



Cryptocurrency – The Next Big Thing

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Abstract. The cryptocurrencies are a hot topic in the global financial system. Cryptocurrency is a digital or virtual or internet currency that uses cryptography for security. Cryptocurrency has created unmatched changes in the financial market having both positive and negative contributions. The concept of cryptocurrency is a little hard to accept, but it is easy to use. It is considered difficult because it is entirely different from our conventional currencies that we people are using since ages. Here, we focus the different types of cryptocurrencies, origin and evolution of the term. The role of cryptography in early cryptocurrencies, Issues currently associated with the term, the role of cryptography in today's cryptocurrencies, cryptocurrencies exchanges, Cryptocurrencies Trading, advantages and disadvantages of cryptocurrencies trading, How Many cryptocurrencies are there? Market Capitalization of Cryptocurrency, the 2021 Global Crypto Adoption Index Top 20, One Year change in the value of Crypto Assets.

key words: Cryptocurrencies, Bitcoin, Trading, Advantages, Disadvantages, Market capitalization.

1. Introduction

Cryptocurrencies have been introduced in the 21st century and have since evolved and adapted to the needs of the market and consumer. Currently, cryptocurrency market is worth over 100 billion US dollars, but since its inception the currency has seen major shifts in usage and format. The market for cryptocurrency has been evolving as well, based on the buying trends of consumers and gradual stringency of government regulations for digital methods of payments and other transaction. Cryptocurrencies were introduced with the intent to revolutionize financial infrastructure. As with every revolution, however, there are tradeoffs involved. At the current stage of development for cryptocurrencies, there are many differences between the theoretical ideal of a decentralized system with cryptocurrencies and its practical implementation. Therefore, in this study the evolution of cryptocurrency as an alternative to traditional cash or cash-less payment methods will be analyzed. Therefore, in this study the evolution of cryptocurrency as an alternative to traditional cash or cash-less payment methods will be analyzed.

2. Objectives of The Study

To know the different types of cryptocurrencies in all over the world and how can they work. to analyses the legal frame work of cryptocurrency and trading in cryptocurrency. to understand the advantages and disadvantages of trading in cryptocurrencies. research methodology this paper is purely based on secondary data referring to various sources such as journals, newspaper articles, websites and statutory reports.

3. Literature Review

Different types of cryptocurrency bitcoin (btc) bitcoin was the world's first cryptocurrency, with its origins dating back to a white paper published in 2008, and remains the best-known type of crypto. It functions on its own block chain, with transactions verified (and new bitcoins created, up to a fixed cap) by an army of decentralized miners. In January 2022, bitcoin was the cryptocurrency with the largest market cap, at us\$896 billion. Ether (eth) ether is the cryptocurrency that runs on the ethereal block chain. Like bitcoin, ether operates on its own block chain—but unlike bitcoin, ether is uncapped, meaning that an infinite number of coins can theoretically be created. Ethereal also supports smart contracts, which are programs that run on the ethereal block chain and are executed automatically when certain conditions are met. Finance coin (baby) binnacle coin is native to binnacle, the world's largest cryptocurrency exchange as of 2021. Transaction fees for this exchange are reduced for users who choose to pay in bob. This has encouraged the adoption of binnacle coin, making it one of the largest crypto coins in the market. To ensure its value remains stable, binnacle destroys or “burns” a fixed percentage of the coins in circulation. Tether (used) tether is a type of stable coin, designed to have a less-volatile price by being linked to an external asset. In this case, each coin is backed by an equivalent number of us dollars, which keeps it from experiencing the same kind of pricing volatility that other cryptocurrencies face. There is however, some debate about whether it truly is fully backed by the dollar. Solana (sol) sol is the native coin of the Solana platform, which functions on a block chain system, just like ethereal and bitcoin. Solana's network can perform a whopping 50,000 transactions per second, making this platform especially attractive to investors looking to trade quickly. Xrp (xrp) xrp, which runs on the ripple network, has been described as a “cryptocurrency for banks” because it's tailor-made to serve the needs of the financial services industry. Conceived as a way to facilitate international payments, xrp acts as a bridge between two different currencies to offer

cheaper, quicker global transfers. Used coin (used) much like tether, used coin is a stable coin connected to the us dollar that cannot be mined. However, unlike tether, used coin has more transparent funding and better auditing processes. The aim is to remove some of the risk associated with crypto, as users should always be able to withdraw their coins and receive the corresponding amount of cash in exchange.

4. Origin and Evolution of the Term

The term cryptocurrency entered public usage with the surge of bitcoin in 2008—a protocol aimed at enabling a network of people connected together via peer-to-peer digital communications infrastructure to issue digital tokens and transfer them between themselves whilst securing the process through cryptography (nakamoto, 2008). While the original proposition did not use the term cryptocurrency, nakamoto presented the project as a peer-to-peer 'currency' in a network and cryptography mailing list (nakamoto, 2009). The term 'cryptocurrency', however, soon gained traction in online-chatting (compare hxn (2009) and print media (e.g., davis, 2011)). An early distinction was made between the protocol—using the capitalized term bitcoin—and the tokens, which used the lower-case term bitcoin. New bitcoins are 'written into existence' by a network participant (a so-called miner) who has succeeded in transforming the format of a bundle of proposed transactions (of previously issued bitcoins, along with a single request to issue new ones as a reward) in such a way that the bundle can be hitched to a chain of previously hitched bundles. The remainder of this section attempts to explain how this protocol, and immediate descendants, might have shaped the term cryptocurrency. The role of cryptography in early cryptocurrencies the word stem crypto within the term cryptocurrency might be seen as surrogate for cryptography, but could also have emerged from the cypherpunk movement, who identified "anonymous cash and other untraceable payment systems" (de filippi & wright, 2018, p. 19) as enabling feature within a crypto-anarchy (ludlow, 2001, p. 4). Bitcoin's mission of leveraging "cryptographic proof instead of trust" (nakamoto, 2008, p. 1) resonates with the above. The exact protocol specifications of bitcoin and its descendants are summarized in scheuermann and tschorsch (2016). Cryptography enters its architecture in various ways. A few examples are the integrity of, and consensus on a joint transaction history as well as the authorization setup for sending tokens. However, the use of the surrogate crypto for bitcoin is slightly arbitrary in the sense that earlier attempts at creating digital currencies (compare e.g. Chaum, 1988) relied heavily on cryptographic techniques as well. Nevertheless, it might seem justified by the fact that cryptography plays a far more central role for bitcoin than it does for national currencies.

5. Monetary Characteristics of Early Cryptocurrencies

Loosely speaking, the modern fiat monetary system consists of physical and digital credits—issued by state central banks, state treasuries, and private commercial banks—which circulate under a legal system that guarantees their redemption. The number of credits expands through issuance, after which they can be transferred in the course of exchange among those who use them, before being retired when they are returned to the issuers. This composite system of expandable-contractable credits is what we refer to as 'money' in everyday parlance. In this context, the term cryptocurrency is controversial, because—from its inception—the name has simply assumed that the tokens are money tokens. The controversy is amplified by the fact that enthusiasts sometimes use the term performatively to make the normative point that crypto tokens 'should be money', or—alternatively—to deny that what we currently call 'money' is in fact money. One strategy to negotiate these language politics is to initially strip the money assumption from the tokens by giving them the generic name crypto-tokens, and then listing their uncontroversial characteristics to compare them with fiat credits. Tokens of early cryptocurrencies are data objects created through accounting, much like the act of typing out the number '1' creates the mental image of a 'thing'. This is what is referred to as a 'token', but they are 'blank tokens'. An example of a blank token in the physical world might be a clear plastic token with no inscription or rights attached to it. Bitcoin tokens, similarly, are empty signifiers, somewhat like the digital equivalent of blank physical tokens, but with strict supply limits². These blank digital tokens however, are promoted with a name and branded logo that serves as a mental image for them, without which they would be almost entirely featureless. The tokens can be said to be digital bearer instruments, in the sense that transfers can only be initiated by the possessor of a private key that can unlock an 'unspent transaction output'. The 'bearer-instrument-like' nature is one reason why cryptocurrency sometimes gets referred to as 'digital cash' (physical cash being the bearer-instrument form of fiat currency). The tokens move around—Bitcoin and some of its descendants are processing hundreds of thousands of transfers of tokens every day (compare Hileman and Rauchs, 2017). Furthermore, they have a price measured in fiat currency and their tokens can be split into smaller pieces, or combined into larger ones. The fact that split-able and lump-able tokens with a fiat currency price can be moved gives the system a 'money like' feeling, and—under a shallow definition of money as something that is issued and moved around in association with commerce—the term cryptocurrency feels loosely plausible in everyday conversation. Most 'purchases' conducted with bitcoin tokens, however, take the form of countertrade. The token, priced in fiat currency, is compared to a good or service, priced in fiat currency, and from this comparison of two fiat currency prices emerges an exchange ratio between the token and the good or service. This is the conceptual equivalent of superimposing a pair of two-way fiat currency transactions over each other and cancelling out the money flows, giving the residual appearance of the crypto-token being used as 'money' to 'pay' for a good or service. Nevertheless, Bitcoin is used primarily for speculation (Baur, 2018)—buying the token with fiat currency with an intention to resell it for fiat currency—rather than using it to countertrade ('pay') for goods and services. This speculation (compare, among others, Yermack, 2015; Glaser et al., 2014; or Cheah, 2015) drives volatility in the fiat currency price of tokens, which—when analyzed through the

lens of the conventional ‘functions of money’ paradigm favored by economic textbooks (money as a medium-of-exchange, a store-of-value and a unit-of-account), poses problems for the ‘moneyness’ of the tokens. Not only are they not widely accepted in exchange for goods and services, but they are not widely used to price things, and attempts to provide prices are unintuitive (Yermack, 2015). They also struggle to consistently ‘store value’, if we interpret that to mean ‘maintain stable purchasing power’ (which in the case of Bitcoin means ‘maintain fiat price and countertrade ratios’). Put simply, while a person can generally predict how many bags of sugar US\$ 100 will command in a month, they will be very uncertain as to how much sugar they can obtain through Bitcoin countertrade in a month.

6. Issues Currently Associated with The Term

Beyond these debates about the validity of the original use of the term cryptocurrency, the term has been destabilized by the proliferation of alterations to traditional cryptocurrency systems. The role of cryptography and ‘moneyness’ implied by the diverse token designs varies considerably and will be discussed in the remainder of the section. The role of cryptography in today’s cryptocurrencies a useful classification of projects from a technical standpoint involves rights for writing and reading transaction records. Peters et al. (2016) introduced a popular categorization that can be used to classify the underlying infrastructure of cryptocurrency systems along the dimension “public” vs. “private” and “permissioned” vs. “permission less”. In public-permission less systems every participant in the network (node) can read transactions and write others to the ledger. For public-permissioned systems, only authorized nodes can write. In private permissioned systems, finally, even reading is restricted to authorized nodes. The more “private” and “permissioned” in its underlying infrastructure a system is, the further it is from the cypherpunk vision. An example of a recent development trend holding true to the aim of replacing trust by cryptographic proof found in archetypal cryptocurrencies (compare nakamoto, 2008; and genkin et al., 2018) are so-called privacy-preserving cryptocurrencies or ‘privacy coins’ (e.g., zcash, n.d.; monero, n.d.). They are closely related to archetypal cryptocurrencies and replicate their public-permission less setup of rights to read and write. As “alternative cryptocurrencies designed with the goal of providing stronger privacy guarantees than bitcoin” (genkin et al., 2018) they even increase the use of cryptography to ensure anonymity. As a consequence of their focus on privacy, however, they are leading to rising concerns with respect to anti-money-laundering and law enforcement (compare tziakouris, 2020; or ferrari, 2020). The broad trajectory in recent years, however, has been to decrease the centrality of cryptography in the respective implementations. Even permissioned payment systems run by corporations but still called cryptocurrencies entered the stage. Eyal (2017) concludes that “if attendees at recent blockchain events are any indication, cryptocurrencies have caught the attention of the mainstream financial technology (fintech) sector” (eyal, 2017, p. 39). With traditional business starting to experiment with the technology inspired by bitcoin, system requirements—and with it the respective security setups and use of cryptography—changed. The economic design for these more centralized payment systems led to the reestablishment of trusted third parties or intermediaries for token creation to a certain degree. While many novel cryptocurrencies are far from the crypto-anarchist roots of archetypal token designs, the general idea of the replacement of trust in institutions or their internal governance mechanisms by cryptography still plays a role in all cryptocurrency designs. However, given that even fiat bank payments use cryptography for security, mere reliance on cryptography for security should not enter a definition of cryptocurrencies.

7. Monetary Characteristics of Today’s Cryptocurrencies

Early cryptocurrencies had the declared intent of creating ‘digital cash’ or currency (see section 1.1.), but the proliferation of crypto token forms have destabilized how this is conceptualized. Not all development strands feature the objective of proposing general purpose monetary tokens. First-layer tokens (e.g. Ether) that underlie smart contract platforms (e.g. Ethereum), and informally even second-layer tokens (tokens running on respective platform) are called cryptocurrencies, but they exist first and foremost to activate smart contracts rather than aiming to provide a payment solution for goods and services more generally (see Bartoletti, 2017). Nevertheless, this more ‘limited purpose’ focus can be a strength, insofar as smart contract activation can be seen as a real service accessible via possession of the token, thereby ‘anchoring’ the tokens into a ‘real economy’, albeit one in cyberspace. However, also ‘general purpose’ tokens are marked by changes. A response to the inherent instability in prices of archetypal cryptocurrency was the advent of ‘stable coins’, which try to solve the issue of high volatility in purchasing power of Bitcoin and its descendants (Pernice, 2019). Stable coins are tethered or pegged to fiat currencies, or ‘backed’ in some way with assets that have fiat currency prices. They are thus no longer ‘blank’ empty signifiers, and contain some reference point that is easier to estimate and communicate. There are very different types of stable coins, and recently several frameworks have tried to unify and abstract existing stabilization techniques (e.g., Bullmann et al., 2019; Pernice et al., 2019; Moin et al., 2020; Sidorenko, 2019; Clark et al., 2020). A national currency can be ‘tokenized’ by issuing a digital promise for it on a block chain system, and such tokenized funds might indeed be categorized as a “new form of electronic money” (Blandin et al., 2019) falling under the respective regulations for e-money, anti-money laundering and counter terrorist financing regulations. This might ensure “moneyness” at least from a legal standpoint. With more complex stable coin designs the legal case is not always clear, but from an economic standpoint their stability in purchasing power might contribute to an increase in their adoption as money in the future. Stable coins, for now however, haven’t seen mainstream adoption in retail markets yet (Bullmann et al., 2019).

8. Cryptocurrency Exchanges

A cryptocurrency exchange or digital currency exchange (DCE) is a business that allows customers to trade cryptocurrencies. Cryptocurrency exchanges can be market makers, usually using the bid-ask spread as a commission for services, or as a matching platform, by simply charging fees. A cryptocurrency exchange or digital currency exchange (DCE) is a place that allows customers to trade cryptocurrencies. Cryptocurrency exchanges can be market makers (usually using the bid-ask spread as a commission for services) or a matching platform (simply charging fees).

9. Cryptocurrency Trading

First we give a definition of cryptocurrency trading. Cryptocurrency trading is the act of buying and selling of cryptocurrencies with the intention of making a profit. The definition of cryptocurrency trading can be broken down into three aspects: object, operation mode and trading strategy. The object of cryptocurrency trading is the asset being traded, which is “cryptocurrency”. The operation mode of cryptocurrency trading depends on the means of transaction in the cryptocurrency market, which can be classified into “trading of cryptocurrency Contract for Differences (CFD)” (The contract between the two parties, often referred to as the “buyer” and “seller”, stipulates that the buyer will pay the seller the difference between themselves when the position closes (Authority 2019)) and “buying and selling cryptocurrencies via an exchange”. A trading strategy in cryptocurrency trading, formulated by an investor, is an algorithm that defines a set of predefined rules to buy and sell on cryptocurrency markets.

10. Advantages of Trading Cryptocurrency

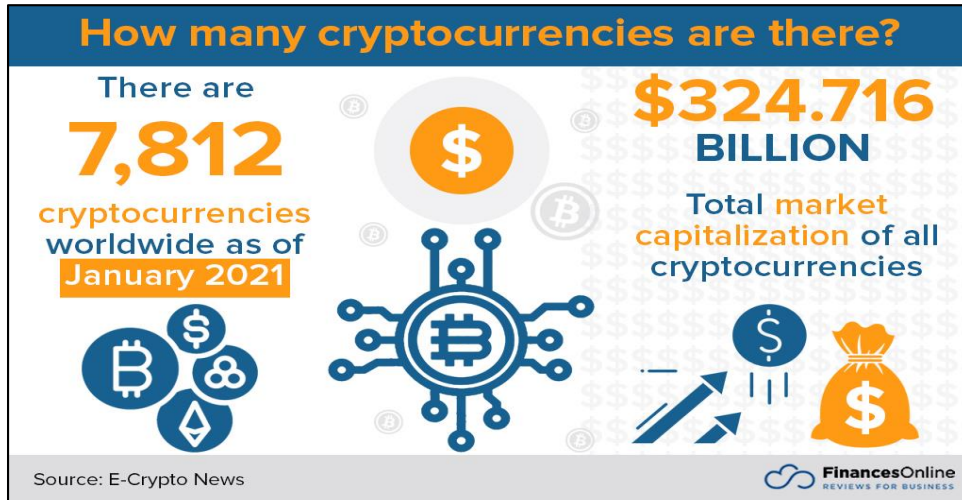
The benefits of cryptocurrency trading include Drastic Fluctuations The volatility of cryptocurrencies are often likely to attract speculative interest and investors. The rapid fluctuations of intraday prices can provide traders with great money-earning opportunities, but it also includes more risk. 24-h market The cryptocurrency market is available 24 h a day, 7 days a week because it is a decentralised market. Unlike buying and selling stocks and commodities, the cryptocurrency market is not traded physically from a single location. Cryptocurrency transactions can take place between individuals, in different venues across the world. Near anonymity Buying goods and services using cryptocurrencies is done online and does not require to make one’s own identity public. With increasing concerns over identity theft and privacy, cryptocurrencies can thus provide users with some advantages regarding privacy. Different exchanges have specific Know-Your-Customer (KYC) measures for identifying users or customers (Adeyanju 2019). The KYC undertook in the exchanges allows financial institutions to reduce the financial risk while maximising the wallet owner’s anonymity. Peer-to-peer transactions One of the biggest benefits of cryptocurrencies is that they do not involve financial institution intermediaries. As mentioned above, this can reduce transaction costs. Moreover, this feature might appeal to users who distrust traditional systems. Over-the-counter (OTC) cryptocurrency markets offer, in this context, peer-to-peer transactions on the Block chain. The most famous yptocurrency OTC market is “Local Bitcoin (Localbtc 2020)”. Programmable “smart” capabilities Some cryptocurrencies can bring other benefits to holders, including limited ownership and voting rights. Cryptocurrencies may also include a partial ownership interest in physical assets such as artwork or real estate.

11. Disadvantages of Trading in Cryptocurrency

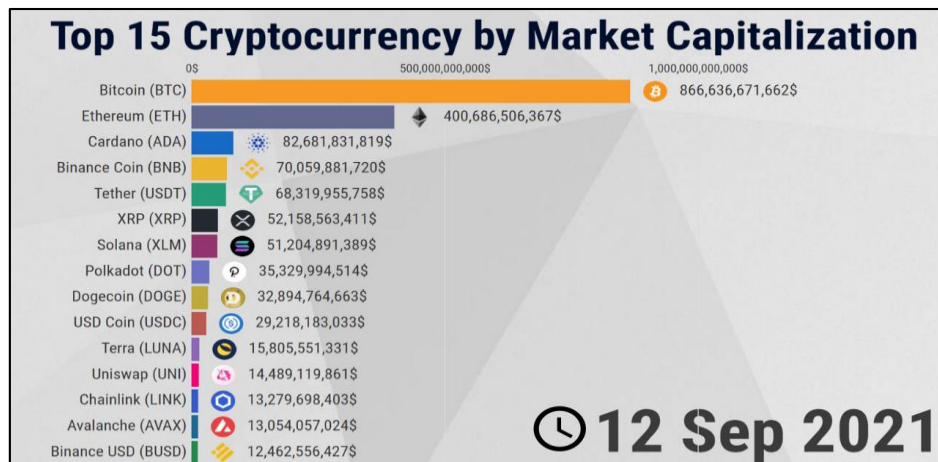
The disadvantages of cryptocurrency trading include Scalability problem Before the massive expansion of the technology infrastructure, the number of transactions and the speed of transactions cannot compete with traditional currency trading. Scalability issues led to a multi-day trading backlog in March 2020, affecting traders looking to move cryptocurrencies from their personal wallets to exchanges (Forbes 2021). Cybersecurity issues as a digital technology, cryptocurrencies are subject to cyber security breaches and can fall into the hands of hackers. Recently, over \$600 million of ethereal and other cryptocurrencies were stolen in August 2021 in block chain-based platform Poly Network (Forbes 2021). Mitigating this situation requires ongoing maintenance of the security infrastructure and the use of enhanced cyber security measures that go beyond those used in traditional banking (Kou et al. 2021). • Regulations Authorities around the world face challenging questions about the nature and regulation of cryptocurrency as some parts of the system and its associated risks are largely unknown. There are currently three types of regulatory systems used to control digital currencies, they include: closed system for the Chinese market, open and liberal for the Swiss market, and open and strict system for the US market (UKTN 2021). At the same time, we notice that some countries such as India is not at par in using the cryptocurrency. As Buffett said, “It doesn’t make sense. This thing is not regulated. It’s not under control. It’s not under the supervision of United States Federal Reserve or any other central bank (Forbes 2017).”

12.Theoretical Framework of the Study

How Many cryptocurrencies are there?



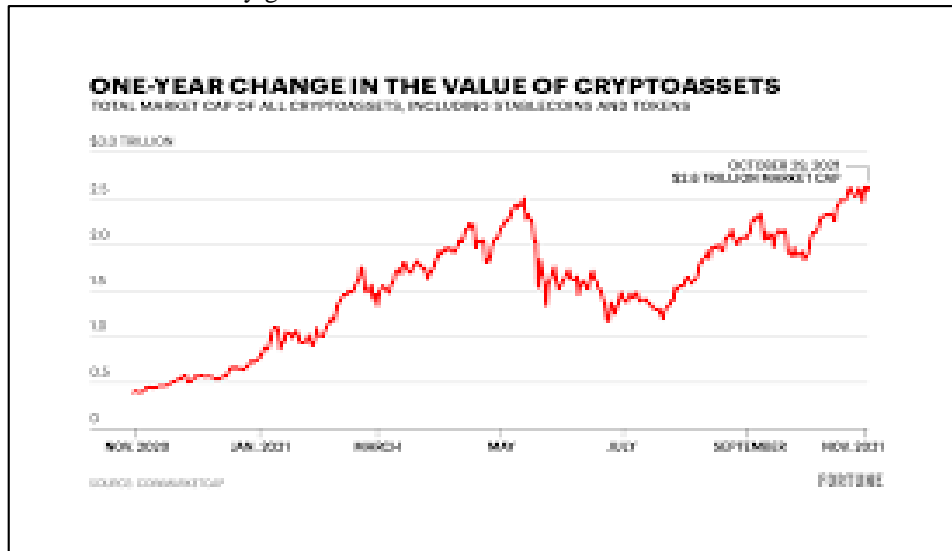
Market Capitalization of Cryptocurrency: As of now September 12, 2021 has a market capitalization of over 51 billion. Precisely \$51,204,891,389. Terra, on the other hand, has exceeded 15 billion thus coming in eleventh position surpassing UniSwap and Chainlink. Finally, Avalanche also entered the top 15 with a value of \$13,054,057,024 thus surpassing Binance USD.



The 2021 Global Crypto Adoption Index Top 20 countries: The table below shows the top 20 countries in our 2021 Global Crypto Adoption Index, as well as their rankings in the three component metrics that make up the overall rankings.

Country	Index score	Overall index ranking	Ranking for individual weighted metrics feeding into Global Crypto Adoption Index		
			On-chain value received	On-chain retail value received	P2P exchange trade volume
Vietnam	1.00	1	4	2	3
India	0.37	2	2	3	72
Pakistan	0.36	3	11	12	8
Ukraine	0.29	4	6	5	40
Kenya	0.28	5	41	28	1
Nigeria	0.26	6	15	10	18
Venezuela	0.25	7	29	22	6
United States	0.22	8	3	4	109
Togo	0.19	9	47	42	2
Argentina	0.19	10	14	17	33
Colombia	0.19	11	27	23	12
Thailand	0.17	12	7	11	76
China	0.16	13	1	1	155
Brazil	0.16	14	5	7	113
Philippines	0.16	15	10	9	80
South Africa	0.14	16	18	16	62
Ghana	0.14	17	32	37	10
Russian Federation	0.14	18	8	6	122
Tanzania	0.13	19	60	45	4
Afghanistan	0.13	20	53	38	7

One Year change in the value of Crypto Assets: Cryptocurrency traders boosted the price of digital coins past their pre-selloff May peaks to all-time highs in October. The historic October climb extended beyond just crypto, of course. The S&P 500, Dow, Nasdaq, and Stoxx Europe 600 had impressive October runs (and hit all-time highs on Nov. But leading them all was the king of crypto, Bitcoin, which hit an all-time high near \$67,000 Oct. 20 and closed the month with a 28% monthly gain.



Suggestions: You should ensure that you fully understand the risks associated before you start trading. Only invest if you are an experienced investor with sophisticated knowledge of financial markets. Cryptocurrency trading may not be appropriate for everyone. We recommend that you seek independent professional advice, if necessary, before deciding whether to start spread betting or CFD trading. Though in some countries Cryptocurrencies' are legal, but emerging country like India cryptocurrencies are trading in grey channel.

13. Conclusion

We provided a comprehensive overview and analysis of the cryptocurrencies and at the same time origin & evolution, advantages and disadvantages of cryptocurrencies trading. This survey presented a nomenclature of the definitions and current state of the art. As we know that, this paper is limited some topics further topics will discuss soon. We expect this survey to be beneficial to academics (e.g., finance researchers) and quantitative traders alike. The survey represents a quick way to get familiar with the literature on cryptocurrency trading and can motivate more researchers to contribute to the pressing problems in this area.

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