

Digital Currency as a Subject of Economic Criminal Offenses

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Abstract

[Purpose] The article is devoted to an essential and relevant topic. The cryptocurrency market in Ukraine, as well as in the world, has been developing quite rapidly in recent years. At the same time, the legal status of digital currency in Ukraine has not been consolidated. As a result, digital currency is often used to commit economic crimes. To counteract this act, it is vital to "legalize" cryptocurrency as a type of money and clearly define the cases when it is the subject of a criminal offense.

[Methodology/Approach/Design] The authors researched the general principles, approaches, and scientific research methods to properly develop the chosen topic used available philosophical methods and in particular legal ones.

[Findings] The ability of cryptocurrency to be an essential attribute of the development of the information society and, at the same time, the subject of economic criminal offenses.

Keywords: Digital Currency. Blockchain. Economic Criminal Offenses. Money Laundering. Tax Evasion.

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INTRODUCTION

Nowadays, in the presence of transient processes of globalization (Baranov, Kucher, Ustyomenko, Utkina, Hrybachova, 2020) and virtualization of public relations, and rapid development of new technologies and innovations that radically change the traditional economic system, new payment systems are emerging in the market, which freely converts new types of currencies, which determines the development of the virtual currency. The cryptocurrency market in Ukraine, as well as in the world, has been developing quite rapidly in recent years. It is determined that there is no single approach to the interpretation of the concept of "cryptocurrency" to date. This is due to their legal nature, which is quite tricky and ambiguous due to their inherent signs of decentralization and anonymity, making it difficult to solve this problem by analogy with other objects. It was found that the National Bank of Ukraine now defines cryptocurrency as a "monetary surrogate". The position is expressed that cryptocurrency can significantly affect the country's economic situation, so the lack of legal regulation in this area contributes to the spread of crime using cryptocurrencies. Today's offenses committed with modern information and telecommunication technologies pose a threat to public safety because cryptocurrency provides new opportunities for criminals. At the same time, states must find a mechanism for the legal regulation of cryptocurrency that will gradually attract investment into the state economy (Reznik, Andriichenko, Inshyn, Maslak, Arsentieva, 2020). After all, decentralization, which is inherent in any cryptocurrency, is of considerable interest for its use in criminal activities. Careful accounting and anonymity will be essential to reduce the risks inherent in cryptocurrency transactions. Sound regulation should create the conditions for the use of cryptocurrency to benefit the economy and the financial system. Concerning legislation, according to the authors of the study, it is worth paying attention to determining the legal status of cryptocurrency and users, fear of liability for a criminal act that would deter them from committing.

THE CONCEPT OF DIGITAL CURRENCY (CRYPTOCURRENCY)

The development of public relations is mainly ahead of the development of legislation, due to which cryptocurrency is beginning to be used as a financial instrument within corruption, as well as as a subject of economic crimes, such as tax evasion, financial resources fraud, legalization (laundering) of property — obtained by illegal means, etc. The prevalence of cryptocurrency as a tool for committing criminal acts is caused by the uncertainty of its legal nature, circulation, and use to this day. This situation is due to insufficient

understanding by domestic and foreign experts of the peculiarities of cryptocurrency, which is relatively unstable (Popper, Ruiz, 2017).

The definition of "cryptocurrency" comes from a science called cryptography. The modern interpretation of cryptography is based on elements of mathematics and computer science. It is a method of data encryption using a specific key that provides access to data decryption (Mikhaylov, 2020).

To create a cryptocurrency, unique computer technology is used by performing a series of operations, which are generally called "mining". The latter is a process in which the generation, transmission, and verification of cryptocurrency transactions.

A cryptocurrency is a digital display of value that can be sold or bought in the digital world while retaining all the features inherent in real money - as a medium of exchange. Still, it does not have legal tender status. (FATF Report, 2014). Thus, the cryptocurrency can perform the above functions only if agreed upon by a virtual currency.

Most economists and scientists hold the view that cryptocurrency is a kind of money, and there are many interpretations: "electronic money", "digital currency", "digital money", "virtual currency", "monetary surrogate", "financial instrument" and so on.

In the scientific, economic literature, the terms "digital currency", "cryptocurrency," and "electronic money" are often equated. It is also worth noting that in the official reports of the World Bank and the European Central Bank, cryptocurrency is compared with such concepts as "virtual currency", "Internet currency," and "digital currency" (Cryptocurrencies and Blockchain, 2018). For example, under "virtual currency", the European Central Bank provides "unregulated digital money, issued and controlled by their developers, and used and accepted by members of a specific virtual community" [Virtual currency schemes, 2012).

N. Drebot and I. Semegen, in their study, emphasize the erroneous identification of the concepts of "digital currency", "cryptocurrency" and "electronic money", noting that the virtual currency is inherently different from the usual electronic money because the latter is a digital reflection real money (in foreign literature - fiat money), in the process of circulation, exchange between financial market participants within the real economy, with official legal status (Semegen, Drebot, 2018). Exciting is the position of O. Petruk and O. Novak. They propose classifying cryptocurrency as financial instruments and, depending on the terms of investment by economic entities, classify it as long-term or current financial investments (Petruk, Novak, 2017). T. Zhelyuk and O. Brechko expressed a similar opinion on the classification of cryptocurrency as "financial instruments", pointing out that cryptocurrency is a

stable universal instrument of global financial payments and at the same time a financial instrument with high capitalization, which is a competitive form of international capital inflow (Zhelyuk, Brechko, 2016).

At the legislative level in Ukraine today, there is no legal act that would contain an interpretation of the term "cryptocurrency" and the question of its legal nature for use in Ukraine. In this regard, the authors will consider the provisions of the Explanation of the National Bank of Ukraine on the legality of the service in Ukraine of "virtual currency/cryptocurrency Bitcoin" dated November 10, 2014. Thus, it is stated that "the National Bank of Ukraine considers the" virtual currency/cryptocurrency "Bitcoin as a monetary surrogate, which has no security of real value and can not be used by individuals and legal entities in Ukraine as a means of payment" (Explanation of the national bank of Ukraine, 2014). However, it is difficult to understand the precise legal position of the National Bank of Ukraine, which at the same time caused the ambiguous practical perception of cryptocurrency as such. Later, in 2017, the Deputy Governor of the National Bank of Ukraine issued an official comment on the status of Bitcoin in Ukraine, stating that "currently Bitcoin does not have a defined legal status in Ukraine" (Official statement of the deputy governor of the national bank of Ukraine, 2017).

It is worth paying attention to several other countries as well. Thus, in Japan, cryptocurrency has been legally recognized as a means of payment since 2017, while in China and Spain, they have been granted the status of digital or virtual goods (Kuznetsov, Yakubov, 2016). Thus, Ukraine and the world countries now face an unresolved issue regarding the circulation of cryptocurrency and a single approach to recognizing it. Due to such "uncertainty," there is a problem of criminal qualification of criminal offenses, the subject of which is cryptocurrency.

The first in the world and perhaps the most common cryptocurrency is Bitcoin, which is created and stored in electronic form, characterized by decentralization, ease of setup, anonymity, and speed.

ADVANTAGES AND DISADVANTAGES OF CRYPTOCURRENCY

The advantages and disadvantages of cryptocurrencies should be considered. The benefits include the impossibility of counterfeiting cryptocurrency, given that it is not an intangible asset, anonymity in use, and lack of centralized control, due to which it is completely protected from government intervention (Mandrik, Moroz, 2019). Disadvantages compared to the advantages, in our opinion, there are many more, among them: the anonymity of cryptocurrency due to which it is impossible to track the activities of participants in such operations, which makes it attractive for use in criminal activities (1); the

absence of a state monopoly on the issuance of cryptocurrencies and, as a consequence, the loss of seigniorage (income from the distribution of funds) (2); falling demand for the national currency (subject to an increase in cryptocurrency transactions among the population), which may result in its depreciation (3); failure to conduct monetary policy, given that a significant amount of money supply will be out of control (4) (Panteleeva, 2014).

From the above study of advantages and disadvantages, it should be noted that a cryptocurrency is a perfect tool for the shadow economy due to its decentralization, as neither the state nor banks control it, which in turn makes it quite profitable for users and criminals.

It is well known that cryptocurrency transactions are not uncommon today, so it is not without reason that the issue before us affects financial and criminal law. Hence the obligation of the state to regulate these public relations and respond appropriately to the related criminal challenges of today.

The issue of cryptocurrency as a criminal offense subject is perhaps the most relevant today due to the lack of research on this topic. It is worth considering some of the positions and positions of scientists whose research partially contains statements on the issue the authors are studying.

Concerning the criminal-legal significance of cryptocurrency, the opinions of scientists do not coincide; more often, it is defined as the subject of offenses against property, sometimes - the subject of corruption crimes. To prove their point, researchers emphasize that "cryptocurrency, which an official accepts as a reward for a certain activity or inaction, corresponds to the concept of property services", others suggest better considering cryptocurrency as a property right (Takkal, Favier, 2017); there is also the idea of classifying it as another type of property (Dvoryankin, Klochkova, 2018). S. Leskiv, considering cryptocurrency in the context of civil law, considers it appropriate to include it in other tangible and intangible benefits because when converting cryptocurrency, the authors meet our needs. Still, there is no binding relationship (Leskiv, 2019).

SUBJECT OF ECONOMIC CRIMINAL OFFENSES

Today, economic criminal offenses, along with corruption offenses, are perhaps the largest and most dangerous offenses, which have a significant impact on the receipt of funds in the state and local budgets of Ukraine and in general on the public life of each person and state (Morgun, Tereshchenko, 2021). According to the current legislation of Ukraine, the authors apply comprehensive and systematic measures aimed not only at combating corruption in all its manifestations but also at preventing any offenses that are only related to it (Bondarenko, Malanchuk, Dumchikov, 2020).

It should be noted that the commission of economic criminal offenses is based on the existing conditions of market economic relations and the constant change of methods and objects of their commission, which leads to a high level of latency.

S. Ivantsov, E. Sidorenko, B. Spasennikov, Y. Berezkin and Ya. Sukhodolov, considering the main criminological tendencies of criminal offenses related to the use of cryptocurrency, introduces a new scientific category called "cryptocrime", which proposes to understand a set of actions that are endowed with a single systemic property committed to direct cryptocurrency or its use, Sidorenko, Spasennikov, Berezkin, Sukhodolov, 2019).

The most common criminal offenses in Ukraine with the element "cryptocurrency" are as follows: Art. 209 of the Criminal Code of Ukraine "Legalization (laundering) of proceeds from crime", Art. 212 of the Criminal Code of Ukraine "Evasion of taxes, fees (mandatory payments)".

Following paragraph 1 of Art. 209 of the Criminal Code of Ukraine, legalization (laundering) of property obtained by criminal means the acquisition, possession, use, disposal of property in respect of which the facts indicate its receipt by illegal means, including financial transactions, transactions with such property, or transfer, change of the form (transformation) of such property, or commission of actions aimed at concealment, masking of origin of such property, possession of such property, sources of its origin, location, if these acts were committed by a person who knew or should have known that such property is obtained, directly or indirectly, in whole or in part, by illegal means (Criminal Code of Ukraine, 2001).

It is impossible to disagree that the legalization (laundering) of proceeds from crime today is a negative socio-economic phenomenon and a systemic threat that poses a severe threat to the sustainable development of the national economy and negatively affects living standards. (Bekh, 2021). Each of the cryptocurrencies, by its nature, operates in the field of complex infrastructure, which includes a chain of people who are most often in different countries, providing money transfers and payments.

Scientists P. Galushin and A. Karlov spoke about this, noting that the criminal potential of cryptocurrency for money laundering is quite significant. However, the acquisition of cryptocurrency, even from criminally obtained funds, cannot yet be called "legalization", because, according to the authors, signs of legalization can occur only when using fictitious persons to carry out cryptocurrency exchange operations or other actions aimed at putting money into legal circulation "(Galushin, Karlov, 2017). Thus, the legalization (laundering) of property obtained by criminal means with the help of cryptocurrency is a criminal offense provided by the commission of certain

financial transactions or other agreements resulting from which such property is put into legal circulation.

Next, the authors will consider evasion of taxes, and fees (mandatory payments) using cryptocurrency as the subject of a crime in the sphere of economic activity.

The social danger of evasion of taxes, fees, and other mandatory payments is the intentional failure of each legal entity and individual to pay taxes and costs in the manner and amount prescribed by law, namely using cryptocurrencies to avoid income taxation.

It is becoming clear that participants in cryptocurrency transactions are not fulfilling their tax obligations due to the anonymity of cryptocurrency owners. Such actions (inaction) can potentially qualify as tax evasion. The corresponding structure of a criminal offense is provided by h. 1 Art. 212 of the Criminal Code of Ukraine, which indicates that intentional evasion of taxes, fees (mandatory payments) included in the taxation system, introduced in the manner prescribed by law, committed by an official of an enterprise, institution, or organization, regardless of ownership or person, engaged in business activities without the creation of a legal entity or any other person who is obliged to pay them, if these actions have led to the actual non-receipt of budgets or state trust funds in significant amounts (Criminal Code of Ukraine, 2001).

It is worth noting that even if a person or company does not try to circumvent tax laws with the help of cryptocurrency deliberately, there are great difficulties in establishing tax payments on cryptocurrencies for both legal entities and individuals.

Control over the use of cryptocurrencies to prevent tax evasion and criminal activity may be severely limited by removing the anonymity of transactions or prohibiting those not linked to bank accounts in countries that provide international cooperation to prevent tax evasion and criminal activity—behavior (Silchenkov, 2019). Thus, strengthening the tax security of the state can be achieved by identifying, assessing, and eliminating tax threats and risks. Therefore, assessing risks and developing measures to prevent or reduce them is perhaps the most crucial step in organizing the filling of budgets at all levels and state trust funds.

CONCLUSIONS

Thus, the study shows that the attractiveness of cryptocurrencies for the underworld is because cryptocurrencies are based on the principle of decentralization and the blockchain system: electronic money is unbound and not controlled by any financial authority in any country, and system users remain anonymous and have equal statuses. Cryptocurrency has both several

advantages and disadvantages, the main of which is opacity and ample opportunities for money laundering. The authors believe that the above proposals will help prevent violations in the implementation of criminal law qualification at the stage of establishing the correspondence between legally significant factual features of the act and the signs provided by law, in particular, at the location of determining the degree of public danger of the act.

REFERENCES

- BARANOV, A; KUCHER, V; USTYMENKO, O; UTKINA, M; HRYBACHOVA, I. (2020). Mechanism of State Economic Security Management in the Direction of Intellectual Property Rights Protection: Cases of Selected Industries. **Journal of Security and Sustainability Issues**, Volume 10, Issue 1: 19–34. Available at: <https://journals.lka.lt/journal/jssi/article/744/info>.
- BEKH, O. (2021). “*Protydiyalehalizatsiyidokhodiv, oderzhanykhzlochynnymshlyakhom*”. [Counteraction to legalization of proceeds from crime]. **Pidpryemnytsvo, Hospodarstvoipravo**, Vol. 2: 213-218. Available at: <http://pgp-journal.kiev.ua/archive/2021/2/39.pdf>.
- BONDARENKO, O. S; MALANCHUK, P. M; DUMCHIKOV, M. A. (2020). The role of community in fighting corruption in Ukraine. “*Vserossiisküikriminologichesküizhurnal*” [Russian Journal of Criminology], Vol. 14, Issue 4: 631–642. DOI: 10.17150/2500-4255.2020.14(4).631-642.
- DVORYANKIN, O. A; KLOCHKOVA, E. N. (2018). “*Kriptovalyuta – novyy instrument narkobiznesa.*” [Cryptocurrency is a new instrument of the drug business]. “*Narkokontrol*”, Vol 4: 19-22. Available at: http://lawinfo.ru/assets/files/Narkokontrol/2018/4/Narkokontrol_4_18-3.pdf.
- FATF REPORT. (2014). **Virtual Currencies – Key Definitions and Potential Aml/Cft Risks**. FATF Report. June 2014. Available at: <https://www.fatf-gafi.org/media/fatf/documents/reports/Virtual-currency-key-definitions-and-potential-aml-cft-risks.pdf>.
- GALUSHIN, P.V; KARLOV, A. L. (2017). “*Svedeniyaoboperatsiyakh s kryptovalyutami (naprimerebitkoina) kakdokazatel'stva po ugolovnomudelu*”. [Information about operations with cryptocurrencies (using bitcoin as an example) as evidence in a criminal case]. “**UchenyyezapiskiKazanskogoyuridicheskogoinstituta MVD Rossii**”, Vol. 2, Issue 4: 90-95. Available at: <https://cyberleninka.ru/article/n/svedeniya-ob-operatsiyah-s->

kriptovalyutami-na-primere-bitkoyna-kak-dokazatelstvo-pougovnomu-delu/viewer.

- IVANTSOV, S. V, SIDORENKO, E. L; SPASENNIKOV, B. A; BEREZKIN, Y. M; SUKHODOLOV, Y. A. (2019). “*Prestupleniya, svyazannyye s ispol'zovaniyem kriptovalyuty: osnovnyye kriminologicheskiy tendentsii*”. [Crimes related to the use of cryptocurrency: the main criminological trends]. “**Vserossiyskiy kriminologicheskiy zhurnal**”, Vol. 13, Issue 1: 85–93. DOI 10.17150 / 2500-4255.2019.13 (1).85-93.
- KUZNETSOV, V. A; YAKUBOV, A. V. (2016). “O podkhodakh v mezhdunarodnom regulirovaniikriptovalyut (BITCOIN) v otdel'nykhinostrannykh yurisdiksiyakh”. [About approaches in the international regulation of cryptocurrencies (BITCOIN) in separate foreign jurisdictions]. “**Den'gi i kredit**”, Vol. 3: 20–29. Available at: <https://www.elibrary.ru/item.asp?id=25600307>.
- LESKIV, S. (2019). “*Kryminal'no-pravoviy aspekt vyvnyachenniy statusu kriptovalyuty v Ukrayini: vitchyznyany ta zarubizhnyy dosvid*”. [Criminally legal aspects of the status of cryptocurrency in Ukraine: changes and foreign reports]. **Pidprymnstvo, Gospodarstvo i Pravo**, Vol. 9: 199-203. Available at: <http://pgp-journal.kiev.ua/archive/2019/9/34.pdf>.
- MANDRIK, V. O; MOROZ, V. P. (2019). “*Zakonodavcherehulyuvannya obihukriptovalyut v Ukrayini, problemy ta perspektyvy ikh rozvytku*”. [Legislation for the regulation of cryptocurrencies in Ukraine, problems and prospects for their development]. **Naukovyy visnyk NLTU Ukrayiny**, Vol. 29, Issue 4: 67–71. Available at: <https://nv.nltu.edu.ua/index.php/journal/article/view/1917>.
- MIKHAYLOV, A. (2020). Cryptocurrency Market Analysis from the Open Innovation Perspective. **J. Open Innov. Technol. Mark. Complex**, Vol. 6. Available at: <https://www.mdpi.com/2199-8531/6/4/197>.
- MORGUN, N.C; TERESHCHENKO, Yu. V. (2021). “*Obstavyny, shchopidlyahayut dokazuvanny upidchasrozsliduvannya umysnohoukhylennya vid splatypodatkov, zboriv (obov'yazkovykh platezhiv)*”. [Circumstances to be proved during the investigation of intentional evasion of taxes, fees (mandatory payments)]. **Visnyk LDUVS im. E.O. Didorenka**; Vol. 1, Issue 93: 285-296. Available at: <https://journal.lduvs.lg.ua/index.php/journal/article/view/1324>.

- PANTELEEVA, N. M. (2014). “*Novi formy Hroshey v umovakh formuvannyaynformatsynohosuspil'stva*”. [New forms of money in the conditions of formation of information society]. **Visnyknatsional'nohobankuUkrayiny**, Vol. 5: 25–31. Available at: http://www.irbis-nbuv.gov.ua/cgi-bin/irbis_nbuv/cgiirbis_64.exe?I21DBN=LINK&P21DBN=UJRN&Z21ID=&S21REF=10&S21CNR=20&S21STN=1&S21FMT=ASP_meta&C21COM=S&2_S21P03=FILA=&2_S21STR=Vnbu_2015_5_6.
- OFFICIAL COMMENT OF THE DEPUTY GOVERNOR OF THE NATIONAL BANK OF UKRAINE. (2017). **On the status of Bitcoin in Ukraine**. Available at: <https://bank.gov.ua/ua/news/all/komentar-zastupnika-golovi-nbu-olega-churiya-schodo-statusu-bitcoin-v-ukrayini>.
- PETRUK, O. NOVAK, O. (2017). “*Sutnist' kryptovalyuty yak metodolohichnaperedumovayiyioblikovohovidobrazhennya*”. [The essence of cryptocurrency as a methodological prerequisite for its accounting.]. **Visnyk ZHDTU, Seriya «Ekonomichninauky»**, Vol. 4, Issue 82: 48–55.
- POPPER, N; RUIZ, R. (2017). **Leading Online Black Markets Are Shut Down by Authorities**. The New York Times. July 20. Available at: <https://www.nytimes.com/2017/07/20/business/dealbook/alphabay-darkweb-opioids.html>.
- REZNIK, O; ANDRIICHENKO, N; INSHYN, M; MASLAK, N. and ARSENTIEVA, O. (2020). Tax on Cryptocurrency as Innovative Financial Instrument in IT Sphere. **International Journal of Advanced Trends in Computer Science and Engineering**, Vol. 9, Issue 1: 280-286. Available at: <https://essuir.sumdu.edu.ua/handle/123456789/82603>.
- SEMEGEN, I; DREBOT, N. (2018). “*Mistseirol' kryptovalyuty u svitoviyekonomitsi*”. [The place and role of cryptocurrency in the world economy]. **«Ekonomika ta upravlinnyanatsional'nymhospodarstvom»**, Vol. 2, Issue 130: 36-39. Available at: [http://ird.gov.ua/sep/sep20182\(130\)/sep20182\(130\)_036_SemegenI,DrebotN.pdf](http://ird.gov.ua/sep/sep20182(130)/sep20182(130)_036_SemegenI,DrebotN.pdf).
- SILCHENKOV, I. A. (2019). “*Kryptovalyutakaksovremennyvyzovekonomicheskoyssystemebezopasnostigosudarstva*”. [Cryptocurrency as a modern challenge to the economic security system of the state]. **Economy: yesterday, today,**

- tomorrow**, Vol. 9, Issue 6A: 58-65. Available at: <http://publishing-vak.ru/file/archive-economy-2019-6/6-silchenkov.pdf>.
- TAKKAL BATAILLE, A; FAVIER, J. (2017). **Bitcoin, la monnaieacéphale**. Paris: CNRS Éditions.
- UKRAINE. (2001). **Criminal Code of Ukraine**. Available at: <http://zakon3.rada.gov.ua/laws/show/2341-14>.
- UKRAINE. National Bank of Ukraine. (2014). **On the legality of the use of “virtual currency/cryptocurrency” Bitcoin in Ukraine**. Available at: <https://zakon.rada.gov.ua/laws/show/n0435500-14#Text>.
- VIRTUAL CURRENCY SCHEMES. (2012). **Virtual currency schemes**. Available at: <https://www.ecb.europa.eu/pub/pdf/other/virtualcurrencyschemes201210en.pdf>.
- WORLD BANK. Cryptocurrencies and Blockchain. (2018). **Europe and Central Asia Economic Update**. Office of the Chief Economist. Available at: <http://documents1.worldbank.org/curated/pt/293821525702130886/pdf/Cryptocurrencies-and-blockchain.pdf>.
- ZHEL'YUK, T; BRECHKO, O. (2016). *“Vykorystannyakryptovalyutynarynkuplatezhiv: novimozhlyvostidlyanatsional'nykhekonomik”*. [The use of cryptocurrency in the payments market: new opportunities for national economies]. **“VisnykTernopil's'kohonatsional'nohoekonomichnohouniversytet”**: Vol. 3: 50-60. In: <http://visnykj.wunu.edu.ua/index.php/visnykj/article/view/706>.