CRIPTOCURENCIES – THE MODALITY OF PAYMENT OF THE FUTURE. RISKS AND VULNERABILITIES

Associate Professor, Ph.D. Lucian IVAN
Bucharest University of Economic Studies, Romania
E-mail: ivan.lucian2@gmail.com
Ph.D. Student, Cosmin Sandu BĂDELE
"Valahia" University of Targoviste, Romania

Abstract: *Cryptocurrencies or virtual currencies have become a global phenomenon in recent years, where data and information about these types of assets and/or financial transactions have taken the form of news on web pages and/or media channels in recent times. Cryptocurrency is a type of financial asset, intangible as opposed to real currencies or real assets (real estate/securities, art, jewellery, etc.), which takes the form of a digital/virtual currency, using cryptography to achieve transaction security. This type of currency is difficult to counterfeit/counterfeit, as most cryptocurrencies are represented by decentralized systems, based on block technology, the presence of a distributed register, imposed by a different network of computers. In recent times, cryptocurrencies have seen spectacular price increases, with their value increasing exponentially on the free market. This is due both to the crisis generated by the global COVID-19 pandemic, against the backdrop of investor distrust of "classic" investment and savings instruments, and against the background of an aggressive global press campaign that has fervently promoted this type of financial assets. Although it is possible that in the coming period, as a result of the saturates of the cryptocurrency market, their value will decrease in terms of how they are made the currency of the future, given the anonymisation of the investor and the easy way of exclusively online trading of virtual currencies specific to the Millennium generation. In recent times, cryptocurrencies have become a successful investment tool, which can continue in the short to medium term, but the investment risk is quite high, being a relatively volatile savings tool. There are prerequisites for the use of virtual currencies as a means of payment for the future, given that "classic" online means (e.g. bank cards) lose in terms of additional costs (e.g. fees charged by banks).*

Keywords: *Cryptocurrencies, cryptography, blockchain, COVID-19, investments.*
JEL Classification: *G23, G29.*

1. Introduction

Cryptocurrencies are created through a process called mining, which involves using the processor in an electronic device to solve complicated math problems, resulting in virtual currencies. Users can buy coins from brokers, then store or spend them using cryptographic wallets. The best known and, at the same time, the most widely used cryptocurrencies worldwide are Bitcoin, Ethereum, Ripple or Litecoin.

Thus, the virtual currency is not issued by any central authority, which makes it, from this point of view, relatively immune to the financial-fiscal policy promoted by central banks or to the mix of economic policies of national governments. This aspect is both an advantage in the sense that the value of these virtual currencies is relatively constant

Under EU law, under the 5th Money Laundering Directive (Directive No 2018/843), adopted during 2018, 'virtual currencies' are a digital representation of a value, which is not issued or guaranteed by a central bank or a public authority, which is not necessarily linked to a legal currency and which does not have the legal status of currency, but which can be accepted by natural or legal persons as a means of exchange. This regulation accepts virtual currency as an alternative means of payment, which induces the idea of tacit acceptance of these types of currency at Community level. In this context, we appreciate that regulatory rules need to be made at EU level, which will create the prerequisites for their introduction into the market, including their acceptance on the banking and capital markets.

According to the same directive, this type of currency may be transferred, stored and traded by electronic means, i.e. the functions/uses of virtual currencies may take various forms, such as:

- means of payment, exchange or investment;
- product of value storage or for use in online casinos.

2. Advantages and disavantages of the use of virtual cryptocurrencies

The main advantage lies in the fact that virtual currencies operate under a decentralised system, there is no central authority to issue it, such as a central bank. This highlights the liberal way in which the value of these currencies is regulated solely on supply and demand in an unregulated market.

This means of payment also uses cryptography, making it almost impossible to counterfeit virtual currencies, at least to date. The use of advanced cryptographic means, in conjunction with the anonymization of user data, offers the possibility of anonymizing the owners of these virtual currencies, which can be exploited by organized crime groups to conceal and capitalize illicit income from criminal activities. It is noted that an advantage can turn into a systemic vulnerability that can be misused by certain persons who cannot justify certain illegally obtained income.

At the same time, the use of cryptocurrencies allows their holders to make an encrypted backup of the virtual currency, in this respect being secured against possible illicit actions subsumed to cybercrime. Virtual currency users are also constantly in control of cryptocurrency transactions, and their transfer is carried out quickly anywhere in the world.

Another advantage is that there is no limit on the amount for transfers made and the fees charged are variable.

In terms of disadvantages, we point out that the use of virtual currencies is currently relatively low and the volatility of these modern means of payment is high given that this type of currency exists in limited quantity and its value is given exclusively by the supply and demand that exist edwell on the market at that time.

Another negative aspect is that the transactions are irreversible and the cancellation is impossible to achieve. This feature is specific to virtual currencies that cannot be returned in any way, given how they are created and how they are traded.

Some states have also prohibited the use of certain virtual currencies by law, requiring users to study specific legislation before launching certain cryptocurrency transactions. Another major disadvantage is that not all traders accept the cryptocurrency as a means of payment. This aspect is specific to the emergence of a new means of payment, the same aspect being found when the bank card was placed on the market as a means of payment, at that time many traders did not agree to the payment made by these modern means. In fact, this can be defined as the reluctance and resistance to change of society.

Looking at the positive and negative aspects, we appreciate that this modern means of payment will be the future, given the main advantage, namely the very low fees and the universality of these cryptocurrencies that will replace national currencies over time. This trend is converging with the phenomenon of market globalisation, which has been manifesting itself strongly in recent times. These common markets will require a common currency that is easy to use through the virtual environment and the Internet. Recent technological advances demonstrate that the future is online, and markets and means of payment will adapt to this virtual working environment.

3. Cryptocurrencies used at the world level

3.1. Bitcoin

It is the first virtual currency to use a computer protocol of encrypted and decentralized blockchain transactions. The coin was created on 19.08.2008 by a natural person and/or group of individuals known/known under the pseudonym Satoshi Nakamoto.

The first quotation between bitcoin and the U.S. dollar was published at a distance of about a year, on 05.10.2009, when such a virtual currency was worth 0.001 US And 0.00071 euros respectively, so that at the end of 2017, after 17 years, a bitcoin was worth over 11,000 U.S. dollars and 9,100 euros respectively.

In October 2018, more than 17.33 million digital currencies with a total market value of approximately USD 115 billion were put into circulation. Although more than 10 years have passed since the first whitepaper was drafted in this regard, the Bitcoin cryptocurrency remains the most popular and valuable digital asset, at 22.06.2020, being quoted at about $10,000.

According to the European Central Bank, bitcoin is a speculative asset, a symbol that can be traded by electronic means but does not exist in physical form and is not created by a public authority.

This type of currency has a virtual character, does not constitute currency/currency, as it is not supported by any central public authority, does not constitute a generally accepted form of payment, as it is extremely volatile compared to a currency type currency, and users are not legally protected.

The success of the first Bitcoin digital asset led to the emergence of other competing currencies, known as "altcoins", such as: Ethereum, Litecoin, ES OS and Cardano.

At the macro level, the cryptocurrency market currently amounts to thousands of cryptocurrencies, with a total market value of over US$200 billion.

3.2. Bitcoin Cash

Bitcoin Cash is the result of the Bitcoin fork, being released in the summer of 2017. The initial trading price was around $300, but by February 2018 it had already reached records above the $2,500 threshold. Currently, the virtual currency is trading around $160, with about the same amount of cash in circulation as Bitcoin.

3.3. Litecoin

Known as the "little brother of Bitcoin" this is a peer-to-peer cryptocurrency with higher exchange speeds, as well as a substantially higher trading limit, i.e. 84 million tokens available. However, its mining process is more intense and cumbersome, and its market capacity is about 1/20 of the size of Bitcoin.

Launched in 2011, Litecoin was created by Charlie Lee, a graduate of MIT and a former engineer at Google. Litecoin is based on a global open source payment network that is not controlled by any central financial-banking authority.

3.4. Ethereum

The virtual currency was originally developed as a superior network of "global computers" and aimed to get rid of the need to create applications from third-party companies such as Apple. Applications developed on Ethereum are found within a distributed public platform/network, where miners can earn "ether" for network powering.

Ethereum can be compared to a vehicle moving on its ethereal platform driven by users who want to develop and execute applications inside the ether or by investors who want to make purchases of other digital currencies using ethereum. Ethereum introduced the concept of 'smart contract' and thus they were able to appear within its network, new tokens, most of which were financed by ICONs.

3.5. Ripple (XRP)

This type of virtual currency was designed as a real-time global settlement network that offers instant, secure and low-cost international payments. Launched in 2012, Ripple allows banks to make cross-border payments in real time, with transparency throughout the process and at much lower costs.

Ripple considers that 'value distribution is a powerful way of stimulating certain behaviours' and now intends to distribute XRP primarily through 'business development transactions, incentives to liquidity providers that offer tighter spread for payments and the sale of XRP to institutional buyers interested in investing in this type of virtual currency'.

3.6. Monero

This cryptocurrency was launched in April 2014 and is a secure, private and undetectable currency. The development of this cryptocurrency is completely based on donation and is determined by a particular community.

Monero was launched with a strong focus on decentralisation and scalability and allows complete privacy by using a special technique called "ring signatures". Given the exceptional security mechanisms, Monero has frequently been associated with the operations of organised criminal entities around the world.

3.7. Eos

The coin was launched in June 2017 by cryptocurrency pioneer Dan Larimer. Like other digital currencies, the EOS is designed to model Ethereum, thus providing a platform on which developers can build decentralized applications.

THE OS is made up of THE EOS. IO, similar to the operating system of a computer and acts as a network of blocks for the digital currency. EOS does not use a coin-type mining mechanism, but block manufacturers are rewarded in THE EOS tokens based on their production rates.

3.8. Stellar

It is a distributed, blockchain-based logistics network linking banks, payment systems and individuals to facilitate transfers of values, bringing in low cost as an additional benefit. Stellar has its own cryptocurrency called Lumens, which is denoted with the symbol XLM.

Stellar is operated by a non-profit organization called Stellar.org, founded by Jed McCaleb, who also co-founded another popular cryptocurrency, Ripple-XRP. Stellar is a cross-border value transfer and payment system that connects financial entities in order to significantly reduce trading costs and time periods. Each transaction imposes a standard mining fee with a value of 0.00001 lumens.

Stellar's main activity concerns developing economies in the areas of remittances and bank loans, i.e. those that are still outside the realm of banking services. An interesting aspect is that the network does not charge people or institutions for its use. The currency received initial funding from organisations such as BlackRock, Google.org and FastForward.

3.9. IOTA

Represents a distributed register for the registration and execution of transactions between entities in the Internet Of Things (IoT) ecosystem. IOTA owns a cryptocurrency called mIOTA. The IOTA platform uses an acyclic, decentralized graph (DAG) instead of a blockchain mechanism.

The IOTA/mIOTA system cryptocurrency will allow micropayment transactions between connected devices. IOTA also aims to solve 3 other common problems at the Bitcoin level, namely: high scalability, high trading fees and low network speed. According to the IOTA development team, the network will be faster than the blockchain network on which Bitcoin is based. The novelty introduced by IOTA relates to the way in which transaction validation and mining are carried out. In order to register a transaction,

the esends of THE OTA must "mine" that transaction themselves by validating two previous transactions, thus there being no cost associated with the transactions on the IOTA network.

3.10. Dash

DASH is a peer-to-peer cryptocurrency that has derived from the Bitcoin currency to provide users with faster and higher-privacy transactions.

Dash is the first digital currency with a decentralised governance system, its name coming from the association of digital and cash terms.

Dash was released in January 2014 under the name Xcoin and then changed its name to Darkcoin. The association with DarkWeb led to another name change in March 2015, and Darkcoin was called Dash. As an alternative to Bitcoin, Dash offers a faster and totally anonymous service to its users.

3.11. Cardano (ADA)

The ADA is the only currency with a "scientific philosophy and a research-based approach". This assumes that its open-source block is undergoing a rigorous review process between academic experts and programmers.

It is a blockchain project founded by Charles Hoskinson, co-founder of Ethereum, with the aim of "providing a more balanced and sustainable ecosystem" for cryptocurrencies. The ADA aims to address scalability and infrastructure issues, with Cardano often associated as the "Japanese ethereum".

4. Legislative aspects at the European level

At the level of the European authorities, various views were expressed regarding the legal classification/classification of 'virtual currencies', on the basis that they:

- do not constitute legal coins or cash, so they should be considered rather means of exchange, rather than legal means of payment - the consequence is that there is no obligation to accept payment made in virtual currency;
- fall into the category of intangible/intangible assets;
- constitutes a contractual means of payment, not necessarily legal, being perceived as an alternative investment with specific risks inherent in investment risks specific to the financial-banking sector;
- constitute units of account and can therefore be considered as financial instruments;
- is a form of financial asset, mainly in the short term, other than cash.

Thus, although most EU Member States' authorities allow virtual currencies to circulate, at their level, financial sector supervisors and/or central banks have consistently issued warnings, informing the public of the absence of any type of regulation and/or supervision of these types of currencies/transactions on the risks posed by operations with such virtual currencies and that they do not enjoy a well-defined and accepted legal status at EU and international payment level.

The warnings in question followed or accompanied similar ones issued by the three European supervisory authorities, namely: the European Securities and Markets Authority, the European Banking Authority, the European Insurance and Occupational Pensions Authority.

In this context, in the vast majority of EU Member States, regulators and supervisors, such as central banks or national financial sector supervisory agencies/authorities, do not recognise the virtual currency resulting from blockchain technology as a legal instrument or means of payment. However, the use by natural or legal persons (e.g. companies) of this type of payment instrument is not explicitly prohibited in EU Member States.

Among the first states to regulate virtual currencies, the distributed ledger technology and the initial supply of 'tokens' and adopted specific (partial) legislation in this respect are 2 EU states (France and Malta).

Restrictions on the use of virtual currencies are still in place in Belgium and Latvia.

At the level of some EU Member States (e.g. Austria, Estonia, France, Germany, Ireland, Lithuania, Luxembourg, the United Kingdom), initial offers of virtual currencies (tokens) and providers of digital wallet services are subject to the common financial sector/financial assets regime, following a case-by-case analysis of the (financial) instruments or products offered and the activities carried out.

In the area of taxation, in countries such as Bulgaria, Denmark, Finland, France, Latvia, Lithuania, Poland, the United Kingdom, Slovakia, Slovenia, legal imperatives often take the form of administrative instructions, with activities in relation to virtual currencies subject to the provisions of tax legislation.

The 5th Money Laundering Directive requires EU Member States to ensure that, among other entities, providers of exchange services between virtual currencies and providers of digital wallets are authorised or registered.

In European Union law, the legal and accepted definition of virtual currencies is found in the provisions of Directive (EU) 2018/843 of 30 May 2018 – 5th Money Laundering Directive, (i.e.: virtual currencies) are a digital representation of the value which is not issued or guaranteed by a central bank or public authority, is not necessarily linked to a legally established currency and does not hold the legal status of currency or physical money, but is accepted by natural or legal persons as a means of exchange/payment and which can be transferred, stored and traded electronically.

Digital wallet provider, according to the same European regulatory act, is that "entity that provides services for the safe keeping of private cryptographic keys on behalf of its customers for the possession, storage and transfer of virtual currency." These two definitions constitute points 18 and 19 of Article 3 of Directive (EU) 2015/849 – 4th Money Laundering Directive.

By judgment issued on 22.10.2015, in Case C-264/14, Skatteverket/David Hedqvist, the Court of Justice of the European Union (CJEU) held that, since the virtual currency 'bitcoin' is a contractual means of payment, it could not be regarded as a current account or a deposit account, payment or transfer, but, unlike claims, cheques or other negotiable instruments referred to in Article 135(2). It shall constitute a direct means of payment between the operators accepting it. Therefore, transactions to exchange traditional currencies with virtual currency 'bitcoin' or vice versa, do not fall within the scope of the exemptions provided for in that provision

On the other hand, in the case of the exemptions provided for in Article 135 (1) (a) and (b) of Regulation (EEC) No 2081/92, the Commission shall, in accordance with the procedure laid (1) (e) of the VAT Directive, relating to transactions relating, inter alia, to 'currencies, banknotes and coins used as a legal tender', the CJEU held that transactions relating to non-traditional currencies constitute financial transactions.

5. Legislative aspects at the national level

In December 2018, the national legislative framework subjecting the taxation of the income from the transfer of virtual currency was adopted.

Currently, Law No. 210 of 8 November 2019 on the activity of issuing electronic money regulates the conditions for access to and conduct of the activity of electronic money issuing and carrying out the activity of the provision of payment services by electronic money institutions, the prudential supervision of electronic money institutions and the regime for the redemption of electronic money.

In recent years, the National Bank of Romania (BNR) has consistently stated that it does not have powers in the supervision of virtual currency schemes and virtual currencies.

On 11.03.2015, BNR issued a communiqué in which it stressed that 'virtual currency is neither national currency nor currency, nor is its acceptance for payment legally binding'.

As regards the specific case of transactions relating to the virtual currency bitcoin, from the point of view of the VAT regime, the Ministry of Public Finance stated that the judgment of the Court of Justice of the European Union (CJEU), in which the European court ruled on the application of the VAT exemption, should be taken into account.

It should be noted that, with regard to value added tax (VAT), a harmonised area at EU level, the Court of Justice of the European Union (CJEU), by judgment of 22.10.2015 in Case C-264/14 – Hedqvist (detailed in the previous chapter in the case-law section), decided that 'bitcoin' virtual currency exchange operations with traditional currencies are exempt from VAT due to the consolidated general budget of the State.

By the amendments made by Law No. 30/2019 to the provisions of the Tax Code, the legislature introduced a new taxable source, namely the income from the transfer of virtual currency (art. 114 Tax Code).

In accordance with Article 115 (2) of the Treaty, the Commission shall, in accordance with the procedure laid down in (1) of the Tax Code, as amended by Law No. 30/2019: "Income tax shall be calculated by withholding tax at the time of the grant of income by the income payers, by applying the 10 % rate on gross income for the income referred to in Article 114, with the exception of the income referred to in Article 114 (1). (2) (l) and (m)'. The exceptions to the obligation to withhold tax at source also include income from the transfer of virtual currencies.

In accordance with Article 116, paragraph 1 shall be replaced by the following: (1) of the Tax Code, taxpayers who derive income from the transfer of virtual currency shall be required to submit the single declaration on income tax and social contributions due by natural persons to the competent tax body, for each tax year, up to and including 15 March of the year following that of the realization of the income.

In accordance with the provisions of the same article, the tax rate shall apply to the gain from the transfer of virtual currency, determined as the positive difference between the selling price and the purchase price, including the direct costs of the transaction. Earnings below the level of 200 lei/transaction shall not be taxed provided that the total earnings in a fiscal year do not exceed the level of 600 lei.

In view of the numerous amendments made by Directive No 17/2002/EC, the Commission has aview to amend the provisions of this 2018/843 with regard to the trading of virtual currencies, as well as the increasing use of cryptocurrencies for the purpose of money laundering and terrorist financing, Romania has adopted the necessary legislative framework to prevent and combat money laundering and terrorist financing.

Thus, GO no. 111 of 01.07.2020 on the amendment and completion of Law No. 129/2019 for the prevention and combating of money laundering and terrorist financing, includes providers involved in exchange services between virtual currencies and fiduciary currencies in the category of entities that will have new obligations related to the identification of suspicious activities.

Against this background, providers of virtual currencies and digital wallets, electronic money institutions and payment institutions from other Member States providing services on the territory of Romania are obliged to ensure compliance with the legal provisions on the prevention and combating of money laundering and terrorist financing for the activities performed.

The new obligations of these providers range from measures relating to customer knowledge, to identify the risk associated with these services and their use for criminal purposes, to identify the beneficial owner, to the monitoring and reporting to the authorities of certain transactions.

Also, under the new legislative changes, providers of exchange services between virtual currencies and fiduciary currencies and providers of digital wallets will have to follow an authorisation and registration process, to be coordinated by the Ministry of Public Finance.

At the same time, electronic money institutions and payment institutions are obliged to impose contractually on agents and distributors providing services on the territory of Romania the framework for compliance with the provisions of Law No. 129/2019 and the regulations issued in its application and to ensure that the necessary procedures and systems are implemented and their obligations are respected, including by carrying out checks.

ANAF has launched into public debate the draft Order of the President of ANAF on the organisation and operationalisation of the Central Electronic Register for bank accounts identified by IBAN and for the approval of the procedure on the obligation of credit institutions, payment institutions and electronic money institutions to provide information, in accordance with Article 61 of Law No. 207/2015 on the Code of Fiscal Procedure.

The new order also approves the procedure concerning the obligation of credit institutions, payment institutions and electronic money institutions to provide information on the identification data of the account, the customer account holder, persons holding the right of signature for accounts opened or claiming to act on behalf of the customer, the beneficial owner of the customer account holder , as well as those of the security deposit box concessionaire.

5. Perspectives on future use of virtual currencies

The emergence of cryptocurrencies is appreciated by experts in the field with the appearance of bank cards. The invention and use of bank cards were initially viewed with reluctance among consumers, but at present this is a common means, preferred compared to the use of banknotes. The development of the internet network has led to the proliferation of online sales that required the widespread use of bank cards. This phenomenon has also been enhanced by the emergence of the COVID-19 pandemic which has radically altered the behaviour of a large segment of the population, especially those with a high degree of education and who have understood the advantages of online commerce.

The current trend of cryptocurrency use is increasing, due to their popularity and usefulness, in which some significant increases in their value/share are expected in the future.

In the same context, the economies of developing countries will experience a greater impact from the Bitcoin currency early on. Countries with high inflation rates, which also have reasonable access and connectivity to the internet, will tend to be relatively active in the bitcoin transaction area, developing important global active nodes in the future.

Furthermore, the intensification of transactions in new cryptocurrencies (e.g., XRP, Stellar, EOS, Cardano, Holochain, Waves) will lead to future developments on the Internet 3.0 area, foreshadowed as a safer and more sustainable global Internet network, but which will be exposed to the intensive work of organised crime entities.

Developments in the virtual currency area over the past 10 months, against the background of restrictions from the COVID-19 pandemic, also reflect the intense activity and sophistication/refining of cybercrime entity methods.

While the improvement of means of combating cybercrime, means of monitoring the cryptocurrency market, as well as other types of digital assets have led to significant seizures of cryptocurrencies, there are signs that such fraud will be the subject of intense investigations in the immediate aftermath.

To better understand what the long-term advantages are of using virtual currencies it is necessary to realize that the most widely used technology for creating cryptocurrencies is blockchain. According to experts, this technological concept of novelty can be compared to the Internet since it is a complex network where information is distributed.

Thus, the blockchain can be compared with a huge registry, a database, or a Microsoft Excel document (table spreadsheet), where transactions, sales and purchases are written, an endless, unlost list, and the entries and records in the blockchain cannot be changed, even by those who initiated them.

In order to better understand how virtual currencies are generated, we need to look at how the first cryptocurrencies were generated in November 2008, when the Satoshi Nakamoto entity (possibly a person or group of people) posted on the Internet network the article "Bitcoin – A Peer – to – Peer Electronic Cash System", detailing for the first time in the world how to make virtual money using connections between computers and their processing power (bitcoin = bit + coin , i.e. "currency in bits"). Subsequently, bitcoin software was launched and implemented in January 2019.

Each bitcoin is earned by solving a cryptographic problem that requires large processing resources, the process being called "mining". The number of bitcoin coins is currently limited to 21 million. So far, about 16 million units of bitcoin have been produced, and the maximum number of units (21 million) is expected to be reached in 2025.

When an online transaction is made, e.g., money transfer, this transaction is transmitted to the entire system (all computers that have a special program that keeps the public register). This transaction is put together with other transactions, forming a block. The user (his computer) who solves a mathematical equation that validates the transaction, in order to be added to the registry, is rewarded with digital currency. Basically, mining involves solving complex mathematical equations that validate the transaction, in order to be added to the register, is rewarded with digital currency. Basically, mining involves solving very complex mathematical equations that validate a transaction.

In fact, cryptocurrencies emerged as an alternative to the traditional banking system during one of the worst financial crises in decades (2008-2010). We appreciate that virtual currencies come as an addition to the current banking system and aim to revolutionize the classic remittance system, not to replace it.

An analysis by Jim Reid, an analyst at Deutsche Bank, will grow alternative virtual currencies steadily by 2030, with digital currencies currently expected to replace the classic ones. On the other hand, the representatives of the National Bank of Romania consider that these cryptocurrencies are a risky means of saving, given the large fluctuation they have, as well as the fact that they operate in a poorly regulated market from a banking point of view.

However, the future of cryptocurrencies will result from the dynamics of the market profile, but it must be considered that they had a higher price in crisis situations, Bitcoin being created at the very beginning of the crisis in 2008-2010. The volatility of these cryptocurrencies means that investments in these means of payment are high risk, with

negative effects on their beneficiaries. From a financial point of view, this type of virtual currency can currently be used for short- and medium-term speculative investments.

6. Conclusion

In the future, analysts appreciate that virtual currencies will represent the future of the means of payment, with the emphasis of the phenomenon of economic globalisation, which will gradually lead to a decrease in the importance of national currencies and the introduction of a universal monetary system that will reduce the risks arising from the exchange rate difference, which will reflect much better the ratio between supply and demand.

In terms of the degree of acceptance of virtual currencies by most of the population, this indicator is currently low, but favourable premises for growth are created, against the background of acceptance of this method of payment by the banking system and, above all, by traders.

References:23 March 2021

1. Admiral Markets, 2020. *Cum să tranzacționați CFD-urile pe criptomonede. Trading Criptomonede 2022*. [online] Available at: <https://admiralmarkets.com/ro/education/articles/cryptocurrencies/criptomonede> [Accessed 23 March 2021].
2. Bitcoin Romania, 2021. *Totul despre criptomonede: ghid pentru începători*. [online] Available at: <https://bitcoinromania.ro/blog/criptomoneda/criptomonede/> [Accessed 23 March 2021].
3. Dragu, F. and Oprea, A., 2019. *Furturile și escrocheriile cu monede virtual au crescut semnificativ. Anul trecut – cel mai mare furt de monede virtual de până acum și cea mai mare escrocherie. Printre persoanele acuzate de spălare de bani este și un român*. Profit.ro. [online] Available at: <https://www.profit.ro/povesti-cu-profit/financiar/furturile-escrocheriile-monede-virtuale-au-crescut-semnificativ-anul-trecut-cel-mai-mare-furt-monede-virtuale-pana-acum-cea-mare-escrocherie-printre-persoanele-acuzate-spalare-bani-roman-18832849> [Accessed 23 March 2021].
4. Europol, 2021. *Internet Organized Crime Threat Assessment (IOCTA) 2020*. [online] Available at: <https://www.europol.europa.eu/publications-events/main-reports/internet-organised-crime-threat-assessment-iocta-2020> [Accessed 23 March 2021].
5. Forbes Romania, 2020. *Piața de criptomonede ar putea căpăta noi valențe, pe fondul pandemiei de COVID-19*. [online] Available at: <https://www.forbes.ro/piata-de-criptomonede-ar-putea-capata-noi-valente-pe-fondul-pandemiei-de-covid-19-175544> [Accessed 23 March 2021].
6. Fossbytes, 2018. *7 easy ways to block cryptocurrency mining in your web browser*. [online] Available at: <https://fossbytes.com/block-cryptocurrency-mining-in-browser/> [Accessed 23 March 2021].
7. Gadget360, 2017. *How to stop websites from using your phone or computer to mine Bitcoin and other cryptocurrencies*. [online] Available at: <https://gadgets.ndtv.com/internet/features/how-to-stop-websites-from-using-

your-phone-or-computer-to-mine-bitcoin-and-other-cryptocurrencies-1790640> [Accessed 23 March 2021].

8. How-to Geek, 2020. *How to block cryptocurrency miners in your web browser*. [online] Available at: <https://www.howtogeek.com/334018/how-to-block-cryptocurrency-miners-in-your-web-browser/> [Accessed 23 March 2021].
9. Iacob, A., 2019. *Escrocheriile cu criptomonede și creșterile din piață care au marcat anul 2019*. StratupCafe. [online] Available at: <https://www.startupcafe.ro/afaceri/escrocherii-criptomonede-piata-marcat-2019.htm> [Accessed 23 March 2021].
10. Ilie, B., 2021. *Criptomonede*. Mr. Finance. [online] Available at: <https://mrfinance.ro/criptomonede/> [Accessed 21 July 2021].
11. Ioachimescu-Voinea, M., 2021. *Possibility of taxation of cryptocurrencies according to current legal regulations*. Juridice.ro.
12. Mosoianu, A., 2020. *În epidemie, România reglementează criptomoneda. Jucătorii vor avea nevoie și de un aviz pe bani. Firmele de telefonie, internet, radio și TV – obligate să restricționeze accesul la anumite site-uri*. Profit.ro. [online] Available at: <https://www.profit.ro/profitul-tau/plasamente-alternative/in-epidemie-romania-reglementeaza-criptomoneda-jucatorii-vor-avea-nevoie-si-de-un-aviz-pe-bani-firmele-de-telefonie-internet-radio-si-tv-obligate-sa-restrictioneze-accesul-la-anumite-site-uri-19336297> [Accessed 23 March 2021].
13. National Bank of Romania, 2021. *Pozițiile exprimate de către statele europene cu privire la monedele virtuale*. [online] Available at: <https://www.bnr.ro/Pozi%C8%9Bii-expressed-to-European-states-with-look-to-virtual-currencies-12132-Mobile.aspx> [Accessed 23 March 2021].
14. Startech Team, 2021. *Ce este criptomoneda și de ce ea poate reprezenta viitorul de pe piața financiară.* [online] Available at: <https://startechteam.ro/blog/ro/ce-este-criptomoneda-si-de-ce-ea-poate-reprezenta-viitorul-de-pe-piata-financiara/#.Wlh3vqjXY2w> [Accessed 23 March 2021].
15. Startup, 2018. *Peste 100 de site-uri românești minează criptomonede cu ajutorul tău.* [online] Available at: <https://start-up.ro/toate-site-urile-romanesti-care-mineaza-criptomonede-cu-ajutorul-tau/> [Accessed 23 March 2021].
16. TheWindowsClub, 2021. *Block websites from using your CPU to mine Cryptocurrency*. [online] Available at: <http://www.thewindowsclub.com/block-websites-using-cpu-mine-cryptocurrency> [Accessed 23 March 2021].
17. Tradesilvania, 2020. *Ce avantaje au criptomonedele într-o economie inflaționistă*. [online] Available at: <https://tradesilvania.com/blog/ce-avantaje-au-criptomonedele-intr-o-economie-inflationista/> [Accessed 23 March 2021].
18. Tradesilvania, 2020. *Ce pot face statele lumii cu criptomonedele Bitcoin confiscate?* [online] Available at: <https://tradesilvania.com/blog/ce-pot-face-statele-lumii-cu-criptomonedele-bitcoin-confiscate/> [Accessed 23 March 2021].

19. Tradesilvania, 2020. *Previziuni cripto-monede 2020.* [online] Available at: <https://tradesilvania.com/blog/previziuni-cripto-monede-2020> [Accessed 23 March 2021].
20. Tradesilvania, 2019. *Cele mai populare înșelaciuni Bitcoin în 2019 și cum să te protejezi în fața lor.* [online] Available at: <https://tradesilvania.com/blog/cele-mai-populare-capcane-bitcoin-in-2019-si-cum-sa-te-protejezi-in-fata-lor/> [Accessed 23 March 2021].
21. Trend Micro, 2017. *Coinhive miner emerges as the 6th most common malware*. [online] Available at: <https://www.trendmicro.com/vinfo/us/security/news/cybercrime-and-digital-threats/coinhive-miner-the-6th-most-common-malware> [Accessed 23 March 2021].
22. Ungureanu, I. and Iancuș, S., 2020. *România anunță noi obligații pentru emitenții de criptomonede, un domeniu cu tranzacții suspecte de dolari anual*, HotNews.ro. [online] Available at: <https://www.hotnews.ro/stiri-specialisti_deloitte-24290343-romania-anunta-noi-obligatii-pentru-emitentii-criptomonede-domeniu-tranzactii-suspecte-miliarde-dolari-anual.htm> [Accessed 23 March 2021].
23. Toms Guide, 2017. *Coin-mining malware goes global: how to avoid infection*. [online] Available at: <https://www.tomsguide.com/us/coinhive-epidemic-malware,news-26098.html> [Accessed 23 March 2021].
24. Wired, 2017. *Your Browser Could be mining cryptocurrency for a stranger*. [online] Available at: <https://www.wired.com/story/cryptojacking-cryptocurrency-mining-browser/> [Accessed 23 March 2021].