



Cryptocurrency Basics

In the simplest terms, cryptocurrency (or “crypto”) is digital money not tied to any physical coin or paper bill. However, it can be bought, traded, and used in exchange for goods or services. Cryptocurrency is not issued or backed by any central banking system or government. Because crypto is not backed by any tangible currency, the value can fluctuate based on supply and demand, cost of production, exchange availability, competition, and more. The world of cryptocurrency can seem overwhelming and even confusing, so let’s go over the basics.

Coins and Tokens. Individual units of cryptocurrency can be referred to as either coins or tokens, depending on how they are used. A coin is a cryptocurrency that has its own blockchain (more about blockchains below), such as Bitcoin or Ethereum. When someone says they bought crypto, they are referring to buying coins. On the other hand, tokens represent an asset for a specific project, and are either sold or given during the first public sale for the project. This is called an Initial Coin Offering (ICO), which mirrors an Initial Public Offering (IPO) in the stock market.

To take it a step further, there are two kinds of tokens, a utility token and a security token. Utility tokens are intended for use to buy products or services solely from the company or platform that issued them. Security tokens are essentially the digital version of a financial security, acting as a share in the value of an enterprise. A security token pays dividends, shares profits, pays interest, or invests in other tokens or assets.

Blockchain Technology. A blockchain is a digital record of all the transactions involving a specific cryptocurrency. They’re often compared to general ledgers, where each transaction leads to a debit and a credit. For example, you start with two crypto coins and send one to someone. The blockchain would say you’re sending one coin, so the person receiving it now has one coin, and you have one coin left. Each group of transactions is turned into a block, and “chained” to the existing general ledger. Once a block is added, it cannot be reversed or changed.

Some cryptocurrencies have their own blockchain, like Bitcoin and Ethereum. But there are also cryptos that are built on top of an existing blockchain, rather than starting their own from the ground up.

No single person, group, company, or government controls a cryptocurrency’s blockchain. Instead, they are administered, stored, and maintained by a decentralized network of computers around the world.

Types of Cryptocurrency. There are currently over 10,000 active cryptocurrencies available. Below are just a few examples of the various different types, but it’s best to do your research and find out which may be the best for you, depending on your plans for use.

- **Bitcoin.** When most people think of crypto, they’re probably thinking of Bitcoin (BTC). It debuted in 2009 as the first cryptocurrency, and it’s the most popular and highly valued, despite a history of high volatility. Bitcoin was initially created to be used as a peer-to-peer

digital payment system, and some advocates believe that it could one day replace physical cash.

- **Ethereum.** Ether (ETH) is the cryptocurrency of the Ethereum network, an open-source blockchain upon which developers can build apps and other cryptocurrencies. In the Ethereum system, tokens represent a diverse range of digital assets, such as vouchers or even real-world, tangible objects. It's the second largest cryptocurrency by market cap, behind Bitcoin.
- **Tether.** Tether (USDT) is a fiat-backed stablecoin, meaning its value is pegged directly to the value of a specific currency; in this case, the U.S. dollar. Tether is also the largest stablecoin by market cap.

How to Get Cryptocurrency. For most people, the easiest way to get cryptocurrency is to buy it, either from an exchange, like Coinbase or Binance, or from another user. However, some types of crypto can be created through a process called mining. Mining actually serves two purposes – It validates the legitimacy of cryptocurrency transaction blocks and generates new cryptocurrency.

During the mining process, computers solve extremely complex mathematical problems in order to verify the authenticity of transactions on the blockchain. Unfortunately, it is a very energy-intensive process, resulting in a massive carbon footprint and tremendous costs. When a crypto miner completes the process of authenticating a block of transactions, they get compensated with newly minted cryptocurrency.

Security. In theory, the lack of a central authority can make cryptocurrencies more secure because with blockchain technology, there's no one central point of failure. But that doesn't mean you shouldn't be concerned with security, because scams are prevalent within the crypto world. Of course, the same could be said of traditional banking systems.

For example, there's less regulation and fewer platforms than that of traditional financial services. Additionally, some people may feel pressured to act quickly, and either send or invest their money because they're worried about missing out on an opportunity. And as mentioned above, cryptocurrency transactions cannot be reversed.

The best way to avoid scams is by investing in more well-established cryptocurrencies. You may still be subject to fraud by the way you hold, send, or receive your crypto. But at least you can have peace of mind knowing that the cryptocurrency itself isn't a scam.

Keys. When you first buy cryptocurrency, you are issued two keys. The public key works like an email address, allowing you to send or receive funds. The private key is typically a string of letters and numbers, which is not to be shared with anyone. Your private key is like a password that unlocks the virtual wallet that holds your money. As long as you have access to your private key, your crypto funds are safe and can be managed from anywhere in the world with an internet connection.

Wallets. A crypto wallet is a platform that makes it possible to store, receive, and send cryptocurrency. There are many different types of crypto wallets, but the most popular are hosted wallets, non-custodial wallets, and hardware wallets.

- **Hosted Wallet.** The most popular crypto wallet is a hosted wallet. When you buy cryptocurrency using an app like Coinbase, it is automatically held in a hosted wallet. It's called a hosted wallet because a third party keeps your cryptocurrency for you, similar to how

the credit union keeps your money in a savings account. The main benefit of keeping your cryptocurrency in a hosted wallet is if you forget your password, you won't lose your cryptocurrency.

- **Non-Custodial Wallet.** A non-custodial wallet puts you in complete control of your cryptocurrency. These wallets don't rely on a third party to keep your crypto safe. While they provide the software necessary to store your cryptocurrency, the responsibility of remembering and safeguarding your private key falls entirely on you. If you lose or forget your private key, there is no way to access your cryptocurrency. And, if someone else discovers your private key, they'll get full access to your assets. Then why have a non-custodial wallet? It gives you access to more advanced crypto activities like yield farming, staking, lending, borrowing, and more. But if all you want to do is buy, sell, send, and receive crypto, a hosted wallet is the best solution.
- **Hardware wallets.** A hardware wallet is a physical device, about the size of a thumb drive, that stores the private keys to your cryptocurrency offline. Most people don't use hardware wallets because of their increased cost and complexity, but they do offer some benefits. For example, they can keep your cryptocurrency secure even if your computer is hacked. However, this advanced security makes them inconvenient to use compared with a software wallet and they can cost upwards of \$100.

Other Things to Consider. Remember, cryptocurrency has no central banking system or government backing. While this may be appealing to some, there are a few important things to keep in mind. Without the aforementioned, there is no customer service, no guaranteed asset protection, and no deposit insurance for your cryptocurrency amounts. There are also no representatives to call if things go awry. This could leave your cryptocurrency with the potential risk of getting hacked by a malicious third party, or getting lost through personal negligence, such as losing your private key or sending crypto to the wrong address.

Both of these threats can be avoided by following cryptocurrency best practices, which includes keeping your private key, well, private! Remember, your private key grants total control over your cryptocurrency. If someone gains access to it, they're basically able to drain your wallet and send your cryptocurrency anywhere they please. And, there's no way to get it back once it's gone, because crypto transactions cannot be reversed.

Education is Key. The cryptocurrency conversation seems to be everywhere right now. We are not experts or advisers, so it's up to you to do your research. At the end of the day, it's financial education that will help you pick the right crypto coins to buy, the right wallet to use, and overall, help you decide if cryptocurrency is even right for you.