BITCOIN OVERVIEW: TRADING ANALYSIS

WHAT IS BITCOIN?

Bitcoin (BTC) is a virtual and decentralized currency that use the bitcoin protocol in order to transmit value among traders, without a third-party authority. The Bitcoin creation is related to the paper "Bitcoin: a Peer-to-Peer Electronic Cash System" (2008) of Satoshi Nakamoto and is based on a Proof-of-Work consensus mechanism. There is a limited number of Bitcoins (21 million) that can be generated and its conversion rate is influenced by the supply-demand relationship. The bitcoins are entirely virtual and their owners use public and private keys to secure their transactions, which are based on encryption models and digital signatures. The mining process involves solving difficult problems in order to add blocks to the chain through a peer-to-peer system.

Bitcoin is the first cryptocurrency that was based on the blockchain technology, its genesis block enlarging the investment opportunities with an entire class of cryptocurrencies with different volatilities and risks. Blockchain allows P2P (Peer-to-Peer) transactions without intermediary, Bitcoin running into a decentralized network where the nodes are connected to each other. As the first pioneer on the cryptocurrency market, Bitcoin has many important features: cryptographic proof that strengthen the security model through the public-private key pair, decentralized control without a central government and the integrity of data.

Bitcoin technology relies on encryption to secure the Bitcoin network, the possesion of public and private keys being the main prerequisite to unlock the value stored in the digital wallets. The cryptocurrency user is the person or the legal entity who obtain cryptocurrencies and use them for various purposes: investments, P2P payments or real/virtual goods and services acquisition. In order to obtain cryptocurrencies, you can proceed to a cryptocurrency exchange towards traditional money or P2P transactions, from another user. Cryptocurrency exchanges provide exchange services to the cryptocurrency users and receive a commission for their work. They allow cryptocurrency users to sell or buy cryptocurrencies using fiat currency.

Moreover, you can mine a new coin in order to be rewarded or you can participate at an initial offering of coins. Miners are participants on the cryptocurrency market who validate the transactions on the blockchain through the consensus mechanism and solve "cryptographic puzzles". Mining solves the double-spend problem, securing the Bitcoin network against fraudulent transactions. Blockchain built a trust mechanism between buyer and seller on the cryptocurrency market, preventing fraud due to the irreversible nature of transactions. Thus, the fraudulent actions are immediately detected and rejected, due to the transparency feature of the chain, every piece of data being publicly verifiable. Every block is added to the chain after a consensus process, aligning all the participants to a single version of the chain.

DISCUSSION THEMES & QUIZ:

1. Can I trust the Bitcoin? – *the counterfeit issue*

2. Can I be sure that no one else can claim the Bitcoins that I have buyed? *- the "double-spend" issue*

3. Blockchain brings efficiency to the stock trading because:

a) it changes the traditional systems to completely automated transactions based on computerized algorithms

b) it reduces the cost with the third-party authority that can easily execute the transactions when certain conditions are met

c) the third-party commitment is doubled by the mining process

d) it reduces the parties involved in the process, maintaining digital records that are easily managed by the middlemen.

4. Blockchain prevents frauds on the cryptocurrency market due to: (Select all that apply)

a) the irreversible nature of transactions

b) the reliable intermediary between buyer and seller

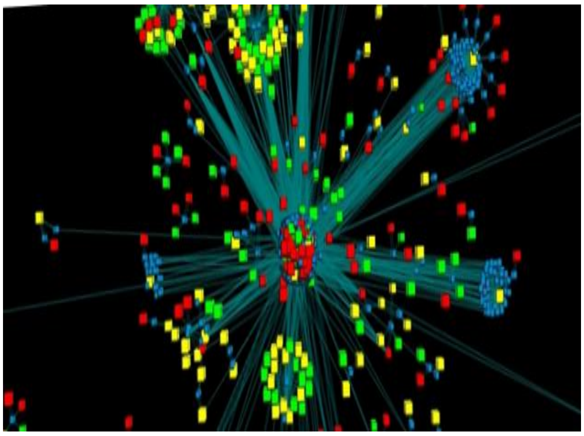
c) the transparency feature of the chain, the data being publicly verifiable

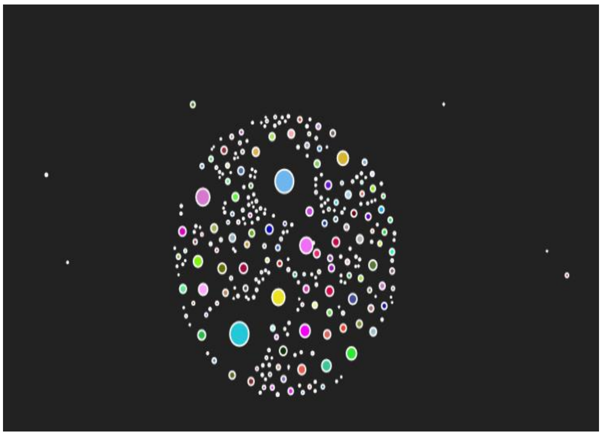
d) the centralized control of an authority that guarantees the consensus

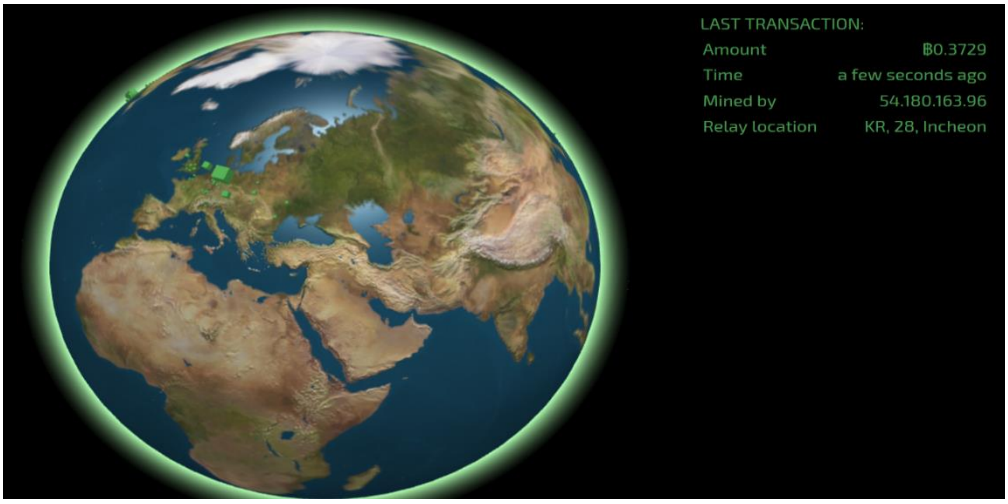
5. To learn more about some Romanian Usecases on blockchain, please watch the BLOCKS webinar from the following link:

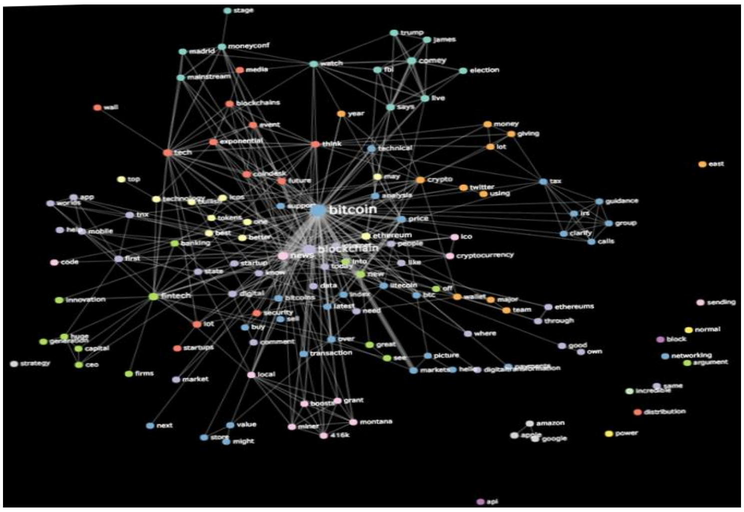
https://www.youtube.com/watch?v=viwuq_teCa4&list=PLpHiK4OqTfg3QfuB18FmKO3DWGiSEN8XA&index=2

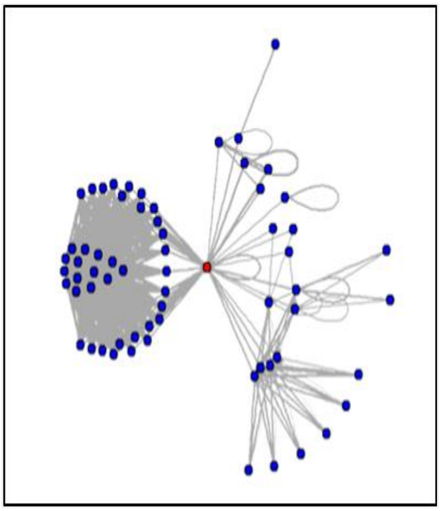
BITCOIN VISUALIZATION











Sources: https://blocks.wizb.it/, http://bitcoin.interaqt.nl/, http://beautifuldata.net/2015/01/querying-the-bitcoin-blockchain-with-r/, https://datalion.com/visualizing-blockchain-7-beautiful-informative-bitcoin-visualizations/

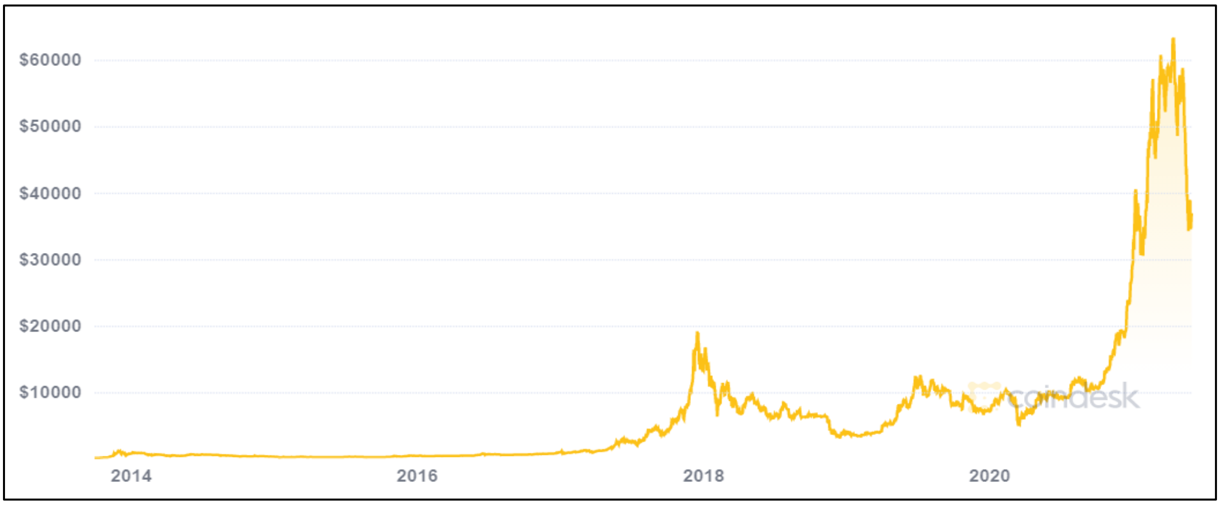
THE BITCOIN EVOLUTION ANALYSIS

The cryptocurrency market has significantly developed under economic uncertainty circumstances, being considered a proper alternative to the traditional operations made through the central banks' authorities, in times of mistrust regarding their competences in recession times. Bitcoin was a refuge for those that mistrust the centralized system due to the fact that it is more computational and based on mathematical algorithms than human. In this respect, Bitcoin is trustworthy, with a safer structure and high functionality.

According to the Figure 1.1, there is still a great potential for Bitcoin, as the market is still volatile, with slight cyclical trends. The first price increase of BTC was in 2010, when the price jumped from USD 0,0008 to around USD 0,08, while in 2011 its price has jumped from USD 1 to USD 32 in just three months (April-June). Invented as a promise to circumvent the third-party mechanism involving the traditional financial institutions after the 2008 financial crisis, Bitcoin experienced several rallies and crashes since its inception. In 2013, Bitcoin has experienced two price bubbles, with rapid deceleration in its price to about USD 744,17. The upward movement from the end of the year 2013 was followed by a similar contrary trend in the first months of the year 2014. It's important to notice that the general financial uncertainty attract positive effects on the Bitcoin prices, following a pattern that is strongly correlated with the crisis periods.

The remarkable ascent of the Bitcoin price was reached in December 2017, suggesting the investor interest on the cryptocurrency market due to the social media promotion, while other authors find a price manipulation through Tether. This kind of bubbles are very dangerous for those who are betting large amounts of BTC into their frenzy. After this peak, the BTC price collapsed in 2018, with a slight recovery in 2019 and a new downturn at the end of the same year. It is an interesting point that Bitcoin already circulated for many years at the time of its great peak, the influencing factors having significant correlations with various indicators such as the gold price, cryptocurrency exchanges or the USD/EUR exchange rate, while the online retailers accepting Bitcoin transactions were the leading influencers for the Bitcoin price increase in 2013.

Figure 1.1. Bitcoin price evolution



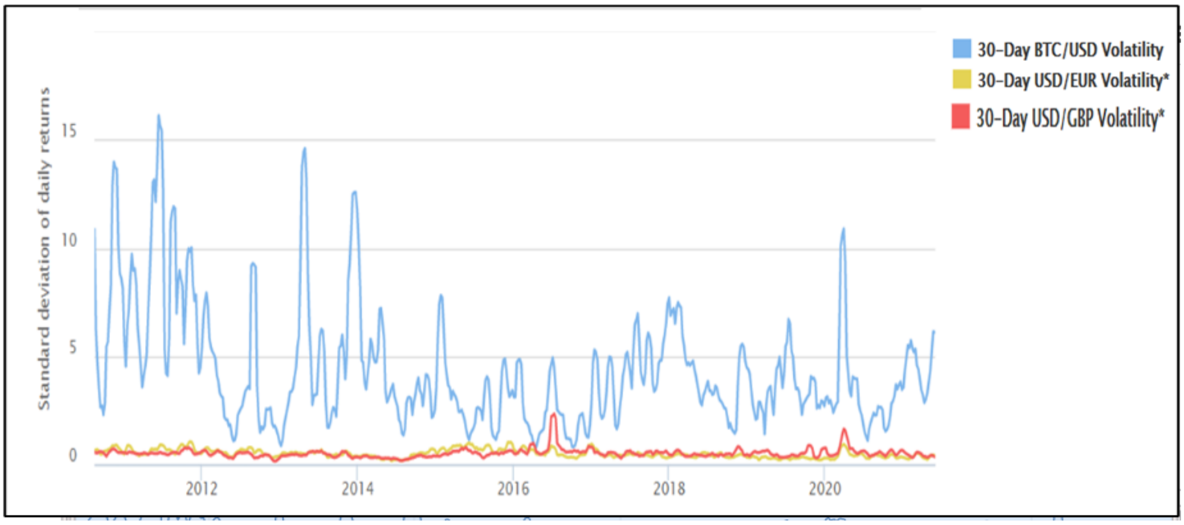
Source: https://www.coindesk.com/price/bitcoin

Resuming the Bitcoin price evolution in the period 2012-2021, Figure 1.1 outlines a dramatically fluctuation trend with very risky consequences for speculative investors. In the same time, Bitcoin has also experienced some cyclical trends with a peak of the price in December 2017, followed by a deep downturn across the next year and a new robust recovery to the local maximum level achieved in July 2019. Until December 2019, there was a strong accumulation phase, which was followed by a new volatile trend with a negative impact on the Bitcoin price. The cryptocurrency investors immediately react to the macro-economic events, experiencing abnormal returns that confirms the very speculative nature of the market, which has not yet reached an acceptable level of maturity more directed to serve as an efficient method of payment.

The pandemic crisis has activated once again the BTC price, significantly accelerating the Bitcoin rise. While BTC started 2020 at $6.955.49, the end of the same year finds the cryptocurrency at $26.718,03 (an increase of approx. 350%), being sustained by the government policy when pandemic shutdown, but also the large interest of institutional investors. Thus, the institutional interest has propelled BTC price upwards to the new peak of $64.829 in April 2021. The mainstream data suggest that Bitcoin foundations have changed from a currency to a store of value, people holding BTC for long periods of time rather than making BTC transactions.

However, the BTC/USD volatility is very high compared with USD/EUR and USD/GBP volatilities, as reflected in the Figure 1.2. The cryptocurrency market is more exposed to bubbles and crashes, as a result of the strong contagion effect between different cryptocurrencies. In the same time, there is a clear request for the alternative money as we can notice from the growth in the Bitcoin trading volume. Moreover, the macroeconomic instability cand be associated to an increased economic activity of BTC, being revealed a strong connection between global economic uncertainty and cryptocurrencies' evolution.

Figure 1.2. BTC/USD volatility compared with USD/EUR and USD/GBP volatilities



Source: https://www.buybitcoinworldwide.com/volatility-index/

The recent evolution of BTC transactions suggests the Bitcoin transition from retail investors to institutional investors, becoming an attractive asset class and reducing the volatility. The BTC rally during pandemic crisis was related to the encouraging speeches of some respected names in the field of finance that amplified the BTC potential to develop into a hedge against inflation and part of the corporate treasuries. On the other hand, Chicago Mercantile Exchange announcements of the launch of BTC futures trading have pushed the BTC price at the $20.000 borne in 2017. The CME Group has launched the Micro Bitcoin futures (MBT) on May 2, 2021, being based on the CME CF Bitcoin Reference Rate and represent 1/50 the size of the BTC futures contract. In order to trade Micro Bitcoin Futures, you don't need a digital wallet. Instead, you must open an account at a registered futures broker that will manage the account, guaranteeing your trades.

To learn more about Micro Bitcoin Futures, please watch the videos from the following link: https://www.cmegroup.com/trading/micro-bitcoin-futures.html?redirect=/microbitcoin#

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