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# CRYPTO CURRENCY

## INTRODUCTION

There are numerous names for cryptocurrencies. Most likely, you have read about the most well-known cryptocurrencies, like Bitcoin, Litecoin, and Ethereum. Alternatives to traditional currencies for internet payments are becoming more and more common. You should comprehend what cryptocurrencies are, what the hazards associated with using cryptocurrencies are, and how to protect your investment before converting real dollars, euros, pounds, or other conventional currencies into the symbol for the most well-known cryptocurrency, Bitcoin.

## WHAT IS CRYPTOCURRENCY

A digital currency, or cryptocurrency, is an alternative payment method developed utilising encryption methods. By utilising encryption technology, cryptocurrencies can act as both a medium of exchange and a virtual accounting system.

A cryptocurrency, also known as a crypto-currency or crypto, is a type of digital currency that operates as a means of exchange over a computer network and is not supported or maintained by any one central organisation, such as a bank or government.

You need a cryptocurrency wallet in order to use cryptocurrencies. These wallets can be software that is downloaded to your PC, mobile device, or the cloud. Your encryption keys, which verify your identity and connect to your cryptocurrency, are kept in the wallets.

It is a decentralised method of confirming that the parties to a transaction actually have the monies they claim to have, doing away with the necessity for conventional middlemen like banks when money is being moved between two businesses. A cryptocurrency, in Jan Lansky's opinion, is a system that satisfies six requirements.

## HISTORY

Ecash is a sort of cryptographic electronic money that was created in 1983 by American cryptographer David Chaum. Later, in 1995, he put it into practise using Digicash, a pioneering type of encrypted electronic payment. In order to withdraw money from a bank and select particular encryption keys before it could be delivered to a destination, Digicash required user software. This made it possible for a third party to not be able to track the digital currency.

Some in the cryptocurrency community have referred to William Rees-Mogg and James Dale Davidson's claim in the 1997 book The Sovereign Individual as a "prophecy" because it predicts that currency in the information age will be based on "mathematical formulas that have no physical existence."

Bitcoin was invented in January 2009 by an anonymous programmer named Satoshi Nakamoto. Its proof-of-work system employed the cryptographic hash function SHA-256. The formation of a decentralised DNS was attempted with the creation of Namecoin in April 2011. When Litecoin was released in October 2011, SHA-256 was replaced with scrypt as the hash function. In August 2012, Peercoin was developed using a proof-of-stake and proof-of-work combination.

El Salvador became the first nation to recognise Bitcoin as legal cash in June 2021 as a result of the Legislative Assembly's 62–22 approval of a bill introduced by President Nayib Bukele categorising the cryptocurrency as such.Cuba adopted Resolution 215 in August 2021 to recognise and control cryptocurrencies like Bitcoin.

China, the world's largest cryptocurrency market, will outlaw all cryptocurrency transactions in September 2021. The operation of bitcoin intermediaries and miners in China has previously been outlawed as part of a crackdown on the industry.

In a procedure known as "the Merge," Ethereum, the second-largest cryptocurrency in the world at the time, switched from proof-of-work (POW) to proof-of-stake (POS) on September 15, 2022. The Ethereum Founder claims that the upgrade may reduce Ethereum's energy consumption and carbon dioxide emissions by 99.9% and 99.9%, respectively.

## ADVANTAGES OF CRYPTOCURRENCY

Benefits of cryptocurrencies against inflation many currencies have seen their value drop over time as a result of inflation. Almost all cryptocurrencies have a set amount when they are first introduced. The number of any coin is specified in the source code; for example, there were only 21 million Bitcoins published worldwide. Therefore, when demand rises, its value will rise as well, keeping up with the market and, ultimately, preventing inflation.

**SELF-GOVERNED AND MANAGED** : The management and upkeep of any currency is crucial to its growth. The developers/miners who store the bitcoin transactions on their hardware are compensated with the transaction fee. In order to maintain the decentralised nature of the records and the integrity of the cryptocurrency, miners keep transaction records accurate and up-to-date in exchange for payment.

**PRIVATE AND SECURE FOR CRYPTOCURRENCIES**: privacy and security have always been top priorities. The blockchain ledger is constructed using complicated mathematical challenges. Because of this, cryptocurrency transactions are safer than regular electronic transactions. Cryptocurrencies employ pseudonyms that are unrelated to any user or account profile for increased security and anonymity.

**CURRENCY TRADES ARE SIMPLE TO COMPLETE** : A variety of currencies, including the US dollar, European euro, British pound, Indian rupee, and Japanese yen, can be used to purchase cryptocurrencies. One currency can be changed into another via trading in cryptocurrencies, across several wallets, and with low transaction costs, thanks to various cryptocurrency wallets and exchanges.

**DECENTRALIZED**: The fact that cryptocurrencies are primarily decentralised is a huge advantage. Many cryptocurrencies are managed by organisations, developers who use them, and owners of large amounts of the currency.before it is introduced to the market, it must be developed. In contrast to fiat currencies, which are regulated by the government, cryptocurrencies are decentralised, which helps keep the currency monopoly free and in check so that no one organisation can control the movement and value of the coin.Sending money across borders is one of the main functions of cryptocurrencies. It is also a cost-effective method of transaction. The transaction fees that a user must pay are eliminated or reduced to a small level with the use of cryptocurrencies.

## DISADVANTAGES OF CRYPTOCURRENCY

**CAN BE USED FOR ILLICIT ACTIVITIES:** Because cryptocurrency transactions are highly private and secure, it is difficult for the government to find any user by their wallet address or maintain track of their data. In the past, many shady transactions involving the purchase of narcotics on the dark web have used bitcoin as a means of exchanging money. Some people also utilise cryptocurrencies to convert their illegally acquired money. **FINANCIAL LOSSES MIGHT RESULT FROM DATA LOSSES**: thus the developers intended to make their source code nearly untraceable, their hacker defences robust, and their authentication processes impenetrable. This would increase the safety of investing in cryptocurrency.than hard currency or bank vaults. However, if a user misplaces their wallet's private key, there is no way to recover it. The number of coins within the wallet will also stay kept away. The user will suffer financial loss as a result of this.

**CERTAIN COINS ARE ONLY AVAILABLE IN CERTAIN FIAT CURRENCIES**: Only one or a small number of fiat currencies can be used to trade some cryptocurrencies. This forces the user to first convert these currencies into a significant currency, such Bitcoin or Ethereum, and then use other exchanges to convert that currency to their preferred one. Only a few crores are affected by this.

**ENVIRONMENTALLY HARMFUL EFFECTS OF MINING CRYPTOCURRENCY** - Mining cryptocurrencies uses a lot of electricity and computational power, making it a very energy-intensive process. The main offender in this is Bitcoin. Modern computers and a lot of energy are needed for Bitcoin mining. It cannot be completed with standard computers. Significant Bitcoin miners are located in nations like China where coal is used to generate electricity. As a result, China's carbon footprint has significantly expanded.

**HACKABLE:** while cryptocurrencies are relatively secure, exchange security is lacking. To maintain users' user IDs, the majority of exchanges keep track of their wallet information. Hackers may be able to access numerous accounts by stealing this info. These hackers can quickly move money from those accounts once they have access. In recent years, thousands to millions of dollars' worth of Bitcoin have been stolen from exchanges like Biaffine and Mt Gox.

## How to create cryptocurrency

Mining is the procedure used to create bitcoin units. Validating bitcoin transactions and producing new cryptocurrency units are done through mining. Powerful computer gear and software are used in the mining process to solve challenging mathematical puzzles and produce coins.

Utilizing blockchain technology are cryptocurrencies. Because of this, anytime a cryptocurrency transaction takes place, cryptocurrency miners (who also serve as nodes on the blockchain network where these kinds of cryptocurrency transactions take place) attempt to decode the block holding the transaction data. In addition to verifying the transaction, the block also contains details about who sent how much cryptocurrency when, where, and on what date. A block is added to the blockchain once it has been decrypted and verified as genuine by the majority of nodes in the blockchain network. In terms of the necessary computational power, the verification procedure requires a lot of resources. Because of this, individual cryptocurrency miners frequently find the procedure to be prohibitively expensive and join mining pools to share processing power as a result.

**COINS AND TOKENS**

Coins and tokens are the two basic categories into which cryptocurrencies are separated. An application for cryptocurrencies called a coin runs on its own blockchain, which serves as the transactional hub. On the other hand, tokens are often used for tangible items like smart contracts,

**CREATE COIN AND TOKEN:**

- **Making a coin**: Making coins is not particularly difficult. You can create a blockchain and a coin by simply copying the code for Bitcoin, adding a new variable, or even changing its value. However, you must comprehend the code and be able to modify it, which calls for a deep understanding of programming.
- .**Producing a Token**: The token functions with the current blockchain infrastructure, as was already mentioned. Consequently, if you Create a token on a fast blockchain, like Ethereum, and ensure that it is protected against fraud attempts and runs on a very secure network. When you use your current decentralised architecture and develop a consensus mechanism, tokenization is less expensive in terms of both money and time.

## STEPS TO CREATE A CRYPTOCURRENCY

- **Decide on a consensus mechanism**: Consensus mechanisms are the protocols that approve a specific transaction and add it to the block.
- **Select a Blockchain Platform**: The consensus method you select will determine which blockchain platform is best for your company.
- **Create the Nodes**: You must decide how your blockchain will operate and create the Nodes in accordance with that decision.
- **Establish the internal architecture of the blockchain**. Be certain about every aspect before launching the blockchain because you won't be able to change some of its key characteristics once it is up and running.
- **Integrate APIs**: Not all systems come with ready-made APIs. Don't worry, there are many independent blockchain API providers available, including Chroma Way, Gem, Block Cypher, and others.
- **UI design**: Creating a top-notch cryptocurrency with a subpar UI is pointless. You must make sure that the front-end, FTP server, and external databases are current. Programming for the front and back ends is done with upgrades in mind.
- **Make your cryptocurrency legal**: Ensure that it complies with impending international cryptocurrency legislation and is prepared to do so. In this manner, your work is safeguarded and your attempts to develop a new cryptocurrency won't be derailed by unanticipated events.

# IS BITCOIN A SAFEST INVESTMENT

By investing in cryptocurrencies, it is possible to become obscenely wealthy, but it's also extremely conceivable to lose all of your money. Although investing in cryptocurrencies is dangerous, it may also be profitable if done correctly and as part of a balanced portfolio.

If you want to have direct exposure to the demand for digital currency, investing in cryptocurrency is an excellent idea. Purchasing the stocks of businesses exposed to cryptocurrencies is a more secure but possibly less rewarding solution.

Five good reasons to buy cryptocurrencies

**1. Generate potential wealth-generating returns**

In the context of crypto, the word "potential" can be interpreted in two different ways. First off, because it's a relatively new idea, cryptocurrency has a lot of potential. This provides access to countless opportunities for the future. For instance, there is a greater likelihood that Ether (ETH) coin may appreciate significantly if a leading non-crypto firm adopts the technology linked with a cryptocurrency in the mainstream. Due of the potential future rewards, this may be an opportunity for early investors. The finest illustration of how widespread usage can drive up the cost of a cryptocurrency is Bitcoin.

**2. Guard Your Assets Against Inflation**

Over time, inflation reduces the value of fiat currencies, but it has a different impact on cryptocurrencies than it does on fiat currencies. Why because the supply of cryptocurrency is limited and decentralised. No bank or government can arbitrarily alter cryptocurrency. Furthermore, this implies that the pace at which a fiat currency depreciates over time is greater than the potential return on investment offered by cryptocurrencies. However, this does not imply that cryptocurrencies are immune to inflation. Theoretically, if more cryptocurrencies are mined, their value will decrease, but there are safeguards in place to prevent this. Bitcoin is the best illustration. Every four years, the rate of bitcoin mining is cut in half.

**3. Complete Command Over Your Investment**

Everything points toward decentralisation once more. As we've previously noted, since governments and federal agencies have no influence over cryptocurrencies, they are unable to alter their value. A private key, which gives complete control over the purchasing, sending, and receiving of cryptocurrencies, is the only way for the cryptocurrency holder to get access

to their investment. That said, if any government decides to do so, as China did, crypto can be effectively prohibited with a simple penstroke. Free-market economies, however, have made the decision not to take this route. Countries like the USA, UK, and India are attempting to comprehend and regulate cryptocurrencies in order to put in place fail-safes that make investing in stock somewhat safe.

**4. Ensure that your portfolio is diverse.**

Whether cryptocurrency is an asset class in and of itself is still up for debate. However, the reality is that cryptocurrency is known to be immune to inflation and has the potential to produce significant returns. In contrast to the United States Dollar, which has a negative correlation with Bitcoin, crypto is believed to be relatively uncorrelated with assets like stocks and bonds. If an investor has a higher-than-average appetite for risk, these criteria can convince them that cryptocurrencies are a worthwhile addition to their portfolio. Normally, we'd advise you to speak with a financial counsellor at this stage. For crypto, there is no such thing. Having access to reputable crypto advisers via Cube's Tikka Token could change that in the future, but for the time being, you must be cautious in investing.

**5. Encourage Innovation and Profit From It**

For you, investing in a cryptocurrency may be a "shut it and forget it" activity, but there are two advantages for the project. First off, it conveys social evidence, or faith and confidence in the project's intended outcome. Second, it provides the project with the tools necessary to develop and broaden the scope of its offerings, collaborations, and partnerships, which can only be advantageous for its backers.

## TOP CRYPTO CURRENCIES BY MARKET CAPITAL:-

### **BITCOIN (bit coin)** – $309.9 billion in market capitalization

The original cryptocurrency is Bitcoin (BTC), which Satoshi Nakamoto created in 2009. BTC operates on a blockchain, which is a ledger that records transactions and is shared across a network of thousands of computers, like the majority other cryptocurrencies. Bitcoin is maintained secure and protected from fraudsters because updates to the distributed ledgers have to be validated by solving a cryptographic puzzle, a procedure known as proof of work. As Bitcoin has gained popularity, its price has risen. The price of a single Bitcoin in May 2016 was roughly $500. On November 22, 2022, the cost of one Bitcoin was around $16,131. That is a 3,126% increase**.**

### Bit coin's market capitalization is $309.9 billion.

Bitcoin (BTC), which Satoshi Nakamoto established in 2009, is the first cryptocurrency. Like the majority of other cryptocurrencies, BTC runs on a blockchain, which is a shared ledger that keeps records of transactions and is shared among a network of thousands of computers. Because modifications to the distributed ledgers must be verified by resolving a cryptographic puzzle, a process known as proof of work, Bitcoin is kept secure and shielded from fraudsters. The cost of Bitcoin has increased as it has grown in popularity. In May 2016, the cost of one Bitcoin was approximately $500. One Bitcoin was worth approximately $16,131 on November 22, 2022. That represents a rise of 3,126%.

### With Tether (USDT): $65.5 billion in market value

Tether (USDT), in contrast to certain other types of cryptocurrency, is a stablecoin, which means it is backed by fiat currencies like U.S. dollars and euros and essentially maintains a value equal to one of those denominations. Tether is appreciated by investors who are cautious of the severe volatility of other cryptocurrencies since, in theory, its value is intended to be more stable than that of other cryptocurrencies.

### USDC, or U.S. Dollar Coin- $44.1 billion in market value

USD Coin (USDC), a stablecoin like Tether, aiming for a 1 USD to 1 USDC ratio and is backed by U.S. dollars. You may use USD Coin to perform international transactions because it is powered by Ethereum.

## Binary (BNB) Coin: Capitalization: $42.2 billion

One of the biggest cryptocurrency exchanges in the world, Binance, accepts payments in the form of Binance Coin (BNB), a type of cryptocurrency. Binance Coin has grown since it was introduced in 2017, and it now does more than just enable transactions on Binance's exchange platform. These days, it can be used for trading, making payments, or even making trip reservations. Additionally, it can be traded or converted into other cryptocurrencies like Ethereum or Bitcoin.

Market capitalization of Binance USD (BUSD) is $22.78 billion.

In order to develop a cryptocurrency backed by the dollar, Paxos and Binance founded the stablecoin known as Binance USD (BUSD). Paxos retains a sum of US dollars equivalent to the entire supply in order to sustain this value.

**Binance Dollars (BUSD): Capitalization: $22.78 billion**

In order to develop a cryptocurrency backed by the dollar, Paxos and Binance founded the stablecoin known as Binance USD (BUSD). Paxos retains an amount of US dollars equivalent to the entire supply of BUSD in order to preserve this value. BUSD, like other stablecoins, enables traders and cryptocurrency users to transact with other crypto assets while lowering the risk of volatility.

**XRP (XRP): Capitalization: $18.6 billion**

XRP is a cryptocurrency that may be used on that network to facilitate trades of various currency types, including fiat currencies and other significant cryptocurrencies. It was developed by some of the same founders as Ripple, a digital technology and payment firm.

## CURRENT NEWS ABOUT CRYPTOCURRENCY:

FTX Collapse: Billionaire Mark Cuban Remains a Crypto Follower

The sudden and swift collapse of the FTX bitcoin exchange stunned the community. The sudden collapse of a business that had a February market value of $32 billion led to doubts being raised about the entire budding Blockchain-based financial services sector.

While institutional investors connected to FTX and its sister business Alameda Research are still calculating their losses from their exposure to Sam Bankman-empire, Fried's retail investors have gone.

- TSLA: Crypto Entrepreneurs Fail to Capture, Elon Musk's Attention With $600,000 goat statue **:**

The 12,000-pound sculpture was brought by co-founders of the Elon GOAT coin to Tesla's Austin offices, but the tycoon made no comment. Dallas, Texas A group of cryptocurrency entrepreneurs held out until Elon Musk, the man they named his currency after, accepted a 12,000-pound sculpture of a Mr. Musk-headed goat riding a rocket, even as a chilly night began to fall outside Tesla's headquarters here on Saturday.

It is the most recent publicity gimmick in the cryptocurrency industry, where memes and jokes regarding virtual currencies frequently take over social media. However, it's uncommon to use a 6-ton sculpture as a marketing ploy.

- Wall Street's 'Dr. Doom' calls crypto 'corrupt gambling' and rips 'proof of reserves' trumpeted after FTX collapse:

Cryptocurrency exchanges are not a favorite topic for Nouriel Roubini. And in the wake of FTX's spectacular collapse, Binance and other crypto companies are pushing the "proof of reserves" concept, which he finds to be completely unimpressive. Using Bitcoin as the first currency, Binance announced the launch of its proof of reserve mechanism. According to a statement on its website, "Binance is releasing its Proof of Reserves (PoR) System, which is the next stage in our endeavor to provide transparency on user money, after our recent announcement highlighting our dedication to transparency.

BTC will be the first network to use this feature when it launches, with additional networks and coins following soon after. Roubini tweeted the same day that "Crypto is corrupt gaming where the house always & systematically front runs the retail

Crypto Marketers Search for a New Sales Pitch After FTX Crisis

Crypto marketers are frantically trying to promote a more alluring view of the sector and soothe a sceptical public as the FTX virus spreads. Coins This Week: The worst of the FTX are Bitcoin and Ethereum Stable... Although a CoinShares report claims institutional players are preparing to short cryptocurrency, it appears that the worst may be behind us for the time being. Looking for a Cryptocurrency Bottom After FTX.

Instead of the currencies exchanged on Coinbase's platform, traders wanting to profit from market turbulence brought on by selling pressure could want to take a closer look at Coinbase stock. Pershing Square's activist investor tweeted about the potential of cryptocurrencies. Despite his modest investments, he has some recommendations for "legitimate participants".

- Searching for a Bottom in Crypto After FTX:

  Crypto-related assets have lost value since the FTX fiasco. Crypto bears think that a bubble has burst and that the financial markets are gradually returning to some rationality. Maybe, but forced selling drives prices lower and faster than fundamentals alone would predict when fear and liquidity problems affect any financial asset.

  Bears who disagree with the fundamentals of cryptocurrency should be on the lookout for an end-of-fear rebound that frequently follows occurrences like the FTX bankruptcy. Cryptocurrency prices won't fall linearly.