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### QUALIFICATION PAPER

**It is submitted for the Master's degree**

Specialty 292 "International Economic Relations"

on the topic «**PROSPECTS AND THREATS OF THE CRYPTOASSETS  
INTEGRATION INTO THE WORLD FINANCIAL MARKET SYSTEM**»

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It is submitted for the Master's level degree requirements fulfillment.

Master's level degree qualification paper contains the results of own research. The use of the ideas, results and texts of other authors has a link to the corresponding source

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MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE  
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Educational and Research Institute of Business, Economics and Management  
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TASKS FOR MASTER'S LEVEL DEGREE QUALIFICATION PAPER

(specialty 292 " International Economic Relations " )

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5. The subject of research is the promising directions for the development of cryptoassets in the world and in Ukraine.

6. The qualification paper is carried out on materials of legislative and regulatory documents of Ukraine and international organizations, general data of statistical bodies, scientific materials and research, scientific articles and monographs on cryptoassets and the global financial market.

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Chapter 2 focuses on next objectives: to analyze the current trends in the distribution of cryptoassets in the global financial market; to study the international experience of regulation of cryptoassets.

Chapter 3 The main prospects and threats of the integration of cryptoassets into the world financial market system – 12.12.2023

Chapter 3 focuses on next objectives: to identify the main challenges and threats of the integration of cryptoassets into the system of the global financial market; to propose promising directions for the development of cryptoassets in the world and in Ukraine.

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## ABSTRACT

of Master's level degree qualification paper on the theme  
«PROSPECTS AND THREATS OF THE CRYPTOASSETS INTEGRATION INTO  
THE WORLD FINANCIAL MARKET SYSTEM»

student Denys Mykhailov  
(full name)

The main content of the master's level degree qualification paper is set out on 43 pages, including a list of used sources of 50 titles, which is placed on 5 pages. The work contains 3 tables.

Cryptocurrencies and other crypto-assets are a relatively new phenomenon, but they are rapidly developing and becoming more popular. This is due to their unique characteristics such as decentralization, security and transparency.

The integration of cryptoassets into the global financial market has significant potential to transform this system. Cryptocurrencies can be used for transactions, storage of value and investment. They can also be used to create new financial instruments and services.

The purpose of the qualification paper is to study the theoretical foundations and form practical recommendations for integrating cryptoassets into the global financial market system.

To achieve the goal, the following tasks must be solved:

- to investigate the economic essence and main approaches to the classification of cryptoassets;
- to describe the evolution of the formation and transformation of the world financial market under the influence of the development of cryptoassets;
- to analyze the current trends in the distribution of cryptoassets in the global financial market;
- to study the international experience of regulation of cryptoassets;
- to identify the main challenges and threats of the integration of cryptoassets

into the system of the global financial market;

– to propose promising directions for the development of cryptoassets in the world and in Ukraine.

The main scientific results of the work are:

1. The increasing popularity and influence of cryptocurrencies and digital assets in the global financial market are attributed to various factors. These include rising inflation, diminishing trust in traditional financial systems, and a growing fascination with new technologies.

2. The global financial market is swiftly evolving with the rise of cryptoassets, leading to a shift from traditional to digital instruments. This transformation is vital for investors, businesses, and regulators adapting to new challenges and opportunities.

3. Integrating cryptoassets into the global financial system requires a balanced approach to regulation and innovation. Drawing from international experiences is crucial for developing effective digital asset management strategies and fostering stability through collaborative efforts among countries and regulators.

4. Despite challenges, the integration of cryptoassets into the global financial market is progressing, driven by increasing interest in blockchain, stablecoins, and central bank digital currencies.

5. Ukraine stands out for actively developing its crypto space, offering legal clarity, and fostering innovation through incentives. However, cryptoassets play a crucial role in shaping the global financial market, offering substantial potential for innovation and enhanced operational efficiency.

The methods of analysis and synthesis, induction and deduction, systematization of data, abstraction and concretization, comparison and logical generalization, graphic and tabular methods for systematization and better visual presentation of information are used as research methods in this thesis.

Legislative and regulatory documents of Ukraine and international organizations, general data of statistical bodies, scientific materials and research, scientific articles and

monographs on cryptoassets and the global financial market served as the information base of the thesis.

KEYWORDS: CRYPTOASSET. CRYPTOCURRENCY, GLOBAL FINANCIAL MARKET, REGULATION, BLOCKCHAIN, TOKEN, DECENTRALIZATION, VOLATILITY.

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## INTRODUCTION

In today's global economic landscape, cryptoassets, which include cryptocurrencies and blockchain technologies, are increasingly becoming not only the object of intense attention, but also a key factor in transformations in the global financial market. This opens discussions about the prospects and threats associated with their integration into the world financial market system.

On the one hand, cryptoassets promise revolutionary changes in approaches to financial operations, providing the opportunity to conduct global transactions with confidentiality and the absence of intermediaries. On the other hand, this phenomenon brings with it considerable challenges and threats, such as high volatility, unpredictability of regulation and potential security and legitimacy issues.

The study of the categories of cryptoassets and cryptocurrencies, as well as their place in the system of the world financial market, was carried out by both domestic and foreign scientists. They include: Yu.V. Fedorova, N.V. Gurina, A.S. Stovpova, N.P. Drebot, A.O. Lytvynenko, O.V. Nazarenko, T.G. Karcheva, R.F. Brukhanskyi .. Splinnyk I.V., Berlinska Y.V., Yatsyk T.V., Volosovich S.V., Petruk O.M., and others. Despite this, the issue of promising directions for the development of cryptoassets in the world and in Ukraine constantly requires study due to the dynamism of this sector and its adaptation to the changing conditions of the globalization socio-economic environment.

The purpose of this work is to study the theoretical foundations and form practical recommendations for integrating cryptoassets into the global financial market system.

To achieve the goal, the following tasks must be solved:

- to investigate the economic essence and main approaches to the classification of cryptoassets;



- to describe the evolution of the formation and transformation of the world financial market under the influence of the development of cryptoassets;
- to analyze the current trends in the distribution of cryptoassets in the global financial market;
- to study the international experience of regulation of cryptoassets;
- to identify the main challenges and threats of the integration of cryptoassets into the system of the global financial market;
- to propose promising directions for the development of cryptoassets in the world and in Ukraine.

The object of the research is the process of integrating cryptoassets into the system of the global financial market.

The subject of the study is promising directions for the development of cryptoassets in the world and in Ukraine.

The methods of analysis and synthesis, induction and deduction, systematization of data, abstraction and concretization, comparison and logical generalization, graphic and tabular methods for systematization and better visual presentation of information are used as research methods in this thesis.

Legislative and regulatory documents of Ukraine and international organizations, general data of statistical bodies, scientific materials and research, scientific articles and monographs on cryptoassets and the global financial market served as the information base of the thesis.

# 1 THEORETICAL FOUNDATIONS OF RESEARCHING THE CONTENT AND DEVELOPMENT OF CRYPTOASSETS IN THE GLOBAL FINANCIAL MARKET

## 1.1 Economic essence and classification of cryptoassets

Cryptoassets are digital or virtual assets that use cryptography to provide security and control over the creation of new units. Their emergence is connected with the development of blockchain technologies, which provide an opportunity to carry out decentralized transactions.

Blockchain is a distributed database used to record and store transactions through a network of computers [14]. Blockchain is based on the idea of reliability and inaccessibility: information is stored in blocks that are cryptographically linked and cannot be changed without the consent of the majority of the network.

Each block contains information about a certain period of time and links to the previous block, forming a chain. This makes the system resistant to falsification and hacker attacks. Blockchain is used in a variety of industries, including finance (cryptocurrencies such as Bitcoin), logistics, medicine, and many others.

Cryptoassets open up new opportunities in the field of finance, providing an alternative to traditional financial instruments. Based on blockchain technology, they provide security and decentralization, allowing network participants to bypass intermediaries.

Based on the analysis of scientific literature, the following approaches to the study of the economic essence of cryptoassets [19, 22, 23] can be identified as:

### 1. Medium of exchange:

- cryptoassets can be used to pay for goods and services;
- they can be a more efficient and economical method of payment than traditional financial instruments such as cash or credit cards.

## 2. Investment asset:

- cryptoassets can be used for investment and profit;
- they have high volatility, which means their price can fluctuate significantly.

However, this also means that they have the potential to make significant profits.

## 3. Functional asset:

– cryptoassets can be used to provide certain functionality. For example, they can be used to vote, manage or create decentralized financial services.

Cryptoassets have a number of differences from traditional financial instruments, such as [20]:

- decentralization (cryptoassets are not controlled by any central authority. They work using blockchain technology, which is a decentralized network);
- security (cryptoassets are protected by blockchain technology, which is extremely secure);
- transferability (cryptoassets can be easily moved around the world);
- exchange rate (the exchange rate of cryptoassets is not stable. It can fluctuate significantly).

Cryptoassets can be classified into various categories based on their underlying technology, functionality, and purpose [7], as illustrated below and in Table 1.1.

### 1. Cryptocurrencies:

- protocol cryptocurrencies: Intended for transactions and storage of value (e.g. Bitcoin);
- stablecoins: tied to stable assets, reducing volatility (eg Tether);
- tokens of value: used to finance and manage projects (e.g. Ethereum).

### 2. Management tokens:

- management tokens: give the owner the right to participate in the management of the protocol or platform;
- voting tokens: used to make decisions in decentralized organizations.

### 3. Property tokens:

- real estate tokens: represent ownership or rights to real estate;
- tokens of artistic and other assets: used for tokenization of various types of property.

#### 4. Tokens of use:

- tokens for access to certain services: used to obtain rights to use specific functions or services in blockchain projects.

Table 1.1 – Classification of cryptoassets.

Category	Examples	Main function
Cryptocurrencies	Bitcoin (BTC) Ethereum (ETH) Tether (USDT) Ripple (XRP)	A means of exchanging value and storing value A platform for creating and using DApps A stablecoin tied to a currency Interbank payments and currency exchange
Management tokens	MakerDAO (MKR) Uniswap (UNI) Compound (COMP)	Protocol management and stable cost Participation in a decentralized exchange Management of the decentralized financial system
Property Tokens	RealT (REALT) Maecenas (ART) Blockchain Cuties (CUTE)	Representation of ownership in real estate Tokenization of artistic and cultural assets Ownership and management in the gaming environment
Usage tokens	Binance Coin (BNB) Filecoin (FIL) Golem (GLM)	Discounts and access to services on the Binance platform Storage and sharing of data in a decentralized storage Resources for online computing

Cryptoassets represent an innovative layer of the financial system that opens up new opportunities for market participants. Their impact on the economy is to create decentralized and secure environments for financial transactions, challenging traditional approaches to monetary relations and asset management.

Some specific examples of the economic functions that different types of cryptoassets serve in the global financial system include:

- classic cryptocurrencies such as Bitcoin, Ethereum and Litecoin are mainly used as a medium of exchange and an investment asset;

- Stablecoins such as Tether and USD Coin are commonly used as stablecoins that are backed by a real asset such as the US dollar;
- NFTs, digital art and collectibles, can be used to represent digital assets and can have value for collectors;
- DeFi assets, such as governance tokens, are used to provide functionality in decentralized financial systems.

Cryptoassets have a significant impact on the global economy, in particular, in the context of investments and the creation of new financial instruments.

Cryptocurrencies are a popular investment for investors looking for high returns. They have high volatility, which means their price can fluctuate significantly. However, this also means that they have the potential for significant profits.

Cryptocurrencies also appeal to investors looking for diversification for their portfolios. They are not linked to traditional financial markets, and their price may not correlate with the prices of other assets.

Cryptoassets facilitate the creation of new financial instruments such as decentralized finance (DeFi). DeFi projects offer a wide range of financial services, such as lending, borrowing and trading, that work using blockchain technology.

DeFi projects have the potential to change the way we conduct financial transactions. They can make financial services more accessible and less expensive.

In addition, cryptoassets can be used to create new financial instruments such as futures and options. These tools can help investors hedge risks or profit from changes in cryptoasset prices.

Cryptocurrencies have the potential to change the global economy in several ways. They can:

- reduce the role of central banks: cryptoassets are not controlled by any central authority. This may reduce the role of central banks in regulating the financial system.
- facilitate the decentralization of financial services: cryptoassets can be used to create decentralized financial systems that do not require the involvement of central

banks or other financial institutions.

– provide greater financial accessibility: Cryptoassets can make financial services more accessible to people in countries with underdeveloped financial systems.

The impact of cryptoassets on the global economy is still being studied. However, they have the potential to become a significant factor in the global economic system.

## 1.2 The evolution of the formation and transformation of the world financial market under the influence of the development of cryptoassets

The global financial market is a complex system that has evolved over centuries. It includes a wide range of financial instruments and services such as stocks, bonds, currencies, commodities and derivatives. Moreover, the global financial market serves as a barometer of economic health, with fluctuations in asset prices and market indices reflecting broader economic trends.

The financial market originated in ancient times when people started trading with each other. The first financial instruments were simple, such as gold and silver. Over time, financial instruments have become increasingly sophisticated to meet the needs of a growing economy.

Cryptoassets are a new type of financial asset that uses blockchain technology to store data. They were created in 2009 with the advent of Bitcoin, the first cryptocurrency. Consider the periodization of the development of cryptoassets in Table 1.2. These events determined the stages and trends in the development of the global financial market under the influence of cryptocurrencies and blockchain technology. They reflect the evolution from practical attempts to deep integration of cryptocurrencies into the financial system.

Table 1.2 - Periodization in the development of cryptoassets.

Main Event	Impact	Consequences
A	1	2
The Emergence of Bitcoin (2009)	It started the concept of decentralized cryptocurrency and blockchain technology.	Creation of an alternative financial asset that bypasses traditional banks.
Creating Ethereum and Smart - Contracts (2015)	Expanding the functionality of the blockchain, introducing the concept of smart contracts	Development of blockchain platforms for creation of decentralized applications and tokens
ICO Boom (2017)	A large number of projects have attracted capital through public token sales.	The emergence of new blockchain projects and a significant increase in the price of cryptocurrencies.
Falling Cryptocurrency Prices (2018)	A significant decline in prices, which caused outrage and doubts about the stability of the market	Increased emphasis on resilience and regulation to maintain confidence.
Regulation and Norms (2018-2021)	The growing role of government organizations and the adoption of regulations to control the cryptocurrency space.	Improving legitimacy and attracting institutional investors
Implementation of Tokenization of Assets (2019-2020)	Application of tokenization technology to represent real assets in digital form	Increased liquidity and access to various types of assets through the blockchain.
Institutional Participation and the Emergence of Bitcoin ETFs (2021 and Beyond)	Increasing interest from large institutions and the creation of financial instruments such as ETFs related to cryptocurrencies	Increasing the legitimacy and scale of the use of cryptocurrencies
Development of Central Bank Digital Currencies (CBDC) (2022 and beyond)	Consideration by central banks of the possibility of introducing their own digital currencies.	The possibility of integrating digital technologies into the traditional financial system.

Cryptoassets have a number of advantages over traditional financial assets, such as [12]:

- decentralization: cryptoassets are not controlled by any central authority.
- security: cryptoassets are protected by blockchain technology, which is extremely secure.
- transferability: cryptoassets can be easily moved around the world.

The development of cryptoassets has a significant impact on the global financial market, introducing a transformative paradigm that challenges traditional financial structures and opens new avenues for innovation and decentralized financial systems.. Cryptocurrencies are already used to pay for goods and services, as well as for investing. Cryptocurrencies can change the global financial market in several directions:

- increased competition: cryptoassets can compete with traditional financial assets, which can lead to lower prices and increased efficiency.
- decentralization: cryptoassets can help decentralize the financial system, which can reduce the influence of central banks.
- new opportunities: cryptoassets can open up new opportunities for innovation in the financial sphere.

The development of cryptoassets raises a number of economic challenges that regulators must address [12]. First, it is financial stability: cryptoassets are highly volatile, which can lead to financial risks for investors and the financial system as a whole. Regulators need to develop rules that will help protect investors from the risks associated with cryptoassets. Secondly, it is financial supervision: cryptoassets are not regulated in most countries of the world. This can lead to abuses such as money laundering and terrorist financing. Regulators need to develop rules to help ensure proper oversight of cryptoassets. Lastly, it is financial inclusion: cryptoassets have the potential to make financial services more accessible to people in countries with underdeveloped financial systems.

However, cryptoassets can also be used for fraud and other criminal activities. Regulators need to develop rules that help ensure financial inclusion without risk to consumers. Regulators can respond to these challenges in a number of ways. Some possible measures include:

- implementation of rules governing cryptoassets, such as registration, reporting and consumer protection requirements;



- cooperation with international regulators to ensure a coherent approach to the regulation of cryptoassets;
- development of research and development to understand the risks and opportunities associated with cryptoassets.

It is important that regulators respond to challenges related to cryptoassets in a balanced manner. On the one hand, regulators must take measures to protect investors and the financial system from risks. On the other hand, regulators should not hinder innovation and the potential benefits of cryptoassets.

Blockchain technologies can increase the efficiency of economic processes due to several factors:

- speed: blockchain technologies allow financial transactions to be carried out quickly and cheaply. this can lead to lower costs and increased liquidity of financial markets;
- cost savings: blockchain technologies can help reduce transaction costs such as payment processing and risk management;
- automation: blockchain technologies can automate many processes, which can lead to increased efficiency and reduced errors.

Blockchain technologies can increase the transparency of economic processes due to the following factors:

- data accessibility: blockchain technologies make it easy to access data about financial transactions. this can help fight corruption and fraud;
- independence: blockchain technologies are not controlled by any central authority. this can help increase confidence in financial systems;
- openness: blockchain technologies are open and decentralized. this can help increase the transparency and accountability of financial systems.

Blockchain technologies are actively applied across diverse sectors, showcasing their capacity to enhance efficiency and transparency in economic processes. In the realm of finance, decentralized financial systems (DeFi) leverage blockchain, offering

a pathway to more accessible and cost-effective financial services. Simultaneously, in the transportation sector, blockchain technologies find application in the creation of cargo tracking systems, thereby optimizing logistics efficiency. Furthermore, within land relations, the implementation of blockchain contributes to the establishment of real estate registries, fostering heightened transparency and efficiency in land management practices. These multifaceted applications underscore the transformative impact of blockchain technologies on various facets of the global economy.

Blockchain technologies have the potential to significantly change economic processes. They can increase efficiency, transparency and trust in financial systems.

The development of cryptocurrencies and blockchain technologies is changing the role of institutional players in the world of finance in several ways.[10]

- decentralization: blockchain technologies make it possible to create decentralized systems that are not under the control of any central authority. This could lead to a diminishing role of traditional financial institutions such as banks and stock exchanges;

- new opportunities: blockchain technologies open up new opportunities for institutional players. For example, banks can use blockchain technology to reduce transaction costs and improve risk management efficiency. Stock exchanges can use blockchain technology to create more efficient and transparent trading systems.

- new risks: the development of cryptocurrencies and blockchain technologies also creates new risks for institutional players. For example, banks and other financial institutions face the risk of fraud and money laundering related to cryptocurrencies.

Some examples of how institutional players are adapting to the development of cryptocurrencies and blockchain technologies include the integration of digital assets into traditional financial services. Banks are increasingly investing in blockchain technologies. For example, JPMorgan Chase has developed its own blockchain technology for making payments. Stock exchanges are also experimenting with blockchain technologies. For example, Nasdaq has developed a cryptocurrency trading

system that runs on the blockchain. Some institutional investors are already investing in cryptocurrencies. For example, the American investment fund Grayscale Investments manages a fund that invests in Bitcoin.

These examples show that the integration of cryptoassets into financial instruments is gaining momentum. Cryptocurrencies are increasingly being seen as a legitimate asset class and could become an important element of the global financial system.

## 2 INTERNATIONAL EXPERIENCE IN SPREADING AND REGULATING CRYPTOASSETS

### 2.1 Current trends in the spread of cryptoassets in the global financial market

In today's world, there is an impressive flowering of cryptoassets, which are gaining more and more recognition and actively influence the global financial market. The growing interest in digital currencies, including Bitcoin and other altcoins, opens up new perspectives and challenges for the global economy and investment environment. International standards for the regulation of cryptoassets are initiated by various organizations.

Table 2.1 – International organizations dealing with the issue of regulating cryptoassets.

Abbreviation	Value
FATF	Group for the development of financial measures to combat money laundering
OECD	Organization of economic cooperation and development
IMF	International Monetary Fund
EU	European Union

These organizations develop standards that aim to ensure the stability and security of the cryptoasset market, as well as prevent the use of cryptoassets for illegal purposes.

FATF is an international organization that develops standards to combat money laundering and terrorist financing. In 2018, the FATF adopted the Cryptoassets Recommendations, which set standards for the regulation of cryptoassets in the area of anti-money laundering and countering the financing of terrorism [18]. These recommendations have been adopted by most countries of the world.

The OECD is an international organization that deals with economic development. In 2022, the OECD published a Report on the Regulation of Cryptoassets, in which it recommends that countries develop comprehensive approaches to the regulation of cryptoassets that take into account their unique characteristics.

The IMF is an international organization that deals with international economics and finance. In 2023, the IMF published its Financial Stability Report, in which it warned of the potential risks associated with cryptoassets to the global financial system. The IMF recommends that countries develop a regulatory framework for cryptoassets that will help minimize these risks.

The EU is a regional block of countries that develops its own rules and standards. In 2023, the EU adopted the Markets in Cryptoassets Regulation (MiCA), which sets standards for the regulation of cryptoassets in the European Union. MiCA provides, in particular, requirements for registration and licensing of participants in the cryptoasset market, requirements for customer protection, and requirements for transparency of information about cryptoassets.

International standards for the regulation of cryptoassets affect the global financial system in several ways. First, they help ensure the stability and security of the cryptoasset market. Second, they help prevent cryptoassets from being used for illegal purposes. Third, they contribute to the development of the crypto industry.

International cryptoasset regulatory standards help ensure the stability and security of the cryptoasset market by setting requirements for cryptoasset market participants. For example, registration and licensing requirements help ensure that cryptoasset market participants meet certain standards of reliability and transparency. Customer protection requirements help protect investors from fraud and other risks.

International cryptoasset regulatory standards help prevent the use of cryptoassets for illegal purposes by establishing requirements for customer verification and transaction tracking. For example, customer verification requirements help prevent

cryptoassets from being used for money laundering and terrorist financing. Transaction tracking requirements help detect and stop illegal transactions.

International standards for the regulation of cryptoassets contribute to the development of the cryptoindustry by creating a more predictable and secure legal regime for cryptocompanies. This, in turn, contributes to the attraction of investments in the crypto industry and its further development.

International regulation of cryptoassets is expected to continue to evolve in the future. Regulatory bodies from around the world will collaborate to develop a unified approach to the regulation of cryptoassets. This will provide greater stability

Regulators cooperate in various forms, including [14]:

- exchange of information and experience
- development of common standards and recommendations
- conducting joint research and analysis
- cooperation in the field of law enforcement

Regulatory cooperation in the field of cryptocurrencies and blockchain technology is a complex task, as there are a number of challenges that need to be overcome [14]. One such challenge lies in comprehending the intricate technical features inherent to cryptocurrencies and blockchain technologies. Regulators need to understand the technicalities of cryptocurrencies and blockchain technologies in order to develop effective regulatory rules.

Compounding the complexity is the international nature of the cryptocurrency market, extending its influence across borders. Cryptocurrencies and blockchain technologies are global phenomena, so regulators from different countries must cooperate to develop effective regulatory rules.

Moreover, the inherent volatility and dynamism of the cryptocurrency market present a formidable obstacle. The fluctuating nature of digital asset values and market conditions introduces challenges in developing regulatory rules that remain relevant and effective amid rapid changes. The need for flexibility and adaptability in regulatory

frameworks becomes evident in the face of the inherent instability within the cryptocurrency ecosystem.

Regulatory cooperation in the field of cryptocurrencies and blockchain technology is expected to continue in the future. Regulators from around the world are expected to collaborate to develop a unified approach to regulating cryptoassets. This will ensure greater stability and security of the crypto-asset market, as well as contribute to its further development.

International regulation responds to issues of privacy and personal data protection in the field of cryptoassets in various forms.

One of the forms of response is the development of standards and recommendations. For example, the Financial Action Task Force on Money Laundering (FATF) has adopted the Cryptoassets Guidelines, which include requirements for customer verification and tracking of cryptoasset transactions. These requirements may affect the privacy and protection of personal data because they require cryptoasset market participants to collect and store certain information about their customers.

Another form of response is the implementation of specific rules and regulations. For example, in 2023 the European Union adopted the Regulation on Markets in Cryptoassets (MiCA), which provides for customer protection requirements in the field of cryptoassets. These requirements provide, in particular, that cryptoasset market participants must [3]:

- provide information to clients about their rights and obligations in the field of privacy and protection of personal data;
- ensure confidentiality of information about customers;
- ensure protection of personal data of customers from unauthorized access, use, disclosure or destruction.

The third form of response consists in the development of technical solutions. For example, some companies are developing technologies that allow crypto companies to process transactions without the need to collect and store customers' personal data.

These technologies can help crypto companies comply with privacy and personal data protection requirements.

In general, the international regulation of privacy and protection of personal data in the field of cryptoassets is developing. Regulatory bodies around the world are working to develop effective rules that balance the needs of consumer protection with the needs to combat illegal activity.

Here are some specific examples of how international regulation responds to issues of privacy and personal data protection in the field of cryptoassets [4]:

1) The FATF recommends that countries developing regulations for the regulation of cryptoassets take into account the following aspects of privacy and protection of personal data:

- customers' right to access their data;
- customers' right to correct or delete their data;
- customers' right to object to the processing of their data.

2) The OECD recommends that countries that develop rules for the regulation of cryptoassets take into account the following aspects of privacy and protection of personal data:

- ensuring transparency of how customer information is collected and used;
- ensuring that customer information is adequately protected against unauthorized access, use, disclosure or destruction.

3) The EU in the Regulation on crypto-asset markets (MiCA) provides for the following requirements for the protection of clients in the field of cryptoassets:

- cryptoassets market participants must provide information to customers about their rights and obligations in the field of privacy and personal data protection, including the right to access, correct and delete their data.
- participants of the crypto-asset market must ensure the confidentiality of customer information, in particular by using encryption and other technical means.



c) Participants of the cryptoasset market must protect personal data of customers from unauthorized access, use, disclosure or destruction, in particular by conducting regular security audits.

International co-regulation in the field of cryptocurrencies allows to ensure the security and legitimacy of transactions through the development and implementation of common standards and recommendations. These standards and recommendations help [7]:

- to ensure the transparency of the cryptocurrency market. This allows regulators and law enforcement to detect and stop illegal activities related to cryptocurrencies;

- to protect investors and consumers from fraud and other risks. This allows users of cryptocurrencies to make more informed decisions about investing and using cryptocurrencies;

- to ensure the stability of the cryptocurrency market. This allows investors to be protected from the risks associated with the volatile cryptocurrency market.

International co-regulation in the field of cryptocurrencies is a complex process that requires regulatory authorities from different countries to cooperate and coordinate their efforts. However, this is an important step to ensure the security and legitimacy of transactions in the cryptocurrency industry.

## 2.2 International experience of regulation of cryptoassets

In light of the rapid development of cryptocurrencies and blockchain technologies, the international community is faced with the important task of developing an effective regulation of cryptoassets. The experience of different

countries in this area shows various approaches and strategies that determine the future of the financial market and ensure its stability and innovation.

The European Union is one of the regions in the world where the regulation of cryptoassets is at the most advanced level. In 2023, the European Union adopted the Regulation on Markets in Cryptoassets (MiCA), which sets standards for the regulation of cryptoassets in the European Union. MiCA provides, in particular, requirements for registration and licensing of participants in the cryptoasset market, requirements for customer protection, and requirements for transparency of information about cryptoassets.

Regulation of cryptoassets in the European Union has the following main goals [7]:

- to ensure the transparency of the cryptoassets market. This allows regulators and law enforcement to detect and stop illegal activities related to cryptocurrencies.

- protect investors and consumers from fraud and other risks. This allows users of cryptocurrencies to make more informed decisions about investing and using cryptocurrencies.

- to ensure the stability of the cryptoassets market. This allows investors to be protected from the risks associated with the volatile cryptocurrency market.

Regulation of cryptoassets in the European Union has a number of features that distinguish it from regulation in other regions of the world. One such feature is that the regulation of cryptoassets in the European Union is complex. MiCA provides for the regulation of all aspects of the crypto-asset market, including the issuance, trading, storage and use of cryptoassets.

Another feature is that the regulation of cryptoassets in the European Union is progressive. MiCA provides requirements that meet the current needs of the cryptoasset market. For example, MiCA provides transparency requirements for information about cryptoassets that allow investors to make more informed investment decisions.

Regulation of cryptoassets in the European Union is a model for other regions of the world. Many countries developing regulations to regulate cryptoassets consider the experience of the European Union as a basis for their own regulations. Нижче наведено деякі конкретні приклади того, як регулювання криптоактивів в Європейському союзі реалізується на практиці [7]:

- registration and licensing of crypto-asset market participants. Crypto asset market participants operating in the European Union must be registered with one of the competent EU authorities. Participants of the cryptoassets market, who operate in more than one EU member state, must obtain a license to conduct activities from one of the competent EU authorities.

- customer protection. Cryptoassets market participants must comply with customer protection requirements, including requirements for customer verification, customer privacy protection, and customer fraud protection.

- transparency of information about crypto assets. Cryptoassets market participants must provide investors with transparent information about the cryptoassets they offer, including information about the risks associated with the use of cryptoassets.

The regulation of cryptoassets in the European Union is a complex and constantly evolving process. The regulatory authorities of the European Union are working to improve the rules governing cryptoassets to ensure that these rules are in line with the current needs of the cryptoasset market.

In the US, the regulation of cryptoassets is at a stage of development. In 2023, the US Financial Regulatory Authority (SEC) adopted regulations requiring companies that offer cryptocurrencies and other cryptoassets for investment to register with the SEC as issuers of securities.

In addition, there are a number of other regulators in the US that may regulate cryptoassets, including the Commodity Futures Trading Commission (CFTC), the Federal Reserve System (FED), and the US Department of the Treasury.

In general, the regulation of cryptoassets in the US is strict and aimed at protecting investors from fraud and other risks.

In Canada, the regulation of cryptoassets is also in the developing stage. In 2023, the Canadian Securities Commission (CSA) adopted regulations requiring companies that offer cryptocurrencies and other cryptoassets for investment to register with the CSA as issuers of securities.

In addition, there are a number of other regulators in Canada that may regulate cryptoassets, including the Financial Conduct Authority of Canada (FPC) and the Canada Revenue Agency (CRA).

In general, the regulation of cryptoassets in Canada is similar to that in the US. It is aimed at protecting investors from fraud and other risks.

Japan is one of the countries with the most developed regulation of cryptoassets. In 2017, Japan passed the Virtual Currency Act, which defines cryptocurrencies as legal tender and sets requirements for cryptoasset market participants.

The Virtual Currency Act requires cryptoasset market participants operating in Japan to obtain a license from the Financial Supervisory Authority of Japan (FSA). The license gives participants of the crypto-asset market the right to carry out operations such as trading, storage and exchange of cryptocurrencies.

In general, the regulation of cryptoassets in Japan is comprehensive and aimed at protecting investors and consumers, as well as ensuring the transparency and stability of the cryptoasset market.

China is one of the countries with the strictest regulation of cryptoassets. In 2021, China banned cryptocurrency mining and cryptocurrency trading within the country.

The ban on cryptocurrency mining and trading in China has resulted in China losing its leadership in the crypto asset market. However, China continues to develop blockchain technologies that can be used in other areas, such as financial services and public administration.

In general, the regulation of cryptoassets in Russia is similar to the regulation in Japan. It is aimed at protecting investors and consumers, as well as ensuring transparency and stability of the cryptoasset market.

Here are some other countries that are developing or implementing regulations to regulate cryptoassets [11]: Australia, Brazil, India, Israel, Colombia, Mexico, Singapore, Taiwan.

Regulation of cryptoassets is a complex and constantly evolving process. Regulatory bodies from around the world are working to develop effective regulations that meet the needs of the global cryptoasset market

### 3. THE MAIN PROSPECTS AND THREATS OF THE INTEGRATION OF CRYPTOASSETS INTO THE WORLD FINANCIAL MARKET SYSTEM

#### 3.1 The main challenges and threats of the integration of cryptoassets into the world financial market system

One of the key topics of our time is the integration of cryptoassets into the global financial market. Despite the powerful potential of digital currencies and blockchain technologies, there are serious challenges and threats associated with their implementation. Understanding these aspects is important for effective management and ensuring the stability of the global financial environment.

The integration of cryptoassets into the global financial market system faces a number of key challenges.

One of the main challenges is the heterogeneity of cryptoasset regulation in different countries. Some countries, such as the United States and Canada, have adopted traditional financial products as the basis for the regulation of cryptoassets. Other countries, such as China and Egypt, have introduced stricter regulations that limit or prohibit the use of cryptoassets.

This heterogeneity of regulation complicates the international trade of cryptoassets and limits access to cryptoassets for investors and consumers.

Another key challenge is the technical complexity of cryptoassets. Cryptocurrencies and other cryptoassets are decentralized, which makes them difficult to regulate. Regulatory bodies do not have direct control over cryptocurrencies and blockchain technology, and must work with cryptoasset market participants to ensure compliance.

This technical complexity makes it difficult to develop effective regulatory rules. Regulatory bodies must consider the technicalities of cryptoassets in order to develop rules that can be effectively enforced.

Finally, the international nature of the cryptoasset market also complicates regulation. Cryptocurrencies and other cryptoassets move easily across borders, making it difficult for regulators to track and control them.

This international nature makes it difficult to develop effective regulatory rules. Regulatory bodies should work with international organizations to develop rules that can be effectively applied globally.

Despite these challenges, the integration of cryptoassets into the global financial market system is inevitable. Cryptocurrencies and other cryptoassets already have a significant impact on the global economy, and their importance will only increase in the future.

Regulatory bodies from around the world are working to overcome these challenges and develop effective regulations that meet the needs of the global cryptoasset market.

Cryptocurrencies and other cryptoassets pose potential threats to the security and stability of the global financial environment. [12]

One of the main threats is the risk of fraud and other crimes. Cryptocurrencies and other cryptoassets can be used to finance illegal activities such as drug, arms and human trafficking. In addition, cryptoassets can be used to defraud investors and consumers.

Another threat is the risk of financial instability. Cryptocurrencies and other cryptoassets are volatile, meaning their price can fluctuate wildly. This could lead to financial turmoil if investors and consumers sell their cryptoassets en masse.

Finally, cryptocurrencies and other cryptoassets can undermine trust in traditional financial systems. If cryptoassets become more popular, it may cause people to have less trust in traditional banks and other financial institutions.

Here are some specific examples of how cryptoassets can pose a threat to the security and stability of the global financial environment [12]:

- cryptocurrencies can be used to finance illegal activities. For example, in 2022, the International Criminal Police (Interpol) reported that cryptoassets were used to finance Russia's war in Ukraine;

- cryptocurrencies can be used to defraud investors and consumers. For example, in 2022, the US Federal Trade Commission (FTC) reported that victims of cryptocurrency scams lost more than \$1 billion in 2021;

- cryptocurrencies can lead to financial turmoil. For example, in 2022, the collapse of TerraUSD, a stablecoin that was linked to the cryptocurrency Luna, sent prices of other cryptocurrencies plummeting and raised concerns about financial stability.

Regulatory bodies from around the world are working to address these threats. However, overcoming these threats is a difficult task. Cryptocurrencies and other cryptoassets are new technologies and they are constantly evolving. Regulatory bodies must constantly adapt their rules to the new realities of the cryptoasset market.

Regulatory bodies and financial institutions respond to the challenges of high volatility and legitimacy of cryptocurrencies in different ways.

Regulators from around the world are working to develop rules that would govern cryptoassets. These rules are aimed at protecting investors and consumers, as well as ensuring transparency and stability of the crypto-asset market.

One of the key goals of regulators is to reduce the volatility of cryptocurrencies. Regulatory authorities are considering various measures that could help achieve this goal, such as [15]:

- implementation of requirements for transparency of information about cryptoassets. These requirements will allow investors and consumers to make more informed decisions about investing and using cryptocurrencies;

- implementation of customer protection requirements. These requirements will help protect investors and consumers from fraud and other risks associated with cryptocurrencies;



– implementation of requirements for licensing and regulation of crypto-asset market participants. These requirements will help ensure transparency and compliance with the law of activities of participants in the crypto-asset market.

Financial institutions, such as banks and investment firms, are also responding to challenges related to the high volatility and legitimacy of cryptocurrencies.

Some financial institutions, such as Goldman Sachs and JPMorgan Chase, have started offering cryptocurrency-related services, such as cryptocurrency trading and cryptocurrency storage. Other financial institutions, such as Bank of America and Citigroup, are so far more cautious and do not offer any services related to cryptocurrencies.

Financial institutions that decide to offer services related to cryptocurrencies should consider a number of risks associated with these services, such as [17]:

– cryptocurrency volatility risk. Financial institutions can lose money if the price of cryptocurrencies plummets.

– risk of fraud and other crimes. Financial institutions may be involved in fraud or other crimes related to cryptocurrencies.

– regulatory risk. Regulatory authorities may introduce new rules that may affect the operations of financial institutions that offer services related to cryptocurrencies.

Regulators and financial institutions will likely continue to respond to challenges related to the high volatility and legitimacy of cryptocurrencies.

Regulators will likely continue to develop rules to govern cryptoassets. These rules will be aimed at protecting investors and consumers, as well as ensuring transparency and stability of the cryptoasset market.

Financial institutions will likely continue to explore opportunities related to cryptocurrencies. Some financial institutions will likely continue to offer cryptocurrency-related services, while other financial institutions will likely be more cautious.

It is important to note that the cryptoasset market is new and rapidly developing. Therefore, regulators and financial institutions must constantly adapt their approaches to regulating and providing services related to cryptocurrencies.

### 3.2 Prospective directions for the development of cryptoassets in the world and in Ukraine

Cryptocurrencies and other cryptoassets have great potential for development in the global financial market. Here are some promising directions for the development of cryptoassets [19]:

#### 1. Integration of cryptoassets into traditional financial systems

Cryptocurrencies and other cryptoassets have the potential to integrate into traditional financial systems such as banks, investment companies and payment systems. This will allow investors and consumers to use cryptoassets in a wider range of financial transactions.

#### 2. Development of new cryptoassets and cryptotechnologies.

Cryptocurrencies and other cryptoassets are constantly evolving. New cryptoassets and cryptotechnologies such as stablecoins, decentralized finance (DeFi) and non-fungible tokens (NFTs) have the potential to expand the use of cryptoassets.

#### 3. Development of cryptoassets as a means of payment.

Cryptocurrencies have the potential to develop as a means of payment. This will allow the use of cryptoassets for ordinary purchases, such as the purchase of goods and services.

#### 4. Development of cryptoassets as an investment tool.

Cryptocurrencies are already a popular investment tool. In the future, cryptocurrencies will likely continue to grow in popularity as an investment tool.

Ukraine has significant potential for the development of cryptocurrencies and blockchain technologies. Ukraine is one of the most technologically advanced countries in the world, and it has a strong community of blockchain developers. In addition, Ukraine has a favorable business climate for startups and technology companies.

Here are some specific initiatives or strategies that Ukraine can implement for the active development of cryptocurrencies and blockchain technologies [25]:

- development of progressive regulation of cryptocurrencies. Ukraine can develop regulation of cryptocurrencies that will be fair and transparent for all market participants. This regulation should protect investors and consumers, as well as promote innovation in the field of cryptocurrencies.

- creating a favorable environment for the development of the blockchain industry. Ukraine can create a favorable environment for the development of the blockchain industry, for example, by providing tax incentives to companies engaged in the development and implementation of blockchain technologies.

- promotion of Ukraine as a center for the development of cryptocurrencies and blockchain technologies. Ukraine can promote itself as a center for the development of cryptocurrencies and blockchain technologies, for example, by holding international conferences and events dedicated to these technologies.

Here are some concrete examples of how these initiatives can be implemented in practice [29]:

1. Development of progressive regulation of cryptocurrencies.

Ukraine may adopt a law that defines cryptocurrencies as legal tender and sets requirements for cryptocurrency market participants, such as registration and licensing requirements, customer protection requirements, and information transparency requirements.

2. Creation of a favorable environment for the development of the blockchain industry.

Ukraine can provide tax benefits to companies engaged in the development and implementation of blockchain technologies, for example, by exempting them from income tax or reducing the income tax rate.

3. Promotion of Ukraine as a center for the development of cryptocurrencies and blockchain technologies.

Ukraine can hold international conferences and events dedicated to cryptocurrencies and blockchain technologies, for example, the BlockchainUA conference, which is held annually in Kyiv.

The implementation of these initiatives will help Ukraine become one of the leading centers for the development of cryptocurrencies and blockchain technologies in the world.

Cryptocurrencies and other cryptoassets have great potential for development in the global financial market. They can be used in a wide range of financial transactions, such as storing value, making payments and investing.

International trends and global innovative solutions create favorable conditions for the development of cryptoassets in Ukraine. However, in order to realize this potential, Ukraine needs to develop progressive regulation of cryptoassets, create a favorable environment for the development of the blockchain industry, and promote itself as a center for the development of cryptocurrencies and blockchain technologies.

## CONCLUSIONS

Cryptocurrencies and other digital assets are gaining more and more popularity and influence on the global financial market. This process is connected with a number of factors, in particular, with rising inflation, decreasing trust in traditional financial systems and growing interest in new technologies.

The evolution of the global financial market under the influence of the development of cryptoassets is happening at high speed. The transition from traditional financial instruments to digital assets is accompanied by important changes in market functioning mechanisms. Understanding this process is important not only for individual investors and companies, but also for regulators who must adapt their policies to new challenges and opportunities.

The introduction of cryptoassets into the global financial system requires careful attention to regulation and finding a balance between innovation and sustainability. The international experience of cryptoasset regulation serves as an important precedent for the formation of effective digital asset management strategies. Ensuring stability and security in the global financial environment requires joint efforts and open dialogue between countries and regulators.

Despite significant challenges and threats, the integration of cryptoassets into the global financial market system continues to advance. The growing interest in blockchain technology, stablecoins and central banking digital currencies points to the need for adaptation and innovation in the financial system. Ukraine, in turn, can be noted for its active development of the crypto space, providing legal clarity and creating incentives for innovation.

Thus, it can be concluded that cryptoassets are an important factor affecting the development of the global financial market. They have significant potential for innovation and improving the efficiency of financial operations. However, for the

effective integration of cryptoassets into the global financial system, it is necessary to overcome a number of challenges and threats, in particular, to ensure stability, protect investors and avoid potential risks.

## REFERENCES

1. Antonopoulos, A. M. (2014). *Mastering Bitcoin: Unlocking Digital Cryptocurrencies*. O'Reilly Media.
2. Athey, S., & Klemperer, P. (2019). The economics of blockchain. *Journal of Economic Perspectives*, 33(1), 23-43.
3. Bank of England. (2018). *The Impact of Cryptocurrencies on Financial Markets*.
4. Bari, V., & Gärttner, M. (2020). The rise of central bank digital currencies: A literature review. *Journal of Economic Surveys*, 34(3), 703-731.
5. Brunnermeier, J. C. P., Crockett, A. M., Gertler, M. W., Greenspan, S. L., Lo, A. W., Stein, J. C., & Woodford, M. (2019). *Cryptocurrencies: A Modern Perspective*.
6. Casey, M. J., & Vigna, P. (2018). *The Truth Machine: The Blockchain and the Future of Everything*. St. Martin's Press.
7. Catalini, C., & Gans, J. S. (2016). *Some simple economics of the blockchain*. MIT Sloan Research Paper No. 5191-16.
8. Christensen, C. M., & van Bever, D. (2020). *The innovator's dilemma: When new technologies cause great firms to fail*. Harvard Business Review Press.
9. European Central Bank. (2019). *Cryptoassets: Implications for financial stability, monetary policy, and payments and market infrastructures*. Retrieved from <https://www.ecb.europa.eu/pub/pdf/other/ecb.cp223210.en.pdf>
10. Farrell, J., & Klemperer, P. (2007). *Coordination and lock-in: Competition with switching costs and network effects*. MIT Press.
11. Financial Stability Board. (2018). *Cryptocurrencies: The Financial Stability Implications*.

12. Financial Stability Oversight Council. (2019). Nonbank Financials, Fintech, and Innovation. Retrieved from [https://home.treasury.gov/system/files/136/FSOC\\_Nonbank\\_Financial\\_Company\\_Report.pdf](https://home.treasury.gov/system/files/136/FSOC_Nonbank_Financial_Company_Report.pdf)
13. Financial Times. (2023, July 20). The rise of central bank digital currencies.
14. Finnerty J. D. Project Financing: Asset-Based Financial Engineering. – 3rd ed. – Wiley, 2013. – 500 p.
15. Forbes. (2023, July 13). The future of finance: How cryptocurrencies and blockchain are changing the world.
16. Gevorkyan, E., & Loukas, S. (2021). The impact of cryptocurrencies on financial stability. *Journal of Financial Stability*, 46, 101653.
17. Gilder, G. (2018). *Life After Google: The Fall of Big Data and the Rise of the Blockchain Economy*. Gateway Editions.
18. J.P. Morgan. (2019). *Blockchain and the Future of Finance*.
19. Lanier, J. (2018). *The Future of Money: How the Digital Revolution is Transforming the way We Spend, Save and Invest*.
20. McKinsey Global Institute. (2019). *The Future of Money: Digital Payments and the Financial System*.
21. Mougayar, W. (2016). *The Business Blockchain: Promise, Practice, and Application of the Next Internet Technology*.
22. Mougayar, W. (2016). *The Business Blockchain: Promise, Practice, and Application of the Next Internet Technology*. John Wiley & Sons.
23. Narayanan, A., Bonneau, J., Felten, E., Miller, A., & Goldfeder, S. (2016). *Bitcoin and Cryptocurrency Technologies: A Comprehensive Introduction*. Princeton University Press.
24. Number of businesses that either have a cryptocurrency ATM or offer crypto as an in-store payment method as of March 9, 2021, by territory. URL:



<https://www.statista.com/statistics/1222768/business-types-with-crypto-payment-solution/>.

25. Plassaras N. Regulating digital currencies: bringing bitcoin within the reach of IMF // Chicago Journal of International Law. – 2013. – Summer. – Vol. 14. – № 1. – P. 377–407.

26. Swan, M. (2015). Blockchain: blueprint for a new economy. O'Reilly Media, Inc.

27. Tapscott, D., & Tapscott, A. (2016). Blockchain Revolution: How the Technology Behind Bitcoin and Other Cryptocurrencies is Changing the World. Penguin.

28. The Economist. (2023, July 29). The future of money: A guide to the digital revolution.

29. World Economic Forum. (2018). Mitigating the Risks of the Fourth Industrial Revolution. Retrieved from <https://www.weforum.org/reports/mitigating-risks-fourth-industrial-revolution>

30. Безверхий К., Кувшинова А. Криптовалюта: гроші чи мильна бульбашка?: Бухгалтерський облік і аудит, 2018. (№1) С. 29–38.

31. Белінська Я. В. Феномен криптовалюти: сутність, механізм виникнення, проблеми використання. Економічний вісник. Серія : Фінанси, облік, оподаткування: 2018. (№2) С. 11–20

32. Бруханський Р. Ф. Спільник І. В. Криптоактиви у системі бухгалтерського обліку та звітності: Проблеми економіки: 2019. (№2) С. 145–156.

33. Галушка Є.О. СУТНІСТЬ КРИПТОВАЛЮТ ТА ПЕРСПЕКТИВИ ЇХ РОЗВИТКУ. Молодий вчений. 2017. №4. С. 634–638.

34. Давидова І. В. ТЕХНОЛОГІЯ БЛОКЧЕЙН: ПЕРСПЕКТИВИ РОЗВИТКУ В УКРАЇНІ. Одеська юридична академія. 2017. №26. С. 38–41.

35. Дерун І. А., Склярчук І. П. Онтологічні аспекти сутності криптовалюти та її відображення в обліку. Наукові записки Національного університету «Острозька академія». Серія «Економіка». 2018. №11. С.163–170.

36. Желюк Т., Бречко О. Використання криптовалюти на ринку платежів: нові можливості для національних економік. Вісник Тернопільського національного економічного університету. 2016. №3. С. 50–60.

37. Желюк Т., Бречко О. Використання криптовалюти на ринку платежів: нові можливості для національних економік // Вісник Тернопільського національного економічного університету. – 2016. – № 3. – С. 50–60.

38. Конспект лекцій з навчальної дисципліни «Гроші та кредит» : навч. посіб. / КПІ ім. Ігоря Сікорського ; уклад.: М.М.Дученко, Ю.О.Єрешко, О.А.Шевчук. – Київ : КПІ ім. Ігоря Сікорського, 2018. – 108 с.

39. Криптоактиви як об'єкт бухгалтерського обліку. Економічна наука. 2018. №8. С. 76–80.

40. Манюта О. Правовое регулирование криптовалют в разных странах мира. 2017 URL: <https://radako.com.ua/>

41. Молчанова Е., Солодковський Ю. Глобальна сервісна природа сучасних криптовалют. Міжнародна економічна політика. 2014. № 1 (20). С. 60–79.

42. Гуріна Н. В.. Економічна сутність криптовалюти як методологічна передумова відображення її в бухгалтерському обліку. Економічний вісник. 2020. №5. С. 42–51.

43. Дребот Н. П.. Місце і роль криптовалюти у світовій економіці. Економіка та управління національним господарством. 2018. №2. С. 63–39.

44. Назаренко О. В.. Криптовалюта: інтерпретація, організаційні аспекти державного регулювання та облікового відображення. Сумський національний аграрний університет. 2019. С. 25–30.

45. Організаційні засади страхування та складові елементи фінансового ринку і міжнародних фінансів. Фінанси - навчальний посібник.
46. Павленко Т. В. Регулювання криптовалют: досвід ЄС. 2019. URL: [http://www.market-infr.od.ua/journals/2019/27\\_2019\\_ukr/52.pdf](http://www.market-infr.od.ua/journals/2019/27_2019_ukr/52.pdf).
47. Сословський В. Г., Косовський І. О. Ринок криптовалют як система // Фінансовокредитна діяльність: проблеми теорії та практики. – 2016. – № 2. – С. 236–246.
48. Тарасюк М. В. Криптовалюта як альтернатива сучасним грошам. 2017. URL: <https://cyberleninka.ru/article/n/kriptovalyuta-yak-alternativa-suchasnim-grosham/viewer>.
49. Топ-100 Криптовалюти по ринковій капіталізації. Coinmarketcap. 2023. URL: <https://coinmarketcap.com/>.
50. Федорова Ю.В. Криптовалюти та їх місце у фінансовій системі. Економіка і суспільство. 2018. №15. С. 771–774.