

## CRYPTOCURRENCIES, SMART CONTRACT AND TOKENS AS NEW INSTITUTIONS OF THE RUSSIAN CIVIL LAW

Chumachenko Ivan<sup>1</sup>, Chilingaryan Kamo<sup>2\*</sup>

<sup>1</sup>PhD Assistant professor RUDN University, RUSSIA, [ivan26061989@mail.ru](mailto:ivan26061989@mail.ru)

<sup>2\*</sup>Associate professor RUDN University, RUSSIA, [chilingaryan\\_kp@pfur.ru](mailto:chilingaryan_kp@pfur.ru)

### Abstract

This article is focused on the questions of the bitcoins, smart contract and tokens regulation by the statutory norms (acts) of the Russian Federation. At this moment the institutions of cryptocurrencies, smart contract and tokens are subject to some projects of the amendments to the Civil Code of the Russian Federation in case that there are a lot of collisions and misunderstanding related to the regulation of the abovementioned institutions. The authors analyse 2 main projects and provide their opinion on this matter.

The main attention of the authors is also paid to the current issues of the law of Switzerland and the U.S. law related to the regulation of these institutions of the civil (business) law. The authors try to make a comparative analysis, to provide a case law, opinions and reports of the state authorities, examples to achieve a legal nature of some of these institutions. The authors also provide their classification of different types of tokens. In conclusion, the authors mark some advantages and disadvantages of their regulation.

The main sources for this article are the current statutory acts (federal legislation) of the Russian Federation, projects of the proposed changes to the Civil Code of the Russian Federation and also statutory and case law of the foreign states, such as the U.S. and Swiss law. The findings of the work will be of use to researchers, as well as lawyers working in this area.

**Keywords:** bitcoins, smart contract, tokens, cryptocurrencies

## 1 INTRODUCTION

In connection with the widespread development of the “so-called” digital rights, cryptocurrency and tokens in recent years, a correct regulation of new types of such rights became an important problem for the modern society. On March 26, 2018, the deputies of the State Duma of the Russian Federation proposed amendments to the first, second and fourth part of the Civil Code of the Russian Federation (hereinafter referred to as the “Civil Code of the Russian Federation”) [1]. These changes are inherently revolutionary in nature and can give a motivation to the development of investment activities in Russia.

One of the most significant changes proposed by the authors of the abovementioned amendments is the new concept of digital rights in the Civil Code of the Russian Federation: “In cases stipulated by law, the right to objects of civil rights, with the exception of intangible goods, can be certified by a set of electronic data

(digital code or designation) in a digital system relevant to the statutory characteristics of a decentralized information system with unique access to this digital code or designation, the opportunity at any time to get the description of an appropriate object of civil rights. The specified digital code or designation is recognized by digital law” [1].

This definition is interesting, but not complete because information systems that provide unique access to this digital code or designation to the owner of civil rights actually grant him access to the possession, use and disposal of these civil rights. The authors try to point out these possibilities in the proposed version of paragraph 3 Art. 1411, pointing out that “digital law can be alienated or transferred from one person to another under the same conditions (Art. 129 of the Civil Code of the Russian Federation) as objects of civil rights, the rights on which they certify, with features that are established by this code and other laws” [1].

The draft of the above-mentioned amendments also notes that “the essence of the digital law as a new legal fiction is close to the essence of the securities, therefore it is proposed to understand this set of electronic data (digital code, designation) that certifies the rights to objects of civil rights (para 1 of new article 1411 of the Civil Code of the Russian Federation)” [1]. The authors also share this point of view in general. The securities under Art. 142 of the Civil Code of the Russian Federation is essentially the same rights as digital law, only reflected in the form of a document executed in compliance with the established form and mandatory details. The difference between digital property rights and property rights that is certified by securities is that digital property right is certified by a special code, a designation known only to the owner of such a right.

The proposed definition of digital money, previously unknown to the Russian law, seems to be interesting. According to the proposed version of Art. 1412 “digital money can be recognized as a non-certifying right to an object of civil rights, a set of electronic data (a digital code or designation) created in an information space that meets the established characteristics of a decentralized system and used by users of this system for payments.” [1]

The explanatory memorandum draft to this law stresses that “in cases and on terms established by law (that is, in the long term), digital money can be used by individuals and legal entities as a means of payment (clause 2 of new article 1412) in controlled quantities and in an additional regulated order” [1]. With this comment, the authors of this article completely disagree because currently digital money or quasi-currencies are already used by residents and non-residents of the Russian Federation (individuals and legal entities, both in Russia and abroad), therefore the above phrase in the text of the bill is rather unnecessary.

In order to analyze in detail the legal nature of digital money, it is necessary to turn to the definition of “electronic data or data” in accordance with the legislation of the Russian Federation.

Unfortunately, there is no any legal definition of electronic data in the Russian legislation. Let us turn to the Federal Law of July 27, 2006, N 152-FZ “On Personal Data”. In accordance with para 1 Art. 3 of the above-mentioned law “personal data is any information relating to a particular individual (subject of personal data) defined or determined on the basis of such information, including his surname, name, patronymic, year, month, date and place of birth, address, family, social, property status, education, profession, income, other information” [2].

At the same time, para 2 of the above-mentioned article stated that “digital money is not mandatory for acceptance in all types of payments, for crediting to accounts, for deposits and for transfer throughout the territory of the Russian Federation, however, in cases and on conditions established by law, may be used as a means of payment” [2].

## **2 CRYPTOCURRENCIES AND SMART CONTRACT REGULATION ISSUES**

The draft of the federal law “On Digital Financial Assets” introduces the notion as “a digital financial asset which is an asset in an electronic form created using the cryptographic means. The ownership of such property is certified by making digital entries in the register of digital transactions. Digital financial assets include cryptocurrency, token. The term of cryptocurrency in accordance with the provisions of the draft of this federal law is the type of digital financial asset created and accounted for in the distributed registry of digital transactions by participants of this register in accordance with the rules of maintaining the register of digital transactions” [3]. By “token” is meant “the type of digital financial asset that is issued by a legal entity or an individual entrepreneur (hereinafter referred to as the “issuer”) in order to attract financing and accounted for in the register of digital transactions” [3].

From this definition, the authors of this article underline the difficulty to fully understand the legal nature of the token. On the one hand, the definition of a token is similar to the definition of a share and a bond.

According to Art. 2 of the Federal Law “On the Securities Market” “a share is an issue-grade security that fixes the rights of its owner (shareholder) to receive part of the profit of the joint-stock company in the form of dividends, to participate in the management of the joint-stock company and to a portion of the property remaining after its liquidation. The share is a registered security”. [4]

In accordance with Art 816 of the Civil Code of the Russian Federation, “a bond is a security that certifies the right of its holder to receive from the person who issued the bond in the nominal value of the bond or the equivalent of other property stipulated by it. The bond also provides its holder with the right to receive a fixed interest of the bond’s nominal value or other proprietary rights” [5].

Based on the above definitions of shares and bonds, the authors can make a logical conclusion that the token in its legal nature is closer to the shares. However, it is not entirely clear from the proposed definition of the token whether the token certifies the right of the purchaser of the token to require a part of the property of the company that collects funds for business development. Also, it is not entirely clear what confirms the right to claim? In the case of shares, it is a part of the company’s property. Therefore, in this regard, the token is closer to the bond in its essence.

According to the Multitran electronic dictionary the word “token” is translated as a sign; symbol; a gift for memory; attribute; identification mark; ticket (also for the machine); badge [6].

Also, the text of the proposed draft to the federal law provides the procedure for issuing tokens, which consists of the following stages:

1. “Publishing by the Issuer of tokens an investment memorandum on the Internet an offer containing conditions for the acquisition of the tokens issued by it (hereinafter the public offer on the emission of tokens), as well as other documents specified by the issuer for the emission of tokens;
2. Signing of contracts, including in the form of a “smart contract”, aimed at alienating and paying tokens by their purchasers” [3].

It is noted that “the public offer for the emission of tokens” should contain:

1. Information on the issuer and its beneficiary (if any): the full name of the issuer of the tokens and its beneficiary (if any), the location and address of the issuer's permanent executive body and its beneficiary (if any), the issuer's official website on the Internet;
2. Information about the person performing depository activities, to whom copies of the public offer on the emission of tokens and the investment memorandum are transferred for storage (in case if the issuer independently takes into account the rights of the owners of the tokens);
3. The purchase price of the issued token or the procedure for determining it;
4. The date of commencement of signing the contracts on the acquisition of issued tokens;
5. The procedure for sending an accept of a public offer for the emission of tokens, including the time period for sending the acceptance, as well as the procedure for paying for the purchased tokens.
6. Information on the maximum amount for which tokens can be purchased by persons who are not qualified investors in accordance with the Federal Law “On the Securities Market”;
7. The rules for maintaining the register of digital transactions, including, in particular, the procedure for validating of digital transactions;
8. Information on the procedure for opening digital wallets used to store information about purchased tokens and procedure to access the registry of digital transactions;
9. Other information specified by the issuer”.

A logical question that any reader might have - is: what are the advantages of the so-called tokens over ordinary shares or bonds? The answer to this question is quite simple. The emission and consideration of tokens are conducted on the basis of blockchain technology. And accordingly, it is impossible to forge the tokens. The US Senate issued a special report, which noted cyber threats to modern society. One of the methods of protection against such threats is the introduction of blockchain technology [7].

Blockchain “is a distributed database, in which the storage devices are not connected to a common server. This database stores an ever-growing list of ordered records called blocks. Each block contains a timestamp and a link to the previous block. The use of encryption ensures that users can only change parts of the chain of blocks that they “own” in the sense that they have private keys, without which writing to the file is

impossible. In addition, encryption provides synchronization of copies of a distributed chain of blocks for all users" [8].

There are different types of tokens:

- Equity tokens represent the company's shares.
- Utility tokens reflect some value within the business model of the online platform (reputation, scores for certain actions, game currency).
- Asset-backed tokens are digital obligations for real goods or services (kilograms of carrots, hours of work of the builder, etc.).

An interesting change is the improvement of the form of transactions to facilitate the implementation of operations with digital rights (clarifications are done in articles 160, 432, 493, 494 of the Civil Code of the Russian Federation).

The introduction of the form of a smart contract in the Russian legislation deserves a separate mentioning. A smart contract is a set of encrypted codes that allow the parties to execute a transaction through a special program when the parties perform certain actions. This is a kind of automat that performs certain actions, for example, by transferring the same cryptocurrency from one wallet to another after one of the parties (the buyer) carries out certain actions (for example, pays by cryptocurrency). In fact, this is a self-executing contract.

Russian legislators make only the first, but certainly important steps in the regulation of the Institute of Crypto-Currency and smart contracts. In the US, several interesting court cases have been examined and several case law precedents have appeared, in particular, *StormsMedia, LLC v. Russia. Giga Watt, Inc. et al.*, 2: 17-cv-00438 (E.D. Wash, Dec. 28, 2017), [9] *Audet, et al. v. Garza, et al.*, 3: 16-cv-940 (D. Conn., June 15, 2016). [10] However, currently there is no statutory act in the US at the federal level that would regulate the institute of crypto-currency and would regulate the treatment of this type of asset.

At the same time, debates are underway in the United States about the essence of a token and cryptocurrencies and their legal nature. In the event that these institutions are equated with securities, then these institutions should be regulated by the Securities and Exchange Commission (the "SEC").

In the opinion of the authors of this article, the issue of confirming the observance of the will and arrangements of the parties when concluding such transactions remains unresolved. In this case, of course, a great role is played by the cryptographic signature, which can belong to only one person and allows to individualize the coincidence of will and arrangements when entering into a transaction using a smart contract.

## **CONCLUSION**

Undoubtedly, the adoption of the proposed projects of law will allow formally to fix new and revolutionary norms of civil legislation on such previously unknown civil law institutions as digital money, digital rights, which will certainly allow to ensure judicial protection of the rights of participants in these legal relations, as well as the implementation of these rights in the territory of the Russian Federation. The introduction of the concepts of crypto-currency, smart contract, digital rights and other concepts will allow to settle the relationship between parties to the contract.

One of the shortcomings of the proposed changes to the Civil Code of the Russian Federation, according to the authors of this article, is the unsettled order of the issue / placement of tokens for their subsequent acquisition within the ICO - the primary offering of tokens, the initial placement of coins as a way to attract investment in the market.

Despite all the possible disadvantages that digital rights may entail, they begin to play an increasingly important role in human life, and will certainly contribute to the development of social relations.

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