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CURRENT ASPECTS OF TRANSFORMATION OF ECONOMIC RELATIONS: CRYPTOCURRENCIES AND THEIR LEGAL REGULATION

Abstract. The article is devoted to the analysis of transformation of economic relations due to the emergence of such phenomenon as cryptocurrency. It is substantiated that its appearance is connected with the development of the information society, the formation of the virtual economy and the spread of digitization processes in all spheres of economic activity. It is proved that despite the innovative nature of the revolutionary character and the considerable potential for stimulating radical changes in the sphere of economic relations and economic model of modern society, the cryptocurrency is a confirmation of the evolution of money. From the point of view of the theory of money, the ability of cryptocurrency to perform the functions of money (measures of value, means of payment and medium of exchange, accumulation, world money), as well as new specific functions — social, regulatory, indicative and others, — have been proved.

Analysis of the practice of cryptocurrencies spread gave the opportunity to reveal their characteristic features on grounds of the format of money, unit of account, legal status, money creation, stability of payment, mechanism of exchange, regulation and supervision, risks, etc. In addition, the positive properties of cryptocurrencies and their possible negative effects are identified.

It is emphasized that the adoption and active spread of cryptocurrencies leads to the transformation of economic relations, and more precisely, the objective formation of a new system of economic relations as a compensator of the negative manifestations of a modern economic society, which, at the same time, has exacerbated to some extent the threats to the traditional monetary system. This is confirmed by the tendencies of the development of the cryptocurrency market, changes in the position of the central banks of the countries of the world from rigid rejection to the development of national cryptocurrencies, including in Ukraine.

The problematic aspects of determining the legal status of cryptocurrencies in the regulation of cryptocurrency in Ukraine from the point of view of civil-law relations and relatively criminal-

law context have been identified. It is concluded that it is necessary to determine the legal status of cryptocurrency in Ukraine, taking into account the position of the leading countries of the world.

Keywords: virtual currency, blockchain, cryptocurrency, status of cryptocurrency in civil law, object of civil law, cyberthreats, cybercriminality.

JEL Classification E42, F33, G28, K12

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АКТУАЛЬНІ АСПЕКТИ ТРАНСФОРМАЦІЇ ЕКОНОМІЧНИХ ВІДНОСИН: КРИПТОВАЛЮТИ ТА ЇХНЄ ПРАВОВЕ РЕГУЛЮВАННЯ

Анотація. Присвячено аналізу трансформації економічних відносин внаслідок появи такого феномену, як криптовалюта. Обґрунтовано, що її виникнення пов'язано з розвитком інформаційного суспільства, формуванням віртуальної економіки та поширенням процесів цифровізації в усі сфери економічної діяльності. Доведено, що незважаючи на інноваційність революційного характеру та значний потенціал щодо стимулювання радикальних змін у сфері економічних відносин і економічної моделі сучасного суспільства, криптовалюта є підтвердженням еволюції грошей.

З позиції теорії грошей доведено можливість криптовалюти виконувати функції грошей (міри вартості, засобу обігу та засобу платежу, нагромадження, світові гроші), а також нові специфічні функції — соціальну, регуляторну, індикативну та інші. Аналіз практики поширення криптовалют дозволив виявити їхні характерні особливості за ознаками формату грошей, одиниці обліку, правового статусу, емісії, стабільність розрахунків, механізм обміну, регулювання і нагляду, ризиків тощо. Крім того, визначено позитивні властивості криптовалют і можливі їхні негативні ефекти.

Наголошено, що прийняття і активне поширення криптовалют зумовимо трансформацію економічних відносин, а точніше — об'єктивне формування нової системи економічних відносин як компенсатора негативних проявів сучасного економічного

суспільства, яка водночас певною мірою посилила загрози для традиційної монетарної системи. Це підтверджують тенденції розвитку криптовалютного ринку, зміни позиції центральних банків країн світу від неприйняття до розробки національних криптовалют, у тому числі в Україні.

Виявлено проблемні аспекти визначення правового статусу криптовалют регулювання криптовалюти в Україні з позиції цивільно-правових відносин і щодо кримінально-правового контексту. Зроблено висновок, що необхідно визначити правовий статус криптовалюти в Україні, враховуючи позицію провідних країн світу.

Ключові слова: віртуальна валюта, блокчейн, криптовалюта, цивільно-правовий статус криптовалюти, об'єкт цивільного права, кіберзагрози, кіберзлочинність.

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АКТУАЛЬНЫЕ АСПЕКТЫ ТРАНСФОРМАЦИИ ЭКОНОМИЧЕСКИХ ОТНОШЕНИЙ: КРИПТОВАЛЮТЫ И ИХ ПРАВОВОЕ РЕГУЛИРОВАНИЕ

Аннотация. Посвящено анализу трансформации экономических отношений в результате появления такого феномена, как криптовалюта. С позиции теории денег обоснована возможность криптовалюты выполнять функции денег. Анализ практики распространения криптовалют позволил выявить их характерные особенности за признаками формата денег, единицы учета, правового статуса, эмиссии, стабильность расчетов, механизм обмена, регулирование и надзор, риски и т. д. Кроме того, определены положительные свойства криптовалюты и возможные их негативные эффекты. Выявлены проблемные аспекты определения правового статуса криптовалюты, ее регулирования в Украине с позиции гражданско-правовых отношений и относительно уголовно-правового контекста.

Ключевые слова: виртуальная валюта, блокчейн, криптовалюта, гражданско-правовой статус криптовалюты, объект гражданского права, киберугрозы, киберпреступность.

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Introduction. A new stage in the development of the global economic system is being linked to the digital economy, which is changing the economic relations system due to the proliferation of digitalization processes. The financial sector is experiencing such changes especially sharply, because it is the first to be exposed to the emergence and manifestation of new digital assets and cryptocurrency. Today, about 2000 types of cryptocurrency have been recorded, but the most popular are Bitcoin (BTC), Ripple (XRP), Namecoin, Binance Coin (BNB), Ethereum, Monero (XMR), Litecoin and many others. Despite the steady pace of growth in cryptocurrency transactions and the transformation of a sustainable economic relationship, the cryptocurrency phenomenon has generated a great deal of debate, ambiguity, and close attention from central banks and international financial institutions. In particular, cryptocurrency is defined by national legislation as a «money surrogate» (quazi-money), the issue and circulation of which is prohibited on the territory of Ukraine, as well as its use as means of payment. Of course, it creates certain problems regarding the civil status of this type of assets and complicates the criminal-law qualification of illegal activities. It also prevents the establishment of a clear qualification of the crime, the definition of qualifying features, such as the extent of the damage caused by the crime. In addition, the issue of declaring cryptocurrency by the relevant persons has not been identified, because the National Agency on Corruption Prevention, citing this rule, did not decide, that such a declaration must be obligatory. In other words, the problems of the legal status of cryptocurrencies and the regulation of the conversion methodology have not only purely legal but also political essence. All this proves the need for deeper scientific research and substantiation of the economic nature and legal status of cryptocurrency.

Research analysis and problem statement. Theoretical and methodological basis for the study of digital assets and their specific types include works of foreign and domestic scientists, such as: S. Afonina, G. Biloglazova, P. Vigna, Ch. Goodhart, V. Dostov, B. Ivasiv, C. Campbell, M. King, D. Kochergin, V. Kravets, L. Krasavina, M. Kruger, I. Liutyi, O. Makhaieva, J. Mill, R. Miller, V. Mishchenko, N. Popper, M. Savluk, P. Senyshch, T. Smovzhenko, V. Usoskin, I. Fisher, M. Friedman, A. Shamraiev, etc. However, recognition of the innovative potential of cryptocurrency as a form of electronic money and a new digital asset actualizes the necessity not only to clarify the categorical apparatus, but also to understand the legal nature, the potential of influence and the multidimensionality of manifestations to determine the legal status and formulate new regulatory approaches, identify trends and prospects dissemination on the principles of dialectics, as well as on the ground of the formal-logical, historical and legal, systematic analysis, statistical and predictive cognition methods of objective truth.

The purpose of the study is to summarize the theoretical and methodological foundations of the identification of the essence and functions of cryptocurrency as a new form of money, to identify the characteristic features of the formation of a new system of economic relations and patterns of movement of financial flows, to determine the legal status and features of regulation.

Research results. The current stage of transformation of economic relations is associated with the development of digital assets. One of them is the electronic money (called «cryptocurrency» in the official reports of the World Bank and the ECB), and they have the highest level of innovativeness. Determinants of cryptocurrency are in the economic, legal, technical and information spheres [1, p. 56—57].

Theoretical and practical aspects of cryptocurrency from the standpoint of the theory of money and transformation of economic relations.

Without detailing the scientific discourse on the essence of the concept of «electronic money», we can determine the following common characteristics of its interpretation: units of value stored on an electronic device; a type or new form of credit money; means of payment; issuer's monetary obligations, etc.

The characteristic features of cryptocurrencies are the following: 1) this money has the digital form; 2) unit of account is the elaborated currency, for example BTC, which does not have the legal status of the offer; 3) its legal status is undefined; 4) its emission is made by the decentralized program; 5) its issuer is a private company or person; 6) its mechanism of exchange is

decentralized direct electronic exchange; 7) its acceptance is possible inside a special virtual community (special network, which does not have or have partially connection to the traditional payment system); 8) the offer of money is not fixed (it depends on the decision of the issuer); 9) the possibility to redeem is not guaranteed; 10) the regulation and supervision is absent at the stage of formation; 11) it has such types of risks as legal, credit, liquid and operational one; 12) the stability of payment is supported by the means of cryptography and by the trust of the members, who does not held any responsibility for the volatility of the rate of exchange of the cryptocurrency.

The positive properties of cryptocurrencies are: ensuring the uniqueness of «coins», which cannot be used twice; high speed, high security of financial transactions and absence of financial censorship; possibility to make purchases without intermediaries online and in real life; efficiency. The object of discussion are the possible negative properties of cryptocurrencies, such as anonymity of the transaction process, high level of price volatility, turnover only inside the system network.

The advent and spread of cryptocurrencies, which coexist with traditional currencies, start the formation of a new system of economic relations and patterns of movement of financial flows, where the main principle is liberalization, and the driving force is the desire to compensate for the negative effects of modern economic society. Cryptocurrency, as a radical financial innovation, led to the emergence of a new sector of money circulation, influenced on the change in the philosophy of money relations, and to some extent exacerbated the threats to the traditional monetary system [2].

Thus, today the capitalization of the cryptocurrency market is \$ 253 billion, and, in particular, in October 2019 it showed 14% growth. For the majority of its liquid instruments, there is a positive dynamics of prices. In particular, bitcoin's share in market capitalization reaches almost 40% and this type of cryptocurrency resumed the growth phase, because of the changes and support of the blockchain technology by China as well as due to the growth of American stock market.

We have the practice of usage cryptocurrencies as a means of payment in the relationship between persons (such as households, institutions and organizations) and the merchandise market. For example, it is possible to buy the car or estate property in any country of the world, to pay for education, food, goods of online shops, IT-products and services, legal and printing services, etc. The relations between the persons and the financial market are actively developing, namely in the cryptocurrency market and ICO, the stock markets. Due to the growth, the cryptocurrency market has led to the emergence and trend of the ICO market (Initial Coin Offering, the primary offering to buy coins, that is tokens), which is a new form of attracting investment for startups and business projects through crowdfunding digital platforms [3]. In addition, a new ways of attracting finance from crypto-investors become more common, such as IEO (Initial Exchange Offering — primary stock offering) and IFO (Initial Fork Offerings — primary futures offering). Economic relations between the state and other persons (on the national and international level) are still the weakest in the new system. Nevertheless, Venezuela shows the possibility of such relations, as the first country in the world, which has issued into money circulation the national cryptocurrency Petro (petromoneda) to overcome the crisis and to counteract US financial sanctions. Governments and central banks of the US, Canada, Sweden, China, Norway and other countries are considering the issue of digital national currency. Testing of the «E-hryvnia»project was carried out by the National Bank of Ukraine.

In fact, the new system of economic relations, which is now formed in cyberspace, can be considered as a process of prototyping of the economic model of the future society, of the economic relations of the future free economy and free market. So, this causes anxiety, distrust, confrontation, and ambiguous attitudes, primarily, to cryptocurrencies. Therefore, regulators try to minimize threats and risks, such as: loss of the state monopoly on the money issuance; reduction of the seigniorage of central banks; decrease in demand for the national currency, its depreciation and changes in the velocity of money and the complication of the monetary policy as its consequence; the impossibility of an effective monetary policy, because a large part of the money supply will be out of the control; usage of cryptocurrencies for illegal transactions, such as drug sell and arms

trade, etc. [2].

Problematic aspects of determination of the legal status and regulation of cryptocurrency in Ukraine.

Increased interest in the use of cryptocurrency as a means of payment among the subjects of civil legal relations in Ukraine is connected with the fact, that cryptocurrency is a full-featured means of payment in the economically developed countries of the world [4]. But it is necessary to note, that not all countries recognize cryptocurrency as a means of payment, but recognize, that it is an object of the property right. It is a well-known fact in civil law that any property and other objects of civil rights may be freely alienated, or they may be freely transferred from one subject of legal relations to another on the basis of civil agreements and other legal facts by universal succession or otherwise. The law stipulates that such things are unrestricted in civil circulation, so they can be the object of absolute and relative civil legal relations, and they may belong to any subject of civil law. Certain types of things in terms of national, public or economic security are legally restricted in circulation (weapons, drugs, currency, etc.). At the same time, those things which, according to the current legislation, cannot be the object of civil agreements are considered to be withdrawn from the civil circulation.

The legal status of cryptocurrencies in Ukraine is regulated by the letter-ruling of the National Bank of Ukraine, issued on the 29th of December 2014 № 29-208 / 72889, which defines cryptocurrency as a «money surrogate», which is not secured by the real value and cannot be used by individuals and legal entities on the territory of Ukraine as a means of payment, because it contradicts to the rules of Ukrainian law [5].

The Law of Ukraine «On Payment Systems and Funds Transfer in Ukraine», adopted on the 5th of April 2001 № 2346-III does not attribute cryptocurrency to the means of payment and defines, that electronic money is a unit of value stored on an electronic device, which is accepted as a means of payment by persons, other than the issuer, and is a cash or non-cash money obligation. Electronic money can be issued only by the bank, which is responsible for repayment of these obligations [6].

The technologies, used by the cryptocurrency, do not conform the Ukrainian definition of the term «electronic money», because there is no obligation of the issuer to repay it, there is no single issue center, there is no attachment to certain cash or non-cash funds. Unlike non-cash resources, which, through the prism of civil law, are primarily rights of claim, cryptocurrency, which has indefinite legal status, has not similar rights. In addition, non-cash transactions are monitored by the bank, while the circulation of cryptocurrencies is controlled only by cryptography and the registers of cryptocurrency transactions are kept by the owners.

Trust in cryptocurrencies is based on assuredness in cryptographic security, and on the accountance of all transactions without any exception, whose electronic commit records cannot be exchanged or substituted without obvious interference. Transactions are confirmed by the digital signatures of the previous and the next owners of the respective cryptocurrency. The cryptocurrency transaction is authorized by digital signature and the transaction procedure is secured by the blockchain. Cryptocurrency circulation is accomplished by adding new databases to the chain of the transaction with a specific cryptocurrency.

In turn, the payment is made by the specification of the owner of the virtual currency unit of the new public address on it and its signature by his private key. Transaction anonymity is ensured by the fact, that only the data about the transaction is available to the public access, without the personalization of subjects. Virtual units are stored in a virtual purse that is hosted on a user's personal computer or on a remote server. Due to the fact that the cryptocurrency has a virtual character, it cannot be the object of a loan or obligation like money or things identified by generic characteristics, because it is not a physical object of the material world. In such circumstances, civil rights on virtual monetary units currently are not regulated by the Civil Code of Ukraine [7].

If we analyze the Civil Code of Ukraine, in particular Art. 177, 179, a thing (including money and securities) is an item of the material world, which may be the object of civil rights and obligations. Also, according to Art. 192, the legal means of payment, obligatory for acceptance at its nominal value at the whole territory of Ukraine, shall be the monetary unit of Ukraine, called

hryvnia. Foreign currency can be used in Ukraine in cases and per the procedure established by the law [7].

Therefore, it can be argued that cryptocurrency is difficult to attribute to any type of object of civil legal relations, and this situation means existence of a gap in law, so, it is impossible to use directly a certain norm of current legislation to the legal relations with the cryptocurrency. Therefore, in the current situation, it is necessary to apply an analogy of statute or an analogy of law. If civil relations are not regulated by this Code, any other civil legislation acts or the agreement, they shall be regulated by those legal norms hereof and the other civil legislation acts, which regulate civil relations similar in substance (analogy of statute). In case of failing to use the analogy of statute for the regulation of civil relations, they shall be regulated according to the general foundations of the civil legislation (analogy of law) (Article № 8 of the Civil Code of Ukraine).

Determination of the legal status of cryptocurrency has a global importance in the context of criminal law. Numerous questions about the status of the cryptocurrency and the method of conversion cause considerable problems in the exercise of criminal legal qualifications.

The most common crimes in Ukraine, which may be committed with the usage of such element as a «cryptocurrency», are prescribed by the following articles of the Criminal Code of Ukraine: Art. № 209 «Legalization (laundering) of criminally obtained incomes», Art. № 212 «Evasion of taxes, fees (compulsory payments)», Art. № 258-5 «Financing of terrorism», Art. № 361-1 «Creation of malicious software or hardware with the aim of their usage, distribution or marketing as well as their distribution or marketing», Art. № 366-1 «Declaring of unreliable information» [8]. From the above, it becomes clear, that crimes with cryptocurrency pose a high public danger.

A particularly common crime, involving cryptocurrency, is the crime, prescribed by the Art. № 361-1 of the Criminal Code of Ukraine «Creation of malicious software or hardware with the aim of their usage, distribution or marketing as well as their distribution or marketing», when the criminal creates the infected file, the user of the Internet downloads this file, because, as usual, it has the name of the popular program, and after the infected file is run, an additional file and processes are created on the user's computer, herewith they have the executable code referring to the downloading of the hidden from the user startup of the program in the operating system to use the computational capabilities of the processor of the computer to perform algorithmic calculations for the purpose of so-called «mining»(creation) of cryptocurrency.

However, as a rule, the court uses such wording to determine the amount of damages: «As the result of the illegal activity, <...> PERSON_1 with the help of the created malicious software — the executable file in the archive named «INFORMATION_43»received income from the so-called «hidden mining»in the form of cryptocurrency XMR-Monero, the size of which was not possible to ascertain during the pretrial investigation due to the external reason» (case № 425/2030/18) [9] and qualifies (classifies) the crime without taking into account the significant damages, because appears the question of cryptocurrency conversion or because the court ratifies the agreement between the accused and the prosecutor and imposed a fine at the rate of approximately UAH 8,500 (the sentence of the Rivne city court of the Rivne Oblast' (region), declared on the 2nd of July 2019 (Case № 569/10875/19) [10].

The judicial practice in the cases with cryptocurrencies is monotonous and as usual violates the principle of the accordance of the punishment to the gravity of a crime.

It is necessary to add, that committing of some crimes with the usage of cryptocurrencies (such as bribery, for example) formally may not conform to the characteristics of a certain crime, defined in the Criminal Code, due to the undefined legal status of cryptocurrency. At the same time, bribetaking in any case will be a socially dangerous act (regardless to the type of used currency — dollars, hryvnias or bitcoins), but due to the usage of the cryptocurrency, these crimes may become unpunished at all.

Also, the criminal-procedure and criminal-executive legal aspects of the existence of cryptocurrencies are uncertain, because it is hard to answer is it possible to arrest or to confiscate

the property, if it was converted into the cryptocurrency?

In this regard, some researchers recommend to criminalize such acts as the creation, distribution and use of cryptocurrencies.

Although bitcoins are becoming more widespread, the legal regulation of their circulation remains extremely unsatisfactory. However, it is impossible to ignore the fact, that cryptocurrency exists in the civil circulation and is widely used. As at date of the 29th of April 2018, according to the Cryptocurrency Market Capitalizations website, the value of bitcoin was equal to \$ 9,236.17. The increase for the last two months was \$ 1800. This is enough to attract the necessary potential and undertake research of this problem and find the legal basis for regulation of the circulation of cryptocurrency in Ukraine. In addition, at the end of 2017, two bills were registered in the Verkhovna Rada of Ukraine («the Supreme Council of Ukraine») — the draft law «On stimulation of the cryptocurrency market and their derivatives in Ukraine» and the draft law «On the circulation of cryptocurrency in Ukraine» [11; 12].

Conclusion. Despite the diversity of views, the legal status of cryptocurrency remains debatable and needs legislative regulation. The lack of legal regulation of this problem reflects on the practice of dealing with various types of cryptocurrency. So, it is necessary at least to amend the Art. № 177 of the Civil Code of Ukraine, which defines the objects of civil rights, and to recite it in the following wording: «Objects of civil rights are things, including money and securities, other property, including cash, cryptocurrency, undocumented securities, property rights, works and services, as well as protected results of intellectual, creative activity and equalized with them the means of individualization (intellectual property), information and other tangible and intangible benefits». In addition, the definition of «cryptocurrency» requires the legislative regulation.

In our opinion, it is necessary to perform all possible activities to regulate the problem of cryptocurrency, taking into account the undefined position of EU and USA. We are sure, that it is necessary to make changes of the Chapter XVI of the Criminal Code of Ukraine «Crimes in the sphere of the usage of computers, systems and computer networks and electric communication networks». In particular, it is necessary to recite the Note to the Art. № 361 of the Criminal Code of Ukraine in the following wording: «The significant damages in the articles № 361 — 363-1 should be considered the damages, which in one hundred and more times exceed the tax-free minimal individual income, as well as damages, made by activities with the usage of cryptocurrencies». Also, it is necessary to create the register of persons, who are the owners of cryptocurrencies, because it will give to the state the opportunity to control the legality of cryptocurrency transactions.

Within the framework of the strategic tasks of digitalization of the domestic economy, it is necessary to complete the initiative of creation of national cryptocurrency, to develop national cryptocurrency infrastructure and systems ICO, IEO and IFO for the attraction of investments, to stimulate the circulation of cryptocurrencies, to regulate their taxation and actively implement digital technologies for the acceleration of the processes of digitalization of all spheres of economic activity.

Література

1. Кочергин Д. А. Электронные деньги : учебник / Д. А. Кочергин. — Москва : Маркет ДС, ЦИПСИР, 2011. — 424 с.
2. Pantelieieva N. Transformation of financial intermediation in the context of spread of digital trends / N. Pantelieieva, S. Zaporozhets, N. Nagaichuk, O. Bartosh // Bulletin of the National Academy of Sciences of the Republic of Kazakhstan. — 2019. — № 3. — P. 144—152. doi:10.32014/2019.2518-1467.81.
3. Пантелєєва Н. М. Інноваційний потенціал і характеристичні особливості механізму залучення фінансування в нові технологічні проекти шляхом випуску і продажу нових криптовалют учасникам ринку / Н. М. Пантелєєва // Збірник матеріалів Міжнародної науково-практичної конференції «Нові форми грошей та фінансових активів: становлення, перспективи, ризики», м. Київ, 29 листопада 2017 року. — Київ : КНЕУ, 2017. — С. 153—158.
4. Про Національний банк України [Електронний ресурс] : Закон України від 20.05.1999 № 679-XIV // Відомості Верховної Ради України. — 1999. — № 29. — Режим доступу : <https://zakon.rada.gov.ua/laws/show/679-14>.
5. Щодо віднесення операцій з «віртуальною валютою» / криптовалютою «Bitcoin» до операцій з торгівлі іноземною валютою [Електронний ресурс] : Лист НБУ від 08.12.2014 № 29-208/72889. — Режим доступу : <http://zakon2.rada.gov.ua/laws/show/v2889500-14>
6. Про платіжні системи та переказ коштів в Україні [Електронний ресурс] : Закон України від 05.04.2001 № 2346-III // Відомості Верховної Ради України. — 2001. — № 29. — Режим доступу : <https://zakon.rada.gov.ua/laws/show/2346-14>.
7. Цивільний кодекс України від 16 січня 2003 року № 435-IV [Електронний ресурс] // Відомості Верховної Ради України.

- 2003. — № 40—44. — Режим доступу : <https://zakon.rada.gov.ua/laws/show/435-15>.
8. Кримінальний кодекс України від 5 квітня 2001 р. № 2341-III [Електронний ресурс] / Верховна Рада України // Законодавство України. — Режим доступу : <https://zakon.rada.gov.ua/laws/show/2341-14>.
 9. Вирок у справі № 425/2030/18 (провадження 1-кп/425/337/18) [Електронний ресурс] / Рубіжанський міський суд Луганської області // Єдиний державний реєстр судових рішень. — 2018. — Режим доступу : <http://reyestr.court.gov.ua/Review/76474625>.
 10. Вирок у справі № 569/10875/19 (провадження 1-кп/569/876/19) [Електронний ресурс] / Рівненський міський суд Рівненської області // Єдиний державний реєстр судових рішень. — 2018. — Режим доступу : <http://reyestr.court.gov.ua/Review/82846071>.
 11. Про стимулювання ринку криптовалют та їх похідних в Україні [Електронний ресурс] : Проект Закону від 10.10.2017 № 7183-1 / Верховна Рада України. — Режим доступу : http://w1.c1.rada.gov.ua/pls/zweb2/webproc4_1?pf3511=62710
 12. Про обіг криптовалют в Україні : Проект Закону від 06.10.2017 № 7183 [Електронний ресурс] / Верховна Рада України. — Режим доступу : http://w1.c1.rada.gov.ua/pls/zweb2/webproc4_1?pf3511=62684.

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References

1. Kochergin, D. A. (2011). *Elektronnyye den'gi [Electronic money]*. Moscow: Market DS, TsIPSiR [in Russian].
2. Pantielieieva, N., Zaporozhets, S., Nagaichuk, N., & Bartosh, O. (2019). Transformation of financial intermediation in the context of spread of digital trends. *Bulletin of the National Academy of Sciences of the Republic of Kazakhstan*, 3, 144—152. doi:10.32014/2019.2518-1467.81.
3. Panteleeva, N. M. (2017). Innovatsiyni potentsial i kharakterystychni osoblyvosti mekhanizmu zaluchennia finansuvannia v novi tekhnolohichni proekty shliakhom vypusku i prodazhu novykh kryptovaliut uchasykam rynku [Innovative potential and characteristics of the mechanism of attraction of financing in new technological projects through the issue and sale of new cryptocurrencies to market participants]. *Novi formy hroshei ta finansovykh aktyviv: stanovlennia, perspektyvy, ryzyky: Zbirnyk materialiv mizhnarodnoi naukovo-praktychnoi konferentsii (Proceedings of the 3rd International Conference: New forms of money and financial assets: formation, prospects, risks)*. (pp. 153—158). Kyiv: KNEU [in Ukrainian].
4. Verkhovna Rada Ukrainy. (1999). Pro Natsionalnyi bank Ukrainy: Zakon Ukrainy vid 20.05.1999 № 679-XIV [About the National Bank of Ukraine: Law of Ukraine of May 20, 1999 № 679-XIV]. *Vidomosti Verkhovnoi Rady Ukrainy — Bulletin of the Verkhovna Rada of Ukraine*, 29. Retrieved from <https://zakon.rada.gov.ua/laws/show/679-14> [in Ukrainian].
5. Natsionalnyi bank Ukrainy. (2014). *Shchodo vidnesennia operatsii z «virtualnoi valiutoiu» / kryptovaliutoiu «Bitcoin» do operatsii z torhivli inozemnoi valiutoiu: Lyst vid 08.12.2014 № 29-208/72889 [Concerning the attribution of transactions with «virtual currency» / cryptocurrency «Bitcoin» to transactions in foreign currency trading: Letter of the NBU dated 08.12.2014 № 29-208/72889]*. Retrieved from <http://zakon2.rada.gov.ua/laws/show/v2889500-14> [in Ukrainian].
6. Verkhovna Rada Ukrainy. (2001). Pro platizhni systemy ta perekaz koshtiv v Ukraini: Zakon Ukrainy vid 05.04.2001 № 2346-III [On Payment Systems and Funds Transfer in Ukraine: Law of Ukraine of 05.04.2001 № 2346-III]. *Vidomosti Verkhovnoi Rady Ukrainy — Bulletin of the Verkhovna Rada of Ukraine*, 29. Retrieved from <https://zakon.rada.gov.ua/laws/show/2346-14> [in Ukrainian].
7. Verkhovna Rada Ukrainy. (2003). Tsyvilnyi kodeks Ukrainy vid 16 sichnia 2003 roku № 435-IV [Civil Code of Ukraine of January 16, 2003 № 435-IV]. *Vidomosti Verkhovnoi Rady Ukrainy — Bulletin of the Verkhovna Rada of Ukraine*, 40—44. Retrieved from <https://zakon.rada.gov.ua/laws/show/435-15> [in Ukrainian].
8. Verkhovna Rada Ukrainy. (2001, April 5). Kryminalnyi kodeks Ukrainy vid 5 kvitnia 2001 r. № 2341-III [The Criminal Code of Ukraine of April 5, 2001 № 2341-III]. *Zakonodavstvo Ukrainy — Legislation of Ukraine*. Retrieved from <https://zakon.rada.gov.ua/laws/show/2341-14> [in Ukrainian].
9. Yedyni derzhavnyi reiestr sudovykh rishen. (2018, September 13). *Vyrok u spravi № 425/2030/18 (provadzhennia 1-kp/425/337/18): Rubizhanskyi miskyi sud Luhanskoi oblasti [Sentence in Case № 425/2030/18 (Proceedings 1-kp / 425/337/18): Rubizhany City Court of Lugansk Region]*. Retrieved from <http://reyestr.court.gov.ua/Review/76474625> [in Ukrainian].
10. Yedyni derzhavnyi reiestr sudovykh rishen. (2019, July 07). *Vyrok u spravi № 569/10875/19 (provadzhennia 1-kp/569/876/19): Rivnenskyi miskyi sud Rivnenskoii oblasti [Sentence in Case №. 569/10875/19 (1-kp/569/876/19): Rivne City Court of Rivne Region]*. Retrieved from <http://reyestr.court.gov.ua/Review/82846071> [in Ukrainian].
11. Verkhovna Rada Ukrainy. (2017, October 10). *Pro stymuliuvannia rynku kryptovaliut ta yikh pokhidnykh v Ukraini: Proekt Zakonu vid 10.10.2017 № 7183-1 [On stimulation of the cryptocurrency market and their derivatives in Ukraine: Draft Law № 7183-1 of 10.10.2017]*. Retrieved from http://w1.c1.rada.gov.ua/pls/zweb2/webproc4_1?pf3511=62710 [in Ukrainian].
12. Verkhovna Rada Ukrainy. (2017, October 06). *Pro obih kryptovaliuty v Ukraini: Proekt Zakonu vid 06.10.2017 № 7183 [On the Circulation of Cryptocurrency in Ukraine: Draft Law № 7183 of 06.10.2017]*. Retrieved from http://w1.c1.rada.gov.ua/pls/zweb2/webproc4_1?pf3511=62684 [in Ukrainian].

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