Crypto Currencies and Block Chain System

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Abstract

A blockchain is a decentralized ledger of all transactions across a peer-to-peer network. Using this technology, participants can confirm transactions without a need for a central clearing authority. Potential applications can include fund transfers, settling trades, voting and many other issues. Blockchain, sometimes referred to as distributed ledger technology (DLT), makes the history of any digital asset unalterable and transparent through the use of decentralization and cryptographic hashing.

The purpose of this paper leads to an analysis of the question: if Bitcoin is already here, why have thousands of additional cryptocurrencies been launched? The answer is that several other cryptocurrencies aim to compete with Bitcoin as general purpose currencies. Coins and tokens - all except Bitcoin are known as altcoins - and their purpose is to meet specific needs.

Key words: blockchain, cryptocurrencies, investments, capital markets
J.E.L. classification: G1, G11, G15

1. Introduction

The cryptocurrency market is very diverse, with hundreds of different coins, but also very consolidated - it is estimated that 99% of trading volume is concentrated in just 20 of these hundreds of cryptocurrencies. The first cryptocurrency, launched in 2009, was Bitcoin, and today there are many virtual currencies built on this model, such as Litecoin, Peercoin or Ethereum.

Bitcoin. At the end of March 2021, a single Bitcoin was worth 229,306.72 lei, and there were 18.7 million Bitcoins in circulation.

Ether. Launched in 2015 and built on blockchain technology, the Ethereum platform quickly became very popular. One ether was worth 7,024.65 lei at the end of March 2021, but the historical record was 8,380.22 lei.

Tether. Tether was the first cryptocurrency claimed to be 100% backed by FIAT coin reserves, which was later proven to be false, surrounding the coin with controversy.

Cryptocurrencies certainly have a sensational side. Most of us have heard about cryptocurrencies in glowing articles that highlight their earning potential. There are not a few stories about people who invested in bitcoin and after years became millionaires (Schwager J., 1999).

While the earning potential certainly exists, it is important to stress that it is not guaranteed. Less popular are stories about people who invested in cryptocurrencies at the wrong time and lost money, but they do exist. Cryptocurrencies are volatile, especially nowadays, with many new cryptocurrencies being launched and not knowing which ones will take hold over time (Bogle J., 2007). Moreover, getting fabulous amounts for a small initial investment, as in the case of people who invested early in bitcoin, takes a lot of time and patience.

If you want to invest in cryptocurrencies, you have two options:

1. An existing cryptocurrency

To get started, you need to opt for an exchange (examples include Coinbase, LDV Bank, Binance, Kraken, Crypto) - simply put, a platform where you make an account, using which you will exchange money from your debit card with the cryptocurrency of your choice. Many cryptocurrencies are expensive, so it's good to know that you can also buy fractions. What's more, in addition to the exchange, you have the option of a Bitcoin ATM.

2. A cryptocurrency to be launched

Before a cryptocurrency is launched, a capital-raising process - ICO (Initial Coin Offering) - takes place. This ICO has several stages, including a crowdsale, a period during which anyone can buy the future cryptocurrency. However, it's good to know that this period can be very short, especially if the cryptocurrency has generated enthusiasm. Depending on the chosen cryptocurrency, you may have to exchange your money into Bitcoin or Ethereum, as not all ICOs accept FIAT payments, i.e. in traditional currencies. In the short history of cryptocurrencies, investments in ICOs have been the ones with the highest potential to bring substantial returns to investors.

2. Theoretical background

The name of cryptocurrency is, to a certain extent, quite suggestive: cryptocurrency is a virtual or digital currency secured by cryptography. According to a more detailed definition, cryptocurrencies are those digital assets in a cryptographically secured network, for which the securitisation takes place in a peer-to-peer computer network (O'Neil W., 1988).

To understand cryptocurrencies, you should know what blockchain technology is, on which most of them are based and which has many other applications outside this field. In simple terms, it is a decentralised ledger of cryptocurrency transactions, composed of blocks, hence the name blockchain (Bulkowski T. 2000). This technology is open source, secure and fast.

You will also surely have heard of mining - the process by which computing technology solves a mathematical problem that validates transactions on the blockchain and results in obtaining a fraction of the respective virtual currency. Therefore, you can obtain cryptocurrencies not only by buying them, but also by mining them (Collins J.L 2016).

Romanians have polarized opinions on the definition of cryptocurrencies: - the majority agree that they are digital currencies (92%), whose value is constantly changing (90%), respectively that they can be used to make online payments (68%). - At the same time, only 1 in 5 (22%) agree that there is no centralised institution regulating cryptocurrencies; moreover, there is no unanimous opinion on the existence of only a few types of cryptocurrencies - only a minority (13%) believe that these coins are accepted by most shops (Lynch P., 1989).

Two-thirds of people familiar with the concept of cryptocurrencies believe they represent both the future of online payments and the future of investing. The majority opinion is that the value of cryptocurrencies will increase in the next 12 months (58% agree). 6 out of 10 respondents would prefer to replace cash with cryptocurrencies in the event of the disappearance of cash, while more than half (55%) agree that banks should offer current accounts in cryptocurrencies. 54% of respondents agree that cryptocurrencies are purely speculative in nature - especially current (62%) or previous (59%) holders. Half believe that people who have bought cryptocurrencies are currently happy or that they are a fast track to wealth. Despite the enthusiasm for cryptocurrencies and although most Romanians would be willing to use them in various activities - from buying plane tickets, making national or international payments, saving for children's education to buying a coffee - only 4 out of 10 Romanians who are familiar with cryptocurrencies would accept to cash their monthly salary in this way, the main barrier being related to the perceived risks (25%). The most open to cashing their salary in cryptocurrencies are previous (56%) or current (50%) holders.

3. Research methodology

When you enter a market to buy a product, and the same goes for the purchase of cryptocurrencies, you want to do some minimal analysis beforehand to maximise your profits. You've probably heard about the approaches traders take to determine the evolution of a currency: fundamental analysis, technical analysis and market sentiment assessment (McAllen F., 2021).

This article discusses technical analysis, that is, the method of studying historical price movements and trading volumes, which is carried out to estimate future currency prices. Technical analysis is based on three fundamental premises, namely:

technical analysis market trend market development

Prices show you all the data you need - analysing the historical evolution of a currency's price and interpreting the patterns and formations it forms on the chart allows you to make a trading decision without taking into account fundamental factors or using other indicators.

Prices move in trends - once a trend is established (up, down or sideways), future price movements will most likely occur in the direction of that trend. Of course, such a trend does not continue indefinitely, but until that trend is exhausted, when a new trend emerges.

History repeats itself - once a certain pattern has worked in the past, it is very likely that it will work in the future, precisely because human psychology remains the same. This principle could be rephrased as: to know the future, we need to know the past (Murphy J., 2022)..

In other words, the research method used in this paper is one of quantitative and qualitative analysis of cryptocurrency investments. The data used are those published on international websites and then interpreted.

4. Findings

4.1. The concept of decentralisation and types of cryptocurrencies

We always wonder about bitcoin, finance, our money market and blockchain. Society is constantly transforming, and sometimes the speed of transition from one phase to the next is far greater than our awareness of everything that is happening around us. We are always interested in new things, in how to make money out of something we have never heard of before, we almost chase money, but do we understand why we are chasing it? Do we understand how the whole economic system works and what the financial markets are?

The traditional financial market is based on centralisation. Central authorities issue that currency which is then used by banks, governments and various traders. Central banks therefore have the power to manage and regulate the flow of cash and the supply of these currencies to the market.

The population has several ways of increasing its money supply - in most cases by ceding control to financial organisations such as banks.

You have a card linked to a customer account for banking services. You consider that you have some or most of your money on the card. In fact, you don't have it on the card. The card is just a piece of plastic. You trust a banking service provider, a bank, a business, to manage part of your wealth and money, which you can "access" with a card. And as is well known, deposits and savings accounts earn interest, and banks use that capital to give higher interest loans to people who often buy things they don't really need.

Another alternative to growing your money is investing in stocks, mutual funds and other such instruments. These investments are usually made through brokers or specialist firms, so there is very little control over them.

Problems arise when central authorities decide to issue more money to meet market demand. This leads to inflation, devaluation of money, and then interest rate control methods are needed to reduce the profitability of savings.

4.2. DEXs and open markets

Unlike centralised exchanges such as Coinbase and Binance, DEXs are peer-to-peer protocols without a central authority. The advantage of this approach is that there are no registrations, no identity checks or withdrawal fees.

Like centralised platforms, DEXs use innovative methods such as atomic swaps to convert cryptocurrencies. Many also claim to use non-custodial methods to ensure the exchange of one asset for another with minimal settlement time or risk.

The reality is that many DEXs use semi-centralised or hybrid systems to ensure their operation. Also, liquidity on these platforms depends largely on the number of users.

Among the most popular DEXs are IDEX - a dapp on the Ethereum blockchain, Binance DEX, Radar Relee and EtherDelta. The Kyber network and 0x are two other examples of decentralised exchanges. DMEX is also a decentralised exchange created by a Romanian, Max Nicula.

Other types of open marketplaces focus on trading non-fungible tokens (NFTs), known as collectibles. OpenSea and Rarebits are two examples of platforms dedicated to non-fungible token collectibles.

Platforms dedicated to security tokens and investments

This sector covers a wide range of platforms offering both trading and issuance services for security tokens. Some examples are Overstock's tZERO, Polymath and Harbour.

They provide the framework, tools and resources for any issuer to launch tokenised securities on a blockchain. Platforms of this type automate regulatory compliance services and customize metrics to meet regulatory requirements.

In addition, they are also integrated with various service providers such as custodians, broker-dealers, corporate entities to help issuers.

5. Conclusions

Bitcoin and other cryptocurrencies are volatile investments. Prices rise to new heights and the value sinks quickly and frequently. Large price swings create both opportunities and risks for investors.

You may think that a currency that doesn't rise or fall in value has no business investing in crypto, but experts say that stable coins are valuable for their purposes. Among the most interesting is the fact that they can perhaps be set up as currency reserves in fiat investments.

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