether and currencies based on the Ethereum blockchain are becoming increasingly popular. As of August 2017, its market capitalization was about $28 billion. At one point, financial analysts predicted that the market capitalization of Ether would surpass that of Bitcoin. However, since then, issues with Ethereum's

technology have caused the value to drop. There is volatility in Ethereum. Like Bitcoin, in mid-January 2018, the price of Ethereum also plummeted from nearly $1,400 to $1,000 in a matter of days.

Often used synonymously, Ethereum is a platform that makes it relatively easy to create smart contracts, while Ether is a token used to make transactions on the Ethereum blockchain. Simply put, smart contracts are computer programs that they can automatically perform conditions contract They are functioning same as Excel function "IF (then)" : when run pre-programmed condition, smart contract performs appropriate contractual position. Let's apply it to an example. Let's say you're a company that makes and sells game consoles. You work with suppliers and shipping companies and ensure that: 1) the consoles are manufactured in good quality and on time, 2) there are no labor violations and 3) all parties are paid on time. At traditional operations many contracts will be involved only to produce one console, with each party keeping their own hard copies.

However, when combined with blockchain, smart contracts provide automatic accountability. Smart contracts you can use in several ways: When the truck picks up the manufactured consoles from the factory, the shipping company scans the boxes. They are then added to the initiating blockchain release funds with account companies video games No invoices or payment chases. In addition to payment, a given employee at the factory can scan their ID card, which is then verified by third-party sources to ensure that they are not violating labor policies.

Each of the cryptocurrencies has its own characteristic features, however, there is also something that unites them all - the ever-growing interest and demand, which, in turn, is the reason for the increase in the price of most types of virtual money.

The success of Bitcoin has led to the emergence of many new cryptocurrencies. (Table 2.2) Their functioning is based on the general principle of data encryption and the creation of chains of transaction records - blockchain. At

the same time, cryptocurrencies have both technological and functional differences. A large part of cryptocurrencies originated as an auxiliary currency in decentralized crypto-platforms (Ripple, Stellar Lumens, Next, Ethereum, BitShares). Other cryptocurrencies were created exclusively as means of payment (Bitcoin, Litecoin, Peercoin, Dash, Dogecoin). Improvement of technological characteristics cryptocurrency brought to appearance big quantity their species which use different methods hashing and algorithms protection data, offer in the generation time of new blocks, maximum emission and other parameters.

Table 2.2

Comparative analysis cryptocurrency

Cryptocurrency	**Date of creation**	**Purpose of creation**	**Technical emission and circulation characteristics**
Bitcoin (BTC)	03.01.2009	Payment system	Decentralized; SHA-256 hashing is used ; technology PoW; the generation time of a new block is 10 minutes
Ripple (XRP)	07/01/2013	Exchange currencies, calculations, money transfers	Mostly decentralized; additional emission is not possible; operations are almost instantaneous; necessary Account
Litecoin (LTC)	08.10.2011	Payment system	Decentralized; is used Scrypt hashing ; PoW technology; the generation time of a new block is 2.5 minutes
Ethereum / Ether (ETH)	30.07.2015	Crypto platform for decentralized online services	Decentralized; is used Ethash hashing ; PoW technology; the generation time of a new block is 15 seconds
Dash (DASH)	19.01.2014	Payment system	Decentralized; a combination of several is used algorithms hashing (x11); high anonymity of transactions; time generation of the new block - 2.5 minutes
Dogecoin (DOGE)	08.12.2013	Payment system	Decentralized; is used Scrypt hashing ; PoW technology; generation time of a new block is 1 minute

Table 2.2 (continuation)

Peercoin (PPC)	19.08.2012	Payment system	Mostly decentralized; SHA-256 hashing is used; technologies PoW and PoS; the generation time of a new block is about 10 minutes
BitShares (BTS)	21.07.2014	A platform for decentralized and autonomous companies	Decentralized; DPOS technology is used; time generation new block - about 10 seconds
Stellar Lumens (XLM)	08/05/2014	Exchange currencies, calculations, money transfers	Decentralized; operations are almost instantaneous; founded on protocols Ripple, changed to Stellar open protocol in 2015
Nxt (NXT)	24.11.2013	Crypto platform	Decentralized; is used SHA-256 hashing ; PoS technology

Note. Built according to Wikipedia. [Electronic resource]. - 2024. Mode of access to the resource: https://uk.wikipedia.org/wiki.

At the end of the day, it all comes down to brand value, which is the collective belief of buyers in the current price of the token they are investing in, along with its long-term potential. This makes the cryptocurrency market extremely volatile, offering unparalleled profit opportunities as well as the highest degree of risk associated with them (Figure 2.4).

It also raises the question of the real present and long-term value of the entire space, a question that is most easily approached by explaining the structure and methods of calculating the total market capitalization of all the world's cryptocurrencies.

The current $2 trillion mark, or last year's high of $3 trillion, is reached by simply multiplying each cryptocurrency's last traded price by its total public offering. This approach has many disadvantages. First, not all coins and tokens were traded on the latter fixed price what concerns only very small parts general volume assets

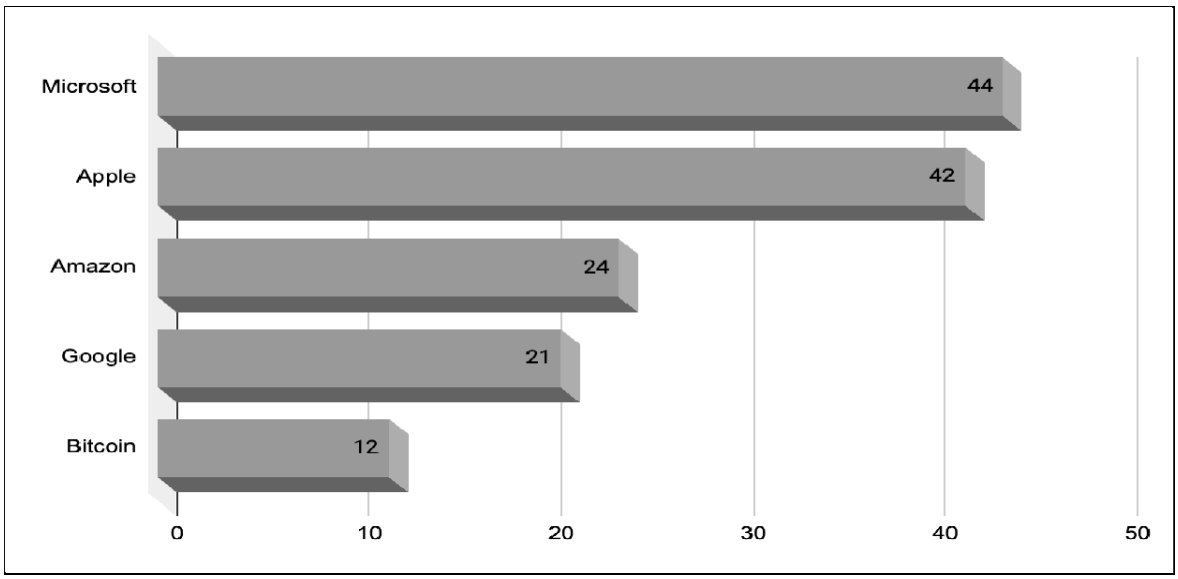

Fig. 2.4. Growth market capitalization companies to 1 trillion dollars in years
Note. Built for data Wikipedia. [Electronic resource]. - 2023. Resource access mode: https://uk.wikipedia.org/wiki.

For example, one token can be traded at a price 10 times more expensive than the previous one, which will increase the total market capitalization of this cryptocurrency tenfold, even for a few seconds. Such ignoring of trading volume, an important indicator of the "true" or, rather, longer-term value of an asset, is simply absurd.

To counteract such deviations, the concept of realized market capitalization can be considered. This approach to calculating the market capitalization of a cryptocurrency is determined by multiplying each individual coin or token by the last price at which they were traded. If one coin is inactive for weeks, months or years, only the most recent transaction will be verified, even if the price is much lower than the current market price.

This method gives us a more objective approach, ignoring short-term speculation and volatility as much as possible, creating a clearer and longer-term perspective on the matter. However, this approach faces several bottlenecks, such as complex technological challenges, lack of transparency associated with many blockchains and manipulation ratio general and reversible offers. In terms of Bitcoin, the currency with the most well-known and transparent registry, the implemented approach to market capitalization is about 1/3 of the traditional

approach (using the current price of Bitcoin). For the average cryptocurrency, the gap between the two calculation methods tends to be larger, further reducing the overall market cap of the space.

While realized market capitalization gives us a more balanced and long-term approach to valuing the crypto space, it still doesn't account for the lack of real value that supports blockchain assets. And the only material value that can currently be associated with them is the amount of fiat money invested in cryptocurrencies at any given time.

This value is surprisingly easy to calculate. Although cryptocurrencies can be traded against each other and are traded to some extent, they are usually bought and sold against stablecoins – cryptocurrencies, cost whose pegged to a specific fiat currency, especially the US dollar. Stablecoins can only be minted through an equal number of fiat coins. Therefore, their overall offering gives us a fairly accurate estimate of how much real money is invested in the blockchain technology space.

The total stablecoin market capitalization is around $170 billion, which is less than 10% of the total cryptocurrency valuation. If we take this ratio as the historical median, we could argue that the real material value of all the world's cryptocurrencies is 1/10 of its traded price.

What does this tell us about the blockchain space in general, its strengths and weaknesses, its current state at this point in history, and its long-term prospects?

First of all, cryptocurrency price volatility will remain, at least for the foreseeable future. The market, in general, is still quite far from maturity, and him are needed years, and maybe, even decade, in order to achieve the level of stability of traditional stock markets. Risk ratio and rewards, related with hereby, is extremely long and deep the topic. If one dollar of investment can increase the current value of a crypto-asset to 10 times it means what historical maximums prices bitcoin and other coins and tokens are still far from being achieved, although when achieved, they may be very short-lived. A market cap of $13

trillion is a good long-term goal for the entire crypto space.

So, speaking beyond short-term spikes and high volatility, blockchain-based technologies will have to find their true long-term value through the widespread development, implementation and commercialization of products and services used by other industries and people in their daily lives.

If they manage to do this, the average cryptocurrency's fluctuations will resemble the fluctuations of traditional stocks, and their total value could gain an even greater percentage of the global market than the current leap highs could ever be assumed.

2.3. Research methods software cryptocurrencies and risks of transactions with cryptocurrencies

The growing popularity and privacy aspects of cryptocurrencies are beginning to attract significant attention in the to everything the world with side different genus people Criminals are attracted functions, which allow to wash money and to maintain secrecy while investors see opportunities for large profits to remain unknown. Likewise, most governments and banks start shouting obscenities.

While some countries have banned cryptocurrencies entirely, others, including the US, are trying to regulate it. As talk of regulation and oversight grew louder, cryptocurrency prices began to fall with peak on beginning 2018 year IN struggle also joined big banks, which started prohibit purchase cryptocurrency by help their own credit cards. However, Japan stands alone. They were the first to actually give cybercurrencies recognized status legal payment tool in the middle of 2017. Accordingly, popularity in the country increased, and to the end In 2017, their citizens accounted for one-third of all Bitcoin activity.

You have to go back to the Dot Com craze of the late 90s to witness the fear, apprehension and speculation that cryptocurrencies spawned. Example,

quoted known corporate raider Carla Aikana:

"Bitcoin and other cryptocurrencies are ridiculous." Jamie Dimon, Chairman and CEO of Chase Bank, “Bitcoin will explode eventually; it's a scam." He later came forward and partially recanted, saying the technology blockchain, on which she working, real Warren Buffett, "cryptocurrency will end badly". But insiders industry and Kay Van-Peterson, an analyst at Saxo Bank, who correctly predicted popularity and prices on bitcoin in 2016 and 2017 years, predict what bitcoin will reach $100,000 and will continue to grow. Japanese citizens are betting on this by investing their savings in cryptocurrencies.

The argument in favor of regulation by countries involves more than just their attempt to cash in on revenues. It also involves protecting investors and consumers from fraud, abuse and extreme risks. In the US, investors must be "accredited" before making large speculative investments, meaning they can afford to lose what they invest. Should cryptocurrency investments be considered the same way? Should everyone be allowed? Blindly invest in something, what not regulated by any authority? The idea of a universal decentralized currency may be attractive, but widespread acceptance will be at risk if the price fluctuates wildly from day to day. Speculative investors flooded the market, hoping to get rich quick. They don't have to go back very far to see how this story might play out.

Usually cryptocurrencies are created by help technologies blockchain Blockchain describes way recording transactions in "blocks" and marks time This is a fairly complex technical process, but the result is a digital ledger of cryptocurrency transactions that is difficult for hackers to forge.

In addition, transactions require two-factor authentication. For example, you may be asked to enter a username and password to initiate a transaction. You may then need to enter an authentication code sent by text to your personal mobile phone.

Although securities are valid, this does not mean that cryptocurrencies

cannot be hacked. A few high-dollar hacks have cost cryptocurrency startups dearly. Hackers took Coincheck for $534 million and BitGrail for $195 million, making them two of the biggest cryptocurrency hacks of 2018.

Unlike from state money, cost virtual ones currencies depends entirely on supply and demand. This can create wild swings that result in significant gains for investors or large losses. And cryptocurrency investments are subject to much less legal protection than traditional financial products such as stocks, bonds and mutual funds.

Unfortunately, cryptocurrency crime is on the rise. Cryptocurrency scams include:

- Fake websites: fake sites that contain fake testimonials and crypto jargon that promise huge, guaranteed returns as long as you keep investing.
- Virtual schemes: Cryptocurrency fraudsters promote non-existent opportunities to invest in digital currencies and create the illusion of huge profits by charging old investors with the money of new investors. One fraudulent operation, BitClub Network, raised more than $700 million before its perpetrators were indicted in December 2019. Confirmation of "celebrity": scammers pose online as billionaires or famous names promising to multiply your investment in virtual currency, but in return steal that, what you send.

They also can use applications for exchange messages or chat rooms to spread rumors that a famous businessman is backing a certain cryptocurrency. After they encourage investors to buy and raise the price fraudsters sell own share, and currency is decreasing in prices.

- Romance Scams: in the USA, the FBI warns about the tendency to online dating scams, where scammers convince people they meet on dating apps or social networks to invest or trade virtual currencies. In the first seven months of 2021, the FBI's Internet Complaint Center sent over 1,800 reports of cryptocurrency scams with losses reaching $133 million. Otherwise, fraudsters can pose as legitimate virtual currency traders or create fictitious exchanges, in order to trick people into giving them money.

Another crypto scam involves fraudulent offers to sell individual retirement accounts in cryptocurrencies. Then there is the simple one breaking cryptocurrencies, When criminals penetrate in digital purses, where people store their virtual currency to steal it. Cryptocurrency is highly volatile, intangible, exists on an unregulated 24/7 stock market, and is not insured by any government. They all appeal to criminal/illegal purposes. One of the biggest advantages of many digital currencies is also a potential risk factor for the individual investor. Cryptocurrencies by definition are decentralized, meaning that they do not have a physical presence and are not supported by a central authority.

While governments around the world have stepped in to assert their regulatory power in various ways, BTC and other digital currencies like it remain untethered to any jurisdiction or institution.

On the one hand, it frees investors from obligations to these institutions. On the other hand, such a status can lead to legal complications.

The value of digital currencies depends entirely on the value attributed to them by other owners and investors; this is true for all currencies, digital or fiat. Without a central authority to support the digital currency's value, investors could be left in the lurch if complications arise with transactions or ownership.

Another potential risk associated with with cryptocurrencies in as a result of their decentralized status related to transaction details. In most other transactions, physical currency changes hands.

In the case of electronic transactions trusted financial institution takes participation in the creation and settlement of deposits and debt claims. None of these concepts apply to cryptocurrency transactions.

Because of this fundamental difference, legal confusion is possible between parties to various types of digital currency transactions. Again, through decentralized state these currency, way legal protection in these situations may be hard to evaluate. Also, the risks of cryptocurrency trading are mainly related to its volatility. They are risky and speculative, so it is important to understand the

risks before you start trading.

Cryptocurrencies are volatile : Unexpected changes in market sentiment can lead to sharp and sudden price changes. It is not uncommon for cryptocurrencies to quickly drop hundreds if not thousands of dollars in value.

Cryptocurrencies are unregulated : Cryptocurrencies are currently unregulated by both governments and central banks. However, lately they have began to attract more attention. For example, there are questions about whether to classify them as a commodity or a virtual currency

Cryptocurrencies are prone to error and hacking : There is no perfect way to prevent technical failures, human error or hacking.

Cryptocurrencies may be affected by forks or shutdowns : Cryptocurrency trading carries additional risks, such as hard forks or shutdowns. You should familiarize yourself with these risks before trading these products. When a hard fork occurs, there can be significant price volatility around the event, and trading can be halted throughout if you don't have reliable prices in the underlying market.

Market risks are peculiar because the currency is only traded on demand. There is a limited supply of the currency, which means it can suffer from liquidity problems, and limited ownership can make it susceptible to market manipulation. Also, given its limited acceptance and lack of alternatives, the currency can appear more volatile than other physical currencies, fueled by speculative demand and exacerbated by hoarding.

Many of the individual risks inherent in currency also manifest and affect the business, adding an additional layer of risk. Further risks will include mitigation costs compliance regulatory risks Laws about struggle with washing

The competitive risk is high as businesses will need to adapt and expand their offering to be comprehensive for payment transfers, involving a significant overhaul of all legacy legacy systems and infrastructure. In addition, these system improvements must also be continuously updated and compatible with the company's delivery system and its many third-party vendors.

The taxation risk is significant, because, example, citizens The U.S. may attempt to circumvent tax regulations, such as filing FBARs (Report on Foreign Bank and Financial Accounts), by keeping money abroad abnormally. Institutions that support this circumvention, whether unwittingly or not, may be subject to sanctions and/or fines. Subsequent business obligations may also arise from currency conversion or deconversion and reporting under these instructions.

So, cryptocurrencies are here to stay as technology evolves. Public acceptance and trust will take some time, but the risks will remain the same, some with them will be more essential and elevated, than before, both for currency and for business. On a global scale, regulators should move to a tougher position. Some exchanges are already eager cooperate with regulators and be fully compliant. Others prefer to work outside the schedule. A simple argument is that it is necessary to protect investors and users from financial and technological risks they face.

SECTION 3. PROSPECTS DEVELOPMENT CRYPTOBUSINESS IN WORLD ECONOMY

3.1. Advantages and disadvantages of using cryptocurrencies and their impact on the economic situation for countries around the world

Cryptocurrencies were introduced with the intention of changing the financial infrastructure. However, as in every revolution, there are trade-offs. At the current stage of the development of cryptocurrencies, there are many differences between the theoretical ideal of a decentralized system with cryptocurrencies and its practical implementation.

Some advantages and disadvantages cryptocurrency consist of in to the next.

Advantages:

- Cryptocurrencies represent a new decentralized money paradigm. IN this system has centralized intermediaries such as banks and monetary institutions are not needed to ensure trust and police transactions between two parties. Thus, a system with cryptocurrencies eliminates the possibility of a single point of failure, such as a major bank, causing a cascade of crises around the world, such as the one triggered in 2008 by the failure of institutions in the United States. .

- Cryptocurrencies can facilitate the transfer of funds directly between two parties, without the need for a trusted third party such as a bank or credit card company. Such decentralized transmissions are ensured by the use of open and closed keys, and as well as various forms of incentives, such as proof of work or proof of participation. Because they do not use third-party intermediaries, cryptocurrency transfers between two transacting parties are faster than standard money transfers. A good example of such decentralized transfers are flash loans in decentralized finance. These unsecured loans can be processed in seconds and used in trading.

- Investing in cryptocurrency can be profitable. Cryptocurrency

markets have skyrocketed in value over the past decade, reaching almost 2 trillion dollars.

- The remittance economy is testing one of the most prominent use cases for cryptocurrency. Currently, cryptocurrencies such as Bitcoin serve as intermediary currencies to streamline money transfers across borders. Thus, the fiat currency is converted to Bitcoin (or another cryptocurrency), transferred across borders and subsequently converted to the destination fiat currency. This method simplifies the money transfer process and makes it cheaper.

Disadvantages:

- Although they claim that there are cryptocurrencies an anonymous form of transaction, they are actually pseudonyms. They leave a digital trail that can be deciphered by agencies such as the Federal Bureau of Investigation (FBI). This opens up opportunities for governments or federal authorities to monitor financial transactions of ordinary citizens.

- Cryptocurrencies became popular a tool for criminals for criminal activities such as money laundering and illegal purchases. The case of Dread Pirate Roberts, who ran a marketplace for selling drugs on the dark web, is already well known. Cryptocurrencies have also become a favorite of hackers who use them for ransomware activities.Theoretically cryptocurrencies assigned for decentralization, their wealth is distributed between many parties on blockchain. Actually ownership is highly concentrated. For example, a study by the Massachusetts Institute of Technology found that only 11,000 investors owned roughly 45% of Bitcoin's increase in value.

- One of the advantages of cryptocurrencies is that, what anybody may obtain them using a computer with an Internet connection. However, mining popular cryptocurrencies requires significant energy, sometimes as much energy as entire countries consume. Expensive energy costs combined with the unpredictability of mining have concentrated mining among large companies with billions of dollars in revenue. According to an MIT study, 10% of miners account for 90% of its capacity.

- Although cryptocurrency blockchains are very secure, other crypto-repositories such as exchanges and wallets can be hacked. Many cryptocurrency exchanges and wallets have been hacked in recent years, sometimes resulting in millions of dollars worth of "coins" being stolen.

- Cryptocurrencies traded on public markets suffer from price volatility. In December 2017, Bitcoin experienced rapid ups and downs, getting up to 17 738 dollars USA, and in the following months fell down to 7575 dollars. Thus, some economists consider cryptocurrencies short-lived or simply a speculative bubble.

The financial system may be exposed to the risk associated with cryptoassets because both they interconnected; side effects can also be transferred to the real economy. In particular, crypto-assets can have implications for financial stability and disrupt the functioning of payment and market infrastructure, as well as influence monetary policy. Analysis by the European Central Bank shows that, while these risks are currently limited and/or managed within the existing regulatory and supervisory framework, links with the regulated financial sector may develop and increase over time and have future consequences. It may to influence on implementation responsibilities of definition and implementation monetary politicians and assistance uninterrupted the operation of payment systems, as well as tasks in the field of banking supervision and financial stability. Accordingly, the analysis concludes that monitoring of cryptoassets should continue, raising awareness about their risks and develop readiness to any of the future unfavorable the script

The risks of cryptoassets primarily arise from: the absence of a primary claim, their (partially) unregulated nature, and the absence of a formal management structure.

Since cryptoassets do not have basic requirements, such as the right to future cash flow or to the fulfillment of any payment obligations, they not have fundamental values. It does their assessment is difficult and becomes a subject of speculation. As a result, cryptoassets can experience extreme price swings

(volatility risk), exposing their owners to potentially significant losses. Depending on the circumstances of a possible price collapse, the consequences may be transmitted to the owners' creditors (if the positions involve leverage) and other economic entities.

Crypto assets are unlikely to meet the characteristics of payment and financial instruments and, as such, are not subject to the current regulation. WITH review on that, what they not are regulated their the owners do not enjoy the legal protections associated with regulated instruments. For example, if a cryptoasset service provider that controls access to customers' cryptoassets (such as custodial wallet providers) goes bankrupt or is hacked, they will not be subject to preventive measures (such as guarding and segregation). It will not be possible to benefit from schemes or other arrangements to cover any losses incurred.

Given the current state of legislation in most countries of the world, for state bodies limited opportunities regulation cryptoassets. Any such intervention may be further complicated by a lack of governance and distributed architecture cryptoassets, and also by their cross-border measurement. Because the use of DLT allows cryptoassets to do without an accountable party, the role and responsibility of detection, softening and managing the risks that cryptoassets carry in the network cannot be clearly divided. This characteristic, among other things, results in increased risks of money laundering and terrorist financing, as there is no central supervisory authority responsible for monitoring and identifying suspicious transaction patterns, and law enforcement agencies cannot target one central location or body (administrator) for investigative purposes or seizure of assets.

Given the lack of formalized governance, it can also be difficult to manage operational risks, including cyber security risks and fraud risks. In fact, in the broader crypto-asset ecosystem, the provision of certain services (such as trading) is often centralized. In such cases, service providers can be identified and prosecuted. However, this is not always possible in decentralized models that minimize or eliminate the role of intermediaries.

The degree to which the financial system and the economy can be exposed to risk from cryptoassets depends on their interconnectedness. In particular:

- possession cryptoassets,
- investment means
- retail payments.

These are the main connections between the cryptoasset market on the one hand and financial systems and the larger economy on the other.

Individuals and financial institutions, including credit institutions/investment firms, payment institutions and electronic money institutions, are not prohibited by the laws of most countries from owning or investing in crypto-assets.

To cryptoassets may get access anyone who has connection to internet, without necessity open accounting record in supplier services of cryptoassets. Financial institutions may invest in crypto-assets and/or engage in trading and market-making.

Credit institutions can also provide credit to customers for the purchase of crypto-assets or loans secured by crypto-assets, as well as provide loans to organizations that deal with crypto-assets. In addition, financial institutions may provide other services related to cryptoassets (such as custody services) that may lead to improved availability and promotion of the use of cryptoassets, thereby encouraging ownership and investment of cryptoassets. These actions can be motivated, among other things, interest financial institutions to programs, which rely on DLT.

Derivative financial instruments and tools investment connect investors to the crypto-asset market without the need to directly hold crypto-assets. Investment vehicles include exchange-traded products (ETPs) and contracts for difference (CFDs) that track the prices of crypto-assets. Furthermore, ICOs – a largely unregulated way for companies to raise capital by creating new crypto-assets similar to an initial public offering – have started to attract interest among investors since 2017, motivated by high returns on investment.

However, it should be noted that these "coins" can differ significantly in their characteristics and functions: for example, they can offer forms of investment in a company that can be linked to securities, or simply provide access to a (future) product/service, offered by the issuer. For our purposes, suffice it to say that these "coins" may not qualify as cryptoassets if they have an issuer.

Under certain circumstances, cryptoassets can be used for retail payments. Usage options range from merchant payments, international money transfers and cross-border payments between business (B2B), to micropayments and payments from cars to cars (M2M), and may be driven by DLT-driven efficiencies, as these segments tend to be complex and high-cost. It should be noted that while cryptoasset holders can transfer cryptoasset units without an intermediary by directly accessing the decentralized cryptoasset network, user convenience has led to the emergence of providers services, which make it easier using cryptoassets for payment, for example by processing payments on behalf of merchants that accept cryptoassets and reducing their exposure to price volatility. However, end-users often still make and/or receive payments in the national currency(s) and are not required to hold crypto-asset balances, while the role of crypto-assets is limited to providing an internal channel for the transaction. , in particular in cross-border payments.

New and existing intermediaries provide "gateway" functions that facilitate relationships between cryptoassets, with one hand and economy and financial markets, on the other hand. Within the broader crypto-asset-related activities, gateway functions describe the activities that enable the inflow and outflow of crypto-assets from the crypto-asset market into financial systems and the economy, i.e. crypto-asset trading and storage/custodial. Other features (eg mining) or services (eg ICO promotion) are out of scope as they live exclusively in the crypto-asset ecosystem. Payment services, in turn, rely on gateway functions to facilitate the use of crypto-assets as a medium of exchange.

Trading platforms allow users to buy and sell crypto-assets in exchange for fiat currencies or other crypto-assets. Trading platforms may differ in their

business models and the services they provide. Some trading platforms may publish market quotes based on the trading activity of their clients and, in doing so, promote formation prices Commercial platforms also you can distinguish on basis that or keep they crypto assets from name their own customers and or execute transactions on their books, not on DLT networks. Some are centralized platforms they can give services storage, except that which is necessary for the execution/settlement of the transaction, in which case they also act as custodian wallet providers on an ongoing basis.

Custodial wallet providers allow you to store cryptographic keys that are used to sign cryptoasset transactions. Crypto asset investors usually require the involvement of a custodial wallet provider because of its convenience and on the premise that cryptographic keys will be stolen more easily than from a personal device. Storage wallets can be placed on the Internet (also called"hot wallets", which involves storing keys on a connected device to internet, what allows initialize transactions in any time), or offline (also called "cold wallets", which involves storing keys without an internet connection until the user needs to authorize a transaction). Hot wallets are vulnerable to hacking over the internet. Cold wallets, on the other hand, are less convenient to use, but they are protected from hackers and can be stored on devices that can be physically locked in vaults.

The size and degree of interrelationships described above may have implications for the stability of the financial system, monetary policy and security and efficiency of payments and market infrastructure:

1. Potentially large and unhedged exposures of financial institutions to cryptoassets may have implications for financial stability, especially as there is currently no defined legal regime for exposures to cryptoassets of financial institutions. In its statement on cryptoassets, while acknowledging that banks currently have very limited direct exposures, the Basel Committee on Banking Supervision (BCBS) sets expectations for banks that acquire exposures to cryptoassets or provide related services, including proper caution, management and risks dialogue with management, disclosure and supervision European bank

authority (EBA) also provides development template monitoring, which competent authorities can provide financial institutions to identify and measure the level and type of crypto-asset activity.

2. In an extreme scenario, if cash in euros, dollars and electronic payment instruments hypothetically gave way to crypto-assets for retail payment transactions, this could have significant implications for monetary policy and economic activity. However, given the peculiarities of the phenomenon of cryptoassets, in particular the high volatility of prices, it is difficult to predict that cryptoassets will perform the role of a monetary asset in the near future. With this in mind, new developments aimed at on softening risks volatility (example,"stablecoins") may prove to be more attractive or suitable for payment use.

Financial market infrastructures (FMI), in particular payment systems, securities settlement systems and central counterparties, carry risks cryptoassets and they can act as channels transfers these risks through the financial system. First, financial market infrastructures may be exposed to risk from their participants' activities with cryptoassets to the extent that adverse cryptoasset market conditions or other adverse events may jeopardize the participants' ability to meet their obligations. In this case, shocks to the cryptoasset market may be transmitted from one participant or infrastructure to another/others. Second, financial market infrastructures may pose risks if they clear crypto-asset-based products or use crypto-assets for settlement, collateral or investment. Moreover, in order for central counterparties to be able to calculate products cryptoassets, them necessary was b get permission from their national authorities, subject to demonstration that they should to be fulfilled requirements risk management with regard to specificcharacteristics, which have be considered/ erefore, in light of the implications that cryptoassets can have for the stability and efficiency of the financial system and the economy, cryptoassets require constant monitoring. To this end, the ECB has, for example, created a dataset based on high-quality publicly available aggregated data, supplemented by other data from some

commercial sources using APIs and big data technologies. However, important gaps and challenges remain: exposures of financial institutions to cryptoassets, relationships with regulated financial sectors, and payment transactions that involve the use of multi-layer protocols are all examples of domains with significant data gaps.

The challenges in measuring the phenomenon of cryptoassets are diverse and concern both online and offline data. In particular, it is difficult to obtain public data on the segments of the crypto-asset market that remain outside the attention of government authorities; some relatively illiquid trading platforms may suffer from instant trade; and there is no consistency in methodologies and conventions used by institutional exchanges and providers commercial data. More that new ones and unexpected data needs may arise with further advances in cryptoassets and related innovations.

3.2. Ways to improve the development of the cryptocurrency market in the global financial industry

The cryptocurrency market is developing and will continue to develop at a pace set by key participants, characterized by a likely increase in legitimacy from one or more of these participants in so-called "accreditation moments." For the market to reach the next phase of its evolution towards mainstream acceptance and steady expansion, everyone from five key participants market: merchants and consumers, technology developers, investors, financial institutions and regulators – will play a role.

1. Consumers and merchants

For consumers, cryptocurrencies offer cheaper and faster peer-to-peer payment options than those offered by traditional money services businesses, without the need to provide personal information. Although cryptocurrencies continue to gain some acceptance as a payment option, price volatility and the possibility of speculative investments encourage consumers not to use cryptocurrencies to buy goods and services, but to trade them.

Only 6% of PwC's 2022 cryptocurrency consumer respondents say they are "very" familiar with cryptocurrencies. Awareness is expected to increase as consumers begin to access innovative offers and services not available through traditional payment systems.

From the perspective of businesses and merchants, cryptocurrencies offer low transaction fees and lower volatility risk due to near-instant settlement, and eliminate the possibility of chargebacks (requiring a credit card provider to compensate a retailer for the loss of a fraudulent or disputed transaction).

2. Developers technologies

Many talented tech developers have devoted their efforts to cryptocurrency mining, while others have focused on more entrepreneurial pursuits such as developing exchanges, wallet services, and alternative cryptocurrencies. The cryptocurrency market has only just begun to attract talent with the depth, breadth and market focus needed to take the industry to the next level. However, for the market to gain mass acceptance, consumers and corporations must consider cryptocurrency as a convenient solution for their normal transactions. In addition, the industry will need to develop cybersecurity technologies and protocols.

3. Investors

Investors are generally confident in the opportunities associated with cryptocurrencies and cryptography. "Intrinsic value" of the base technology, which was discussed above, gives these investors good reason for optimism. As a result, only recently have some of the most prominent cryptocurrency companies caught the attention of institutional investors and Wall Street.

3. Financial institutions

Traditionally, banks connect those who have money to those who need it. But in recent years, this position of intermediary is losing its importance, and disintermediation in the banking sector is developing rapidly. This resulted from the growth of Internet banking; increasing consumer use of alternative payment methods, such as amazon cards, Apple Pay and Google Wallet; and advances in mobile payments.

4. Regulators

The attitude of governments around the world is contradictory when it comes to the classification, processing and legality of cryptocurrency. Provisions are also developing at different rates in different regions.

Given the lack of trust in financial intermediaries and the realization that the current global monetary system is becoming morally obsolete and unable to respond to the challenges of the modern economy, the public is interested in blockchain and cryptocurrencies.

In order to recognize cryptocurrency as a means of payment worldwide, it is necessary to regulate the processes of its mining, receipt and circulation both in individual countries and around the world. At the moment, there is no general law in the world regarding the processes related to the regulation of cryptocurrency. Supporters of digital currencies like to talk about the interest in virtual money of celebrities, representatives of sports and show business; however, they stubbornly overlook how much cryptocurrency has made life easier for hackers. In that the same time anonymous cryptocurrencies became perfect a tool for payment taxes, washing money, organizations terrorist attacks and others dangerous crimes The idea that cryptocurrency is a harmless way to accumulate is incredibly misleading. Retailers tend not to use virtual money because of high transaction costs, but for those who want to avoid money laundering, evading international sanctions or committing many other crimes, they cannot find a better ally than cryptocurrency.

To better present the prospects and threats of cryptocurrency, let's do a SWOT analysis of the cryptocurrency market (Table 3.1).

Table 3.1.

Strong parties	**Weak parties**
Saving time and funds - Distributed stability - Open day off code - Audit - Functions security and modern cryptography - Origin assets - Creation native assets - Dynamic and smooth exchange of values - Higher anonymity - There is none the only one points trust - Stability to fraud - Financial incentives - Divide and combination - Intended course coins - Non-physicality - Decentralized chain - Protected from any inflation - Intervention state excluded	Relative security against ease of use - Absence main management - Absence hardened/ proven technology - Limitation models programming smart contract code - Management wallets and keys - Absence trust to suppliers of new technologies - Absence qualified personnel - Immature scalability - Deficit skills and cost - Ignorance the client and bad user experience - Braking anonymity by transaction history - Problem deflation and cluster - Lost bitcoins - The transaction is not insured (usually you will not be able to return the currency transferred after operations, and no one never cannot return it to you) - Always exist risk danger (since e-wallets are one of the targets of hacker attacks. Also, there is no national or international tool to protect
Opportunities	**Threats**
- active community with software development - Acceleration and efficiency of business processes - Reliable saving - Reduction transactional costs (reduction of transfer fees) - Reduction fraud - Decrease systemic risk - Monetary democratization - Enabling new business models - Rationalization applications and reservation - Economy concerts - Approximation to widespread Formation alternative energy sources	- Legal jurisdictional barriers - Consumption energy (management and energy use) - Systems all more are prototypes - There is none guarantees integrity information - High complexity - Policy and hostile nation states - Privacy data - Risks washing money and terrorist financing - Institutional obstacles - Technological failures - Divergent blockchains - Identification by IP address - Identification by point of sale/exchange - Robbery

	- bad management - Conflicts/competition - Hacking online exchange - Possible using in criminal scenarios Volatility cost bitcoin

Sooner or later, governments will have to tighten their control over virtual money. Today, this process has started, and normally this should reduce the demand for cryptocurrency, but it has not happened yet. So why is cryptocurrency like this road? Answer part gives economic theory, according to with which giant soap bubbles appear on the market under the conditions of zero interest rates. It is an asset that has virtually no value; however, so many large institutional investors have entered this market that it will be very difficult for politicians to regulate cryptocurrencies.

The longer there is no control over digital money, the more difficult it will be to regulate cryptocurrency in the future. The point is that for control cryptocurrency, at least in developed countries, much needed greater international coordination. Bitcoin has become the driving force behind the illegal global economy, and it will take decades for even the strongest and richest countries to control it. The main and almost the only obvious advantage of virtual money is anonymity and uncontrollability. As soon as it falls within the framework of official regulation, the demand for it will decrease sharply.

In addition, the development of the crypto industry requires huge amounts of electricity, which, most likely, can lead to interruptions in the supply of energy. Commonly known fact, what big cryptocurrency "farms" consume as much electricity as some cities. As a result, factories may slowly close, people may remain unemployed, budgets may not be met, and costs may rise. Mass bankruptcy will be a matter of time. If this scenario develops, humanity will have to deal with an invisible and, at the same time, big problem - energy shortage. As a result, the entire burden of rising energy prices is on international market will affect on the economy Factories will stop, costs for farmers will increase, and

almost all goods that require energy production will become more expensive. However, the crypto industry is also making progress in energy – to create virtual money necessary so much electricity that it will be possible to introduce new technologies in alternative energy in the world.

The facts of the hacking of trading platforms in recent years show that consumers should store their cryptocurrencies not on trading exchanges, but in a special crypto-wallet, the private key of which they will control themselves. But bitcoin may be useful to many to people It can be used in any country because it is an international currency. Blockchain is secure and ensures that money is moving/coming from the right person. Bitcoin recipients will not have to pay for transactions. Bitcoin has excellent support. Of course, it has some disadvantages, but some with them happen ago that Bitcoin is a new, innovative product with high risks. However, over time, the more the risks of uncertainty decrease and the less of a problem they are. All of this will help Bitcoin attract more users, and if everyone uses Bitcoin, it could change official currencies. Considering all the above, trace emphasize what no one is not opposed to the blockchain technology that underpins cryptocurrencies and has enormous potential to improve people's lives.

So, cryptocurrency is the beginning of a new phase of technology-driven markets that have the potential to disrupt conventional market strategies, long-standing business practices, and established regulatory perspectives all for good. consumers and wider macroeconomic efficiency. Cryptocurrencies have the groundbreaking potential to to provide consumers access to of the global payment system - anywhere and at any time - in which participation limited only by access to technology, and not such factors, as availability credit history or bank account. The debate is no longer whether cryptocurrency will survive, but how it will evolve and when it will reach maturity.

CONCLUSIONS

Therefore, the growing need for operational efficiency, security and transparency of financial payment systems is one of the key factors positively influencing the demand for cryptocurrencies. In line with this growth in high-speed Internet penetration and installation trading applications for smartphones provide unhindered access to online payment transactions, which, in turn, creates positive prospects for the cryptocurrency market. In addition, the legalization and approval of buying, selling, transacting or trading cryptocurrencies in different countries is driving the growth of the market. At optimal transparency of blockchain technology, there is minimal probability fraudulent and unwanted transactions due to manual or machine errors and data manipulation. This, coupled with the rise in cybercrime, is driving the demand for this technology to track any modifications in real-time and improve data security and transaction integrity. The growing market capitalization of the industry and the emergence of new cryptocurrencies are expected to drive the market.

Having defined the concept of cryptocurrency as a means of payment and an object of intellectual property, we can generalize that cryptocurrency is digital or virtual money protected by cryptography to monitor transactions and prevent counterfeiting. It has no physical representation and spreads over a large network of computers connected to a virtual environment. It works through decentralized networks that are based on blockchain technology. Transfers are secured with public or private keys and are connected directly to the user's digital wallet. Unlike traditionally used currency, it is not issued centralized by the authorities and has minimal intervention or manipulation by the government. Cryptocurrency also offers various advantages such as increased portability, divisibility, inflation resistance and transparency.

Having studied the varieties, history and reasons for the emergence of cryptocurrencies, you can say, what bitcoin started wave cryptocurrency, built on a decentralized peer-to-peer network and also became de facto standard for cryptocurrencies, inspiring a growing legion of followers and businesses.

Having analyzed the development of cryptocurrencies in the context of the stagnation of the world economy, it is worth noting that countries with developing economies offer significant opportunities for cryptocurrencies to expand business, offering easier access to capital and financial services. The economy is slowly adapting to these needs, and cryptocurrencies have great potential for them pleasure. Demographic evolution, growth consumption and openness to new technologies provide lucrative opportunities for cryptocurrency in developing countries. This is an important opportunity for market growth.Having determined the principles of the cryptocurrency market in the global financial sector, it is worth noting that the cryptocurrency market is not yet regulated. Currently, the lack of regulations and uncertainty about them are among the main factors holding back the adoption of cryptocurrencies. While financial regulators around the world are working to find common standards for cryptocurrencies, regulatory acceptance remains one of the biggest challenges. As the technology is still in its infancy, it raises a number of questions for regulators and policymakers at national and international levels.

Following the dynamics and trends in the global cryptocurrency market, conclusions the following: market cryptocurrency is segmented on based on the offer, process, type final user and region further segmented into ASIC, GPU, FPGA and others. ASIC is also divided into fully custom ASIC, semi custom ASIC and programmable ASIC. Depending on the process, it is divided into mining and transactions. By type, it is divided into bitcoin (BTC), ether (ETH), tether (USDT), binance coin (BNB), cardano (ADA), ripple (XRP) and others. According to the end user, it is divided into trade, retail and e-commerce, banking and others. By region, the market is analyzed in North America, Europe, Asia Pacific and LAMEA.

Evaluating cryptocurrencies by market capitalization amid a stagnant global economy, it's clear that despite the thousands of competitors that have emerged, Bitcoin the original cryptocurrency remains the dominant player in terms of usage and economic value. Each coin (BTC) was worth approximately

$44,000 as of February 2023, with a market cap of over $830 billion.

Having studied the methods of securing cryptocurrency and the risks of transactions with cryptocurrencies, we conclude that risk managers around the world are studying the risks associated with with cryptocurrencies, and also aspects which must be kept in mind when considering investment opportunities. Indeed, before allocating money to cryptocurrencies, investors should keep in mind all aspects of conducting transactions, the weaknesses of the crypto infrastructure and the possibility of changes in the value of these assets. Ultimately, this knowledge will help cryptocurrency investors properly assess their potential gains and losses.

By revealing the benefits and disadvantages using cryptocurrency and their impact on the economic situation for the countries of the world, it is worth paying attention to the problems associated with insufficient transparency, which arise when transactions are carried out without the knowledge of interested parties, especially in Asian countries, where often are observed cases fraudulent or unwanted operations, such as calculation planned payments. It may be caused by man error or data manipulation under time process transactions, and customers can lose huge amounts of money. Moreover, in most cases financial institutions do not admit their guilt. Such lack of transparency in the current monetary system causes dissatisfaction among the population.

Having identified ways to improve the development of the cryptocurrency market in the global financial industry, we note the following points: decentralized finance will continue to develop thanks to innovations in automated market creation and other solutions that provide liquidity, which will lead to attractive profits from cryptocurrencies. Moreover, with the emergence of platforms such as the Olympus Decentralized Autonomous Organization (DAO) and subsequent forks such as Wonderland, the new DeFi commonly known as DeFi 2.0 is likely to gain momentum.

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