

Bitcoin and the New World economy

ORIGINAL article

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Summary

The present study has as its proposal to analyze the nuances of the *bitcoin market*, where it brought a broad view about cryptocurrencies or virtual currencies. The main concern of the Governments with the transactions *with Bitcoins* is the possibility of money laundering and tax evasion, this is because, most of the countries have not regulated this modality of currency. There is a specific case of the Pátrio state that can be used as an illustration for this hypothesis. There is a project underway in the National Congress, which regulate this modality of money, however, our Magna Carta is explicit in stating that it is the Union's competence to issue the currency. As the project of regulation of these, in its virtual modality, is being processed on an ordinary character, can not be affirmed when, how and whether the bitcoins will be *regulated* in Brazil.

Word (s) keys (s): Bitcoin, cryptocurrencies, money laundering.

Introduction

The present study has as a corollary, offering a vast view of the cryptocurrencies for the world economy, since numerous commercial transactions use this process, named *Bitcoins*. If not on the whole planet, it is known, at least, by most countries, especially those considered first world, in this sense will make some weighings about this currency.

In Brazil, although there is still no legislation that normatizes transactions in cryptocurrencies, many people and companies use this modality of currency, other than it is worth noting that there exists in the National Congress the Bill No. 2303/2015, which aims to The regulation of transactions in cryptocurrencies, according to the preamble to the bill that is collated:

"It has on the inclusion of virtual currencies and air mileage programs in the definition of" payment arrangements "under the supervision of the Central bank."

This intent seeks the implementation of the regulation of operationality, as well as reflects on how this procedure will be monitored, as this way, it is possible to avoid fraud and money laundering.

Access to the purchase of *Bitcoins* is only possible through the technology known as *blockchain*, in this Toada, Destarte, it is necessary to weave some nuances about this technology.

Many people transact with *Bitcoins or cryptocurrencies*, without regard to the fact that these transactions,

although not yet regulated in the state of Pátrio, are liable to be taxed, so they must be declared with the tax authorities in the declaration of Income.

From the desire to make money laundering impossible, the Government has not measured efforts to avoid the processes made through virtual currencies. Although there is no regulation, the transactional practice *in Bitcoins* is perennial, since the Securities Commission has issued opinions to the financial market for this type of movement.

For the present study, a holistic view of what is being the Bitcoin, the *blockchain*, the *taxation*, the positioning of the Securities Commission and the taxation of these operations has been lost.

1. Bitcoin

Agner (not dated, p. 5) conceptualizes *the Bitcoins* as:

"Bitcoin is the union of technologies and abstractions that enable the consensus between non-necessarily-known actors to be achieved in a decentralised manner without trust having to be deposited at a central control point or that security The network is subject to a single point of failure. These technologies together form the basis for the existence of a decentralised digital currency and for any other use case that we may abstract for a consensus-based model-such as contracts-independently of central authorities such as Banks or governments. And, it is important to notice that the same term "bitcoin" with uppercase "B" is commonly used to designate the technology as a whole, the P2P bitcoin network or the Bitcoin protocol while bitcoin (s) with lowercase "b" is used to designate the unit of account used in Network ".

In the author's diction, *Bitcoin* is a harmony between the operators of digital currencies dissociated so that they do not require centralized control in a single institution, because the technology *of Bitcoin* uses encryption, in this Deslinde operates Agner (not dated, p. 5-6).

"Bitcoin is a crypto-coin; And this is due to the fact that cryptography is an essential part of its functioning. Cryptography is a branch of mathematics that, in its modern definition, welcomes all the technology created and used to restrict fundamental truths of the nature of information in order to achieve objectives such as: hiding messages, proving the existence of a Secret without the need to reveal the secret, prove authenticity and data integrity, prove computational work etc. At first, in Bitcoin, we are interested in achieving the following objectives with the use of cryptographic algorithms: Integrity assurance and data consistency in the network and proof of computational work using hashes and authenticity of transactions Using public key cryptography digital signatures. "

Encryption is what guarantees the full and inatinability of the entire transactional process of *Bitcoin*, in this sense, according to the site Atlas Quantum (annex I), the persecutions *on Bitcoins* propel their respective importance.

By the above diction, it is noticeable that the virtual currency or cryptocurrency is a global trend, and gradually has gained ground to the detriment of the currency in kind from the emergence of credit and debit cards.

As is a trend, there is an increase in the brokers of cryptocurrencies, however, the largest financial

institutions in the country have closed their doors to these brokers, since the investment in *Bitcoins* can considerably decrease the profit of Commercial banks, or also, cause the mistrust of the legality originating from the resource applied via digital currency, according to Folha de São Paulo (2018, non-paged).

The nominal value of *Bitcoin* is determined by the market, since it is the safest method of payment, especially because of its characteristic of being a digital materialization money, however, is not issued by the government. In this sense, he preteaches Ulrich (2014, p. 15).

"... Bitcoin is a form of money, just like the real, the dollar or the euro, with the difference of being purely digital and not being issued by any government. Its value is determined freely by individuals in the market. For online transactions, it is the ideal form of payment, as it is fast, cheap and secure... With Bitcoin you can transfer funds from a to B anywhere in the world without ever having to trust a third party for this simple task. It's a really innovative technology. "

The control of the *Bitcoin* transaction takes the issue of a book titled "Ledger". In it are transcribed the reports of all transactions, called *Blockchain*, as seat Ulrich (2014, p. 18):

"The invention of Bitcoin is revolutionary because, for the first time, the problem of double spending can be solved without the need for a third party; Bitcoin makes distributing the indispensable historical record to all users of the system via a *peer-to-peer network*. All transactions occurring in the Bitcoin economy are recorded in a kind of public and distributed ledger called a *blockchain* (block chain, or simply a public record of transactions), which is nothing more than a large database Public, containing the history of all transactions performed. New transactions are checked against the *blockchain* in order to ensure that the same bitcoins have not been previously spent, thus eliminating the problem of double spending. The global *peer-to-peer network*, composed of thousands of users, becomes the intermediary itself. "

By the harbinger of the author, it can be said that, the virtual currency, comes to stay and revolutionize the market in a unique way, since the economy of transactions is perennial. As the bitcoin currency is popularizes, it tends to force the conventional financial institutions to review their service collection policies through search strategies aimed at preserving the customer so that they do not mass migrate to the Cryptocurrencies. Moreover, the digital currencies do not have their nomenclature in the dollar, the euro or another denomination because they are not tied to the government, in this Mister Preteaches Ulrich (20014, p. 18).

"It is important to note that transactions in the Bitcoin network are not denominated in dollars, euros or reais, as they are in PayPal or Mastercard; Instead, they are called Bitcoins. This makes the Bitcoin system not only a decentralised payment network, but also a virtual currency. The value of the currency does not derive from gold or from some government decree, but from the value that people attribute to it. The real value of a bitcoin is determined in an open market, in the same way that the exchange rates between different world currencies are established. "

By having its determined by the market, *Bitcoin* becomes a public currency whose user has access keys for the transfer of ownership, in this path understands Ulrich (2014, p. 18 – 19).

"Transactions are checked, and double spending is prevented by using intelligent public key

cryptography. Such a mechanism requires that each user be assigned two "keys", a private, which is kept secret, as a password, and another public, which can be shared with all... The transaction – and therefore a transfer of ownership of bitcoins – is recorded, stamped with date and time and exposed in a "block" of *the blockchain* (the large database, or ledger of the Bitcoin network). Public key cryptography ensures that all computers on the network have a constantly updated and verified record of *all transactions* within the Bitcoin network, which prevents double spending and any kind of fraud... because Bitcoin is a network *Peer-to-peer*, there is no central authority in charge of creating monetary units or verifying transactions. This network depends on users who provide the computational force to perform the records and reconciliations of transactions. These users are called "miners" because they are rewarded for their work with newly created bitcoins. Bitcoins are created, or "mined", as thousands of scattered computers solve complex mathematical problems that verify transactions in the *blockchain*. "

According to the author, cryptocurrencies are recorded in *blockchain* or blocks that begin to grind due to their importance within the Bitcoin *corollary*.

2. Blockchain or blocks

In accordance with the article published on the site Atlas Quantum (annex II) Some nuances regarding *the blockchain* as its functionality should be considered.

As noted, the system is composed of a technology derived from *bitcoins*, known by some scholars as the new generation of the Internet, at this threshold based Tapscott (2017, p. 20):

"We're not talking about social networks, artificial intelligence, big data, robotics or autonomous cars. We're talking about the blockchain, the technology behind digital currencies like Bitcoin. This technology represents nothing less than the second generation of the Internet and has the potential to transform money, business, government and society. "

In the Delinde of the collated, to obtain the transaction made through the use of *Bitcoin*, it is not allowed to use intermediaries, since the operations are open, in this Toada understands Tapscott (2017, p. 21):

"Enters *the blockchain*, a vast global ledger distributed that runs on millions of devices and is open to everyone, where not only information, but anything of value – money, stocks, fixed income securities and other financial assets, scriptures and other Legal instruments, music, art, scientific discoveries, intellectual property, even votes –, can be moved and stored safely and with privacy and in which trust is established not by powerful intermediaries, but through Massively collaboration and cleverly built software.

If the Internet was the first native digital format of the information, then the blockchain is the first native digital format of the value – the new medium for money. It acts as ledger ledger, Database, notary, sentry and clearing, always by consensus. Although the technology is still nascent, it has already detonated a Cambrian explosion of innovations in financial services. For example, "smart contracts" consist basically of lines of code that mimic the logic of paper contracts, with guarantees of execution, fulfillment and payment – and where trust can be established by consensus, not by banks, agents depositories, lawyers and courts.

Hiring is the foundation of the financial services industry. In a sense, every financial asset is a contract that assures the holder of some economic right, such as shareholding in a company or income from a debt bond. The same principle applies to many other types of assets and transactions, from insurance contracts to real estate purchases, initial public offerings (IPOs) and everything between them. The financial sector can leverage this technology to make financial markets radically more efficient, safe, inclusive and transparent. "

The *Blockchains* have open coding, thus allowing for a cooperative restoration, because this open source is one of its main characteristics, because the more strengthened transparency is the transaction (Mougayar, 2016).

At the same threshold in Tapscott (2017, p. 23-24):

"Today, virtually all major players *in the* financial services sector, from banks to insurers and auditing firms and professional services, are investing significant resources in the *blockchain*. According to an estimate, nearly USD 1.4 billion was invested in the *blockchain technology* only in 2016.

In the past, those who financed *the start-ups* were *the venture capitalists*, but now, in addition to these, we can see companies like Goldman Sachs, Alibaba, Barclays and Tencent making this kind of venture investment.

This explains why more than 45 first-line banks, including Credit Suisse, JP Morgan and UBS, decided to participate in the R3CEV consortium to develop a distributed banking infrastructure and why Linux launched the Hyperledger project, associating with IBM, Deutsche Bank, DTCC, London Stock Exchange Group, Wells Fargo and State Street. Recently, we have seen the joint effort of Munich Re, Swiss Re, Aegon, Allianz and Zurich to launch the Blockchain Insurance Industry Initiative (B3I), the first initiative of the type in the insurance sector. Also in the game NASDAQ, NYSE, LSE and other scholarships.

Of course, this flood of money into the ecosystem is driven by fear as much as gluttony. *The blockchain* can allow *traditional players* to do more with less, expanding services, reducing risk and cutting costs. But it also radically decreases entry barriers for new players to *create* alternatives to the conventional banking sector, challenging incumbents in virtually every market they work in. "

From the thought of the author, it is perceived that the technology of *the blockchain* is not new, because for years it is used by the largest financial institutions around the world. What is important with the use of this feature is the use of the same *blockchain technology for* bitcoin transactions, *which* in theory frees the investor from the clutches of the great institutions, because *the blockchain* is not a threat to large corporations. In this sense, the understanding of Tapscott (2017, p. 24):

"Perhaps the greatest opportunity offered by this technology is to free us from the clutches of a disturbing paradox of prosperity. The economy is growing, but a smaller number of people are benefiting from it.

Instead of trying to solve the problem of the growth of social inequality only through redistribution, we can change the way in which wealth is pre-distributed – and opportunities – at first, since all people, anywhere, from farmers Even musicians, can use this technology to more fully share the wealth they

generate.

Smart companies will fully participate in the *blockchain economy* rather than being victims. In the developing world, the distribution of value generation (through entrepreneurship and talent reserves) and value participation (through distributed property) can help reconcile this paradox.

The *blockchain* will not be an existential threat to companies that embrace this new technological paradigm because thus they themselves will take possession of their disruptive force. "

According to the author's explanation, it is noticeable that, the *blockchain technology*, comes to assist the investor and/or entrepreneur in their commercial and financial transactions, acting in a way contrary to the mentality that defends the system as a threat to the Corporations. This technology is understood as a carrier of innovative properties that corroborate the expansion of systems, according to Greve *et al* (2018, p. 3-4).

Decentralisation: Applications and systems are implemented in a distributed manner, through the establishment of trust between the parties, without the need for a reliable intermediary entity. This is the main motivator for the growing interest in the blockchain.

Availability and integrity: The entire set of data and transactions are replicated to different nodes in a secure manner, in order to keep the system available and consistent.

Transparency and Auditability: All transactions recorded in the ledger are public and can be verified and audited. In addition, the technology codes are usually open, verifiable.

Immutability and Irrefutability: Transactions recorded in the ledger are immutable. Once registered, they cannot be refuted. Updates are possible from the generation of new transactions and realization of new consensus.

Privacy and anonymity: it is possible to provide users with privacy without the parties involved having access to and control of their data. In technology, each user manages their own keys, and each server node stores only encrypted fragments of user data. Transactions are to some extent anonymous, based on the address of those involved in the blockchain.

Deintermediation: The blockchain enables the integration between several systems in a direct and efficient way. Thus, it is considered a connector of complex systems (systems systems), allowing the elimination of intermediaries in order to simplify the design of systems and processes[Xu et al. 2016].

Cooperation and incentives: offer of a business model based on incentives, in the light of the theory of games. The consensus on demand is now offered as a service at various levels and scopes.

There are countless benefits of the *blockchain platform*, however this technology "did not" receive approval from the population, because the resistance is very high and, the researches in this environment are many recent, as well as the market is not prepared for the impact *Of the blockchain*, because, contrary to what the financial market operators think, this new era comes to revolutionize and facilitate transactions. In this sense, Tapscott (annex III), which is collated:

Through the teaching, we observe the numerous advantages of *the blockchain* for financial operations, including fraud containment, considering that financial monitoring is more effective.

As already in the introduction of this, the state of Pátrio has not yet regulated the cryptocurrencies, with only one bill that, by its relevance, will weave some nuances.

3. Bill 2303/2015

In Brazil, there is the draft law 2303/2015, in a proceeding in the National Congress, it has as objective the regulation of *Bitcoins*, however, this modifies the law 12.865/2013 as well as the law 9613/1998. One of the main points of the project can be visualized in the wording, as specified:

Art. 1st Modify the item I of art. 9th of the Law 12,865, of October 09, 2013:

Art. 9th.....

I-disciplinary the payment arrangements; Including those based on virtual currencies and air mileage programs; "

Art. 2nd Add the following § 4 to art. 11 of law 9,613, of March 03, 1998:

Art. 11.....

§ 4 the operations mentioned in item I include those involving virtual currencies and air mileage programs "

Art. 3 ° "Apply to the transactions conducted in the virtual market of currencies, in what fit, the provisions of the Law no 8,078, of September 11, 1990, and their amendments".

The author of the bill, pointed out his planning alleging the highlight of the virtual currencies used in financial transactions, below are the words of the proponent of the draft which is collated:

"The so-called" virtual currencies "gain more and more prominence in current financial operations.

Although there is not even a national or international regulation on the matter, there is a growing concern about the effects of transactions carried out by means of these instruments.

The subject deserved a special report from the European Central Bank (ECB) in October 2012, which was updated in February 2015.

Despite the lack of need for the immediate introduction of more active regulation on virtual currencies, this report points to a set of risks that must be adequately monitored.

We will then put a picture with each of the main conclusions of the report and a comment. "

As is to be considered, the imminent proposer of the 2303/2015 bill, takes as its support the report of the

Central Bank of Europe. In this, there are a number of recommendations regarding the design of the risks of virtual currencies, for their importance these recommendations are collected below: