

**Virtual cryptocurrencies: investments and potential  
investments of the new economy**

**Cryptomonnaies virtuelles: investissements et  
investissements potentiels de la nouvelle économie**

**Nassima BOURI**

University of Oran 2, (Algérie)

nassimabouri@rocketmail.com

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**Abstract :** Virtual currency, or digital currency, is a type of unregulated digital currency, issued and generally controlled by its developers, used and accepted by members of a specific virtual community. This crypto currency, like the bitcoin represents a potentially lucrative investment, and is a new investment, while participating in the new digital economy. The article aims to summarize its usefulness and benefits in the financial system. Algeria, however, represents a weak dynamic in the digital domain, which is mainly due to a significant lack of support and funding mechanisms, as well as a weak development of innovation activities.

**Keywords:** virtual currency, crypto currency, bitcoin, digital, crowdfunding, digital payment.

**JEL classification : J33**

**Résumé :** La monnaie virtuelle, ou monnaie numérique, est un type de monnaie numérique non réglementée, émise et généralement contrôlée par ses développeurs, utilisée et acceptée par les membres d'une communauté virtuelle spécifique. Cette crypto monnaie, à l'instar du bitcoin représente ainsi un placement potentiellement rémunérateur, et constitue un investissement d'un nouveau genre, tout en participant à la nouvelle économie numérique. L'article a pour objet de résumer ses utilités et ses avantages dans le système financier. L'Algérie représente cependant une faible dynamique dans le domaine du numérique, qui est principalement due à un manque important de dispositifs d'accompagnement et de financement, ainsi un faible développement des activités d'innovation.

**Mots clés :** monnaie virtuelle, crypto monnaie, bitcoin, numérique, crowdfunding, paiement numérique.

**Jel Classification : J33,**

## INTRODUCTION

Virtual currency, or digital currency, is a type of unregulated digital currency, issued and generally controlled by its developers, used and accepted by members of a specific virtual community. The Commodity Futures Trading Commission in the US has warned investors against pumping and dump systems that use virtual currencies. The Financial Crimes Enforcement Network (FinCEN), an office of the US Treasury, defined the virtual currency in its guidelines published in 2013.

In 2014, the European Banking Authority defined the virtual currency as "a digital representation of the value bank or a public authority, nor necessarily attached to a fiduciary currency, accepted by natural or legal persons as a means of payment that can be transferred, stored or electronically traded ". On the other hand, a digital currency issued by a central bank is defined as "digital currency of the central bank".

### 1. Virtual Currency: Multiple Definitions

#### 1.1. Definition according to the central bank

In Europe, the virtual currency is a unit of account with no legal status, as these currencies are not regulated by a central bank and are not issued by financial institutions. Thus, they are distinguished from electronic money which is a monetary value. As such, virtual currency is different from electronic money.

The European Central Bank distinguishes three types of virtual currency:

- the closed virtual currency used in video games. It has a limited existence in the game.
- The virtual currency with a unidirectional flow can be purchased with a legal currency, at a defined exchange rate, but cannot be converted into legal tender. (Purchase concept).
- Virtual currency with bidirectional flow, such as Bitcoin.

In 2012, the European Central Bank defined virtual currency as "a type of unregulated digital currency, issued and generally controlled by its developers, used and accepted by members of a specific virtual community".

#### 1.2. Definition according to the Financial Crimes Enforcement Network (FinCEN)

In 2013, the Financial Crimes Enforcement Network (FinCEN), an office of the US Treasury, in contrast to its regulations that defines currency as "currency and paper money of the United States or any other country designated as legal tender and circulating and is usually used and accepted as a medium of exchange in the country of issue ", also called " real money "by FinCEN, defined virtual currency as " a medium of exchange that functions as a currency in certain countries". In particular, virtual money is not legal tender in any jurisdiction.

### **1.3. Definition according to the European Banking Authority**

In 2014, the European Banking Authority defined the virtual currency as "a numerical representation of value that is neither issued by a central bank or a public authority, nor necessarily attached to an official currency, but which is accepted by natural or legal persons as a means of payment and which can be transferred, stored or electronically.

## **2. Types and Ranking of the virtual currency according to its 2018 stock market valuation**

Here is a review of March 13, 2018 shortly after the phenomenal rise of Bitcoin and its fall no less spectacular. The other virtual currencies in this Top 10 are champions of volatility that have recently risen in the ranking due to a recent creation (of the 10 Cryptocurrencies present here, 3 were created last year) or go and come regularly, like Monero or Stellar.

### **1. Bitcoin**

- ✓ Date of creation: 2009
- ✓ Market capitalization as at March 13, 2018: 157, 148 billion dollars
- ✓ Price growth over 2017 (USD) : +1 318 %

### **2. Ethereum**

- ✓ Date of creation: 2015
- ✓ Market capitalization as at March 13, 2018: 68, 915 billion dollars
- ✓ Price growth over 2017 (USD) : +9 162 %

### **3. Ripple**

- ✓ Date of creation: 2012

- ✓ Market capitalization as at March 13, 2018: 31,107 billion dollars
- ✓ Price growth over 2017 (USD) : +36 018 %

#### **4. Bitcoin Cash**

- ✓ Date of creation: 2017
- ✓ Market capitalization as at March 13, 2018: 17,728 billion dollars
- ✓ Price growth over 2017 (USD) : +350 %

#### **5. Litecoin**

- ✓ Date of creation: 2011
- ✓ Market capitalization as at March 13, 2018: 9, 885 billion dollars
- ✓ Price growth over 2017 (USD) : +5 046 %

#### **6. Cardano**

- ✓ Date of creation: 2017
- ✓ Market capitalization as at March 13, 2018: 5,879 billion dollars
- ✓ Price growth over 2017 (USD) : +282 %

#### **7. NEO**

- ✓ Date of creation: 2016
- ✓ Market capitalization as at March 13, 2018: 5,605 billion dollars
- ✓ Price growth over 2017 (USD): +50 585 %

#### **8. Stellar**

- ✓ Date of creation: 2014
- ✓ Market capitalization as at March 13, 2018: 5,451 billion dollars
- ✓ Price growth over 2017 (USD): +15 653 %

#### **9. Eos**

- ✓ Date of creation: 2017
- ✓ Market capitalization as at March 13, 2018: 4,250 billion dollars
- ✓ Price growth over 2017 (USD): 753 %

#### **10. Monero**

- ✓ Date of creation: 2014
- ✓ Market capitalization as at March 13, 2018: 4,116 billion dollars
- ✓ Price growth over 2017 (USD): +2 377 %

### **3. The usefulness of virtual money**

### **3.1. Purchase of goods and services**

Crypto currencies, like bitcoin, make it possible to buy many consumer goods. Overstock, a general merchant website, accepts payment in bitcoin, just like Shopify. Paying everyday goods with other Cryptocurrencies is more difficult, but not impossible. The ether for example could be used to buy the works of art exhibited by young artists at a Company (Paris X) in spring 2017 the real world.

### **3.2. Crowdfunding crypto-equity: another use of the virtual currency**

Crypto currencies can also be used to finance companies via crowdfunding crypto-equity. The process that is in its infancy is to finance equity-crowdfunding through virtual currency. This type of practice is referred to as ICO or Initial Coin Offering. Several platforms offer this solution such as Swarm.

**4. Crypto currency:** an investment like any other? But crypto currencies are above all a potentially lucrative investment. Digital alternative currencies can indeed be an investment of a new kind, while participating in the new digital economy.

### **5. Bitcoin is a virtual currency**

#### **5.1. Definition of bitcoin**

Bitcoin is a virtual currency circulating on the Internet since 2009, it is a substitute for fiduciary money by an anonymous computer scientist who uses the pseudonym of Satoshi Nakamoto. Unlike hard currency, Bitcoins are not printed, but rather "mined" thanks to the computing power of computers within a global network of volunteer developers.

Thus, Bitcoin is nothing more than a digital file that lists all the transactions that have been performed on the network in the form of a large accounting book called "chain of blocks". Bitcoin is the first example of a growing class of currencies known as crypto-currencies in which free software solves complex mathematical problems to undermine even more Bitcoins (Coin Desk, 2013). These "miners" operate the Bitcoin network by validating transactions and creating new Bitcoins.

#### **5.2. Is Bitcoin considered a currency?**

It is considered a currency, because it fulfills the three economic functions of the currency: Unit of account, it allows to measure the values

(prices displayed in bitcoins, on some e-commerce sites); intermediary in the exchanges, it makes it possible to settle transactions; store of value, it can be stored (on a digital wallet hosted on a computer, tablet or smartphone) for future purchase.

It performs the same functions as a traditional currency:

- It represents a unit of account, that is to say, it allows to measure the value of a good or a service: we can for example determine that a pair of socks is worth 2 Bitcoins.

- It facilitates trade: that is, it can be used to buy goods and services.
- And it can be stored for use in the future.

### **5.2. The difference between Bitcoin and the Euro**

In this sense, Bitcoin can be called "currency", as the euro for example. But beware, the Euro and Bitcoin have different characteristics. The euro has a legal tender, it means that it is recognized by the public authorities and that everyone in the euro zone is obliged to accept payment in euros.

But even if more and more e-commerce sites and even some physical shops accept Bitcoin as a means of payment, nothing obliges a merchant to accept them and no one guarantees that they will be accepted in the future. The exchange of Bitcoins is possible only between people who agree to use it: it is said that it is a currency "because of uses".

In addition, the use of the euro is framed by centralized systems. For example, when it takes or loses too much value, the European Central Bank intervenes to regulate these fluctuations. Bitcoin is based on a decentralized system. Its value therefore depends solely on supply and demand: the more people buy Bitcoins, the more their value will increase, and the less people will buy more, their value will fall.

### **5.3. The limit of the use of bitcoin as a means of payment**

Bitcoin, unlike the euro for example, is not legal tender, that is to say that no one is obliged to accept it as a means of payment. "Today, the (legal) sites listed by bitcoin.com do not exceed a hundred: mainly online gaming sites, hardware sales and Internet services, such as the World Press blog host. In practice, we record 40 transactions in bitcoins per minute on average for the whole world, against 200,000 for the Visa card "(Sandra Moatti," Internet: what future for bitcoin? ", Economic Alternatives, No. 330, December 2013).

### **5.4. The characteristics of a centralized money system**

A centralized system is a system supervised by a central bank: the value of the euro, for example, is monitored by the ECB, which intervenes to regulate the money supply according to the objectives set for monetary policy. In this system, the use of money is subject to rules: banks ensure the security of assets and transactions.

### **5.5. The risks associated with the decentralized nature of bitcoin**

It is a high risk, speculative asset, its value is extremely volatile, the variations in its demand causing its price to vary considerably. This currency, which is still largely beyond the control of the states, also offers no protection to users who have been cheated by a cyber attack, for example by emptying their account or by fraudulent transactions. It is also accused of being used to launder trafficking money given the anonymity allowed by encryption.

### **6. Electronic payments in the Algerian electronic system**

The involvement of digital payment in Algeria first took shape through the development of electronic banking and the creation of the technical operator of electronic banking. ; SATIM « Company of Automation of Interbank Transactions and Monetics ». Thus, the first electronic payment terminals dated 2005, after having created the first ATMs In 1997. Sophisticated electronic payment is still in its infancy, since the various electronic means of payment mentioned above are not yet designed in the field.

Among others, the credit card "Is the best used in commercial transactions recently, and the integration of online payment in 2015, which now prepares the environment for the digitization of economic activities in Algeria. The bank card is considered as a new potential commercial means usable in particular with the law of finance 2018, which has stated its obligation.

In turn, electronic payment " ePaye.dz Is a first-rate online payment, a platform that acts as an intermediary with a bank account that will feed the user's virtual account by a simple transfer from the user's bank account provided they have only create an account by entering a phone number, an email address, and a password, so prepaid cards for sale nationally can feed the user's account. The latter will be able to use all the commercial sites agreed with this platform.

Despite the importance of integrating digitization into the various monetary transactions, including electronic payments, which contribute to the acceleration of the various financial and economic operations, the development of electronic payment in Algeria still faces several obstacles to its evolution and development, namely the informal economy, the culture of cash, which corresponds to the psychological feeling Algerian citizens linked the use of money, infrastructure: lack of political solutions and technical resources and means for decision in charge of the e-commerce platform.

Indeed, legal anchoring is a major issue, since " the absence of a legal framework governing e-commerce " *Algeria* " Especially the protection of users in this platform, the problem of lack of confidence in the Algerian banking system, and traceability, which allows the detection of money and the fight against evasion and fraud and tax evasion " (MERBOUHI Samir, Pr HADID Noufyele, [2017]). It is therefore essential to renew the traditional system and replace the previous methods in search of an advantage in transactions, especially digital security : a real challenge for growth and development in the ICT field.

## 7. CONCLUSION

The situation is clearer with regard to e-money and signs are increasing that it has allowed people formerly excluded from the official financial system to access it. Regulators and policymakers need to be careful not to conflate e-money with virtual currencies like Bitcoin so as not to backtrack on the regulatory advances that have enabled e-money systems to flourish through proportionate and risk-based regulation.

Electronic money should continue to be proportionally regulated on the basis of the size and nature of transactions to provide access to the formal financial system for a large portion of the world's unbanked population.

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