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## Bitcoin, Lifecoin, Namecoin: The Legal Nature of Virtual Currency

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### Abstract:

The current article examines the peculiarities and legal nature of Bitcoin, Lifecoin, Namecoin, Quark, WebMoney, Ripple and other virtual currencies. There is no single understanding of the legal essence of virtual currency in the world today; therefore, the legal status of such currencies is not officially fixed and there are no official rates of Bitcoins or other crypto currencies against national currencies. Their rate is determined in the course of trading at virtual Bitcoin exchanges and exchange platforms. Such a situation is dictated by the novelty of legal relations in the field of crypto currency circulation, the risks of their implementation, as well as security problems. The main goal of the study is to define the legal nature and features of virtual currencies and the possibilities of legislative regulation of using crypto currencies. When writing the article, the methods of collecting and studying singularities have been used, as well as generalization methods, the methods of scientific abstraction, and the methods of studying regularities. The study has concluded that it is advisable to provide for the licensing of mining and crypto trading at the international level, customers should be identified when selling and buying virtual currencies, introducing a special verification procedure for Bitcoin users will prevent the abuse of virtual currencies for money laundering and terrorism financing. As a result of the analysis, a definition has been given, and the main features and functions of the virtual currency have been highlighted. It has been proved that virtual currencies are a new kind of electronic money stored in computer memory, the monetary value of the virtual currency is managed by means of a technical device. Virtual currency is a new means of payment and does not require access to deposit accounts.

**Keywords:** virtual currency; legal status; emission; legal status; security; transaction; mining.

**JEL Classification:** K30; K39.

## Introduction

The necessity to study the legal status of such virtual currencies as Bitcoin, Litecoin, Namecoin, Quark, WebMoney, Ripple is beyond doubt. The rates of growth in volumes and the rate of crypto currencies against major currencies from almost zero to hundreds of dollars per unit of crypto currency do not allow ignoring their existence (Birch 2015). A single understanding of the essence of crypto currency in the world today does not exist as there are over 730 types of virtual currency (Low, Teo 2018) as of July 2017, unifying their status is difficult, therefore, there is no legal status of such, no official rate for Bitcoins or other currencies against national currencies. Their rate is determined in the course of trading at virtual Bitcoin exchanges and exchange sites. This situation is due to the novelty of legal relations in the field of circulation of crypto currencies, the risks of their use and security problems. Therefore, it is necessary to determine the legal essence of crypto currency, analyze the problems that arise during transactions in virtual currencies, and formulate a system of legal norms that would prevent the occurrence of these problems and regulate the procedures for issuance and circulation of crypto currencies.

Many scientists devoted their work to the legal problems of the circulation of crypto currency: Kubát (2015) reviewed the problems of determining the value and legal status of Bitcoin; Low, Teo (2017) dedicated their research to the legal risks of owning a crypto currency; Vandezande (2017) analyzed the legal regulation of the virtual currency market in accordance with EU legislation; Gürkaynak, Yilmaz (2015) devoted their study to the legal regulation of payment services and virtual money, with a special emphasis on Turkish legislation; Dibrova (2016) considered the prospects of using a virtual currency and the possibility of legislative regulation of the market of crypto currencies; the possibility of applying virtual money and its legal position was considered in the study by Scott (2014); counterfeiting in the sphere of using crypto currency was investigated by McKinney *et al.* (2015); legal comparative analysis of cash and Bitcoin was conducted by Urquhart (2016) who concluded that using crypto currency was inefficient. It should be noted that the legal doctrine shows interest in virtual currencies, Bitcoin exchanges, and exchange platforms (Phillip *et al.* 2018), but the legal status of virtual currency is not defined in civil law, which leads to practical problems; the status of virtual currencies, considering their rapid use and an increase in the volume of usage, has not been practically investigated. At the present stage, the issue of determining the legal status and the essence of virtual currencies becomes particularly topical.

## 1. Methods

The object of the study is the legal status of Bitcoin, Lifecoin, Namecoin, Quark, WebMoney, Ripple virtual currencies. In the context of globalization, this process opened new opportunities for the application of the system method and those methods that serve it – structural and functional analysis. The following methods were used in this study:

- methods for collecting and studying single facts;
- generalization methods;
- methods of scientific abstraction;
- methods of studying regularities;

The methods of law interpretation were used at the stage of collection and examination of individual facts, with the help of which it was determined whether crypto currency had been related to electronic money, money surrogate, virtual currency or exchange-traded asset.

The method of legal modeling was used when writing the article. The modeling process consisted of three stages:

- (1) statement of the problem and choice of the goal;
- (2) studying the model and formulating conclusions;
- (3) interpreting (analyzing, explaining) the results and referring the acquired knowledge to the original.

The prognostic method made it possible to compile scientifically based forecasts about the vector of virtual currency taking into account its legal nature, as well as to develop recommendations for law enforcement practice. Logical-semantic analysis was also used in combination with the listed methods, which allowed considering specific features of the legal nature of crypto currencies in detail.

## 2. Results

The definition of the legal status of virtual currency depends on its position in the legislation of different countries, which differs significantly. Crypto currency is referred to as electronic money, money surrogate, virtual currency and stock exchange asset (Phillip *et al.* 2018).

The development of global technologies and total computerization led to the fact that using only electronic money for Internet operations became insufficient. In 2008, an anonym with a pseudonym Satoshi Nakamoto first described the principle of a payment system in the form of a peer-to-peer network, and in 2009 it was presented by him on the Internet as an open source code of the Bitcoin client program (Kubát 2015).

So, a new economic phenomenon – virtual currency – appeared, which eventually became known as 'crypto currency'. There are other crypto currencies besides Bitcoin at the moment – Lifecoin, Peercoin, Primecoin, Freicoins, Namecoin, Quark, WebMoney, Ripples, Stellar, Nxt, Dogecoin, PPCoin and others. Today, there are more than 750 of them (Vandezande 2017). However, Bitcoin remains the most common crypto currency. Crypto currency is most often defined as a digital currency type, accounting and issuing of which are based on the method of asymmetric encryption and the use of cryptographic protection methods, such as Proof-of-work and Proof-of-stake (Li, Wang 2017).

The technical architecture of crypto currency is represented by a peer-to-peer system or peer-to-peer network, the fundamental concept of which is a blockchain– distributed database where the list of entries is not interrupted but sequentially increased. New records are attached to previous records and are confirmed by cryptographic algorithms (Cheah, Fry 2015).

Such a system does not require a central bank that regulates transactions and the volume of the circulating currency, since a transaction in crypto currency is completed when computers of the network solve the task, and the computer that completed the calculation receives a fee in the form of a certain amount of crypto currency. Since 2010, the Bitcoin exchange rate at virtual exchanges and exchange sites has been steadily growing, and since 2013, the growth can be called impetuous (Wonglimpiyarat 2016) (Figure 1).

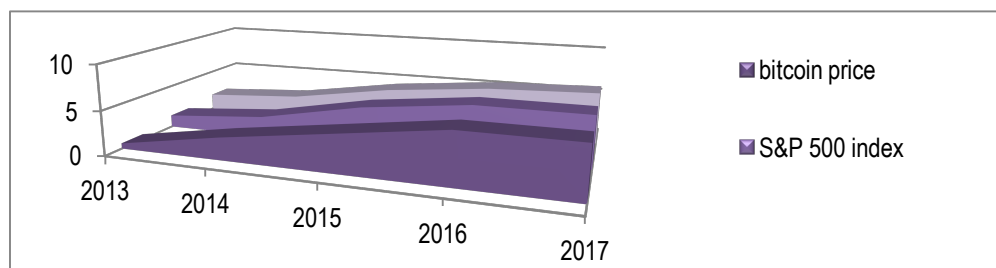


Figure 1. Bitcoin growth dynamics

The main problem connected with the crypto currency turnover is the definition of its legal essence, that is, the solution of the question whether crypto currency is a new kind of electronic money generated by 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 direction of further legal regulation of virtual currency and its legal status depend on the solution of the above problem: in case crypto currency is considered to be electronic money, then the further development of legal support for circulation of electronic money must consider the peculiarities of crypto currencies and their circulation as a specific type of such funds.

The use of crypto currency is not based on physical properties (as in case of cash, for example), but rather on mathematical properties. Currency has value just as a form of money and performs the functions of money – serves to accumulate, pay or determine value, and its price is determined by the equilibrium of supply and demand (Scott 2014). Legislators refer money to things, for example, if the amount is transferred to an individual in cash, the borrower in case of transferring cash to him, has the owner's right to own, use and dispose of it (Baur *et al.* 2017). The question of whether non-cash money is the property of users causes controversy among experts, as some scientists rightly believe that owners in respect of non-cash money have all the powers of the owner, while they note that the banknotes are only the equivalent of a certain amount of money, hence property is the sum of monetary units and not the banknotes themselves, which makes it possible to equate cash and virtual money (Chan *et al.* 2016).

Virtual money cannot be considered things in the traditional civil-legal sense; in this connection, the question arises about the legal nature of virtual money resources that are used in the digital environment. To determine the legal status of virtual currency, it is necessary to find out the essence of non-cash money, which has a special legal status in civil legal relationships.

The emergence of non-cash settlements is connected with the opportunities to spend non-cash money. Considering this aspect of the problem in retrospect, it should be noted that at the end of the last century non-cash

payments were introduced into national banking systems in some countries of Western Europe (Levin *et al.* 2015). In the historical context, non-cash money is a transformation of cash that, after transferring to the bank, changes its form and becomes non-cash. Non-cash money is devoid of material qualities, it is accounted for in the bank's accounts, and the bank account is the accounting medium of non-cash money (Gürkaynak, Yilmaz 2015). Accounts are maintained by the bank and used for settlements on behalf of the client who is a participant in settlement relationships, while non-cash money, just like cash, has the standard of value, means of circulation, means of payment and the value of the goods equivalence properties. The money is also moved in the financial sphere regardless of having cash or non-cash form.

According to the generally accepted view, the main sign of things is corporality; some researchers directly point out that neither international legal acts nor the legislation of Western Europe and the US provide for the turnover of disembodied things (Huang, Zhao 2017). However, it can be argued that legislation is silent on such a feature of things as corporality; therefore, taking into account the realities, it is not the corporality of the object, but its discreteness, that is important for the formulation of the definition of the real nature of the good.

Experts rightly note that it is important to determine the qualitative characteristics of such an object as non-cash funds, as well as its physical or accounting isolation from other objects, since the creation of an electronic settlement system has led to the emergence of a special good that is subject to legal relationships in transactions and, therefore, to civil rights (Sapovadia 2015). Taking into account the cashlessness of monetary transactions, it can be stated that the bank account and non-cash funds are a special way of accounting and they are separate from other objects. However, the legislation extends the legal regime of cash to non-cash money, which is subject to ownership by virtue of a legal fiction.

Virtual money has basic functions (Figure 2).



Figure 2. Functions of virtual currency.

Thus, non-cash funds are an independent object of civil law, since this type of property is of a dual nature, being, on the one hand, the right of obligation of the account holder with respect to the bank; and, on the other hand, being allowed to act as a means of payment for third parties and, hence, perform the role of money. Money is a substitute thing, which is determined by generic characteristics, contains a certain number of monetary units and does not depend on the form of expression. The concept of non-cash money is complex and it includes two main elements, one of which is electronic money, that is, monetary value that is stored on virtual data carriers and issued by the issuer for making payments, with the second element being the mechanism for accessing a bank account through bank cards, non-cash bank transfers, etc.

Non-cash money is a disembodied thing of a special kind, the equivalent of cash that is stored on virtual data carriers issued by the issuer for making payments and accepted by institutions other than the issuer as a means of payment.

### 3. Discussions

Economically, users increasingly recognize the convenience and efficiency of virtual currency in the process of globalization of electronic settlements. Crypto currencies are characterized by complete decentralization – the



absence of a global or local form of regulation (Aron 2011). In this regard, any transactions in the system take place without the participation of the state or another authority.

On the agenda of the entire international community and individual states there are an increasing number of issues affecting various aspects of the legal status of virtual currencies, since activity in the field of crypto currency transactions is only gaining momentum.

Several countries recognized Bitcoin and decided to develop rules for the legal regulation of Bitcoin transactions. Currently, the Japanese Council for Audit Standards develops the 'Code of Conduct for the Crypto currency Circulation', which will be a document formalizing the rules of the crypto currency circulation, including its mining (Lim 2015). In Japan, the Bank of Yokohama, SBI Sumishin Net Ban and dozens of other organizations are working with blockchain projects. The Ministry of Economy, Trade and Industry of Japan has adopted guidelines for the evaluation of various block projects.

In the United States, virtual currency is viewed in three different aspects – as an analogue of money, property and commodities. At the end of July 2017, the US Securities and Exchange Commission submitted a Statement, according to which in the future initial coin offering may become the subject of its legal regulation. Such changes will allow the crypto currency to become a recognized alternative to investment. In addition, according to the plans of the Office of the Comptroller of the Currency, financial and technical companies involved in fiduciary activities or carrying out one of the three key functions of banks (issuing loans, paying checks or accepting deposits) will be able to obtain state restricted banking licenses in future (Urquhart 2016).

The growing popularity of crypto currency has predetermined the development of new mechanisms for its use. Such mechanisms, in particular, include the ICO (initial coin offering). Being one of the models of crowdfunding using the blockchain infrastructure, ICO allows investing in digital currency for profit in future (Dibrova 2016). At the same time, profit can be obtained, for example, by selling received tokens at a special exchange. However, experts rightly warn about risks in the field of ICO (McKinney *et al.*, 2015). In particular, they include not only the possible recognition of ICO as a mechanism for the sale of securities with appropriate measures of liability, but also the lack of legal protection, peculiarities of cross-border jurisdiction, fraudulent schemes (Choo 2015).

And at the same time, mining is allowed in the US. This results from, in particular, the US Securities and Exchange Commission Decision No. 23852 dated June 5, 2017, but in the United States Bitcoins obtained as a result of mining are taxed, and a tax on the difference in value between the moment of creating Bitcoin and the time of sale can be taken into account (Pieters, Vivanco 2017).

Considering the experience of Germany in virtual currency usage, it can be noted that the German Ministry of Finance designates crypto currency as private money and as a financial instrument, based on the analysis of the documents of the Ministry of Finance for 2014 – commercial activities of selling Bitcoins and other digital currencies should be taxed (Chan *et al.* 2016). Taxes in Germany have a differentiated approach: personal income tax ranges from 14% to 45% (Heaven 2017).

In Cyprus, the legal status of Bitcoin and other virtual currencies is uncertain. In this case, virtual currencies are not recognized by the Central Bank of Cyprus as a payment instrument. In addition, in 2013, the Central Bank of Cyprus stated: '(the regulator) considers the use of any kind of virtual money especially dangerous, given that it is not under any system (special, state) control, and its activities are not controlled (including in Cyprus – in a special way). The main thing is that the Central Bank of Cyprus stated the following: 'Bitcoin is not illegal, but at the same time it is not controlled or regulated' (Firth 2017). On the one hand, work with crypto assets in this country is conducted according to the rules of general civil law. On the other hand, the Central Bank of Cyprus has repeatedly indicated in its messages on virtual currencies that activities that need to be licensed should be strictly conducted in accordance with the law.

Crypto currency has the following features (Figure 3):



**Figure 3.** Features of virtual currency.

It can be concluded that virtual currency is a new kind of electronic money that is stored in computer memory and controlled by a special electronic device. The electronic storage of the monetary value of crypto currency is carried out with the help of a technical device. Crypto currency is a new means of payment that allows making payment transactions and does not require access to deposit accounts – a new kind of electronic money.

In the wave of crypto currency popularity growth, the question arose in front of the states' governments: 'to legalize or not to legalize?'. The capitalization of Bitcoin in 2018 will reach 100 billion dollars – these figures eloquently show the role of virtual money in the global economy right now.

The law on crypto currencies means the legal framework for regulating payments, transactions and other activities related to this type of virtual money. A law of such nature can solve the following problems:

- combating fraud;
- legal protection of market participants;
- combating money laundering;
- creation of a bridgehead for licensing and taxation.

Thus, taking into account the experience of some European countries and the USA, it is necessary to envisage the introduction of licensing for mining and crypto trading at the international level. Customers should be identified when selling and buying virtual currency, with the introduction of a special verification procedure for Bitcoin users to prevent the abuse of virtual currencies for money laundering and terrorist financing. Crypto currency exchanges and wallets' services are obliged to comply with the requirements of the Anti-Money Laundering Directive.

Sale of virtual currency should be taxed, so companies engaged in buying and selling Bitcoins can pay a standard income tax.

### Conclusions

- (1) Non-cash money is a disembodied thing of a special kind, the equivalent of cash that is stored on virtual data carriers issued by the issuer for making payments and accepted by institutions other than the issuer as a means of payment;
- (2) Virtual currency is a new type of electronic money with a special legal status in civil relations. The storage and management of the virtual currency monetary value is carried out using a technical device. Virtual currency is a new means of payment and does not require access to deposit accounts;
- (3) Basic properties of virtual currency:
  - the possibility of instant settlements;
  - zero commission for transactions;
  - anonymity of settlements;
  - presence of a high degree of operations' security;
  - irrevocability of payments;
  - no need to convert into the currency of the country of settlements.

- (4) Virtual currency has the following main functions;
- measure of value, which is formed when the price is formed and is expressed in money equivalent;
  - means of circulation;
  - means of payment;
  - means of accumulation;
  - means of saving.
- (5) It is advisable at an international level to envisage the introduction of licensing for mining and crypto trading. Customers should be identified when selling and buying virtual currency, as special verification procedure for Bitcoin users is introduced to prevent the abuse of virtual currencies for the purpose of money laundering and terrorist financing. Crypto currency exchanges and wallets' services are obliged to comply with the requirements of the Anti-Money Laundering Directive.

In further research on the topic, it is necessary to determine the legal status of Bitcoin and crypto currency and to develop recommendations for law enforcement practice.

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