VIRTUAL CURRENCIES AND FINANCIAL DECENTRALIZATION: THE CASE OF BITCOIN

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ABSTRACT

Virtual currencies in general, and Bitcoin in particular, are currently the most used and famous compared to other circulated cryptocurrencies. Bitcoin is considered one of the currencies that has been fully implemented. A cryptocurrency is a decentralized peer-to-peer virtual currency. Exchange operations between users are conducted without resorting to a bank to manage the transactions. This explains one of the major advantages offered by this system: low costs or low transaction fees, which are much lower than those provided by banks in terms of modern and traditional payment methods. To ensure the validity of transactions and the dissemination of this type of money, encryption technology is used.

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VİRTUAL VALYUTALAR VƏ MALİYYƏ MƏRKƏZSİZLƏŞDİRMƏ: BİTCOİN MƏSƏLƏSİ

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Açar sözlər:

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Virtual valyuta,
Bitcoin Money (Bitcoin)

ANNOTASİYA

Ümumilikdə virtual valyutalar, xüsusən də Bitcoin, digər dövriyyədə olan kriptovalyutalarla müqayisədə hazırda ən çox istifadə edilən və məşhurdur. Bitkoin tam tətbiq edilmiş valyutalardan biri hesab olunur. Kriptovalyuta mərkəzləşdirilməmiş peer-to-peer virtual valyutasıdır. İstifadəçilər arasında mübadilə əməliyyatları əməliyyatları idarə etmək üçün banka müraciət etmədən aparılır. Bu, bu sistemin təklif etdiyi əsas üstünlüklərdən birini izah edir: müasir və ənənəvi ödəniş üsulları baxımından bankların təqdim etdiyindən xeyli aşağı olan aşağı xərclər və ya aşağı əməliyyat komissiyaları. Əməliyyatların etibarlılığını və bu növ pulların yayılmasını təmin etmək üçün şifrələmə texnologiyasından istifadə olunur.

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ВИРТУАЛЬНЫЕ ВАЛЮТЫ И ФИНАНСОВАЯ ДЕЦЕНТРАЛИЗАЦИЯ: СЛУЧАЙ БИТКОИНА

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АННОТАЦИЯ

Виртуальные валюты в целом, и биткоин в частности, в настоящее время являются наиболее используемыми и известными по сравнению с другими обращающимися криптовалютами. Биткоин считается одной из валют, которая была полностью реализована. Криптовалюта - это децентрализованная одноранговая виртуальная валюта. Операции обмена между пользователями проводятся без обращения к банку для управления транзакциями. Это объясняет одно из главных преимуществ, предлагаемых этой системой: низкие издержки или низкие комиссии за транзакции, которые намного ниже, чем те, которые предоставляют банки с точки зрения современных и традиционных методов оплаты. Для обеспечения действительности транзакций и распространения этого типа денег используется технология шифрования.

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1.Introduction

The advent of digitization in the economy has affected the means and methods of payment and money itself. Virtual currencies have significantly evolved in recent years and have gained notable status as alternatives to legal (official) currencies. Amid the financial crisis that shook public confidence in the financial and banking system, these currencies experienced increasing success, reaching 200 virtual currencies in circulation by 2014.

Bitcoin (BITCOIN) is one such virtual currency that has been known since 2009, created by Satoshi Nakamoto, a pseudonym for an unknown individual or group. As of January 2014, it had captured 90% of the market.

This virtual currency was created in the wake of the 2008 real estate crisis, against a backdrop of uncertainty and mistrust in traditional monetary systems. This cryptocurrency offers the advantage of low costs and transaction fees, which are lower than other traditional online payment mechanisms. However, its real advantage lies in its decentralization, unlike currencies issued by governments [Bastien, 2021].

The importance of Bitcoin is demonstrated by the benefits it provides in addition to its remarkable recent development. It enables secure and confidential transactions with lower fees. Transactions contain no personal information, eliminating the risk of data breaches or identity theft. Another strong point of Bitcoin is its massive growth potential. Many investors hold onto their Bitcoins, betting that its value will peak when cryptocurrency becomes more dynamic and freely tradable [Drummond, 2014]. This virtual and decentralized currency avoids traditional intermediaries such as banks and governments during periods of recession and economic crisis.

The importance of virtual currencies is steadily increasing, particularly in light of the TRACFIN report titled “Framing Virtual Money”, the European Banking Authority's report on virtual currencies, the announcement of a tax on virtual currencies, the dismantling of the first European Bitcoin operation in Midi-Pyrénées, and the opening of a “Bitcoin House” in France.

Since its inception in 2009 and with the developments it has undergone since 2014, Bitcoin has raised many legal questions, especially among professionals in the field, as this currency directly impacts their work. Despite public outcry and concerns from various global political and financial entities, there has been little legal development on this topic.

Regarding virtual currencies in Algeria, Article 69 of Ordinance No. 03-11 on Money and Credit dated August 26, 2003, states:

“*All tools that allow any person to transfer money, regardless of the instrument or method used, are considered means of payment.*”

This article is understood to encompass electronic money as a new payment method, as it allows people to transfer funds using modern technology. However, we know that only institutions subject to money and credit laws can issue money.

In the absence of an explicit legal provision, we cannot say that this type of virtual currency is permitted in Algeria. Additionally, Article 117 of the 2018 Finance Law states:

“*It is forbidden to buy, sell, use, or possess virtual currency. Virtual currency is used by Internet users over the web and is characterized by the absence of physical support such as coins or banknotes, and payment operations by check or bank card. Any violation of this provision is punishable according to applicable laws and regulations.*” [Mathias, 2021]

The rationale provided in the Finance Bill highlights that these transactions are not subject to any recognized authority or state-imposed oversight. Therefore, Algeria imposes strict control over this type of currency due to its use in drug trafficking, money laundering, and tax evasion. Among the globally recognized virtual currencies, Bitcoin is acknowledged in several countries such as Germany and Japan, where its value has surpassed that of the dollar. However, many countries have banned it due to significant risks [Barbotin, 2014].

In France, institutions like the Bank of France, the ACPR, the AMF, and the tax administration took a stance on Bitcoin in July 2014 regarding its regulation and legalization. Based on this, we pose the following problem [Banque of France, 2014]:

Can Bitcoin be considered one of the existing forms of money, and what legal framework governs it? [6, 45]

Discussing a legal framework for this new financial product will gradually become clear through defining it and understanding how it operates (Chapter One), identifying different legal perspectives on its nature (Chapter Two), and clarifying the legal framework that may apply (Chapter Three).

2.Chapter One: Definition and Operation of Bitcoin

Bitcoin is a partially anonymous, decentralized electronic currency, not backed by any government, legitimate authority, or legal entity. The system's integrity depends on a ledger that includes all transactions, which is continuously updated across all network nodes. It has many advantages, including very low transaction costs. However, its value is not guaranteed by any country—it relies on users' trust. This raises questions about its actual value.

Bitcoin uses encrypted protocols to solve the problem of double-spending and to ensure participant identity. While it serves as an alternative currency, can it be recognized as fiat money?

2.1.Section One: Definition of Bitcoin

Bitcoin is a truly virtual currency—a cryptocurrency. It can be described as an “online” version of money. It is used to buy goods and services, and more and more companies accept it. It is based on balances recorded in a public ledger accessible to everyone. It is created, distributed, traded, and stored using a decentralized ledger known as the blockchain. All Bitcoin transactions can be transparently displayed and verified through a system requiring vast computing power.

Bitcoin is a crypto-asset stored electronically, allowing users to make payments and transactions without relying on legal tender. It is created by a community of internet users known as "miners," who install mining units on computers connected to free software. According to a set algorithm, these units generate Bitcoin, which is then awarded to users—including minors—as a reward for their participation.

Once created, Bitcoins are stored in an electronic wallet on a computer, tablet, laptop, or even remotely. They can then be anonymously transferred online. Although Bitcoin is the most well-known and valuable cryptocurrency, there were more than 1,300 such assets in early 2018. Since 2014, many other cryptocurrencies have emerged, known as “Altcoins.” However, BTC remains the most capitalized. Other assets such as Ether and Ripple are also growing rapidly and operate on principles similar to Bitcoin.

It is important to distinguish between Bitcoin as a currency unit and Bitcoin as a transaction system. Currently, more than ten million Bitcoins are in circulation, valued at over five billion euros—but due to price volatility, this value changes quickly. Cryptocurrencies in general, and Bitcoin in particular, differ significantly from traditional monetary systems:

- They are not guaranteed or imposed by any central authority (government, central bank, etc.).
- Bitcoin's value is set solely by the exchange market and usage.
- Its value does not rest on money or physical goods but on the value assigned by individuals as a payment system.
- Its issuance is not the prerogative of a bank or state but is pre-programmed in the code. It is open-source, and the evolution of Bitcoin quantity over time is predictable.

- Lastly, Bitcoin transactions do not require centralized infrastructure for validation. They are verified by randomly selected network users.

2.2.Section Two: How Bitcoin Works

Bitcoins are created from a mathematical algorithm in the program, which must be installed by the user—even minors—on their device. The user must also be connected to a peer-to-peer network. When a certain number of equations are solved, Bitcoins are allocated to “miners” based on their contribution. They can then choose to sell, exchange for goods or services, or convert into other currencies. This production model reflects Bitcoin's key characteristic: it is an independent, decentralized currency free from regulatory authorities and state control.

To understand Bitcoin’s operation, one must understand the components it relies on—primarily the *blockchain*. Bitcoin was one of the first digital currencies to use peer-to-peer technology to enable instant payments. It operates through a network of computers called "nodes," which run Bitcoin’s code and store its blockchain [Roussille, 2015].

The blockchain is a chain of blocks, each representing a group of transactions. All computers running the blockchain share the same list of blocks and transactions and can see new Bitcoin transactions as they fill new blocks. It is thus impossible to cheat the system. Anyone can track transactions in real-time without owning a node. While transactions are traceable, no one can spend Bitcoins they don't own, nor can they duplicate or erase them.

It is defined as a currency exchanged peer-to-peer between individuals without needing a bank or control by states or central banks. Every Bitcoin transaction is recorded in a ledger stored on all network nodes, forming the blockchain. This ledger is public and provides access to all transactions since the virtual currency's inception. The system is transparent and anonymous. Theoretically, the recording and verification of transactions make double-spending impossible.

Sarah Bouraqqa, a lecturer at UNamur's Management Department, states: “If all nodes are aware of all transactions on the blockchain, double-spending attempts become easy to detect.” Additionally, these records are protected by an encryption system that prevents tampering. When transactions are recorded in the blockchain’s blocks, they are verified by computers on the network. Also, the Bitcoin system does not encrypt any of the data.

The Bitcoin system does not encrypt any of the data it uses, and everyone can refer to the record of ongoing transactions. Encryption is used only to create non-forgeable signatures and implement one-way functions. It is possible that the private key wallet (where the user keeps the secret information that proves their right to spend their bitcoins) is encrypted. This encryption is optional and is the responsibility of the user, not the Bitcoin system. This encryption is the responsibility of the appropriate system or operating system, as is the case with any other file.

A Bitcoin address is the only information you need to receive bitcoins, and you don’t need to run the Bitcoin software to receive them. The paying person is the one who will send the transaction to the rest of the network, which will include the recipient's address.

3.Chapter Two: The Legal Nature of Virtual Currency (Bitcoin)

Researching the legal nature requires us to investigate whether this currency is legal tender, electronic money, or has a unique nature distinct from both.

3.1.First Section: Bitcoin as Currency

Despite its well-known designation as the "queen of cryptocurrencies" (*la reine des crypto-monnaies*), it is also a virtual and decentralized currency. So, to what extent can it be considered currency in the legal sense?

3.2.Second Section: Virtual Currencies and Legal Tender

Given that legal tender has several characteristics, including the characteristic of absolute discharge power, does Bitcoin possess this feature as a virtual currency? Accordingly, we will clarify this feature and then see whether it applies to Bitcoin.

3.2.1.First: The Legal Characteristic of Legal Tender – "Universal Discharge Power"

All legislations agree on this characteristic: money is a special asset issued by the state with a specific value and is guaranteed by the state itself. The state alone holds this feature under the law of obligations. Through the power of absolute discharge, a debtor can be released from debt merely by presenting and handing over a certain amount of money to their creditor, equivalent to the debt. It is considered legal tender wherever it is located. The creditor is deemed sufficiently satisfied once these currency units are in their possession, and the debt is considered automatically fulfilled. This discharge power does not require any other agreement to release the debtor from their obligation; rather, this effect results directly from the law. This power or feature is associated with legal tender [Mignot, 2015].

3.2.2.Second: The Absence of Universal Discharge Power in Bitcoin

Bitcoin does not have absolute discharge power. Instead, the debtor must agree with their creditor on the method of repayment using Bitcoin. In other words, a debtor wishing to settle debts using Bitcoin must obtain their creditor's consent for it to be legally valid. This has several consequences:

- A creditor who refuses payment in Bitcoin is not subject to penalties under Article 642/3 of the French Penal Code.
- Since Bitcoin is not money, it cannot be considered a currency (*devise*), so Bitcoin sellers cannot be classified as manual money changers (*les changeurs manuels*).
- A "Bitcoin account," if it exists, is neither a bank account nor a payment account.

According to Article 111/1 of the French Monetary and Financial Code, the only legal currency is the euro. Article 642/3 of the French Penal Code punishes any act that involves refusing or accepting legal tender banknotes and coins in France, except at their assigned value. Hence, the euro is the only accepted currency among economic actors, and thus enjoys the *libératoire* property.

Accordingly, the European Banking Authority and later the Bank of France noted that virtual currencies offer no guarantees for compensation or collection and cannot be classified as legal tender since they may not be accepted in settlements [7, 15].

The *ACPR* adopted a descriptive analysis of Bitcoin as:

"A virtual unit of account stored on an electronic medium, allowing the acquisition of goods and services without using legal tender."

This definition was reaffirmed by *Denis Beau*, General Director of Banking Operations at the Bank of France, during a Finance Committee meeting on January 15, 2014, about the issues related to the development of virtual currencies like Bitcoin. When asked by committee chairman *Philippe Marini* whether Bitcoin is a fake currency (*le bitcoin est-il de fausse monnaie*), he clearly responded that Bitcoin is not money (*ce n'est pas une monnaie*).

For its part, the *AMF* (Autorité des marchés financiers – Financial Markets Authority) has also established those virtual currencies cannot be confused with legal tender.

Thus, *Bitcoin is not currency in the legal sense of the term.*

3.3.Third Section:Virtual Currency vs. Electronic Money

We will first define what is meant by electronic money, and then examine whether virtual currencies fall under this category.

3.3.1.First: Electronic Money

Since Bitcoin is not legal tender, is it electronic money?

Currently, electronic money operates under a clear system and presents no difficulties. The *2009 European Directive* was transposed by the *2013 Law*, which defines the legal framework for its issuance. It also stipulates that holder of electronic money units have the

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right to redeem or convert them into legal tender. Legally, electronic money constitutes a debt on its issuer and grants the holder a guaranteed repayment right.

Bitcoin, however, is not issued by a known party. It may be generated by anonymous minors, upon completion of computer programming, and is not necessarily conditioned upon the conversion of funds. This cannot be equated with electronic money, nor can its system accommodate such practices. Users, including minors, will never comply with the issuance restrictions of electronic money — this is the philosophy of the system and must be accepted [5].

Hence, distinguishing between electronic money and virtual currency is necessary. The *2009-110 EU Directive* of April 16, 2009, defined electronic money in Article 2 as:

“*A monetary value stored electronically, including magnetically, representing a claim on the issuer, issued upon receipt of funds for the purpose of payment transactions.*” [Peters, Panayi, & Chapelle, 2015]

This definition was transposed via Article L.315-1-1 of the French Monetary and Financial Code through Law No. 2013-100 dated January 28, 2013 (known as "DME2").

Since *virtual currencies are not issued in exchange for funds, they do not fall under the definition of electronic money*.

The *Bank of France*, in a meeting dated December 5, 2013, also pointed out that:

"This virtual currency does not meet the definition of a payment instrument under the monetary and financial framework, particularly the definition of electronic money, as Bitcoin is not issued in exchange for funds."

Similarly, the *Financial Markets Authority* adopted the same interpretation as the European Banking Authority [Sambana, 2021].

This means that virtual currencies cannot be considered among the means of payment listed in the provisions of the French Monetary and Financial Code, particularly in the definition of electronic money [9], as Bitcoin is not issued in exchange for receiving or delivering funds as required by the text, but rather through an algorithm. The Financial Markets Authority has adopted the same definition provided by the European Banking Authority [8].

3.3.2.Second: Bitcoin as a Special Currency

While Germany has recognized this currency, the situation in France is entirely different. Nevertheless, Bitcoin is presented as a traditional payment method that depends on the unilateral will of the parties to accept it in this manner. For this reason, the banking authorities responsible for the security of payment methods are paying close attention to it. Although the designation of means of payment in 2012 did not mention Bitcoin, the Bank of France has recently shown some interest in it. The European Central Bank confirmed in 2012 that "the legal framework for Bitcoin is extremely unclear." [11]

The European Banking Authority also issued a press release in December 2013 to warn European citizens of the risks of Bitcoin. And while the legal characterization of Bitcoin as a currency (*monnaie*) may be excluded, its legal nature cannot be disregarded. It is worth exploring traditional classifications, where clarity can be achieved through comparisons and exceptions [Zaghloul, Li, Mutka, & Ren, 2019].

4.Chapter Three: The Legal System of Bitcoin

The issue of the legal characterization of virtual currency is important. If virtual currencies cannot be considered legal tender nor electronic money, and if their legal nature remains unclear, and Bitcoin does not fall under any pre-existing legal definition, then researching its characterization enables us to formulate legal hypotheses and move toward a foundation for constructing its legal framework [14]. This can involve referring to specific rules concerning payment services. If Bitcoin is not money, it can still be considered as property or a subject of transaction. To clarify this, it is necessary to research the legal framework. This process can help us define or exclude certain existing applications or systems applicable to it. But it cannot be left undefined. Through our classifications, we can outline its boundaries and lay the groundwork for its legal system [Aru, 2017].

In this respect, legal tools are both important and limited, considering there are approaches falling under "property law" and those under "the law of obligations." This distinction makes it possible to consider Bitcoin from several perspectives: from the perspective of payment services, from the perspective of the owner as a "property" (*bien*), and from the perspective of those dealing with it as a subject of transaction (*objet de transaction*).

4.1.First Section: Bitcoin from the Perspective of Payment Services

Administrative bodies and the judiciary have tended to apply the legislation related to payment services to activities associated with virtual currencies. A judicial ruling was issued on December 6, 2011, by the 2nd Commercial Chamber of the Créteil Court concerning a case between *CIC Bank* and *SAS MACARAJA*:

1. The company *MACARAJA* presented itself as a commercial intermediary for another company, *TIBANNE*, which manages the *MTGOX platform* for exchange between parties dealing in buying and selling Bitcoin. MACARAJA receives instructions from TIBANNE, being the only party in contact with users of the MTGOX platform. It ensures the successful and proper completion of transactions between buyers and sellers. The money obtained from buyers is deposited into its account with CIC Bank to then be transferred into the sellers' accounts after deducting its commission and TIBANNE's commission under the supervision of TIBANNE's committee upon the successful completion of the transaction. The Créteil Commercial Court considered the actions of MACARAJA to be a form of "payment services" requiring authorization, which was not present in this case, and this ruling was upheld on appeal [Business Insider, 2025].

Professor *Thierry Bonnet* confirmed that MACARAJA, by performing collection (*d'encaissement*) and disbursement (*décaissement*) operations, relies on a payment account (*compte de paiement*) opened in CIC's records. Therefore, the payment services are guaranteed by CIC [InfoQ, 2014].

4.2.Second Section: Bitcoin as Property

First and foremost, we must understand that Bitcoin constitutes property. On this basis, our analysis begins with general rules, complemented by specific rules such as the French Monetary and Financial Code [Time, 2022].

We will first address what Bitcoin represents in transactions within the framework of general rules, whether civil or commercial law, and in special laws such as the French Monetary and Financial Code.

4.2.1.First: Property in the Context of Trad

Determining whether Bitcoin is property in the commercial sense is essential, because the legality of all related activities depends on this classification. If it falls outside the scope of commerce, then Bitcoin transactions would be null, Bitcoin platforms unlawful, and civil — perhaps even criminal — penalties could apply. However, the marketability of the asset (Bitcoin) depends on political choice.

In this context, it is clear that countries have adopted very different stances on Bitcoin's development. While Bitcoin payments are evidently possible in The Hague, the Chinese Central Bank ordered the closure of all digital currency trading platforms, including Bitcoin accounts, before the deadline of April 15, 2014. On the other hand, in France, in the absence of political decisions, Bitcoin is considered a commodity or property in trade. Thus, the question is no longer whether Bitcoin can be the subject of a contract or economic activity.

Rather, the issues lie in how to classify activities related to Bitcoin, which partly depends on the nature ascribed to it by the person involved [Wired, 2018].

4.2.2.Second: Patrimonial Asset

Since Bitcoin is part of legal commerce, it enters the patrimony of its holder, giving rise to rights and obligations. The owner must be able to see their right in Bitcoin guaranteed, as it depends on a code. Bitcoin must be protected (at least like software, through the right to use the code). But holding Bitcoin also imposes obligations: if it has value, it has tax implications — particularly with respect to the ISF (wealth tax) and simply the potential profits from resale.

4.2.3.Third: Movable Property, Non-Consumable and Non-Fungible

Bitcoin appears transferable due to its circulation. One might think that Bitcoin is a replaceable asset, but the individualization of each Bitcoin through a computer code gives it a distinctive feature: each Bitcoin cannot be replaced by another. This is why there is no such thing as a “Bitcoin account” from a technical perspective. They can, however, be grouped in vaults or electronic wallets. Similarly, depositing Bitcoin does not constitute an irregular deposit or a loan. Bitcoin is also not a consumable asset, as it cannot be consumed through use. In short, Bitcoin’s characteristics under general property law do not provide definitive solutions, so we will analyze it from the perspective of special laws [Cheng, Zhu, Liu, & Miao, 2021].

4.3.Third Section: From the Perspective of the French Monetary and Financial Code

4.3.1.First: Bitcoin as a Financial Instrument

Bitcoin is traded through exchange platforms at times and is sometimes viewed as a store of value, which may encourage investors to invest their savings in it. This explains the attempt to clarify the concept of a financial instrument, which requires referring to the precise legal definition set out in the French Monetary and Financial Code: *les instruments financiers* (financial instruments), found in Article 211-1 of the French Monetary and Financial Code. These include securities issued by joint-stock companies, debt securities, or shares and units of collective investment schemes [Aru, 2017].

In any case, it seems that virtual currencies do not fall under and are not compatible with the definition of financial instruments or debt securities. The issuance of virtual currencies at the outset is not fundamentally linked to providing a counterpart of funds, and they do not represent any debt on their issuer, as Bitcoin emerged among a closed group of internet users who relied on free software created based on specific algorithms (*des algorithmes spécifiques*). These are units of account granted to each participant, who are rewarded for each participation or operation within this system. Users have no debt claims against the issuer of this currency (i.e., there is no debtor-creditor relationship between the issuer and any other participant).

Therefore, the Bitcoin currency does not fit into any of these classifications and does not respond to the idea of "financial contracts," referred to as derivative financial instruments, which are defined by decree. Consequently, Bitcoin is not a financial instrument either.

Considering Bitcoin as intangible movable property, the Financial Markets Authority proposed some suggestions whereby virtual currencies could be considered banking products, an indicator or financial measure (*mesure financière*) under Article 211-1 of the French Monetary and Financial Code. They could also be considered as a support for financial contracts, or property similar to goods or of another (different) type (*Bien divers*) according to Article 150-1 of the same code. These proposals may have opened or may open the way for all concerned parties to clarify them further, make suggestions, and provide justifying arguments [Li, Li, & Zhou, 2023].

4.3.2.Second: Bitcoin as a Different Kind of Property

A new and attractive idea was recently proposed by *Mme France Drummond*, suggesting that Bitcoin could be considered "different property." This classification has serious consequences in financial law, especially for Bitcoin sellers, as the French Monetary and Financial Code subjects such property to a specific regime — the regime of intermediaries in diverse property (*intermédiaire en biens divers*). However, it assumes that the professional provides the Bitcoin yield in advance to enter this regime. Nonetheless, it can be assumed that Bitcoin sellers are very careful not to praise its speculative aspect (*vanter son côté spéculatif*) and instead seek to warn buyers of the risks of value loss.

Bitcoin remains a legally undefined object or subject. Nevertheless, the focus may be on the transactions it involves and the services it offers.

4.4.Fourth Section: Bitcoin as the Subject of a Transaction

Bitcoin is now a subject of speculation, prompting authorities to regulate it. However, this regulation can only apply to contracts, operations, and services of which it is the subject. From this angle, it should be examined from the standpoint of contract law and private law (economic activities law).

4.4.1.First: Bitcoin as a Contractual Subject

1. *Bitcoin Provides a Dual Service:*

In contracts, there are two types of services: the main service, which is the subject of the contract, and the monetary service that enables compensation for the main service. Considering Bitcoin as a private currency leads us to initially view it as a monetary service that any trader may accept in payment before considering it the object of the main service.

2. *Bitcoin as the Object of a Monetary Service:*

As previously seen, Bitcoin is not money and therefore cannot provide a monetary service in the precise sense. And since Bitcoin is a specific entity (*un corps certain*), transactions carried out in Bitcoin cannot be understood as purchases.

Technically, settling a good or property via Bitcoin is a barter (*échange*) as defined in Article 1702 of the French Civil Code. From a tax perspective, this classification leads us to apply the solution related to the *TROCS les SEL* system, which may result in double taxation if the transaction is between two taxable persons — i.e., a double VAT [Mullan, 2014].

If we are in the commercial domain and the contract is settled via Bitcoin, the contract is legally valid, as the parties agreed to settle their contract using this currency, unless the contract itself is unlawful, as revealed by *TRACFIN*. Media reports on other virtual currencies have raised questions about the application of anti-money laundering and anti-terrorism financing regulations, as there are fears of Bitcoin being used in such activities. Therefore, the Financial Intelligence Unit (*CRF*) — as called in the 2005 directive — as well as *GAFI*, an international authority in this field, have shown interest in monitoring everything related to Bitcoin.

3. *Bitcoin as the Object of a Primary Service:*

Bitcoin cannot be presented as money or as a monetary item (private or traditional currency) if it is pre-purchased. Instead, it can be considered as economic property. Purchasing Bitcoin for resale falls under Article 110-1 of the French Commercial Code, and commercial law rules are expected to apply in such cases. For a person who regularly trades it, the activity would constitute a commercial one, leading to the application of special tax rules.

However, practically speaking, the question that arises is the legal classification of the platforms, which do not buy to resell but rather exchange currencies between internet users. Without them, users cannot know the value of Bitcoin, nor buy or resell it. Hence, it can be considered as the object of an activity [Peters, Panayi, & Chapelle, 2015].

4.4.2.Second: Bitcoin as the Subject of an Activity

Regarding Bitcoin exchange platforms, economic activity law seeks to focus on individuals conducting operations on a regular basis. Therefore, it relies on the personal aspect. It is crucial to know how to classify the activities carried out using Bitcoin, because if regulated, a company's purpose may be unlawful if it fails to comply with applicable regulations.

In France, two rulings were issued in 2011 and 2013 by the Paris Court of Appeal on this matter, both addressing the legal status of platforms. The company *MACARAJA* was the European partner of *TIBANNE*, which manages the internet platform in Japan known as *MTGOX*, allowing Bitcoin exchanges between buyers and sellers in the SEPA region.

TIBANNE communicated with MACARAJA to transfer funds deposited by buyers on the occasion of their Bitcoin purchases to a deposit account opened in the records of *CIC* for the purpose of re-depositing them into sellers' accounts after deducting the commission.

5.Conclusion

Bitcoin, as a form of virtual currency, does not belong to any of the previous legal systems. It is neither legal tender (coin or paper) nor electronic money. Its legal framework remains unclear, and countries — due to its increasing use — are trying to regulate it to prevent its use in illegal activities. The Algerian legislator explicitly prohibited dealing in virtual currencies, including Bitcoin, due to the risks they pose.

- Bitcoin is a cryptocurrency based on encrypted protocols, providing a payment service and ensuring user identity. Its encryption origin is virtual, stored on an electronic medium that allows users to accept payments and carry out transactions without needing legal tender.
- Bitcoin is created by miners and relies on "peer-to-peer" technology. It is exchanged peer-to-peer between individuals without going through a bank and without state or central bank control. The monetary issuance is not the responsibility of any bank or state. However, Bitcoin is pre-defined by a computer code, and its value is determined solely by the exchange market based on its use.
- Bitcoin relies on a network of computers known as "nodes" (*nœuds*). These computers execute the Bitcoin code and store its blockchain. Bitcoin does not require a central infrastructure to secure or validate transactions. These validations are performed by Bitcoin network users, selected randomly at regular intervals.
- Bitcoin is not money in the legal sense defined by Article 111-1 of the French Monetary and Financial Code, nor can it be classified as legal tender since it may not be accepted for payment and lacks legal tender power like real money. It offers no guarantees to its users. It also cannot be considered electronic money, as the definition of the latter does not encompass virtual currencies, and it is not issued in exchange for receiving funds.
- Bitcoin remains outside all known frameworks of general laws due to its unique characteristics, both in creation and in use. Therefore, it can be considered a special currency with its own rules and system that require regulation and organization by states.
- Bitcoin can be considered an abstract form of an "undefined legal object" or virtual money. It lacks the characteristics of means of payment, is not a unit of account, nor a store of value. Nonetheless, its legal framework must combine several considerations: it is a decentralized, anonymous virtual currency with a blockchain structure. There are users who want a legal framework that adapts flexibly to this currency, as it is a direct settlement method between operators who accept it and a contractual payment method.

6.Recommendations

- We recommend legally regulating virtual currencies, especially Bitcoin, which is already technically self-regulated. There is a practical need for regulation, as the value of crypto-assets reached approximately €330 billion by the end of January 2018. This figure consists mainly of 35% Bitcoin. The latest estimates indicate that 24.5 million people will use a blockchain wallet and 16.6 million Bitcoins. Hence, it is a massively traded currency, and its use will increase in the future.

- Given Bitcoin's volatility and the fact that transactions occur between anonymous individuals — rendering electronic certification authorities or trusted third parties ineffective — it is even more necessary for legislation to address such currencies, while recognizing that there are difficult obstacles to overcome.

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