

CRYPTOCURRENCY – A NEW TREND IN THE BUSINESS WORLD?

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Abstract

Over the time money represented the generic connection of various economic entities, representing a form of a common "language" used to achieve the objective of well-being. History has often been written with and for money, and the controversies surrounding it were numerous. Currently, one of those controversies concerns the issue of the emergence and frequent use of the currency in virtual space as a potential alternative to the traditional currency. Starting from the literature dedicated to virtual currency, this paper aims to highlight how the cryptocurrency may constitute an effective response to the demands of the economic environment, taking into account both the opportunities and threats it is subjected to, and the records evoked by the history economic thought adapted to current reality.

Keywords: cryptocurrency, bitcoin, private currency, competition

JEL Classification: M00, B20, E40, K29

Introduction

The issue of currency goes beyond the borders of time, being the subject of numerous studies and regulations since earliest times. From the academic point of view, the second half of the nineteenth century was prolific in what concerns the writings and debates dedicated to the currency, bringing to the fore, among others, the controversial issue of private money. Such research followed three directions: the first one followed by Carl Menger seeks the origin of private money in the individual behaviour guided by self-interest in his economic actions; the second one (Milton Friedman) associates private money with the extend freedom of individual initiative, while the third establishes that the private money is a privilege of a private bank. In the literature, however, when talking about private money frequently is mentioned the name of Friedrich August von Hayek. His firm belief, that free competition between issuers of private money is the best way to obtain a healthy currency, generated some criticism both outside and inside the Austrian School of Economics (Rogojanu and Badea, 2015) and is still raising the interest of authors concerned with the private currency issue, which seems to be old and new at the same time.

1. Literature review

Beyond the concern of some representatives of the Austrian School regarding private money, the twentieth century brought the idea of the private company money. Edward de

Bono, in a pamphlet prepared for the Centre for the Study of Financial Innovation proposed companies to issue their own money rather than use equities (Bono, 2002). Bono's currency was seen as a claim on goods or services produced by the issuer. For example, IBM could issue "IBM dollars" that could be used to redeem both IBM products and products traded by companies that have proceeded in the same manner. Another side of private money can be seen in money set up by various communities. The financial crisis has brought to the fore the problem of money in some Italian or Greek communities, where local alternatives were used as parallel currencies to the official one. An example of this is the TEM currency, which appeared in Volos, Greece and had a value of 1 euro, being accepted to trade goods and services or to be used for local loans (Donado, 2011). In the same category of community money, we can include also: Sano ("a currency for barter in Siros", which is worth one hour of work), "the peaches" (used since November 2013 in Montreuil, France), "the bees"(which were worth 1 euro in Villeneuve sur Lot in January 2010 and were depreciated by 2% every six months),"the muse"(Angers),"boniatos"(Madrid) etc. (Rogojanu and Badea, 2015). Another interesting example is the checks in "hours" used in Barcelona for the purchase of goods or services. The model called "time bank" was extended to other Spanish regions, at present being known at least 300 time banks (Cruysheer, 2015).

As the XXI century is expected to be one of the virtual environment, the currency cannot avoid this space, especially given the fact that since the last century there have been attempts in this regard. Therefore, lately there are frequent debates about the importance cryptocurrencies have acquired and therefore cryptomarkets. Martin (2014, p. 356) defines a cryptomarket as an online forum where goods and services are exchanged using digital encryption to conceal the identity of traders, this kind of transactions being based on the Tor network, on exchange decentralized networks and on digital currencies such as Bitcoin. Currently, most cryptomarkets are located in the Tor network and works like hidden services (DeepDotWeb, 2016), making possible the preservation of traffic anonymity. Cryptocurrencies used are defined as „a peer-to-peer version of electronic cash, which allow online payments to be sent directly from one party to another without going through a financial institution” (Cheun, 2015, p. 8).

2. Research methodology

In order to identify the main economic issues regarding the potential of using the cryptocurrencies in general and bitcoin especially in the economy of the XXI century as possible alternatives to the traditional currency, was chosen as a research method the literature review, which involves a synthesis and assessment of the existing information in scientific literary sources. The selected method involved three phases: the identification of specific literature, the selection of relevant publications and the analysis of the results by using relatively recent books and articles, and specialized sites. The objectives of this research were: identifying key cryptocurrencies currently used on the market, determining the degree of regulation of the most popular cryptocurrencies in different parts of the world, emphasizing the advantages and disadvantages of using bitcoin.

3. Results and discussion

3.1. Crypto-currencies in the XXI century

Cryptocurrencies have known various forms over time. Thus, the economies of Spain, Ireland and Greece all suffered because of the crisis in 2008, and not surprisingly, within

them alternative currencies have emerged in order to "fix" the national economy and offer a viable alternative for a revival. In some cases, within the same country several altcoins appeared, competing with each other. In the majority of such cases, were created simple clones of Litecoin, with a vague trace of nationalism, called "currencies of nostalgia"(Kristof, 2015) (see Table 1), such as Deutsche Emark, Ekron and eGulden, which were named in honour of the national currency used before the EU integration. Thus, currencies such as those mentioned were designed to rely on the nationalism of those who once used: the Mark (Germany), the Krona (Sweden, Norway and Denmark) and Guilder (Netherlands).

Tabel no. 1: National Cryptocurrencies

National Cryptocurrency	Date of creation	Country
AuroraCoin	February 27, 2014	Iceland
SpainCoin	March 15, 2014	Spain
PesetaCoin	February 22, 2014	Spain
GreeceCoin	March 22, 2014	Greece
ScotCoin	May 26, 2014	Scotland
AphroditeCoin	March 30, 2014	Cyprus
GaelCoin	March 20, 2014	Ireland
IrishCoin	May 17, 2014	Ireland
Deutsche eMark	December 15, 2013	Deutschland
Ekrona	March 30, 2014	Norway, Sweden, and Denmark
MazaCoin	February 27, 2014	Native American communities
MapleCoin	March 22, 2014	Canada
IsraCoin	April 8, 2014	Israel

Source: Kristof (2015) and The Coin Desk site <<http://www.coindesk.com/coindesk-guide-worlds-national-altcoins/>>

Besides currencies with nostalgic scent, there have emerged those related only to cyberspace. At present the number of types of crypto-currencies seems to be very fluctuating. If we are guided by the fact that in August 2014 there were 440 currencies listed on coinmarketcap.com and we consider that in 2015 cryptocoincharts.com listed 825 altcoins, we can conclude that at the present there are up to 1,000 such currencies. Nevertheless, new cryptocurrencies are advertised constantly on Bitcointalk-forum. Surprisingly or not, some of the cryptocurrencies appear as experiments, such as Shitcoin, OneCoin, JackpotCoin and Pizza-Coin (Cheun, 2015), having a very short life. Others have proven their ability to withstand longer on the market and to compete with each other, in the sense of competition seen by Hayek. Table no. 2 lists several such cryptocurrencies. Of all cryptocurrencies that have emerged in this century, it seems that the most frequently used and advertised is bitcoin. Studies allocated to it are numerous, but the last word on this cryptocurrency has not yet been said, the controversy surrounding it being centred on identifying the qualities of the bitcoin, on the advantages and disadvantages of using it and, not least, on the ability to survive in time to turn or not a viable alternative to the national currency.

Table no. 2. A list with several "popular" cryptocurrencies

Name	Symbol	Date of creation	Maximum of coins
Bitcoin	BTC	January 2009	21 m
Namecoin	NMC	April 2011	21 m
SolidCoin	SC	August 2011	18.9 m
Geist Geld	GG	September 2011	No limit
Tenebrix	TBX	September 2011	No limit
Fairbrix	FBX	October 2011	No limit
Litecoin	LTC	October 2011	84 m
BlackCoin	BC	February 2014	No limit
Darkcoin	DRK	January 2014	Aprox 22 m
Peercoin	PPC	August 2012	No limit
Dogecoin	DOGE	December 2013	100 bn
CloakCoin	CLOAK	June 2014	4.5 m
Monero	XMR	April 2014	Aprox. 18.4 m
Primecoin	XPM	July 2013	2 bn
Zetacoin	ZET	August 2013	160 m
Vertecoin	VTC	January 2014	84 m
QuarkCoin	QRK	July 2013	247 m
Florincoin	FLO	June 2013	160 m
Bytecoin	BCN	March 2014	184.46 bn
Feathercoin	FTC	April 2013	336 m
IXcoin	IXC	August 2011	21 m
Novacoin	NVC	February 2013	No limit
Talkcoin	TAC	May 2014	No limit

Source: Cheun (2015)

3.2. A "popular" cryptocurrency – bitcoin

The cryptocurrency called bitcoin falls within the private currency pattern described by F.A. von Hayek, except the cyberspace in which is flowing in. Bitcoin was put into circulation at the beginning of 2009 by an anonymous entity, working under the pseudonym "Satoshi Nakamoto", this after in 2008 the same entity had introduced the concept in a paper. On 10 March 2017, 16.207.850 bitcoins were put into circulation, while the market capitalization exceeded approximatively 20 bn. Dollars, or almost 18.6 bn. Euros (<http://bitcoincharts.com/bitcoin/>). Bitcoin is not a new "recipe". Attempts to outline an alternative currency to the state one existed for a long time. It is enough to remember among others, the example of eCash and DigiCash, which in 1983 combined the idea of electronic money with that of encryption (Chaum, 1983) or the example from 1996 of digital gold currency or e-gold (Dibrova, 2016). Bitcoin is obtained through a process of mining, the total amount existing in cyberspace being of 21 million coins. Bitcoin specific mining technology is becoming more efficient today, unlike the moment of appearance of it (2008) (Li and Wang, 2016). Among the advantages of using bitcoin, proponents enumerate: saving time and physical space of those involved in transactions; establishing the change rate freely based on supply and demand; avoid of bureaucracy and expenses related to the issuance, transportation, storage, security and circulation of traditional currency; lack of inflation; no fees or very small fees in transactions with it.

Bitcoin has become quite popular in the real economy, as it is accepted for payment by more and more economic agents such as Wordpress.com, Reddit, Dell, Target, Expedia, Bloomberg, PayPal and Tesla Motors (Pieters and Vivanco, 2017). In Cyprus, Canada,

Romania and others, ATMs were installed, through which bitcoin can be converted into real currency. In Romania, in October of 2014, as a result of the partnership between ZebraPay and ATM operators, 874 terminals were functioning spread over 160 cities; through them payments with bitcoin could be made and also could be converted the national currency into it. Most of this terminals were placed in hypermarkets such as Auchan, Carrefour and Kaufland (Siddique, S., 2014).

From a theoretical standpoint, the biggest problem is a correct framing of bitcoin, since there is a controversy among economists on its classification as money or not. Yermack (2013) claims that bitcoin is not a currency in the classic way because all cryptocurrencies have no intrinsic value. Instead, Woo et al. (2013) indicate that bitcoin may be considered as having the specific value of money thanks to its function of medium of exchange and store of value. Van Alstynne (2014) argues that in order to have value, bitcoin has to be backed by the government. Bal (2015) show that Bitcoin currently does not fulfil the functions of money in the classical economic sense, but it has the potential to become money in the future (Cheun, 2015). Anne Haubo Dyhrberg argues that Bitcoin is somewhere between a currency and a commodity due to its decentralized nature and to the limited size of the market, which does not mean that Bitcoin is less useful than the current market assets (Haubo Dyhrberg, 2016). Weber (2014) argued that in the year 2014 given the fact that 70% of bitcoins are placed in dormant accounts, one can notice that bitcoin increasingly behave more as an asset than as a currency. Others argue that bitcoin was turned into an item of speculation more than functioning as money (Cheah and Fry, 2015).

On many occasions, economists compared bitcoin with gold because there are many similarities. Both bitcoin and gold have a high value because they are rare and the process by which they are earned is expensive. None of them has no nationality and is controlled by no particular government. Both assets are "exploited" by several independent operators and companies. Gold was used as a medium of exchange during the gold standard period, but was abandoned due to liquidity problems (Haubo Dyhrberg, 2016). Similar problems may occur in bitcoin's case if user base expands further. However, the two elements present fundamental differences.

Karl Whelan claimed that Bitcoin is similar to the dollar (Whelan, 2013), both currencies being mainly used as a medium of exchange, but the main difference occurs due to the fact that the dollar is supported by a government in which people trust, while bitcoin is categorized as "private money" being placed on the market by the private sector. Such a classification is a compromise and perhaps best reflects the nature of the use of bitcoin. At the same time, however, such a classification implies the need to pay tax on transactions with bitcoin. From the difficulty of accurate classification of bitcoin occurs an increased difficulty when it comes to the regulation of it. For example, German legislation raises questions regarding the classification of bitcoin in the category of currency in the classic sense of the term, bitcoin not being recognized in Germany as legal means of payment or foreign currency, but only fulfilling the criteria of "accounting unit". In Table no. 3 can be seen a summary of how bitcoin is regulated in various countries.

Table no. 3: Regulation of Bitcoin in some countries

Country	Bitcoin regulation
Russia	BTC cannot be used
China	Banks and payment institutions are prohibited from dealing in BTC, but individuals are free to make transactions.
Ecuador	BTC cannot be used
Finland	In September 2013 it was decided to apply to BTC the income taxation regime, and in January 2014 was concluded that BTC is a commodity and therefore goods system of taxation can be applied
Estonia	Transactions with BTC are subject to the standard VAT rate.
Germany	BTC is not classified as e-money or foreign currency, but is seen as a financial instrument subject to banking regulations. German tax introduced a 25% tax on benefits obtained, exempt the first year for those who declare their transactions.
Brazil	In April 2014 it was decided that BTC transactions exceeding the amount of 35,000 reais (R \$) to be subject to financial assets regime.
Canada	Some fees are payable for using BTC in transactions.
Bulgaria	BTC is regulated as financial assets, the tax rate being 10%.
Norway	BTC is seen as being an asset, therefore income tax can be perceived.
EU	No specific legislation
Netherlands	No specific legislation
Romania	No specific legislation

Source: Cheun (2015) and Dibrova (2016)

If Bitcoin should be regulated or not is a matter that still requires careful debate and analysis. The fact is that the reasons why some authors claim bitcoin's need for regulation by the central bank are the most varied. Thus, some believe that the regulation will bring a more stable course of bitcoin and will obtain extra confidence in it (Cruysheer, 2015). Lim (2015) argues that regulation should not be anti-industry; if done well, it may reduce the uncertainty of the business environment where bitcoin is used and may increase its legitimacy. In this case one may ask: given that transactions made over the Internet are not subject to the territoriality principle, the law of which State will apply when trading parties are originated in different countries, and the transaction is carried out in the virtual environment? Such a question may arise due to the fact that the regulation of cryptocurrency use, for example in the USA and Canada produces extraterritorial effects (Cheun, 2015).

Beyond the regulations, over time, many economists have expressed their concern about the use of bitcoin. Paul Krugman is one of them, as he criticized bitcoin because it stimulates the hoarding tendency (Krugman, 2014). Others claim that bitcoin starts acting on the market more like a digital asset property than as a currency (Ren, 2014). Ron and Shamir (2013) showed that at least 55% of bitcoins are dormant and have not been used in transactions between 2010 and 2013, which translates into a tendency to save bitcoins rather than spend it, due to their potential of a raising course generated by the limited supply of bitcoins. Another issue is the high volatility (see chart 1), accompanied by some potential security breaches that can lead to the loss of savings achieved in bitcoins.

Chart no.1. BTC / USD exchange rate development



Source: <http://bitcoincharts.com/charts/>

Another criticism aims at encouraging illegal activities as since the launch of Silk Road in 2011, cryptomarket developed very quickly. Christine (2013) estimated that in 2013, monthly sales made on the Silk Road raised at a minimum amount of 1.2 million dollars. Another study conducted 15 months later showed that the monthly earnings increased by approximately 600% and cryptomarket should be seen as “a transformative criminal innovation in drug distribution” (Aldridge and Décary-Hétu, 2014, p. 16), therefore easy access to such markets and the ability to trade illegal goods should be one of the arguments used against bitcoin.

Conclusions

It seems that nowadays bitcoin is seen as the first digital currency, which has been successful (Cruysheer, 2015). Many libertarians and others saw bitcoin as the new holy grail, which provides freedom to economic operators, being the result of spontaneous and voluntary action of individuals. Bitcoin is not the result of a decision of a legal authority, therefore, gradually users agreed on their immediate target - defending the private currency, which is free, non-inflationary, in line with the developments of information technology, for the real dangers, such as issues concerning the reliability of the technology and also consistent reality of the statist canon.

Of course there are economists who keep their scepticism about bitcoin. There are many arguments in the case of the pros, but also for those who want it banned. Although there is currently a large number of businesses that accept direct payments with bitcoin, there are still authors like Ali, Barrdear, Clews and Southgate (2014) and Greene and Shy (2014), who argue that digital currencies have not enough users to behave as a generic alternative to fiat currency. Over time, the private money issue, regardless of where they occurred, was quite tricky. Banning a coin or its disappearance in a natural way have done nothing but to trigger new ones ready to be used by a certain category of individuals. The problem of trust in such currency seems to be a pressing one, therefore whether or not a cryptocurrency can replace the traditional currency remains a dilemma of many economists. The fact is that the trust cryptocurrency enjoys at the moment is not so great, thus we cannot hope that in the next 5-10 years it will replace the traditional currency. There remain a number of questions related to the longevity and ability of a cryptocurrency to be a real alternative to fiat money.

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