

Bitcoin: Medium of Exchange or Speculative Asset?

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Abstract. *In this article we set out to make an incursion into the specialized literature with the aim of establishing how the term cryptocurrency is defined, presenting approaches from the legislation specific to this field, as well as the direction in which humanity is heading in the process of globalization and modernization. We therefore considered synthesizing the aspects contained in the specialized literature by emphasizing the opportunities and challenges identified by the development of the crypto market. We can highlight that the sphere of cryptocurrencies is not yet sufficiently regulated, the measures and laws adopted regarding them are punctual, but not adapted to the specifics of the technology.*

Keywords: cryptocurrency, blockchain, fiscal treatment, regulation, central banks

JEL Classification: M48, G11, G12, F30

1. Introduction

Swedish IT entrepreneur and politician, Rickard Falkvinge is known for his claim that cryptocurrency will have the same effect on the banking system as electronic mail had on regular postal services. Therefore, the classic letter did not completely disappear after the advent of e-mail in 1971, but was gradually used less and less as a carrier of information and news. Today, having a device at the same time as having access to an internet source greatly simplifies human existence.

Development, technology and the speed which daily activities are carried out due to connectivity and access to the Internet, generate a drive of social and economic elements that require an increase in the degree of adaptability of legislation, a change in approach and, last but not least, proactive thinking. In this context, cryptography has seen a development by integrating computers into the activity of entities as a result of the need to ensure secure transfers of information from the sender to the recipient.

For example, in the case of the purchase of a material good of significant value (a real estate), the level of bureaucracy in the banking sphere is high, leading to a large consumption of time. Moreover, the banking sector, being a highly regulated field, did not succeed in digitizing all services, and from a monetary perspective, the digitization of financial assets took shape through the emergence of scriptural currency.

Therefore, the market identified the need for development of a payment system that would eliminate the third actor and ultimately facilitate financial transactions.

2. Literature review

Considering the above, combined with the security transfers degree offered by the development of specific protocols, but also of the economic errors that led to the emergence of the liquidity crisis in 2008, Satoshi Nakamoto (2009) proposes carrying out financial transactions using a virtual currency through a fully decentralized payment system based on an innovative technology. These types of approaches were not a first in the field, but Nakamoto's innovation lies in how to solve a pressing virtual currency problem. Thus, the first blockchain system and cryptocurrency (Bitcoin) appeared, which

solved the problem of double spending (Figure no. 1).

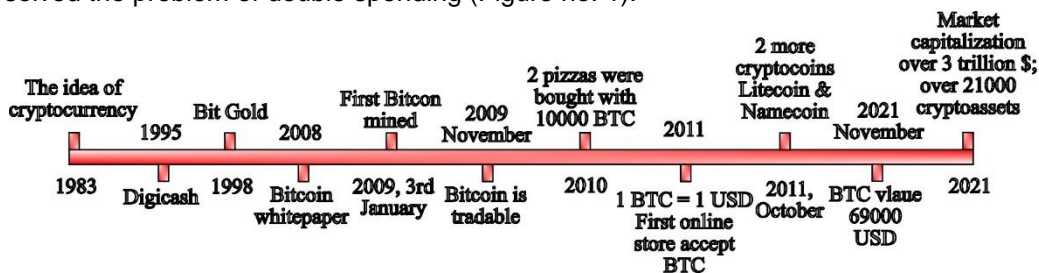


Figure no. 1 – Evolution of crypto market in time

Over time, in specialized literature, cryptocurrencies have been named as follows (Table no. 1):

Table no. 1 – Crypto coins after literature review

Virtual currency	Sotiropoulou & Guégan, 2017, Baur et al., 2017, Ligot & Sotiropoulou, 2019, U.S. Department of Justice - Drug Enforcement Administration, 2017; ESMA, 2019; Hachicha & Hachicha, 2021; Lessambo, 2020
Digital currency	Drozd et al., 2017, Glaser et al., 2014; Semenihiin & Kondrashin, 2018; Yao, 2018; Karels, 2018; Shi et al., 2019; Guseva et al., 2019, Dumchikov et al., 2020; Kostrikova, 2021; Hammond & Ehret, 2022; Lessambo, 2020
Electronic currency	Semenihiin & Kondrashin, 2018, Drozd et al., 2017
Virtual coin	Bunget & Balea, 2021
Digital coin	Glaser et al., 2014; Semenihiin & Kondrashin, 2018; Yao, 2018; Karels, 2018; Shi et al., 2019; Cumming et al. 2019; Dumchikov et al., 2020; Hachicha & Hachicha, 2021; Tong & Jiayou, 2021
Crypto currency	Semenihiin & Kondrashin, 2018; Hachicha & Hachicha, 2021; Shestak et al., 2021; Hammond & Ehret, 2022; Lessambo, 2020
Currency tokens	Chiu, 2019
A new currency/ a new type of currency	Lubyanskiy, 2017; Dumchikov et al., 2020; Hachicha & Hachicha, 2021; Polasik et al., 2015
E-cash	Hachicha & Hachicha, 2021
Digital token	ESMA, 2019
Active crypto	ESMA, 2019; Brown et al., 2021; Artiga & López, 2021; Narain & Moretti, 2022; Hammond & Ehret, 2022
Digital asset	Houben & Snyers, 2020; Shestak et al., 2021; Lessambo, 2020
Financial instrument	Ozturk, 2020
Alternative currency	Goutte et al., 2022; Hileman, 2014; Nian & Chuen, 2015; Wood & Buchanan, 2015

Although the names are diverse, they share a common feature, namely the technology behind the concept. Thus, if 14 years ago, Bitcoin was nothing more than an idea, today it has become a landmark around which the technology and true crypto market is developing.

Currently, according to the CoinMarketCap platform, there are approximately

21.279 virtual currencies in circulation, whose prices fluctuate from one second to the next, with a total capitalization of 917.741.810.931.943 dollars. The peak was reached in 2021, when the value of one Bitcoin crossed the threshold of 60.000 dollars and the total capitalization of cryptocurrencies exceeded the value of 3 trillion dollars.

Also, a study carried out by IPSOS (2022) (the 3rd largest market research company in the world) highlights the fact that 4 out of 10 Romanians who know the concept of virtual currency have owned or currently own one. The number is higher among people between 18 and 44 years old. At the European level, according to a survey (Hermans et al., 2022) carried out for the European Central Bank in 6 economically important countries (Belgium, Germany, Spain, France, Italy and the Netherlands) approximately 10% of households own virtual currencies, the highest share being recorded in the Netherlands (15%).

From the point of view of the use of cryptocurrencies, they are divided in the specialized literature as follows (table no. 2):

Table no. 2 - Cryptocoins after way of utilization

Currency	Sotiropoulou & Guégan, 2017; Procházka, 2018; IOSCO, 2020; Brown et al., 2021; Bunget & Balea, 2021
Goods	Sotiropoulou & Guégan, 2017; IOSCO, 2020
Payment system/means	Sotiropoulou & Guégan, 2017; ElBahrawy et al., 2017, Drozd et al., 2017; Global Legal Research Directorate, 2018; Semenihiin & Kondrashin, 2018; Dumchikov et al., 2020; Buttigieg & Efthymiopoulos, 2018; EBA, 2019; Houben & Snyers, 2020; Brown et al., 2021; Hachicha & Hachicha, 2021; Bunget & Balea, 2021; Shestak et al., 2021; Narain & Moretti, 2022; Polasik et al., 2015; Lessambo, 2020; Goutte et al., 2022; Baur et al., 2017
Deposit of value	Sotiropoulou & Guégan, 2017; Brown et al., 2021; Lessambo, 2020
Speculative asset	ElBahrawy et al., 2017; Zhu et al., 2021; Ozturk, 2020; Bunget & Balea, 2021; Narain & Moretti, 2022; Baur et al., 2017; Corbet et al., 2018; Yermack, 2015; Cheah & Fry, 2015
Share	IOSCO, 2020; EBA, 2019; Houben & Snyers, 2020, Corbet et al., 2018, Polasik et al., 2015
Coin	Brown et al., 2021; Lessambo, 2020

The popularity is also underlined by the analysis carried out with the help of Google Trends, where interest and studies regarding cryptocurrencies has seen an upward trend in the last 5 years, numerous specialized articles have been published, and contrary to expectations, this topic remains a prominent one - answers are being sought with regards to fiscal, legal and accounting aspects. Consequently, in the specific legislation of each country, even if it's still poorly developed at global level, reference is made to crypto assets using the terms as table no. 3 presents.

Table no. 3 – Cryptocoins in national regulations

Digital currency	Australia, Argentine, Thailand	Payment method	Japan, South Korea
Virtual goods	Canada, China, Taiwan	Financial asset	Japan
Crypto token	Germany	Electronic currency	Colombia
Payment token	Switzerland	Virtual asset	Honduras, Mexico
Cyber currency	Italy, Lebanon		

The opinions expressed in the public space are different, but two general categories can be determined: the optimists (who trust the project, support the technological development brought by the blockchain) and the skeptics – who consider the concept of crypto technology as a bubble (Nunez et al., 2019) or even a mirage (Dumchikov et al., 2020).

From the category of skeptics is the investor Richard Bernstein who considers the crypto market as one of the biggest financial bubbles in history (Landsman, 2021). The same opinion is shared by the American investor and author Robert Kiyosaki who, although he has promoted investments in cryptocurrencies constantly, has recently changed his rhetoric as a result of the measures that could be taken by the Biden administration (Helms, 2022).

Another view that presents a shift in rhetoric comes from economist and professor Nouriel Roubini. Speaking to the United States Senate - Banking Committee in 2018, he stated that the concept of crypto represents the biggest scam and is just a hoax" (Rooney, 2018). According to Guseva et al. (2019), on a 2019 TV show, professor Roubini called Bitcoin the biggest bubble in human history. Later in 2020, he qualified his speech and referred to Bitcoin as a partial store of value (Rivas, 2022). However, in relation to the technology behind the concept of Bitcoin, it seems that the economist has a different impression in the context that the organization in which he acts as CEO is working on a project to tokenize a US dollar substitute (Alloway, 2022).

3. Regulation and utilization

Nassim Taleb (2021) states that bitcoin does not meet on the short term the preservation of value criterion, but neither on the long term, although he mentioned in the preface of Ammous's paper (2018) that the electronic currency as the first organic currency and having advantages additional to gold in carrying out transactions.

Analyzing the phrase "cryptocurrency", the use of the "crypto" prefix indicates the technology behind the concept, as well as the one used to make the transfers (used means of payment by cryptography (Sikorski et al., 2017)), and the term "currency" is a factor contested by most economists and can be misleading. So, the term "cryptocurrency" seems to represent the main purpose for which it was produced rather than its utility. This conclusion is also highlighted by the Governor of the Bank of Canada who claims that for Bitcoin to be considered a currency it must fulfill the store of value function, to be reliable and easily spendable (Bank of Canada, 2017). Thus, Governor Stephen S. Poloz draws attention to the fact that the term "currency" is used erroneously (Bank of Canada, 2017), because cryptocurrencies do not fulfill (Corbet et al., 2018; Yermack, 2015) the three main functions of money (ECB, 2022), but is rather a hybrid between asset and fiat currency (Baur et al., 2018).

Another aspect that could produce errors is how we relate to cryptocurrency. Kucheryavenko et al. (2019), with reference to Bitcoin, defines 3 aspects, namely: Bitcoin - the network (peer to peer), Bitcoin - the communication protocol (blockchain) and Bitcoin - the monetary unit.

In addition to the purely theoretical aspects related to the functions of money, the specialized literature also presents a series of disadvantages and risks associated with cryptocurrencies. First, the U.S. The Department of Justice - Drug Enforcement Administration (2017) draws attention to the increase in the use of this type of payment in illicit transactions due to the specific characteristics of cryptocurrencies regarding security, anonymity and almost impossible-to-counterfeit payments (Nakamoto, 2009). Edwards et al. (2019) mentions the inherent risk of the money laundering phenomenon appearance through the prism of the cryptocurrencies characteristics of not being tracked by a central entity, so international transfers are easily carried out.

The most significant disadvantage for cryptocurrency holders is the security of

electronic wallets, which are a usual target for cybercriminals (hackers). Moreover, the possession of virtual currency can be disputed due to the fact that there is no trace, evidence or document attesting the possession, the only access key being a user account consisting of letters and numbers. So, if the usual device from which the electronic wallet is accessed is lost or can't be accessed, possession cannot be proven (Kucheryavenko et al., 2019).

However, the impossibility of counterfeiting a Bitcoin (Sikorski et al., 2017), combined with the limitation of the available coin number on the market (Karels, 2018) (maximum 21,000,000 Bitcoins) can lead to a stability effect of the value that will be determined only by the supply-demand ratio, and the speculative effect would be greatly diminished.

Peter Van Valkenburgh, director of research at CoinCenter, also testified during the speech attended by economist Nouriel Roubini to the US Senate committee in 2018. He campaigned for the adoption of public policies (laws) in order to enable the development of the crypto-currency market and the technology behind it in the manner in which the development of the Internet was approached in the 90s - an innovation of those times (US Senate, 2018). Thus, it emphasizes the digital development that Negroponte (1996) brings into discussion through the theme of his work, appreciating the transition from atom to bits as irreversible and irrevocable. Using the same approach, Belyaeva et al., (2020) outline a series of characteristics associated with the new economy, namely the weightlessness of goods, the virtual environment, the lack of demand for raw materials, and the speed of information movement - almost instantaneous around the globe. All this is not due to the desire or the fact that we are ready for change, but as a result of the opportunities offered by the Internet (Guseva et al., 2019).

According to Henry et al. (2019) in Canada, the adoption rate of cryptocurrencies had increased from 2.9% to 5% between 2016 and 2017. Globally, in the year 2022, the adoption rate of cryptocurrencies is estimated at 4.2% (TripleA, 2022), by the year 2030 it is estimated to increase up to 10% (Amick, 2022), and by the year 2050 we should expect a parabolic increase up to the value of 80% (Holmes, 2022).

4. Conclusions

Change – as part of the evolution process - needs both support from states (Guseva et al., 2019) and from researchers to provide scientific foundations and analyze all the influences on the most important aspects for humanity (Tong & Jiayou, 2021).

The interest in the regulation of the market and the use of cryptocurrencies both for the purpose for which they were designed (means of exchange) and as an investment tool highlights the problem of lack of trust on the part of consumers (Karels, 2018). This lack of trust translates into decreased supply and demand (resulting from currency trading) and implicitly the value of crypto-assets (Polasik et al., 2015; Kucheryavenko et al., 2019).

According to Narain and Moretti (2022), a legislative framework that would regulate crypto activity at a global level, with the aim of establishing the limits that must be respected in the use of cryptocurrencies, would lead to increasing consumer confidence in virtual currencies, stabilizing the market and building an environment for development and innovation. Also, the regulations would limit the risks related to illicit transactions, money laundering, but also protection of cryptocurrency holders from schemes that could be fraudulent or manipulative (Edwards et al., 2019). Otherwise, without the involvement of the state and competent institutions, the idea of a digital economy becomes a mirage (Guseva et al., 2019).

However, it is well known that government regulations come late and aim to legislate aspects that citizens had already accomplished on their own. In this context,

two theories can be determined regarding the future of crypto. The first theory takes into account the fact that for the development of the legal framework will be financed new jobs (lawyers, economists, accountants, experts, etc.), as well as for technological development (Karels, 2018). The second theory looks at the profound changes in both economic and political spectrum (Guseva et al., 2019) taking into account the fact that decentralization of the economy removes from the governments sphere of influence the levers of control (issuance/printing of currency, taxation, charging, etc.) (McDonald, 2021). Moreover, in his work, McDonald (2021) appreciates that the changes that will be necessary are far-reaching and include aspects such as legislation, business structure and the way of conducting trade in general.

We can underline the fact that crypto market is not yet sufficiently regulated, the measures and laws adopted regarding them are punctual, but they are not adapted to the specifics of the technology. Hence, for the moment, the purpose for which cryptocurrencies were created has not a particular interest and utility, but is predominantly used for the speculative feature. However, this feature can be stopped by the global establishment of a set of coordinated and interconnected regulations, transposed into the crypto market specific legislation. Also, if the use of cryptocurrencies develops as previously expected, due to the decentralization and independence of these types of currencies, regulation would become cumbersome and challenging (Baur et al., 2018).

In this case, blockchain technology can be developed without the emergence of destabilizing risks at the macroeconomic level, as suggested by (Karels, 2018), being efficient and effective. However, by regulating the cryptocurrency market and not taking steps to ban its use, the authorities would be supporting the development of a parallel economy (Smith & Weismann, 2014).

Thus, after the development of the "internet of things", a developed digital world will also require a digital currency (Doguet, 2013) and implicitly the emergence of an "internet of finance" (Ali et al., 2014), just as states and national currencies intercondition (Graeber, 2012). So, at the level of their regulatory authorities, the idea of having a fully independent and decentralized digital currency is still fascinating (Schulaka, 2014).

Dorn (1997) concludes that these cryptocurrencies cannot be considered currencies, but only instruments that mediate the way of making exchanges and considers them perfect substitutes for money. In many cases bitcoin is likened to gold from the perspective of being limited in volume (21 million) (Ammous, 2018), both assets are mined and independent of central entities (Baur et al., 2018).

Jesus Huerta de Soto (2011) in his work, proposes a new banking reform that considers three main aspects:

- Liberalization/privatization of the currency (by replacing it with the equivalent in base metal or gradually introducing other monetary standards).
- A system of complete banking freedom (by eliminating the state agency that impacts the currency as well as the financial system (central bank)).
- The banking system must keep reserves in the amount of 100% of the value of demand deposits.

Thus, considering the meaning of de Soto (2011), if we control the binomial variation generated by the existing in circulation – demand for currency (Pavel et al., 2016) and use this cryptocurrency on a large scale, it would become stable, efficient and secure (Pavel et al., 2016) so that it can be considered the first operational digital currency and proven to be reliable (Ammous, 2018).

So, for the moment the Bitcoin cryptocurrency is considered a speculative asset, not fulfilling the specific functions of a currency, but it has a high potential to become a currency in the future (Bal, 2015).

In conclusion, we can support Negroponte's (1996) statement that there is still not enough technology available to politicians, leaders, parents and all those who need to understand this new kind of culture for humanity to evolve at the speed it is capable of.

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