

## VARIETY OF CRYPTOCURRENCY - BITCOIN MAINSTREAM PROFILE

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**Abstract.** *One of the most discussed subject in our society is related to the emergence of a new, alternative way of payment and trade between economic agents. The advent of cyber technology and decentralized digital money is seen as controversial, and among the many varieties of cryptocurrencies, Bitcoin is rapidly gaining popularity among cryptocurrencies. In this regard, the subject of this study are cryptocurrencies, and the aim is to analyze Bitcoin as the first decentralized cryptocurrency, clarifying its mainstream profile.*

**Keywords:** *bitcoin, blockchain, digital money, mainstream profile, variety of cryptocurrency.*

**JEL CLASSIFICATION:** A10, F15, M21, G23

One of the most discussed cryptocurrencies of our time is the first one called Bitcoin and is the first decentralized cryptocurrency. The blocking system used by Bitcoin is based in part on the research of Chaum and Beck, and is becoming the basis for transactions with new electronic money. Bitcoin's mainstream profile is based on a database that stores historical data of all transactions ever made, expressed as publicly available blocks of information. A special mathematical algorithm connects the blocks together, so if you change the content of one of them, you will have to edit the next blocks and then the whole chain, ie. each action is associated with subsequent changes.

Analyzing the world of cryptocurrencies, similarly, many questions arise about the types and variety of cryptocurrencies, as well as the places where they can be traded and exchanged for fiat money. Bitcoin became the first decentralized cryptocurrency in the scientific community, which was released for sale in 2008. The copying of the database is stored in the so-called bitrate wallets - encrypted clients that users create for themselves. In early 2009, Satoshi Nakamoto created the first wallet, through which each of the engaged and confirmed transactions is recorded in one of the blocks, which is then attached to the common chain. Upon registration, the user receives his personal address, which is specified when sending bits and provides complete anonymity.

Analyzing the mainstream profile of Bitcoin, it is important to note that the main role in the functioning of the whole system have the so-called. miners - entities that create new blocks of transaction records. In a market economy, it is quite logical that the so-called miners to receive for each created block remuneration in the form of commissions from newly realized in the system transactions or bitrate, and the complexity of extraction is automatically adjusted every two weeks, depending on the total number of blocks that have appeared during this time. The author's chronological research leads to the conclusion that the first miners could generate virtual money only on their computers and transfer it to each other.

Digital currency is a peer-to-peer open source payment system. As it turned out, the creator of this cryptocurrency is a person behind the pseudonym Satoshi Nakamoto. The method of "digging" by the so-called "diggers" is used for its extraction. This action is carried out through the use of electricity and powerful server systems. The system is a complex configuration, and over time it reduces the amount of Bitcoin mined, which cannot exceed a total of 21 million units. [Canellis D., 2019] Namely, the fact that the cryptocurrency is limited is considered as a protective mechanism against inflation and devaluation of its value. As can be seen from the above, cryptocurrencies have a different essential character from traditional fiat money.

An important point in the extraction of alternative money is that the more the power for calculations increases, the more the complexity of extraction increases, thus controlling the speed with which the units are extracted by the diggers. Analyzes show that with each successfully passed hashing stage, diggers receive about 25 Bitcoins as compensation for their work. Based on scientific

justifications, in 2020 the time required to extract 6.25 Bitcoin are about ten minutes. [Alyssa H., 2020] A feature that should be noted is that the individuals engaged in the activity of extraction of cryptocurrency in most cases are more than one and respectively the received Bitcoins in the form of remuneration are distributed in proportion to their share in the extraction. Historical review indicates that in the beginning of the so-called digging activity were not a mandatory condition for the use of powerful processors and motherboards, but with increasing complexity of mining logically arises the need for high-end more powerful processors, servers, video cards and others. Based on the fact that Bitcoin is in limited quantities, it can be determined that the extraction of these units is predetermined. Research shows that by 2014, about 12 million bitcoins had been mined, and in 2017 their yields reached levels of about 18 million bitcoins, which compared to the declining rate required for mining leads to the conclusion that the yield it will be possible in the next hundred years under the same conditions. In fact, there are no restrictions on who can mine and produce Bitcoin. The activity can be carried out through the use of specialized open source software, which is offered free of charge and can be downloaded from the Bitcoin website. Bitcoin can be viewed in two aspects, namely as a supranational payment system and a virtual currency unit. This is because in recent years, many online trading platforms have introduced the Bitcoin option as a payment method, as have many retail outlets in different countries.

Historical data shows that in February 2010 the first service appeared on the Bitcoin Market purchase network, and in May a user of the cryptocurrency forum decided to buy two pizzas for 10,000 Bitcoins. [BitcoinWiki, 2020] In July 2010, the bits of the portal Slashdot, which is popular among developers shows that the number of users of virtual money began to grow sharply. As a result, a month later, 10,000 household bins cost \$ 600, and many network users are actively encrypting encryption. This led to the appearance of the first Bitcoin exchange MtGox, which allows not only to acquire the desired amount of digital currency Bitcoin, but also to exchange for real money. Statistical studies conducted through the website TrendingView show that the price of Bitcoin is rising rapidly, starting from 6 cents in July to 50 cents in November, while the total market volume is estimated at \$ 1 million. The increased interest associated with the currency leads to an increase in values and as a historical overview of its price development indicates that in February 2011 Bitcoin approached its value with the dollar.

Like any new resource, Bitcoin has been subjected to a series of hacking attacks, some of which are successful, damaging the virtual currency. According to media reports, aggrieved consumers reported losses in the theft of 25,000 cryptocurrencies, roughly \$ 375,000. And six days later, the MtGox exchange database has been simplified, with logins and passwords from the wallets of 60,000 users becoming freely available. On the same day, hackers seized the account of one of the site's administrators, which led to a reduction in the percentage of Bitcoin from 17 to 1 cent per unit, as they made strategic attempts to buy thousands of units. In order to counter and prevent subsequent cyber attacks leading to financial damage, the exchange stops operating for a week, after which the values are restored to their original values.

Analyzes of the negative effects show that the first Bitcoin conference, held as part of the World's Fair in New York, has a positive impact. [Peck M., 2011] A similar event took place in November 2011 in Prague. In parallel, in order to increase the confidence of current and future investors, it is related to the publication of materials on cryptocurrency by Forbes and The Economist, and for the New York Times a column on cryptocurrency was written by Nobel laureate Paul Krugman, who in turn expresses skepticism.

After cryptocurrencies rose rapidly in 2017, there is increased interest from ordinary consumers, households, the media and investors. A logical overview of events related to the price values of cryptocurrencies indicates that economic agents who invested in Bitcoin in 2010 managed to increase their financial capital, earning millions in just 7 years. Years later, the focus has shifted, and by now most individuals have decided to invest in cryptocurrencies, asking questions and trying to explore

which cryptocurrency is more profitable to invest in. It is quite logical to point out that this is one of the most discussed and studied issues of our daily lives.

Author's research on the essential profile of Bitcoin, as a kind of digital money indicates a number of interconnected entities, without which trade can not take place or would be difficult, including: creators, miners, economic agents (consumers), traders with a digital portfolio, trading exchanges, trading platforms, other counterparties:

- the „creators“ are associated with the beginning of the development of the technical system, the invention and modification of the relevant digital currency, with Bitcoin indicating a person who chose the pseudonym Satoshi Nakamoto and remained anonymous to the public;
- „Miners“ are economic entities carrying out voluntary computational operations, through which virtual money is „extracted“, they can perform this activity for the purpose of selling the extracted crypto virtual units;
- economic agents (consumers) are a major part of the trading activity carried out by Bitcoin. These can be people who use the amount of digital currency they have to pay for the purchase of goods and services, which in turn can be acquired as a result of real or virtual trade. These are individuals who use cryptocurrency to meet their individual needs;
- digital portfolio traders are economic entities that provide virtual portfolios to economic agents (consumers) for the purpose of consumption with cryptocurrency;
- stock exchanges are a key component on the basis of which transactions are made between economic operators. This is the place where processes related to the purchase and sale of digital currencies or the exchange of international currency against digital currency at the relevant exchange rate are realized;
- trading platforms are places that perform the functions of virtual trading markets, composed of economic agents wishing to sell and buy digital currencies. Trade exchange platforms facilitate trade between individuals wishing to carry out economic activity in order to increase their financial capital;
- Entities defined as other counterparties can be considered individuals engaged in commercial activities, investment intermediaries specializing in payment transactions, IT specialists who create, develop and maintain software systems, entrepreneurs manufacturers of computer and monetary (ATM) systems, etc.

The author's critical view shows that modern fiat money issued by central banks can be printed in indefinite quantities, which often leads to higher inflation and depreciation. For a short period of time, the virtual coin Bitcoin has established itself as a means of payment and trade between economic agents. The price of Bitcoin is considered volatile, ie. the price can both decrease and increase in a relatively short period of time, which is why trading is still defined as a risk-based investment. Analyzing the cryptocurrency, we can summarize that its value depends on supply and demand. The unique thing about cryptocurrencies as a means of payment is that they are currently not guaranteed by the government, unlike modern money. Their protection is based on tens of thousands of computers worldwide. According to research data, their total power exceeds many times the total computing power of systems such as Amazon, Google, IBM.

Analyzing the forms of Bitcoin can be classified in two directions: „balance transfer“, expressed through online payments and „key transfer“, which is used by the method of offline payments, which is an exchange of physical funds. Among the main forms of Bitcoin are coins, banknotes, checks, smart cards, electronic transfers, mobile phone, brain wallet. Logically, based on the fact that Bitcoin is decentralized, it can be concluded that this provides inviolability. It is the presence of the so-called a private key for the address used protects against interference by third parties and the state in the so-called investors' accounts. The anonymity of cryptocurrencies is also a way to prevent malicious cyber attacks. Reflecting on the idea of using an alternative virtual form of money, logically, many questions arise about the places where payments can be made using bitcoin. Studies in recent years

show that the number of individuals and legal entities owning digital currency is increasing. They use the value of Bitcoin both to store the value and in order to increase the exchange in fiat money, as well as as a means of paying for goods and services.

As indisputable proof of the success of Bitcoin as a cryptocurrency with claims for an evolutionary form of a new monetary system is the fact that its market capitalization is equal to 200 billion dollars compared to Bulgaria's GDP (of about 61 billion dollars) can be summarized that the value of Bitcoin is three times higher than the GDP of Bulgaria as of 2017. [Profit, 2017] From another point of view, this may mean that this cryptocurrency enjoys the trust of economic agents willing to invest in digital money. Due to the fact that the interest in Bitcoin is great, many sites accepting payments are emerging, which include a large number of shops, restaurants, hotel sets and places for rest and relaxation, law firms, private financial institutions, travel agencies, currency exchange desks, online stores, etc. sites at national and supranational level. One of the main advantages of the first decentralized cryptocurrency is considered to be low payment fees, and in many cases there are no such fees, whereby holders save on additional costs. In the last months of 2018, topics related to the real applicability of this cryptocurrency in the world are increasingly discussed. In this context, one of the arguably most positively oriented towards cryptocurrency trading is Prague. [Money, 2018] Bitcoin as well as other cryptocurrencies is used as a means of payment in many retail outlets. There are about 154 sites in the city where you can pay in cryptocurrency, and there are about 12 Bitcoin ATMs. In the Argentine capital, Buenos Aires, digital money payments are also increasingly common. These facts, as well as many others, show a trend of increasing interest of economic agents in cryptocurrencies as a means of buying and selling.

In fact, quite logically, analyzing the phenomenon of Bitcoin, as a leading cryptocurrency, it can be clarified that its acquisition is not a gratuitous act, but on the contrary. As it turns out, cryptocurrencies are obtained mainly through two ways - through "digging" and through buying and selling between economic agents wishing to buy cryptocurrency and those who own it and want to sell it at a certain exchange rate. The main factor is the remuneration, as the diggers (miners) receive cryptocurrency as a reward for their work, and in the second case the effect is trade depending on the economic interests of the subjects participating in the virtual market. The exchange price is formed by the factors of supply and demand, but historical data indicate that there are anomalies in the values expressed in sharp increases and decreases in the exchange price. The main way to derive financial benefit from operations with cryptocurrencies is related to undertaking speculative operations, which are related to the rule of buying cryptocurrency when the price falls and selling when the value increases. The purpose is to obtain financial capital from exchange rate differences in the values of the cryptocurrency against leading currency units. This action can be defined as logical as there are still no precise and clear generally accepted regulatory measures for the use of cryptocurrency, leading to the impossibility of mass use as a means of payment at national and international level. The evolutionary development of the world, both politically and financially, will show whether cryptocurrencies are appropriate to define as a new stage in the development of money.

The cryptocurrency Bitcoin is one of the most popular among mass consumers who want to invest in digital money. After the success of the first decentralized cryptocurrency in a supranational aspect, many others were created according to its model. The uniqueness of its core profile is a major motivator for digital currency followers who want to create a product with similar success and even better personal characteristics, allowing more alternative operations in use. Summary data indicates that Bitcoin can be defined as one of the most mobile savings tools created and used by individuals. Its mainstream characteristics allow it to be used for anonymous purchase of goods and services in cyberspace. In addition, making international payments is easy and cheap, as Bitcoin is not associated with a specific country or economic power.

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