

# LEGAL STATUS OF CRYPTOCURRENCY AS ELECTRONIC MONEY

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## ABSTRACT

*In different countries, the approach to the legal status of cryptocurrencies is significantly different - some countries (USA, EU, Canada, Israel, Singapore, Japan, etc.) have recognized the expediency of using them and are working to create a legal framework that enhances the legal status of virtual currencies ( as electronic money, as exchange funds, as a specific type of currency, etc.), and other countries (China, the Russian Federation)-reject cryptocurrencies and prohibit their circulation. China banned the circulation of cryptocurrency within its own territory after the government almost lost control over the circulation of funds in the country due to their significant spread. In the Russian Federation, cryptocurrency circulation was prohibited due to the conservatism of the financial system, which is not able to quickly respond to the introduction of innovative processes and ensure their proper regulation. Despite the ban, cryptocurrencies in individual countries and their circulation in the virtual space continue to grow. The legal prohibition on the use of cryptocurrencies does not stop the processes of their use, but only does not allow the states that resort to such a ban to take part in regulating the processes of using cryptocurrencies, since they are removed from the process of their circulation.*

**Keywords:** Electronic Money, Cryptocurrency, Peer-To-Peer System, Mining Farms, Cryptowallet.

## INTRODUCTION

Almost 50 years ago, most people could not even imagine what a computer, electronic money or cryptocurrency are. Scientific discoveries that occurred during this period had a tremendous impact on the development of society and led to significant changes in all spheres of human life. Today, one of the main directions of the evolution of economic systems in various countries is the improvement and progress in the context of the development of globalization, the spread of IT technologies and the general computerization. This led to the emergence of new financial instruments, institutions and forms of interaction between people.

At the beginning of the XXI century, the world entered the third stage of monetary history - the era of the virtual economy, which is characterized by revolutionary changes in the nature and use of money. The development of the modern form of money - electronic, led to the fact that money began to lose its subject-sensual form, became a virtual reality created by technological means.

One of the innovations of recent times was the discovery of a special type of currency, which was called the cryptocurrency. Therefore, the issue of the legal status of cryptocurrency in different countries, especially in those countries where the use of this type of electronic money is prohibited, becomes relevant.

## REVIEW OF PREVIOUS STUDIES

The technical architecture of cryptocurrencies is represented by a peer-to-peer system (from English Peer-to-peer-from partner to partner (also abbreviation P2P is used)) or a network of peer participants, the fundamental concept of which is the block chain—a distributed database where the list of records is not interrupted but it is consistently increasing, with the new entries being “*tied*” to the old ones and confirmed by cryptographic algorithms (Drobyazko et al., 2019).

Thus, many computers with cryptowallets around the world form a huge, automatic, electronic system that works around the clock, in which it does not have a single center, and the database is duplicated for all users using cryptocurrency (Hilorme et al., 2019).

Low & Teo, (2018) note that such a system does not need a central bank to regulate transactions and the amount of currency circulating; a transaction with a cryptocurrency is completed when computer networks solve the task, and the computer that has completed the calculation receives a reward in the form of a certain amount in the cryptocurrency, for example, in Bitcoin (Howell et al., 2018).

However, the financial and legal nature of the cryptocurrency is still not clearly defined, since the legal status of such currencies is not formalized, there is no official Bitcoin or other cryptocurrency rate for fiat national currencies—their rate is determined during trading on virtual Bitcoin exchanges and exchange sites (Ostbye, 2018). This situation is due to the novelty of relations on the circulation of cryptocurrencies, the risks of their use and security problems.

## METHODOLOGY

On the basis of system analysis methods, approaches to the definition of the concept of “*cryptocurrency*” were studied. The use of methods of scientific abstraction and comparative analysis made it possible to determine the features of the cryptocurrency as a new economic tool. In the study of the characteristics of operations with cryptocurrency, general scientific methods were used: induction and deduction, analysis and synthesis, as well as the method of analogy and modeling.

## RESULTS AND DISCUSSIONS

Cryptocurrencies are a new form of electronic money, which is widespread in many countries of the world, but the approach to its legal status varies greatly - from a complete ban to a regulatory settlement, which provides for widespread use. Despite the doubts of the governments of different countries regarding the legitimacy of the cryptocurrency circulation, the cryptocurrencies are becoming more and more common in everyday life; despite the ban on the use of cryptocurrencies in a number of countries, they are becoming more widespread in the virtual space. For cryptocurrency, you can purchase not only digital goods and services (domain name, hosting, programs and keys of licensed programs, etc.), but also real things—at online auctions and online stores; cryptocurrency can be calculated in many international companies (B

WordPress, Dell, Virgin Galactic, The New York Times, CNN, Reuters etc.); a real shock for the development of cryptocurrency circulation was the decision of the world's largest eBay online store to enable Bitcoin as a method of paying for goods.

Due to the fact that the cryptocurrency is a novelty of the modern world, their legal status in different countries is determined differently. In Canada and the Netherlands, cryptocurrency is referred to as electronic money; in the USA, case law has shaped the position that cryptocurrency is "... *currency, or other form of money.*" (Sontakke & Ghaisas, 2017). In Germany, cryptocurrency is defined as "private funds", which can be used as payment and replace traditional currency in civil law contracts. In Switzerland, cryptocurrency is recognized as a special type of currency-digital currency, which has the same legal status as the national currency of this country (Swiss franc). However, in other countries-in China, the Russian Federation (hereinafter-the RF), India, Indonesia and others, the cryptocurrency is recognized as a money surrogate, and its circulation is prohibited.

Thus, the main problem with which the cryptocurrency circulation connected is the determination of its financial and legal nature, that is, the solution of the question: Is a cryptocurrency a new type of electronic money, formed due to the development of high-speed information transfer technologies, or a money surrogate, which is a temporary economic phenomenon and has no further prospects for existence? The definition of the financial and legal nature of the cryptocurrency and its legal status depends on the resolution of this issue: if a cryptocurrency is electronic money, then the further development of legal support for the circulation of electronic money should take into account the characteristics of the cryptocurrency and its circulation as a specific type of such means; if the cryptocurrency is a money surrogate, then it is necessary to prohibit its circulation in order to avoid the negative consequences of using such a surrogate.

In order to formulate your own position on this question, it is necessary to determine whether the cryptocurrency matches the characteristics of electronic money. Thus, we attribute to the features of electronic money the fact that it is by its physical nature is a specialized electronic launch (file), which is recorded on a carrier (computer hard disk or smart card), contains a money characteristic and a quantitative expression of the value of a monetary equivalent, is stored on an electronic device and can circulate in this form as a payment with appropriate legal consequences, including with persons other than the issuer. Cryptocurrency is also a specialized electronic launch, which is based on the peer-to-peer principle; each cryptocurrency unit contains a quantitative expression of the value of a monetary equivalent, determined in relation to the national monetary units. Based on the currency quotes, the cryptocurrency is stored on an electronic device (hard drives of personal computers, united by a peer-to-peer network); cryptocurrency can circulate as payments, including with persons other than the issuer. We also attribute to the features of electronic money the fact that is a prepaid financial product that is issued after the issuer receives money in an amount not less than the value of the cash equivalent (is issued after receiving funds in the amount not less than this value) and does not require the use of bank accounts in the transaction. This feature is also typical for cryptocurrency. Thus, a cryptocurrency is a new type of electronic money, the legal status of which is still in the formative stage; it needs time to be recognized, to form the necessary economic and legal prerequisites for its existence and further development.

However, in a number of countries, the circulation of virtual currencies is illegitimate. For example, in China in 2013, the People's Bank of China issued the "*Message on Prevention*

*Measures Associated with the Risks of Using Bitcoin*” (hereinafter the Message), in which the BTC was defined as a “*special virtual product*” and established that any operations for banks with Bitcoins are forbidden—there was even a list of Chinese websites where Bitcoin was sold, with which Chinese banks had to stop operating and close their accounts (Auer & Claessens, 2018). The Chinese financial companies were prohibited not only direct transactions with cryptocurrency, but also evaluating products or services in them, buying and selling Bitcoin, providing direct or indirect services related to cryptocurrency, including registration, trading, settlement, clearing and other services, accepting cryptocurrency or using a cryptocurrency as a clearing tool, trading Bitcoin with the Chinese yuan or foreign currencies, publishing quotes or insuring financial products related to cryptocurrency.

In addition, the Message strengthened the responsibility for Internet sites that provide Bitcoin registration, trading and other services and warn of the risks associated with using the Bitcoin system for money laundering. Individuals are allowed operations with cryptocurrency—they can participate in such transactions at their own risk.

The relation in the Russian Federation to a cryptocurrency is also tough and peremptory—transactions using a cryptocurrency are considered as conducting dubious operations in accordance with legislation on Combating Terrorism Financing and Legalization (Laundering) of Proceeds of Crime. The letter of the Central Bank of the Russian Federation “*On the use of virtual currencies, in particular Bitcoin when making transactions*” dated January 27, 2014 determined that due to the lack of collateral and legally obliged subjects, operations with virtual currencies are speculative, and it was emphasized that due to the anonymous nature of the activity of issuing a cryptocurrency by an unlimited number of subjects, individuals and legal entities may be inadvertently involved in criminal activities—Terrorism Financing and Legalization (Laundering) of Proceeds of Crime.

The reason for the negative attitude to cryptocurrency is that due to its nature, first of all, the anonymity of the payment, the cryptocurrency began to be widely used in the drug, arms, documents and other criminal activities, and thanks to the possibility of unlimited and uncontrolled cross-border transfer, the cryptocurrency was successfully attracted for the legalization of proceeds from crime, as well as the financing of terrorism.

In some countries, the circulation of a cryptocurrency was first prohibited and then allowed. For example, since 2013 in Thailand, any operations with a cryptocurrency were prohibited, and any settlements with it recognized as illegal. This position suggests that the country allows the circulation of a cryptocurrency, but with the restriction of their exchange only for national money.

Thus, in different countries, the approach to the legal status of cryptocurrencies is significantly different—some countries have recognized the expediency of using them and are working to create a legal framework that enhances the legal status of virtual currencies (as electronic money, as exchange funds, as a specific type of currency, etc.), and other countries (China, the Russian Federation)—reject cryptocurrencies and prohibit their circulation.

Despite the ban, cryptocurrencies in individual countries and their circulation in the virtual space continue to grow. The long period of existence, the rate of growth of volumes and the appreciation of the main currencies from almost zero to hundreds of dollars per unit of cryptocurrency do not allow us to ignore its existence.

## RECOMMENDATIONS

The prohibition of cryptocurrency in totalitarian countries hinders the integration of the post-capitalist format into the world economy, which is naturally formed at the present stage and, therefore, it is advisable, based on the experience of advanced economies (first of all, the EU), to recommend allowing (if only for experimental purposes) cryptocurrency to study the consequences of such circulation, to develop a methodology for introducing a cryptocurrency into business processes and the legal basis for the circulation of a cryptocurrency, to promote the transformation of society into a more modern form.

## CONCLUSIONS

The specific type of electronic money is cryptocurrency, which has such features:

1. Peer-to-peer nature (cryptocurrency is not issued by a bank, but is decentralized, since when a cryptocurrency is issued there is no one controlling center that would save information about the balance of users' electronic wallets and a list of transactions-this information is stored on the computers of the cryptocurrency owners, after installing the wallet program, it itself "downloads" from other users a complete database of all transactions ever performed) and the central server (each computer on this network is a server), all work related to accounting and storing transaction history is shared among all participants;
2. Open code of cryptocurrency (identification of owners and fixing the fact of their change are based on modern means of cryptographic protection that cannot be "hacked" or "circumvented" by modern technical means);
3. Decentralization (the only managing center that would store information about the balance of users' electronic wallets and the list of transactions is missing - this information is stored on the computers of the owners of the cryptocurrency, after installing the wallet program, it itself "downloads" from other users the complete database of all transactions ever made);
4. No guaranteed security, since technically a cryptocurrency is an encrypted special program code that is calculated using a specific method carried out by a group of computing powers (mined by farms), fixed, stored on electronic media and accepted as a means of payment;
5. Inflation nonsusceptibility.

Cryptocurrency and virtual currencies are not identical, but separate concepts. Virtual money does not belong to electronic money and, by its financial and legal nature is the internal electronic currency of network communities-social networks, virtual worlds and online games, and its use is limited to the acquisition and sale of virtual goods within the network community.

Thus, the use of cryptocurrency in international practice indicates that countries have different attitudes towards its introduction into circulation. This is due primarily to the novelty of this tool and the lack of a single definition of the category of "cryptocurrency", which revealed its essence. A positive attitude to bitcoins is typical for developed countries, and in developing countries, there are some limitations in this field.

## REFERENCES

- Auer, R., & Claessens, S. (2018). *Regulating cryptocurrencies: Assessing market reactions*. BIS Quarterly Review September.
- Drobnyazko S. (2019). Results of introduction of the improved mechanism of economic security control of insurance companies. *International scientific journal*, 78(1), 9-11.

- Drobyazko, S., Hryhoruk, I., Pavlova, H., Volchanska, L., & Sergiychuk, S. (2019). Entrepreneurship innovation model for telecommunications enterprises. *Journal of Entrepreneurship Education*, 22(2), 1-6.
- Hilorme, T., Perevozova, I., Shpak, L., Mokhnenko, A., & Korovchuk, Y. (2019). Human capital cost accounting in the company management system. *Academy of Accounting and Financial Studies Journal*, 23(SI2), 1-6.
- Hilorme, T., Shurpenkova, R., Kundrya-Vysotska, O., Sarakhman, O., & Lyzunova, O. (2019). Model of energy saving forecasting in entrepreneurship. *Journal of Entrepreneurship Education*, 22(SI), 1-7.
- Hilorme, T., Zamazii, O., Judina, O., Korolenko, R., & Melnikova, Y. (2019). Formation of risk mitigating strategies for the implementation of projects of energy saving technologies. *Academy of Strategic Management Journal*, 18(3), 1-6.
- Howell, S.T., Niessner, M., & Yermack, D. (2018). *Initial coin offerings: Financing growth with cryptocurrency token sales*. National Bureau of Economic Research.
- Low, K.F., & Teo, E. (2018). Legal risks of owning cryptocurrencies. In *Handbook of Blockchain, Digital Finance and Inclusion*, (pp. 225-247). Academic Press.
- Ostbye, P. (2018). *Will regulation change cryptocurrency protocols?*
- Sontakke, K.A., & Ghaisas, A. (2017). Cryptocurrencies: A developing asset class. *International Journal of Business Insights & Transformation*, 10(2), 1-15.

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