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# An examination of the experience of cryptocurrency use in Russia. In search of better practice

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## ABSTRACT

This study concerns the use of crypto-currency with specific reference to the situation in Russia. A variety of such systems exist; Bitcoin, however, is perhaps the best-known example and will be used as synonymous with the concept throughout this article. Our findings not only show how the views of Russian government bodies are formed and developed, but also sheds light on the specific innovative methods which legal entities use for development of the economy. Consideration will be given to recent developments within Russia which has been more active than many countries in seeking to clarify the status of Bitcoin and providing for the regulation of the technology.

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## 1. Introduction

This article will consider some of the legal issues associated with the use of cybercurrencies. A considerable number of these exist, but undoubtedly the best known example of the species is Bitcoin. In this article, the term Bitcoin will tend to be used as synonymous with cybercurrencies. Initially consideration will be given to some of the general issues associated with the use of cybercurrencies and the manner in which these have developed. Attention will then be given to developments within Russia. This provides a good example of a state that is somewhat torn between wishing to exploit the new technologies and being somewhat fearful of the implications of their use. There have also been extensive discussions of the optimal regulatory approach. Finally, the article will consider some of the possible future uses to which blockchain technology might be put.

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<sup>1</sup> Lanchester J., 2010. Whoops! Why Everyone Owes Everyone and No One Can Pay. Penguin.

## 2. The nature of money

Perhaps cynically, money has been described in the following terms:

Money is a collective act of the imagination, and it's a thing which we have invested our credence in, and it works because we do that,<sup>1</sup>

Whilst there is an element of truth in the assertion that money is an artificial commodity; it is vitally important to society. More pragmatically, the concept of money serves a variety of purposes. The Bank for International Settlements identifies three; seeing money as:

- (i) a unit of account – a yardstick that eases comparison of prices across the things we buy, as well as the value of promises we make;

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- (ii) a medium of exchange: a seller accepts it as a means of payment, in the expectation that somebody else will do the same; and
- (iii) a store of value, enabling users to transfer purchasing power over time.<sup>2</sup>

Money has been a feature of human societies for around three millennia. Governments have historically considered the ability to control the national currency as an important sign of their own legitimacy. The questions inevitably arise; what is money and what is it worth? As is often the case, experiences and lessons from the past remain relevant in our digital world. In previous eras there was a direct linkage between currency and some tangible item of value – often a rare metal such as gold or silver. Until the 18th century money in Europe took the form of coins whose face value was linked to the value of the underlying metal – generally gold or silver. This was one of the main reasons why the act of tampering with currency was considered to be a serious, indeed a capital, offence. Coin clipping was the practice of removing small amounts of metal from a coin. The practice could be lucrative albeit risky. As has been reported:

The act of clipping was not just the occasional coin, it could be a well organised crime. For example, one woman arranged with various apprentices, servants and cashiers who were responsible for safe custody of their masters' money, to bring it her to be clipped and then returned to them. For each £100 of coin brought to her, she gave them £5. This gives an indication that in monetary terms clipping was worthwhile, but the sentence was not. She was drawn on an hurdle or sled to Smithfield where she was burned to death.<sup>3</sup>

Few have (yet) suggested a similar policy with regard to Bitcoin usage! In some respects, however, the notion that currency should be produced by the government is a relatively recent one. For lower value currencies, production and dissemination was largely a matter for the private sector. For centuries the English and then the British Crowns had produced and continued to mint silver pennies, but they had never issued coppers<sup>4</sup> In 1672, Charles II issued a proclamation “for making currant His Majesty's Farthings and Halfpence of Copper, and forbidding all others to be used”. The first halfpence were produced using 175 grains of copper per

coin which meant the copper content was worth about half the face value of the coin. Quality was doubtful. It was estimated in 1787 that at most 8 percent of “halfpennies” in circulation were real. Although diminished, the problem has not gone away. Explaining why it was necessary to introduce a new design of £1 coin in 2017, the Government indicated that:

The current £1 coin, first issued in 1983, is one of the oldest British coins in circulation. Over time, it has become increasingly vulnerable to counterfeiting. One in every thirty £1 coins is now a counterfeit, generating significant costs to industry, the general public, taxpayers and the wider society.<sup>5</sup>

From the 18th century paper money began to dominate the currency market, at least in respect of higher value denominations. Although the difference in value between the materials used in currency and its underlying value was massively greater than had been the case with metallic coins, the linkage between the paper and (typically) gold remained and in 1821 the UK became the first state to officially adopt a formal gold standard whereby paper currency could be exchanged on demand for a specified weight of gold. The century's dramatic increase in global trade and production brought large discoveries of gold, which helped the gold standard remain intact well into the next century. As all trade imbalances between nations were settled with gold, governments had strong incentive to stockpile gold for more difficult times. Those stockpiles still exist today. What is generally referred to as the international gold standard emerged in 1871 following the adoption of a monometallic gold standard by Germany, France, and the United States, with many other countries followed suit. By 1900, the majority of the developed nations were linked to the gold standard.

Under the Gold Standard, Governments fixed prices at which they would buy and sell gold and undertook to supply the appropriate weight of gold in exchange for paper (or coin) based national currency. Gold was – and is – seen as having an intrinsic value. The 18th century English economist David Ricardo wrote that

Gold and silver, like other commodities, have an intrinsic value, which is not arbitrary, but is dependent on their scarcity, the quantity of labour bestowed in procuring them, and the value of the capital employed in the mines which produce them<sup>6</sup>

For many decades, the world's economies were largely based on the “Gold Standard”. As was stated by the former US President, Herbert Hoover, “We have gold because we cannot trust governments”. At a rather different level, lack of trust in governments underpins many of the developments in the field of crypto-currency.

Compared with other rare metals, gold has few practical uses but this is in many respects a positive thing in terms of

<sup>2</sup> Bank for International Settlements. Annual Economic Report 2018 at page 92.

<sup>3</sup> What is Coin Clipping? <[http://www.historyhouse.co.uk/articles/coin\\_clipping.html](http://www.historyhouse.co.uk/articles/coin_clipping.html)>. accessed September 10, 2018. It remains an offence, punishable by a term of imprisonment of up to 2 years and a fine, in the UK to melt down or break up any metal coins without the consent of The Treasury. Coinage Act 1971, Section 10. The act also specifies minimum amounts of weight for coins of particular value (Schedule 1).

<sup>4</sup> For this reason, they were technically considered to be tokens rather than coins and so were declared to be legal tender only in amounts of six pence or less. No one was obligated to accept more than twelve halfpence per transaction. Further, the minting of coppers was contracted by special arrangement with the mintmaster, as the production of silver and gold coins was considered to be the primary work of the royal mint.

<sup>5</sup> Specification of the £1 coin: response to the consultation <[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/413929/PU1775\\_cover\\_prelims\\_FINAL.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/413929/PU1775_cover_prelims_FINAL.pdf)>. See also <<https://www.bbc.co.uk/news/business-12578952>> accessed September 10, 2018.

<sup>6</sup> High Price III 52.

its economic stability. Platinum, for example, is generally an even more expensive metal in terms of weight but has not formed the basis for an equivalent to the Gold Standard. Part of the reason for this may lie with the fact that platinum is a more practical commodity and one that is used in many industrial products and processes – such as catalytic converters to reduce emissions from motor vehicles – and its value can fluctuate depending on the state of the industrial market. The reduction in demand for diesel powered vehicles following the Volkswagen emission scandal of 2017 is reputed to have prompted a 15% drop in the value of platinum.

For almost a century, the linkage between the value of paper currency and the gold or other physical commodity to which its value is tied has largely been broken with the effective abolition of the Gold Standard in the 1930s and reliance placed on what are referred to as “fiat” currencies. Although the average person would see little difference, these have no intrinsic value other than the authority and reputation of the issuing country– although the adoption of the Bretton Woods agreement at the end of the Second World War fixed exchange values for a range of national currencies by reference to the value of gold and the US Dollar. The system essentially broke down in the 1970s when the United States withdrew from the agreement and subsequently most national currencies have floated in terms of the value placed on them by the markets.

In many respects, the analogy between prospecting for gold and Bitcoin creation is an accurate one. Indeed, the term mining is popularly used in the Bitcoin context, Bitcoins are created as a consequence of the use of massive amounts of distributed processing power. In a sense similar to some of the techniques used to solve encryption puzzles in the early years of this century, distributed networks of relatively low powered computers can combine to produce results equivalent and possibly superior to those that could be achieved by stand-alone super computers. The essence of Bitcoin is that it is based on distributed (networked) technology

### 3. Legal tender

One of the objections to the use of systems of crypto-currency is often stated in terms that it is not legal tender. The question arises “what is legal tender?” As with many seemingly straightforward questions, there is no easy answer. In the UK the term appears frequently in statutes but has not been fully defined. As has been stated by the Bank of England:

‘Legal tender’ is a term that people often use, but when it comes to what can or can’t be used to pay for things, it has little practical use.

Legal tender has a very narrow and technical meaning, which relates to settling debts. It means that if you are in debt to someone then you can’t be sued for non-payment if you offer full payment of your debts in legal tender.<sup>7</sup>

In the United Kingdom, legal tender consists of paper notes (£5, 10, 20, 50 and 100) issued by the Bank of England together

with £1 and 2 coins. These are valid for settlement of any legal obligation without limit. Coins with a lesser face value are subject to limits, the Coinage Act 1971 providing that payment is legal tender in the following amounts:

- (a) coins of cupro-nickel or silver of denominations of more than 10 pence, for payment of any amount not exceeding £10;
- (b) coins of cupro-nickel or silver of denominations of not more than 10 pence, for payment of any amount not exceeding £5;
- (c) coins of bronze, for payment of any amount not exceeding 20 pence.

The conundrum is that coins can be classed as legal tender for some purposes but not for others. The oft cited example of a person attempting to settle a bill using very large numbers of small denominational coins will not be legally effective. One instance reports that:

A care home manager has been ordered by a judge to pay a total of £1,118.62 after he tried to settle an £804 debt to his accountant with five crates of mostly 1p and 2p coins. He had been to the bank especially, he said<sup>8</sup>

Other more minor cases have been reported including that of a bus driver refusing to accept 25 one penny coins as part payment of a fare.<sup>9</sup> At least in terms of coins, the scope and extent of the concept of legal tender is limited. It might also be noted that as a matter of law, there is no obligation upon a party to give change for goods or services purchased using legal tender.

Beyond what is considered to be legal tender, the Bank of England points out that:

There are many acceptable payment methods which aren’t technically legal tender. This is why the term ‘legal tender’ has little use in ordinary everyday transactions.

Most shops accept payment by debit or credit card, and some accept cheques and contactless payments. These are safe and convenient ways to pay, despite not being classed as legal tender.<sup>10</sup>

It is certainly the case that we are moving to a cashless society. The volume of consumer transactions paid for using a credit or debit card exceeds the value<sup>11</sup> of those made using

<sup>8</sup> What can you pay for with 1p and 2p coins? Not an £800 bill ... <<https://www.theguardian.com/money/shortcuts/2012/may/15/what-can-you-buy-just-with-1p-and-2p>, accessed September 10 2018.

<sup>9</sup> Bus driver calls police as mother tries to pay 25p of fare in pennies <<https://www.telegraph.co.uk/news/newstopping/howaboutthat/11680017/Bus-driver-calls-police-as-mother-tries-to-pay-25p-of-fare-in-pennies.html> accessed June 17, 2018.

<sup>10</sup> What is legal tender? <http://edu.bankofengland.co.uk/knowledgebank/what-is-legal-tender/>.

<sup>11</sup> Revealed: Cash eclipsed as Britain turns to digital payments <<https://www.theguardian.com/money/2018/feb/19/peak-cash-over-uk-rise-of-debit-cards-unbanked-contactless-payments> estimates that 62% of all transaction are made using a credit or debit card, accessed June 17, 2018.

<sup>7</sup> What is legal tender? <<http://edu.bankofengland.co.uk/knowledgebank/what-is-legal-tender/>> accessed June 17, 2018.

traditional forms of currency. What is different about cryptocurrency? In many respects the answer may be “very little”. Much is written about the increase (or decrease) in value of Bitcoins. Some degree of fluctuation is a feature of all currencies and commodity values. In May 2017, the British pound was worth \$1.3.<sup>12</sup> Over the course of a year this changed to \$1.34. Over a similar period, the price of an ounce of gold fell from £1,000 to £980.<sup>13</sup> In both cases, although there were certainly more substantial fluctuation, the general trend was relatively stable. A different picture is presented by Bitcoins.<sup>14</sup> In July 2017 one Bitcoin was worth around \$3000. A year later its value had more than doubled to around \$7000. In between it had hit a height of nearly \$20,000. This level of fluctuation has drawn comparison with the tulip mania which hit Holland in the late 17th century and saw the price of tulip bulbs reaching enormous (and unsustainable) levels

One of the first networked environments to achieve widespread usage was “Second Life”. Replicating many aspects of the real world, this used, so called, “Linden dollars” as a currency enabling players to buy and sell goods and services within the environment. Markets did appear to convert these into “real” currency but this was very much ancillary to their basic purpose of being used within a closed environment. Bitcoin is intended to be used in the real world as an alternative to more traditional currencies.

#### 4. The nature of cryptocurrencies

For the past decades we have been moving from societies based upon the exchange of cash to what is sometimes referred to as the cashless economy. In 2006, 62% of all payments by value in the UK were made using cash; by 2016 that proportion had fallen to 40%. In 2018 for the first time the number of card transactions exceeded those using cash. By 2026, it is predicted cash will be used for just 21%, of the total number of all transactions according to figures from UK Finance.<sup>15</sup>

With credit and debit cards, our financial status is determined by the data held on a computer system. If the bank’s systems record that an account is £1,000 in credit that is essentially as valuable as a bundle of paper notes. The entry on the issuing bank’s computerised ledgers is real money but is, of course, also linked with the national currency.

The question then arises concerning the extent to which individuals can trust the system? This has two elements. First, there has to be trust in the financial stability of the institution involved – in most cases achieved by the establishment and maintenance of extensive supervisory regimes by governments and second, there has to be trust in the integrity of the records indicating the state of accounts.

It is not the intention of this article to provide a detailed account of the manner in which cyber currencies such as Bitcoin operate. The elements that do call for attention relate to the fact that, rather like Linden dollars, it exists independently of national currencies. Although as will be discussed below, the currency has no physical existence, its creation requires the expenditure of (computer processing) time and energy. Blockchains can have a wide range of applications. The technology facilitates the development of secure, decentralised, data bases and is beginning to be used for a great variety of purposes including healthcare provision and digital identity management.<sup>16</sup> It is, however, its use as the basis for cryptocurrencies that attracts most attention. Two main forms of blockchain can be identified, permissioned and permissionless blockchains. The former allows only authorised persons to modify records. It might perhaps be analogised to an internal organisational Internet. Bitcoin is an example of the second category. Like the Internet anyone can access the system so long as they observe the appropriate protocols.

Modern encryption techniques serve a variety of purposes. It can conceal data in an intelligible form from persons who are not entitled to access it and can also offer assurance as to the accuracy of data and the fact that it has not been altered in any unauthorised fashion. Encryption is at the heart of cyber currencies and the integrity of the systems that evidence ownership of Bitcoins. Unlike the traditional currency/banking model, the financial recording of the existence and extent of rights in Bitcoins is carried out on a distributed basis. It has been commented that blockchain technology:

blend together several existing technologies, including peer-to-peer networks, public-private key cryptography, and consensus mechanisms, to create what can be thought of as a highly resilient and tamper-resistant database where people can store data in a transparent and non-repudiable manner and engage in a variety of economic transactions pseudonymously. Blockchains are enabling the transfer of digital currencies and other valuable assets, managing title to property and sensitive records, and—perhaps most profoundly—facilitating the creation of computer processes known as smart contracts, which can execute autonomously.<sup>17</sup>

It is sometimes argued that Bitcoins have no intrinsic economic value. Their creation, however is not a cost-free exercise requiring substantial investment in computer hardware and the consumption of not insignificant amounts of electricity. It is reported that the amount of electricity used in connection with Bitcoins exceeds all domestic usage in

<sup>12</sup> Pound Dollar Exchange Rate (GBP USD) - Historical Chart <<http://www.macrotrends.net/2549/pound-dollar-exchange-rate-historical-chart>> accessed September 10 2018.

<sup>13</sup> One Year Gold Price UK <<https://www.bullionbypost.co.uk/gold-price/one-year-gold-price>> accessed July 20, 2018.

<sup>14</sup> Bitcoin <<https://www.telegraph.co.uk/investing/news/bitcoin-price-tracker-live-chart/>> accessed June 17, 2018.

<sup>15</sup> Digital Innovation Summit – 18 September – Book Now <<https://www.ukfinance.org.uk/wp-content/uploads/2017/11/Quarterly-Market-Trends-Q3>> accessed September 11, 2018.

<sup>16</sup> What are real-world applications for blockchain technology? <<https://www.quora.com/What-are-real-world-applications-for-blockchain-technology-How-can-it-change-our-daily-lives-For-example-how-can-it-change-the-way-I%E2%80%99m-buying-things>> accessed June 17, 2018.

<sup>17</sup> Blockchain and the Law: The Rule of Code by Primavera De Filippi <<https://www.books-share.com/ebook/blockchain-and-the-law-the-rule-of-code>> accessed September 10, 2018.



Austria.<sup>18</sup> One of the major centres for Bitcoin mining is Iceland – which provides cheap electricity due to the ready availability of geo thermal energy. A cold climate is also beneficial in helping to keep the myriad computers used on effectively a 24/7 basis from overheating. The down-side behind all this activity has seen reports of large scale thefts of computer equipment.<sup>19</sup>

## 5. Cyber currencies in Russia

Reference has been made to the global growth in the use of cybercurrencies. This is also seen in Russia where it is reported that:

In the Unified State Register of Legal Entities, as of January 10, 2018 in Russia, “50 legal entities were registered which in one way or another associate their activities with blockchain technology. 38 companies were registered in 2017. In 2016 only 6 companies were registered”.<sup>20</sup>

It is suggested that a target should be set to launch and successfully implement at least 10 projects in the field of blockchain related to the public sector by 2018. 70% of the Russian economy is connected with the public sector. In 2017, Russian projects attracted more than \$300 million during the ICO. The total value of the market for blockchain-projects, in Russia, amounted to about \$16,000,000 in 2017. A more active period for the introduction of these technologies into the public sector of the economy and business is likely to be in the years 2018–2019. Blockchain, for example, has begun to be used in Moscow as a system for registering real estate transactions.<sup>21</sup>

The main indicator of the state's willingness to use new technologies such as Blockchain is the move to introduce an effective regulatory system related to such technologies and developed business models. A large number of empirical studies have noted the need to analyse and classify the relationships that arise in connection with the use of cryptocurrency.<sup>22</sup> The organization of such relationships should be based on terms of ensuring the security of all parties to

the relationship,<sup>23</sup> including personal data security.<sup>24</sup> The research raises questions about the need for defining legally the term “cryptocurrency”.<sup>25</sup> On July 28, 2017, Russia approved the program “Digital Economy of the Russian Federation.” This indicated that:

The Russian Federation ranks 41st (in) readiness for the digital economy, it has a significant gap from leading countries such as Singapore, Finland, Sweden, Norway, the United States of America, the Netherlands, Switzerland, the United Kingdom, Luxembourg and Japan ... Such a significant lag in the development of the digital economy from the world leaders is due to gaps in the regulatory framework for the digital economy and an insufficiently favourable environment for business producing a low level of use at business structures of digital technology» (Order № 1632-R).

## 6. Can bitcoin be equated to electronic money in accordance with russian laws?

Under Art. 75 of the Russian Constitution, the Russian currency unit is the ruble. Currency issuance is the exclusive province of the Central Bank of the Russian Federation. Under Art. 27 of the Federal Law “On the Bank of the Russian Federation” (Federal Law № 161-FZ, 2011)<sup>26</sup> using other currency units for domestic payments and the production of money substitutes is prohibited in Russia. Whilst this does not mean that there is a ban on the presence of other currencies in the Russian Federation; for payment it is necessary to exchange one currency for the ruble. In the domestic market payment by euros or other currency is illegal.

Along with the concept of the currency unit, is the notion of electronic money. By Paragraph 18. Art. 3. of the Federal Law on the National Payment System<sup>27</sup> it is provided that:

Electronic money means monetary funds provided in advance by one party (funds provider) to another party that records information on the amount of funds provided with-

shocks in cryptocurrency markets. *International Review of Financial Analysis*. 47 P. 343–352.

<sup>23</sup> Karame Gh. and Androulaki El., 2016. *Bitcoin and Blockchain Security*, Artech House, p.240.

<sup>24</sup> Zharova A. K., Elin V., 2017. *The use of Big Data: A Russian perspective of personal data security*. *Computer Law & Security Review*. Vol. 33. No. 4. P. 482–501; Garcia-Alfaro J., Navarro-Arribas G., Hartenstein H., Herrera-Joancomarti J. (Eds.) 2017. *Data Privacy Management, Cryptocurrencies and Blockchain Technology*. ES-ORICS 2017 International Workshops, DPM 2017 and CBT 2017, Springer.

<sup>25</sup> Sarah J. Hughes & Stephen T. Middlebrook. 2015. *Advancing a Framework for Regulating Cryptocurrency Payments Intermediaries*, 32 *Yale J. on Reg.* <<http://digitalcommons.law.yale.edu/yjreg/vol32/iss2/8>> accessed June 17, 2018.

<sup>26</sup> FEDERAL LAW On the Central Bank of the Russian Federation (Bank of Russia) <[https://www.cbr.ru/Content/Document/File/37343/law\\_cb\\_e.pdf](https://www.cbr.ru/Content/Document/File/37343/law_cb_e.pdf)> accessed June 17, 2018> accessed June 17, 2018.

<sup>27</sup> THE RUSSIAN FEDERATION FEDERAL LAW ON THE NATIONAL PAYMENT SYSTEM <[https://www.cbr.ru/Content/Document/File/16997/161-FZ\\_e.pdf](https://www.cbr.ru/Content/Document/File/16997/161-FZ_e.pdf)> accessed June 17, 2018.

<sup>18</sup> Bitcoin estimated to use half a percent of the world's electric energy by end of 2018 <<https://www.sciencedaily.com/releases/2018/05/180516131236.htm>> accessed July 20, 2018.

<sup>19</sup> Six hundred bitcoin mining computers stolen in Iceland <<https://www.independent.co.uk/news/world/europe/bitcoin-computer-iceland-mine-cryptocurrency-a8238611.html>> accessed September 10, 2018.

<sup>20</sup> Information on the state registration of legal entities, individual entrepreneurs.

<sup>21</sup> Kozhevnikova Yu., 2017 As a blockchain and distributed registers will transform the real estate market <<https://realty.rbc.ru/news>> accessed June 17, 2018.

<sup>22</sup> Chambers-Jones C. and Hillman H., 2014. *Financial Crime and Gambling in a Virtual World*. Cheltenham: Edward E. Publishing; Stephen T. Middlebrook & Sarah Jane Hughes, *Substitutes for legal tender: Lessons from history for the regulation of virtual currencies*, *Research Handbook on Electronic Commerce Law*; Elgar Ed., 2016 *Indiana Legal Studies Research Paper No. 316*; Wanga H., He D., Ji Y. 2017. *Designated-verifier proof of assets for bitcoin exchange using elliptic curve cryptography*. *Future Generation Computer Systems*; Fry J., Cheah Eng-Tuck. 2016. *Negative bubbles and*

out opening a bank account (obligor) for the purpose of fulfilling the pecuniary obligations of the funds provider to a third party and in respect of which the funds provider is entitled to send instructions only using electronic means of payment.

On 30 January 2017, a list of 99 operators authorised for the sale or transfer of electronic money resources was published on the website of the Central Bank. Bitcoin, however, does not fall under this definition. Electronic money does not have a prepaid character. The issuing of cryptocurrency is carried out by the users themselves but the users are not depositing money into an account (Art. 1.4 of Order of the Bank of Russia № 383-P). Additionally, Bitcoin cannot be characterized either as cash or as currency, or as money in the form of banknotes and coins of the Central Bank of Russia. But neither can it be considered a means of cash payment on the territory of a foreign state or group of foreign states (Par. 1 and 2, Art. 1 of the Federal Law № 173-FZ).

Again, Bitcoin cannot be assigned to the category of objects of rights that are enumerated in Art. 128 of the Civil Code of Russia.<sup>28</sup> These are defined as:

... things, cash and certificated securities, non-cash means of book-entry securities, property rights and other property; results of operations and services; protected results of intellectual activity and means of individualization (intellectual property); intangible benefits.

Bitcoins do not come into any of these categories. They cannot fall into the category of “things”, since they are not objects of the material world and do not exist in a physically tangible form. In this connection, for the virtual money, unacceptable use of the term “ownership” - in the Russian legislation, the right of a person to own of property - consists of rights of possession, use and disposal, and it is fixed only in case of possession of material things. For owners of intangible objects such as information or intellectual property, in accordance with Russian law, the concept of possession is applicable. But, since Bitcoin is not legally defined, and it is impossible to find the term that we can use for description of relationships Bitcoin, under Russian law it may be considered that it is easier to say what Bitcoin is not than what it is.

## 7. Sandbox

In 2017, the Bank of Russia created a special regulatory regime for banks and other financial institutions, called “sandbox” which intended to test blockchain technologies. To manage the development of the digital economy the program established a “road map”, identifying three main stages of development.

The first sees the establishment of an appropriate regulatory regime. Order № 1632-R) adopted in 2018, states:

The implementation of the concept should lead both to the removal of key legal restrictions for the development of the

digital economy and to determine the priority basic legal concepts and institutions necessary for the development of the digital economy ... By 2024, the legal regulation of relations arising from the development of the digital economy must result in a regulatory environment that provides an enabling legal regime for the emergence and development of modern technologies and economic activities related to their use.

Secondly, the largest Russian bank, Sberbank<sup>29</sup> has begun to apply a blockchain system to ensure transactional security for its users. In addition, Sberbank and the Federal Antimonopoly Service (FAS) of Russia have launched another pilot project “Digital Ecosystem” for document workflow on the basis of blockchain technology. Russian companies, including “Aeroflot”, “Russian coal” and “Fortinvest” joined in this project (Sberbank and FAS began pilot operations in 2017). It is expected that the commercial exploitation of this IT platform will begin the end of 2018 among private companies that are operators of electronic money. A major Russian company involved with electronic money transfers is “Yandex-Money”<sup>30</sup> which operates a global settlement system and environment for online business activities. Also active are “Webmoney”<sup>31</sup> and “Qiji”<sup>32</sup> which have begun to apply an online customer identification system based on blockchain technology. In addition, the Central Bank of Russia received an offer (which did not result in an agreement) from the Russian payment system “Qiji” to begin mining of what is referred to as the “bitruble”.) The deputy chairman of the Bank of Russia has suggested that Russian financial market players come together to work with blockchain technology in fora such as the consortium R3.<sup>33</sup> Thus, the creation of experimental platforms

<sup>29</sup> This bank is 51% government owned.

<sup>30</sup> The service of electronic payments in RuNet. It allows to accept payment by electronic money, cash, from bank cards.

<sup>31</sup> WebMoney Transfer is a global settlement system and environment for online business activities, established in 1998. Since then, over 34 million people from all over the world have joined the system // <<https://www.wmtransfer.com/eng/information/short/index.shtml>> accessed June 17, 2018.

<sup>32</sup> The international payment service.

<sup>33</sup> R3 is an international group made up of the financial industry, developers, blockchain and cryptocurrency experts. It is working with the members of the consortium in research, design and development, to advance the technology and adapt it to the requirements of banks in respect of identification, privacy, security, scalability, interoperability and integration with existing financial systems. R3 brings together all the top banks, including Credit Suisse, Barclays, JPMorgan, Goldman Sachs, ING, BNP Paribas and others. The consortium is working with cryptographic technologies and protocols of distributed registry in international financial markets, as well as on their use. The consortium is to combine the development of financial institutions to facilitate the introduction of new ones. This merger took place September 15, 2015, and in early April this year, R3, together with the provider of market information Markit and technology startups Axoni, successfully tested the technology block chains, which will allow banks to annual savings on the registration of transactions of \$16 billion, and the requirements for their capital adequacy will be reduced by \$120 billion. Some startups using blockchain cryptocurrencies and with the participation of individual bank technology, members R3, are already in operation in the UK and the US, and now they have started Bitcoin-expansion in the European market.

<sup>28</sup> THE CIVIL CODE OF THE RUSSIAN FEDERATION <<http://www.wipo.int/edocs/lexdocs/laws/en/ru/ru083en.pdf>> accessed June 17, 2018.

will allow not only to see the complexities of the emerging relations in the use of cryptocurrency, but also to develop best practices for Russia by 2018.

Thirdly, Russian government bodies have raised issues, looking for the best ways to regulate Bitcoin, in accord with national traditions. The State authorities are aware that an outright ban on cryptocurrency will not bring positive results, and are looking for their own approach to the legal regulation of cryptocurrency. To achieve this, the authorities announced the formation of an expert advisory group. The Russian State Duma (parliament) has set up an interdepartmental working group on cryptocurrency risk assessment to determine the legal nature of cryptocurrency and whether it needs to develop a national strategy for Bitcoin. The working group is charged with determining whether Bitcoins should be classed as a commodity, a means of payment or a payment instrument. The Central Bank of Russia has also set up a working group and the idea of using cryptocurrency in Russia is being discussed by stakeholders at meetings of the Finance Ministry.

In 2017, the Russian President, Vladimir Putin, expressed the attitude of the State to Bitcoin, as “very wary” He continued –

Today almost nothing is regulated in this area ... there were very large fluctuations in the market of this currency. This can lead to very serious losses for people or for those structures and legal entities that are invested in these currencies. For today it is a complicated project. But in the future this, of course, is possible. And if we think about future, then we need to think now ... The idea of creating a single world currency is good, but there is little chance of realizing it, at least now.<sup>34</sup>

The Russian Ministry of Finance is currently proposing to regulate cryptocurrency as “other property” and classify it as an asset. This would allow qualified investors to buy and sell cryptocurrency and the exchange it, only. The Ministry of Finance is discussing this issue with the Central Bank and the Moscow Stock Exchange. This would protect people who use Bitcoin at their own risk and do not have any judicial protection.

The current uncertainty in the understanding of these new emerging financial relationships, means the Russian authorities are watching the use of Bitcoin closely. The Bank of Russia, in an unofficial letter to the Federal Financial Monitoring Service (Rosfinmonitoring), classifies Bitcoin as a “virtual currency” and provides explanations about the legal status of Bitcoin. It states that “there is no legal provision or legally certain subjects and relationships for the use of Bitcoin. Bitcoin operations are speculative by nature, carried out on “virtual markets” and involve a high degree of risk.<sup>35</sup>

<sup>34</sup> Transcript: What did Vladimir Putin talk about with the pupils of Sirius Retrieved from: <<https://tg.ru/2017/07/21/vstrecha-s-uchashchimis-obrazovatel'nogo-centra-sirius-stenogramma.html>> accessed June 17, 2018.

<sup>35</sup> Information on the use of “virtual currencies” transactions, in particular, Bitcoin. The press service of the Central Bank of the Russian Federation. <[https://www.cbr.ru/press/PR/?file=27012014\\_1825052.html](https://www.cbr.ru/press/PR/?file=27012014_1825052.html)> accessed June 17, 2018.

This letter continues to warn citizens, legal entities and credit institutions concerning the use and exchange of “virtual currency”. It highlights the anonymous nature of “virtual currency” and warns that by using Bitcoin a person could be considered to be acting illegally (laundering proceeds from crime or financing terrorism).<sup>36</sup> In this case the responsibility of legal entities is defined by the Federal Law “On counteraction to legalization (laundering) of proceeds from crime and terrorist financing” (Federal Law № 115-FZ). Although, the article of J.H. Ziegeldorf et al. shows how “users can be re-identified and their payments are linked based on the very central Bitcoin element, block chain, public book of all transactions.”<sup>37</sup> Therefore, anonymity must not be considered as the sole factor that allows Bitcoin to be used for illegal purposes – although of course, there have been a number of widely publicised allegations of criminal conduct involving the use of Bitcoin, the best known being the Silk Road website which provided an environment for Internet based drug dealing with payment made by Bitcoin.<sup>38</sup>

The information given in the letter to Rosfinmonitoring is only advisory and is not binding on its recipients. However, there are actions of executive agents that support this position. In February 2014, a meeting of an expert group with representatives of the Bank of Russia and the Russian Interior Ministry and the Federal Security Service of Russia was held. The result of the meeting was a message sent to the representatives of the Prosecutor General of Russia detaining the high risk of violation of the property rights of citizens in case of the use of Bitcoin. It noted that the participants of the expert group believed that “a distinctive feature of Bitcoin [...] is the lack of availability of real value. It cannot be a means of mutual settlement and accumulation. Its price is determined solely by speculative actions. This entails a high risk of loss of value and a violation of the rights of citizens and organizations which keep it. It is necessary to take into account the fact that the owners of the cryptocurrency are deprived of the possibility to protect their interests by the judicial and administrative proceedings in Russia and other countries.”<sup>39</sup>

## 8. Bitcoin as payment system or as operator of electronic money

Questions about the classified Bitcoin as a payment system are relevant. The blockchain is a digital ledger that records ev-

<sup>36</sup> The letter of the Federal Financial Monitoring Service (Rosfinmonitoring), of February 6, 2014 “On the use of Cryptocurrency”. The system ConsultantPlus Legislation with comments.

<sup>37</sup> Ziegeldorf J.H., Matzutt Roman, Henze Martin, Grossmann Fred, Wehrle Klaus. 2017. Secure and anonymous decentralized bitcoin mixing. Future Generation Computer Systems. doi.org/10.1016/j.future.2016.05.018.

<sup>38</sup> For an account of the case see <<https://www.theguardian.com/technology/2013/nov/10/silk-road-internet-market-illegal-drugs-ross-ulbricht>>.

<sup>39</sup> The General Prosecutor of the Russian Federation held a meeting on the issue of the legality of the use of anonymous payment systems and Cryptocurrency (Accessed December 12, 2017). <<http://genproc.gov.ru/smi/news/genproc/news-86432/>> accessed June 17, 2018.



ery Bitcoin transaction that has ever occurred. In accordance with Para. 20 of Art. 3(1) of the Federal Law “On the national payment system”, the system is defined in the following broad terms:

National Payment System means the totality of money transfer operators (including electronic money operators), bank payment agents (subagents), payment agents, federal postal service organisations, if they provide payment services in accordance with the legislation of the Russian Federation, payment system operators, and payment infrastructure service providers (national payment system entities).

The Article continues to define a number of these concepts in more detail:

- 2) Money transfer operator means an organisation entitled to transfer funds in accordance with the legislation of the Russian Federation.
  - 3) Electronic money operator means a money transfer operator, which transfers electronic money without opening a bank account (an electronic money transfer).
  - 4) Bank payment agent means a legal entity (other than a credit institution) or an individual entrepreneur engaged by a credit institution to perform certain banking operations. (Clause 4 as amended by Federal Law No. 110-FZ, dated 5 May 2014)
  - 5) Bank payment subagent means a legal entity (other than a credit institution) or an individual entrepreneur engaged by a bank payment agent to perform certain banking operations. (Clause 5 as amended by Federal Law No. 110-FZ, dated 5 May 2014)
  - 6) Payment system operator means an organisation that defines the payment system rules and performs other duties as provided for by this Federal Law.
  - 7) Payment infrastructure service provider means an operations centre, a payment clearing centre, or a settlement centre.
  - 8) Operations centre means an organisation providing payment system participants and their customers with access to funds transfer services within the framework of the payment system (including using electronic means of payment) and with the exchange of electronic messages (“operational services”).
  - 9) Payment clearing centre means an organisation established in accordance with the legislation of the Russian Federation to ensure the execution of payment system participants’ funds transfer instructions and the performance of other activities within the framework of the payment system, as provided for by this Federal Law (“payment clearing services”).
- ...
- 18) Electronic money means monetary funds provided in advance by one party (funds provider) to another party that records information on the amount of funds provided without opening a bank account (obligor) for the purpose of fulfilling the pecuniary obligations of the funds provider to a third party and in respect of which the funds provider is

entitled to send instructions only using electronic means of payment. However, electronic money does not include money received by organisations conducting professional activity in the securities market, clearing activity, and/or management of investment funds, unit investment funds, or non-governmental pension funds and recording information on the amount of money provided without opening a bank account in accordance with the legislation governing the activity of the said organisations.

- 19) Electronic means of payment means an instrument and/or a method that allows a money transfer operator’s customer to prepare, certify, and send funds 5 transfer instructions within the framework of applicable forms of cashless transfers using information and communication technologies, electronic data media, including payment cards, and other technical devices.
- 20) Payment system means the totality of organisations interacting according to the payment system rules for the purpose of making funds transfers, including the payment system operator, payment infrastructure service providers, and payment system participants, of which at least three organisations are money transfer operators

In accordance with Russian law, electronic money payments may be made only by operators of electronic money.<sup>40</sup> As matters stand, systems such as Bitcoin cannot be considered as a payment system within the meaning of Par. 20, Art. 3 the Federal Law “On the national payment system”. Moreover, based on the analysis of the norms, Bitcoin cannot be classified as an operator of electronic money. According to the Federal Law “On the national payment system” the operator of electronic money can only be a “non-bank credit organization” with a minimum capital of 18 million rubles. Such organizations provide non-cash payment services which are based on rules and procedures established by the Bank of Russia.

It can be generalized that, first, there is legal uncertainty in the regulation of any Bitcoin relationship in Russia. Complications in the spread of Bitcoin are related to the difficulty of understanding how it works and differing perceptions of it by different people. Second, the lack of legal status of Bitcoin does not allow persons to apply to the judicial and law enforcement authorities. Neither the police nor the judiciary can work with objects that are not defined by law. This entails an increased risk of participants losing their money. In conclusion, then, despite the fact that the Bitcoin system mimics the functions of the payment system, Bitcoin cannot be used either to electronic money or as part of a payment system, in accordance with legislation.

## 9. Bitcoin as a money substitute or surrogate

The idea that bitcoin is a monetary surrogate is supported by the head of the Central Bank of Russia, Nabiullina. She has stated that:

... The Central Bank prohibits only money substitutes, such as Bitcoin, but not their underlying technology. Blockchain

<sup>40</sup> Art. 12 Federal law “On the national payment system.



can be used by the bank in the organization of internal settlements for transactions between our subsidiaries and other banks. This technology has nothing to do with cryptocurrency, it is another way of payment: a simple, fast and reliable.<sup>41</sup>

The representatives of other states have a similar position. Yadron & Devlin write that:

The virtual currency is essentially an encrypted computer code that is accepted as a form of payment among users, with a fluctuating value set by the market and not by any country or central bank. For those reasons and more, it can be extremely difficult to trace, similar to paying with cash, and thus could be attractive to criminals.<sup>42</sup>

However, there are other opinions. As noted by Fry&Eng-Tuck “in the literature it remains unclear as to whether or not Bitcoin and cryptocurrencies should be seen as an alternative currency or as a speculative asset bubbles and shocks in cryptocurrency markets”.<sup>43</sup>

From the standpoint of the legislation of the Russian Federation, the Civil Code determines the right of the parties to determine the terms of the contract at their own discretion. Article 412 provides that:

- (1) The citizens and the legal entities shall be free to conclude contracts.
- (2) The contract terms (provisions) shall be defined at the discretion of the parties, with the exception of the cases, when the content of the corresponding term (provision) has been stipulated by the law or by the other legal acts

This right of the parties is confirmed by a judicial precedent in which it was held that the defendant's obligation to pay 5 million Singapore dollars under the agreement was substituted by a voluntary obligation to transfer the equivalent value in cryptocurrency in the form of Bitcoin to the plaintiff.<sup>44</sup>

Thus, from the point of view of civil law, deals on selling goods or rendering services for Bitcoins cannot be classed as invalid in accordance with the Civil Code of the Russian Federation. However, in the Law on the Bank of Russia (Art. 27) after providing that only the ruble constitutes lawful currency within Russia it is stated that:

The issue of any other monetary units or quasi-money shall be prohibited in the Russian Federation

Neither the law nor judicial practices define the scope of the term “issue of ...” or the concept of “monetary surrogates.” We can assume that by the issuance of monetary surrogates

should be understood as their extraction. It follows that although, in accordance with the civil legislation of the Russian Federation, the use of cryptocurrency in the civil legal turnover is possible, from the point of view of banking law, the production of cryptocurrency is prohibited

## 10. Risks of Bitcoin use

Sberbank considers as risky relationships “actively developing platforms peer-to-peer lending, payment technology, which are based on blockchain”. These technologies lead to a direct interaction between the lender and the borrower. The bank is absent in such a relationships. Members of cryptocurrencies are vulnerable; they do not have a trusted third party, whose activities are regulated by the state, such as a bank. Due to the lack of government participation in these relationships, these relationships should be attributed to risky. It is one thing when the bank deposits are insured by the state and the state guarantees the return funds, and another thing when a creditor, in the face of the creator cryptocurrency, does not assume these risks.

This point of view is relevant not only to Russia, but also to users in other countries. Users of cryptocurrencies are vulnerable, because they do not have a trusted third party, whose activities are regulated by the state, such as a bank. “A single jurisdiction does not have the power to control the blockchain where all these transactions are recorded.<sup>45</sup> In addition, as noted by Hanna and Miklos (2016), there are risks that, compared with traditional currencies the number of Bitcoin units in circulation is not controlled by a person, group, company, central government or government, but by a software algorithm.

Proceeding from the fact that nature of cryptocurrencies is decentralised, Government cannot identify a subject who guarantees their solvency. In this regard, the cryptocurrency market should be regulated by the Ministry of Finance and the Bank of Russia. For this Rosfinmonitoring, the Ministry of Finance, the Internal Revenue Service and the Bank of Russia are developing standards designed to become federal law. An example of preventing such risks already exists. In 2013, the European Commission cleared the creation of a joint venture between Telefónica SA, CaixaBank SA and Banco Santander SA<sup>46</sup> which provides a number of “digital wallet services». The mobile wallets include an identification system (the existence of a client ID to identify the consumer in order to make the payment). By means of such ID, consumers are able to make contactless payments, while merchants are able to identify consumers in order to offer them benefits and promotions. It was also envisaged that customers could use the electronic wallets to make peer to peer payments to other users.

A different approach to risk prevention has been in Belarus, In accordance with the Presidential Decree “On Measures to improve the use of the National Segment of Internet”<sup>47</sup> all legal entities and sole proprietors which are located on the ter-

<sup>41</sup> The largest Russian bank “Sberbank” integrates Blockchain technology, 2017. <<http://ru.newsbtc.com>> accessed June 17, 2018.

<sup>42</sup> Yadron D., Barrett D., 2013. “U.S. News: bitcoin Poses Test to Law Enforcement, Wall Street Journal, [Eastern edition New York, N.Y 23 Oct 2013].

<sup>43</sup> Fry J., Eng-Tuck Cheah. 2016. Negative bubbles and shocks in cryptocurrency markets. *International Review of Financial Analysis*. 47, P. 343–352.

<sup>44</sup> Decision of the Sixth Appeal Arbitration Court of 01/04/2016 in the case N 06AP-552/2016.

<sup>45</sup> Varriale G. 2013. Bitcoin: how to regulate a virtual currency, *International Financial Law Review*.

<sup>46</sup> Case No COMP/M.6956 (2013).

<sup>47</sup> Presidential Decree № 60, 2010.

ritory of the Republic of Belarus and have been using in their business Internet are required to switch to the use of information networks, systems and resources of the Belarus segment of Internet, before July 1st, 2010 “. In Russia there is no such requirement.

However, there is a belief that Bitcoin currency is no more vulnerable to abuse than national currencies or other assets and this is confirmed by actual crime statistics. The main feature of Bitcoin and other related forms of currency is that their creators are able to completely abandon money issued by the central bank. This is all that distinguishes Bitcoin from currency guaranteed by the State. The future of Bitcoins depends on finding the right balance between convenience and security of use. Some payment systems, such as PayPal, already offer their customers electronic checks on the owner of Bitcoin and the owners’ rights to Bitcoins.<sup>48</sup>

To this end in late 2014, the Russian Ministry of Finance prepared a draft law<sup>49</sup> on the application of criminal liability for dissemination of Bitcoin. In this case it is not very clear what this means the spread of Bitcoin. For example, if a person received a Bitcoin from another person but does not use that Bitcoin to make a purchase, or use it for any other purposes, and does not mine any Bitcoins, then should this person be held accountable for storage of Bitcoin? There is no official answer.

The Ministry of Finance stated in the draft law that it does not seek to prohibit cryptocurrency in Russia, but will punish the use of cryptocurrency for illegal activities. The fines can be substantial: up to 50,000 rubles for individuals and up to 1 million rubles for commercial organizations.<sup>50</sup> Moreover, the fine can be imposed on citizens and companies who do not themselves use cryptocurrency<sup>51</sup> but deliberately disseminate information that enables others to issue monetary surrogates or make deals with them.

Despite the position voiced by Rosfinmonitoring in 2014, at the end of 2016 it developed the basic principles of cryptocurrency operation in Russia. Rosfinmonitoring believes that “private virtual currencies such as Bitcoin should not generated solely by the computer, but must have an issuer, with the attendant rights and duties. Such issuer must have state registration. It is assumed that with the introduction of a domestic cryptocurrency, all other cryptocurrency will be prohibited. The main point of the regulation and control of release of such funds is the ability to exchange currencies. The Russian currency is issued by the state; this gives it the opportunity to adjust its weight and thus ensure the balance of payments and to fight inflation. Cryptocurrency is a means of payment, which today are emitted obscure (organizations) subjects. Therefore, there should be one state body responsible for cryptocurrency release. The activities of financial institu-

tions which issue cryptocurrency must be licensed. Exchange transactions will be arranged on special electronic platforms.

Despite the risks, public and private banks are determined to realize the potential for the banking system of blockchain technology. In the case of the Sberbank, discussions have taken place concerning the possibility of joining the blockchain-consortium of Russian banks, which was created by the Central Bank of the Russian Federation after the 25th Congress of International Finance held by the Bank of Russia, from June 29 to July 1, 2016 in St. Petersburg. Currently, the members of the consortium are such companies as “QIWI”, “BIN”, “MDM Bank”, “Discovery bank”, “Tinkoff Bank” and “Accenture. July 1, 2016, all of these organizations have signed a memorandum to join the consortium.

## 11. The way forward

Russia is currently faced with a bifurcated choice regarding the legislative path to follow—permissive or prohibitive. As part of its on-going research, the Ministry of Finance has identified four approaches to defining the essence of cryptocurrency.

The first is to define cryptocurrency as money. The opinion that cryptocurrency is money was laid down in the initial position of the Bank of Russia, and a number of law enforcement agencies and the prosecutor’s office. However to legalize cryptocurrency it is necessary to make appropriate changes to the Russian Constitution, the Central Bank Law and other regulations. This approach is similar to the EU practice established in the case of *In Skatteverket v David Hedqvist*<sup>52</sup> the European Court considered how Bitcoins should be considered under the system of Value Added Taxation which is the major form of indirect taxation applied within the EU Member States. Council Directive 2006/112/EC of 28 November 2006 on the common system of value added tax (the ‘VAT Directive’) establishes the basis upon which Member States are to levy VAT and provides for an exception in respect of:

Transactions, including negotiation, concerning currency, bank notes and coins used as legal tender, with the exception of collectors’ items, that is to say, gold, silver or other metal coins or bank notes which are not normally used as legal tender or coins of numismatic interest;

The case in question concerned the proposed operation of a web site operated by Hedqvist. This site, it was stated, would:

Purchase units of the ‘bitcoin’ virtual currency directly from private individuals and companies, or from an international exchange site. The company would then resell the units on such an exchange site, or store them. Mr Hedqvist’s company would also sell such units to private individuals or to companies that place an order on its website. ... The price proposed by the company to clients would be based on the current price on a particular exchange site, to which a certain percentage would be added. The difference between the purchase price and the sale

<sup>48</sup> REPORT FATF. Virtual currency. Key definitions and potential risks in the field of AML / CFT. para 16. <[http://www.eurasiangroup.org/files/FATF\\_docs/Virtualnye\\_valyuty\\_FATF\\_2014.pdf](http://www.eurasiangroup.org/files/FATF_docs/Virtualnye_valyuty_FATF_2014.pdf)>.

<sup>49</sup> This bill has not been adopted.

<sup>50</sup> At 11.09.2018 80.67 rubles = 1 euro.

<sup>51</sup> In the draft text cryptocurrency is referred to as “cash equivalents”.

<sup>52</sup> Case C-264/14.

price would constitute Mr Hedqvist's company's earnings. The company would not charge any other fees.

Prior to commencing activities, Hedqvist sought a ruling from the Swedish Revenue Commission whether the proposed activity could benefit from exemption from liability to VAT. The Revenue Commission stated that it would benefit. Bitcoin was a form of currency and the restriction on exemption provided for in the Directive applied only in respect of bank notes and coins where the value of these lay in respect of attributes other than their face value.<sup>53</sup> The Swedish Tax Authority, the Skatteverket contested this view and sought a ruling from the Swedish courts who, in turn, referred the matter to the European Court for a preliminary ruling.

In its ruling, the Court identified interpretative difficulties arising from linguistic variations in the national language texts of the Directive. These were set out in some detail in the opinion of the Advocate General.<sup>54</sup> Whilst some language texts referred to legal tender, others were less specific on the point. The Advocate General concluded to advise the Court that:

The exemption is not limited to currencies used within the European Union, however. All of the world's currencies are covered by the exemption. It follows that the objective of Article 135(1)(e) of the VAT Directive is to ensure that, in the interests of the smooth flow of payments, the conversion of currencies is as unencumbered as possible.... Exempting from VAT the exchange of legal tender for a means of payment which does not have legal status but which nevertheless is a pure means of payment, such as the bitcoins in this case, is in line with this objective. In so far as means of payment exist which are involved in payment transactions because they fulfil the same payment function in the course of trade as legal tender, the levying of VAT on exchanges of such means of payment would constitute an additional burden on payments

The Court agreed, essentially looking to the substance of Bitcoin transactions rather than their formal status as involving legal tender. The position of the Court was studied by the Bank of Russia which argued for the creation of a prototype publicly regulated cryptocurrency—RSCoin. This process would be led by the Bank of Russia, along with commercial banks which are called “chasers” by Bank of Russia. Unlike banks, the miners of Bitcoins are determined by the Bank of Russia and are licensed.

From this point of view, the authorities' wish to forbid a second currency, which would have an existence in addition to the national currency, is justified. To implement this approach, any cryptocurrency would have to be carefully aligned to the Russian financial infrastructure, which is currently not ready

<sup>53</sup> As an example, the Royal Mint, which produces currency in the UK, offers a range of specialised coins for sale – including 50p coins with images of the famous story character Paddington Bear. The coins sell for around £60 < <<https://www.royalmint.com/our-coins/events/paddington?PureMetalType=Silver>> accessed June 17, 2018. Although they could be used in the course of normal commerce, it would be a foolish holder who would use them as payment at their face value.

<sup>54</sup> At para 25 et seq.

to accept the second currency. This approach would protect the advantages of a blockchain. In order to do this it is necessary that it will not be inundated with micro transactions. The disadvantage of this model is that it largely discredits the idea of a decentralized currency that is free of state and government regulation.

Currently, the use of cryptocurrency is regarded as a financial pyramid. Without special legislation and supervision by the Central Bank of Russia, investments in this currency are high-risk. The development of special legislation on cryptocurrency will allow the controlling movement of such funds and the purposes of their use. If Bitcoin were to be recognized as a financial asset, then in this case it can be traded through the exchanges. In this case, Rosfinmonitoring will know who sells and who buys Bitcoins. Currently, the mechanisms for combating money-laundering are not fully applicable to cryptocurrencies.

The second approach is based on the legalization of cryptocurrency with the establishment of areas of special controls and financial monitoring. The first area includes user identification, miners of Bitcoins, storage, and exchange offices. The second area is the control of the exchanges which require to hold a license issued by the Bank of Russia. The third area is cashing cryptocurrency. This area should be strictly controlled by the Bank of Russia, and the must use the recommendations of the Financial Action Task Force (FATF).

An example of determining the position of the need to control the release of Bitcoin is an information letter signed by the Federal Tax Service of the Russian Federation in 2016.<sup>55</sup> In this, it is indicated than in the Russian Federation legislation, concepts such as cash substitute, cryptocurrency, virtual currency are not fixed.

In accordance with the information letter of the Federal Financial Monitoring Service that is posted on the official website [www.fedsfm.ru](http://www.fedsfm.ru), cryptocurrency use in transactions is the basis for consideration of such transactions (operations) as transactions (operations) aimed at the legalization (laundering) of proceeds from crime by, and the financing of terrorism.<sup>56</sup>

However, the Russian legislation does not contain a ban on operations with cryptocurrency. Thus, according to the Federal Tax Service of Russia, the operations associated with the acquisition or sale of cryptocurrency which use foreign exchange assets (foreign currency and foreign securities) and (or) Russian Federation currency are foreign currency transactions, the procedure for which is established by the Law N 173-FZ “On Currency Regulation and Currency Control, and should be carried out through the accounts of residents that are opened with authorized banks<sup>57</sup> Federal Tax Service of Russia also indicates that the current system of exchange control does not provide a detailing the purchase and sale transactions of cryptocurrency from residents and non-residents to the currency control authorities and currency control agents

<sup>55</sup> The letter to the Federal Tax Service of the Russian Ministry of Finance on October 3, 2016 No OA-18-17/1027 The main directions of the single state monetary and credit policy for 2008. Bulletin of the Bank of Russia. 2007. Aug. 22.

<sup>56</sup> Ibid.

<sup>57</sup> Ibid.



(authorized banks and the professional participants of the securities market). As noted by Ciaian et al. (2016) the security problem is largely attributed to the lack of an oversight institution that would ensure security of Bitcoin transactions and Bitcoin system.

At the same time, information about the conduct of the sales operations cryptocurrency for the purpose of monitoring compliance with the requirements of the currency legislation may be obtained from the tax authorities and the authorized body in the sphere of counteraction to legalization (laundering) of proceeds from crime and terrorist financing. An agreement on cooperation and organization of information interaction between the Federal Financial Monitoring Service and the Federal Tax Service of 15.10.2015 N 01-01-14 / 22,440 / IIM-23-2 / 77 @ provides for the transfer from the Federal Financial Monitoring Service to Russian Federal Tax Service (including at territorial level) of information about the identified financial schemes that are signs of tax evasion, illegal VAT refunds from the budget, intentional bankruptcy and other illegal activities related to the bankruptcy, violations of currency legislation of the Russian Federation.

The third approach is based on the recognition of cryptocurrency as a means of accumulation. Under this, money substitutes are illegal only if they are a marketing tool and are used for exchange, but the law does not mention storage. In fact, we can put ourselves in a situation where cryptocurrency in Russia will be a means of storage. The mechanism of such a financial instrument is that people exchange real money for cryptocurrency, which is then transferred to another financial institution which exchanges it for real money. Such an approach to global cryptocurrency requires no changes of the Russian legislation. We only need to review the law "On the national payment system. Carrying out such operations will accelerate payments, and it would eliminate using SWIFT for financial transfers. Therefore, this third approach is the most likely to be implemented.

According to representatives of the Sberbank "blockchain implementation of technology can delete some the political risk. It is a distributed system and it does not have a single control, which could disable the bank from this system. Using blockchain increases the reliability and stability of the bank, saving it from the risk of disconnection of the Russian bank from the international transfer system SWIFT financial messaging".<sup>58</sup>

The fourth approach is based on cryptocurrency being considered as a commodity. This position is based on the experience of the USA. In 2015, the Commodity Futures Trading Commission (CFTC) confirmed that cryptocurrency can be recognized as a commodity. The CFTC quoted the definition of commodity from Section 1a(9) of the Commodity Exchange Act and noted that "Bitcoins fall within the definition of "commodity (Agency Financial Report, 2015) under section 1(9) of the Commodity Exchange Act (CEA) so that derivatives contracts that reference Bitcoins are subject to regulation by the Commodity Futures Trading Commission (CFTC). Like other derivatives, Bitcoin derivatives would likely not be

subject to the full scope of regulation under the CEA to the extent such derivatives involve physical delivery (as opposed to cash settlement) or are non-fungible and not independently traded. In addition, Bitcoin swaps are currently too illiquid to be subject to mandatory clearing. A growing number of firms are offering Bitcoin derivatives, most of which are for retail traders. In addition to derivatives that reference Bitcoins, the Bitcoin (block chain) protocol can potentially enable automated derivatives contracts that securely trade, clear, and settle without the use of trusted intermediaries. The CFTC should consider an exemption for block chain derivatives that meet its policy objectives as a result of the rules that the underlying code embeds in the transactions (Regulating Bitcoin and Block Chain Derivatives). Cryptocurrency operations are supervised by the Commission and are recognized as legitimate. If we use this approach in Russia, then it will be necessary to make significant changes in the exchange legislation. And considering that the market has never loved tight control over their work, then prohibitive measures would not be justified.

In Russia, cash based foreign currency are a commodity (object of the transaction) when its exchange is making on the territory of the Russian Federation. Virtual currencies cannot be legally recognized means of payment (money), it is money surrogates. Besides, each issuer virtual monetary uses own virtual monetary units that not covered by the legislation. Virtual money cannot be the object of a loan as cash. Currently, the studies of the technology are held by several working groups, including those led by the Bank of Russia. The main objective is created a controlled environment that allows Russia to control the operation of the market, to protect the citizens and legal persons. Thus, Bitcoin falls outside the rights which are covered by regulation.

To summarize, if cryptocurrency is to be classed as money then Russia needs to change the concept of the issuance of money. If it is a commodity then legislative changes in stock trading must be made. If it is a payment instrument, then it is necessary to amend the law on the payment system, to define the concept of a digital exchange and the participants, establish rules for persons and legal entities in the field of acquisition and accounting, and taxation rules, the area of regulatory regimes for different participants in terms of identification and user protection, countering illegal actions, information security financial environment.

## 12. Conclusion

There remain significant problems with, and barriers to, the widespread use of Bitcoins. The fluctuations in value of the virtual currency may well limit its attractiveness to the mass of potential users. The Governor of the Bank of England has commented that:

The prices of many cryptocurrencies have exhibited the classic hallmarks of bubbles including new paradigm justifications, broadening retail enthusiasm and extrapolative price expectations reliant in part on finding the greater fool. 'At present, crypto-assets raise a host of issues around consumer and investor protection, market integrity,

<sup>58</sup> Sberbank puts blockchain. <<https://finance.rambler.ru/news/2015-12-10/sberbank-stavit-blockchain/>> accessed June 17, 2018.

money laundering, terrorism financing, tax evasion, and the circumvention of capital controls and international sanctions.<sup>59</sup>

Issues have also been reported regarding the time taken to process payments which may be made. Bitcoin, it has been estimated can process 3–4 transactions per second. Visa currently processes around 1,700 transactions per second (around 150 million per day).<sup>60</sup> Although the accuracy of such calculations has been questioned, the difference in the scale of activities is pronounced and there are significant questions whether the blockchain technology could be scaled up to meet the demands of wider use.

Accompanying concerns about the technical feasibility, there are concerns about the environmental implications of bitcoin mining. This has been described in pejorative terms

... Bitcoin mining is a competition to waste the most electricity possible by doing pointless arithmetic quintillions of times a second.<sup>61</sup>

It is also suggested that:

... Cryptocurrencies have become a “combination of a bubble, a Ponzi scheme and an environmental disaster.”<sup>62</sup>

Criticism of cybercurrencies appears to be commonplace amongst central bankers. The Governor of the Bank of England has been quoted as saying that Bitcoin:

... Has pretty much failed thus far on ... the traditional aspects of money. It is not a store of value because it is all over the map. Nobody uses it as a medium of exchange.”<sup>63</sup>

Like many others he believes that blockchain, the underlying technology which helps power bitcoin, could be used as a way to verify financial transactions in a decentralised way. Even if the current generation is not the answer, it is throwing down the gauntlet to the existing payment systems. These must now evolve to meet the demands of fully reliable, real-time, distributed transactions,’ he continued. “The Bank believes that distributed ledger technology could over time significantly improve the accuracy, efficiency and security of processes across payments, clearing and settlement”<sup>64</sup> Trials

<sup>59</sup> Bitcoin is a ‘bubble’ and cryptocurrency trading relies on ‘finding the greater fool’, Bank of England governor Mark Carney warns. Read more: <<https://metro.co.uk/2018/03/02/bitcoin-bubble-cryptocurrency-trading-fools-says-bank-england-governor-mark-carney-7356044>> accessed June 17, 2018.

<sup>60</sup> Bitcoin and Ethereum vs Visa and PayPal – Transactions per second <<https://altcointoday.com/bitcoin-ethereum-vs-visa-paypal-transactions-per-second/>>

<sup>61</sup> Alex Hern Bitcoin’s energy usage is huge – we can’t afford to ignore it <<https://www.theguardian.com/technology/2018/jan/17/bitcoin-electricity-usage-huge-climate-cryptocurrency>> accessed June 17, 2018> accessed June 17, 2018.

<sup>62</sup> BIS Annual Economic Review 2018 at page xv.

<sup>63</sup> Bitcoin has ‘pretty much FAILED’ as a currency, Bank of England boss Mark Carney declares <<https://www.express.co.uk/finance/city/921169/bitcoin-bank-of-england-cryptocurrency-mark-carney-brexiteu>> accessed June 17, 2018.

<sup>64</sup> Ibid.

have been conducted involving the use of blockchain technology to facilitating voting in political elections.<sup>65</sup> It has been suggested also that the technology would allow more open and transparent gambling activities concerned with the outcome of sporting events.<sup>66</sup>

Especially in the context of money, trust is a complex concept. It tends to be based upon an amalgam of product and process. Trust will normally take many years to build but can be lost in a much shorter period of time. Trust can evaporate at any time because of the fragility of the decentralised consensus through which transactions are recorded. Not only does this call into question the finality of individual payments, it also means that a cryptocurrency can simply stop functioning, resulting in a complete loss of value. Moreover, even if trust can be maintained, cryptocurrency technology comes with poor efficiency and vast energy use. Cryptocurrencies cannot scale with transaction demand, are prone to congestion and greatly fluctuate in value. Overall, the decentralised technology of cryptocurrencies, however sophisticated, may come to be seen as a poor substitute for the solid institutional backing of money.

As indicated above, there is also the argument that blockchain technology might find legitimate uses other than as the basis for cyber-currencies. The same argument has been made with respect to other forms of technology such as “peer to peer” file sharing where the technology was initially used as the basis for illegal reproduction of copyright protected works. It would appear that predictions of legitimate uses have not been borne out by events. Certainly, the streaming of audio-visual content has decimated traditional markets for CDs and other forms of tangible recording device, but to a considerable extent this is based on traditional technologies. The very significant increase in broadband speeds and capacities coupled with the market strength of established players in the field has proved to be a match for new and allegedly more efficient technology. (Accurate) predictions are difficult. The famous science fiction writer Arthur C Clarke formulated 3 laws, the first of which reads

- 1 When a distinguished but elderly scientist states that something is possible, he is almost certainly right. When he states that something is impossible, he is very probably wrong.<sup>67</sup>

There must be doubts whether cyber currencies will flourish in the face of widespread hostility from the traditional banking establishment but we might keep Clarke’s first law in mind.

<sup>65</sup> How blockchain could improve election transparency <<https://www.brookings.edu/blog/techtank/2018/05/30/how-blockchain-could-improve-election-transparency/>> accessed June 17, 2018.

<sup>66</sup> Business matters <<https://www.bmmagazine.co.uk/in-business/how-the-blockchain-is-transforming-online-gambling-as-we-know-it/>> accessed June 17, 2018.

<sup>67</sup> “Hazards of Prophecy: The Failure of Imagination”, in *Profiles of the Future* (1962).

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