# CRYPTOCURRENCY KNOWLEDGE.

Cryptocurrencies have become very popular over the last few years, especially after the meteoric rise in the price of Bitcoin back in December 2017. It used to be that cryptocurrency investing was the realm of expert investors. But because of Bitcoin's massive success and popularity, things have changed. It has now expanded to include even the smallest and least experienced of investors.

## 1. WHAT IS A CRYPTOCURRENCY?

Cryptocurrency is digital money which can be sent from one person to the other Via Blockchain, It can also be termed as Peer to Peer currency.

As we know, money is something that is used to represent the value of other things, and Cryptocurrency is in that league, only that it exists in the Blockchain and it is not controlled by a central authority.

Think of a cryptocurrency as a digital version of fiat currency such as the USD or GBP.

Cryptography is used to secure the transaction as well as control the creation of new coins. In layman's terms, it is a digital currency that is mined instead of being printed.

## 2. IS CRYPTOCURRENCY REAL MONEY?

Cryptocurrencies are an alternative to traditional money. Today, some outlets accept Cryptocurrencies as a form of payment. However, they bear little resemblance to other asset classes because they are intangible and extremely volatile. They are mainly used by traders for speculating on rises and falls in value.

### Bitcoin: A New Asset Class

Trading Bitcoin and other Cryptocurrencies should be a familiar process to most investors used to buying and trading other asset classes, like stocks, bonds,

commodities and, most notably, currencies. But it may be best for investors to think of Cryptocurrencies, and Bitcoin in particular, as their own asset class.

Practically speaking, Cryptocurrencies have some similarities to equities, commodities, and currencies, but their relative youth, volatility, and tax treatment means they're not exactly like any other asset class.

## 3. WHAT IS THE DIFFERENCE BETWEEN A DIGITAL CURRENCY AND A CRYPTOCURRENCY?

The difference between a digital currency and a cryptocurrency is that the latter is decentralized, meaning it is not issued or backed by a central authority such as a central bank or government. Instead, Cryptocurrencies run across a network of computers called Blockchain. Digital currencies have all the characteristics of traditional currencies but exist only in the digital world. Cryptocurrencies are not issued by a central authority.

**Bitcoin functions as a digital currency, by following the same three rules that traditional, or fiat currencies follow.**



1. They need to be difficult to produce (cash) or find (gold or other precious metals)
2. They need have a limited supply
3. They need to be recognized by other humans as having value

When we examine Bitcoin, it ticks the boxes of all three of these characteristics:

1. Bitcoin uses complex computer algorithms in its production which take a lot of computational power and proof-of-work, so it cannot be replicated easily or at a discount.

2. There is a finite supply of Bitcoins - 21 Million to be exact. As of 2019, Roughly over 2/3 of this number had been mined.

3. There are hundreds of Bitcoin exchanges and Bitcoin is accepted as payment in most transactions worldwide.

## 4. WHAT WAS THE FIRST CRYPTOCURRENCY?

The first successful cryptocurrency was Bitcoin. The Bitcoin domain was registered in 2008, but the first transaction took place in 2009. It was developed by someone called 'Satoshi Nakamoto'. However, there is speculation that Nakamoto is a pseudonym as the Bitcoin creator is notoriously secretive, and no one knows whether 'he' is a person or a group.

## 5. HOW ARE CRYPTOCURRENCY STORED?

A cryptocurrency wallet is where you store your Cryptocurrencies. This may be considered a cryptocurrency investing because the financial assets you're dealing with have no physical counterparts, i.e., they're digital. And because they're digital, you can only store them via a digital storage facility, i.e., a cryptocurrency wallet. The only question is what type of wallet will you use?



There are two general types of wallets: hot storage and cold storage. Hot storage wallets are those that are online or Internet based. Cold storage wallets, on the other hand, are those that are offline or aren't connected to the Internet. So which of the two is best for safely HODLing your Cryptocurrencies? If the only way to steal or rob your Cryptocurrencies is via hacking, then the obvious answer is cold storage or offline wallets, which come in two general variants: paper and hardware. And I suggest using both.

When you buy Cryptocurrencies from any particular exchange, your transaction is assigned a public key that is linked to the number of units of a cryptocurrency that you bought. Your cryptocurrency exchange, on the other hand, assigns private keys that correspond to your public keys. Therefore, your private keys are your lifeline to your

Cryptocurrencies, and if you lose or forget them, you can say goodbye to your Cryptocurrencies.

## 6. TYPES OF CRYPTOCURRENCY WALLETS?

You can easily get cryptocurrency wallets by signing up for one of the wallets. The cryptocurrency wallets are available in the following forms.

### DESKTOP

These are wallets that are downloaded and stored on a laptop or PC and they are only accessed through the computer on which these wallets were downloaded. Desktop wallets are very secure, but this security can be compromised if your computer gets a virus or is hacked. But generally, desktop wallets are some of the safest wallets that you can use.

### ONLINE WALLETS

This kind of wallet runs in the cloud and one can access it using a computing device from any location. They are easy to access and more convenient, but the key is stored online by a third party and this makes it more prone to hacking.

### MOBILE

These wallets run on an application installed on your mobile phone and they are very convenient because they can be used in any place to carry out ICO token-related transactions.

### HARDWARE

These ones are different from software wallets because the private key is stored on hardware like a USB device. Although, with the hardware wallet transactions are still made online, there is better security with this kind of a wallet because everything is stored offline. The user just needs to plug in the hardware to an Internet-enabled device from any place and then he or she can make transactions.

## 7. HOW MANY CRYPTOCURRENCIES ARE THERE?

There are over 2000 Cryptocurrencies available to buy and sell, though most have little value. Of these, Bitcoin, ether (the token of the Ethereum network), ripple, Bitcoin cash (an offshoot of Bitcoin) and Litecoin are among the most valuable by market capitalisation.

YOU CAN GET THE FULL LIST IN www.coinmarketcap.com

## 8. WHAT IS CRYPTOCURRENCY MINING?

In simple terms, Cryptocurrency mining is a method of calculating the value of cryptocurrency assets through a cryptographic process. These processes mine Cryptocurrency in blocks, which are simply ledger files that permanently record all recent cryptocurrency transactions.

Cryptocurrency mining is the process by which recent cryptocurrency transactions are checked and new blocks are added to the Blockchain.



- **Checking transactions**

Mining computers select pending transactions from a pool and check to ensure that the sender has sufficient funds to complete the transaction. This involves checking the transaction details against the transaction history stored in the Blockchain. A second check confirms that the sender authorized the transfer of funds using their private key.

- **Creating a new block**

Mining computers compile valid transactions into a new block and attempt to generate the cryptographic link to the previous block by finding a solution to a complex algorithm. When a computer succeeds in generating the link, it adds the block to its version of the Blockchain file and broadcasts the update across the network.

## 9. HOW DOES ONE ACQUIRE A CRYPTOCURRENCY?

A cryptocurrency such as Bitcoin is acquired by purchasing the coin via a wallet in typical fiat currency (this can be done via a credit card or wire transfer) and the wallet then allows you to buy various different Cryptocurrencies using your fiat currency.

You can also acquire Cryptocurrency from a person who has the Cryptocurrency in their Wallet and then they send to your wallet.

You can also acquire Bitcoins from localbitcoins.com or Localcryptos.com

## 10. WHY CRYPTOCURRENCIES WORK

- **Low risk of disruption**

Since the Cryptocurrencies are peer to peer currency in which it exists in Blockchain with no central servers, It means that it is hard for it to be disrupted since the Blockchain is available anywhere anytime.



- **Portability**

Cryptocurrency is stored in Blockchain wallets and hence can be carried from one place to the other through computers and Smart phones.

- **Better Value storage.**

It has been found that, with proper fundamental analysis, when you store the money in Cryptocurrency it retains value for a long time.

## 11. WHAT IS A BLOCKCHAIN?

To begin with, a block is where the data for the transactions are stored; the linked decentralized series of the blocks is what is named a Blockchain. Blockchain is the structure of relational data storage that provides the ledger and backbone of the coin.

A Blockchain is a shared digital register of recorded data. For Cryptocurrencies, this is the transaction history for every unit of the cryptocurrency, which shows how ownership has changed over time. Blockchain works by recording transactions in 'blocks', with new blocks added at the front of the chain.

A Blockchain functions as an open-source ledger where users record, control, and amend transactions. The Blockchain is no different from other platforms, say for instance Wikipedia. Just as Wikipedia is an open source platform where a single publisher is not responsible for fabricating content, Blockchain too does not give full power to just one miner.

Blockchain technology prevented centralizing the system as building and securing digital relationships is absolute. Here all digital transactions are supplied using a robust, elegant and straightforward network framework that works as a peer-to-peer system.

Blockchain technology has unique security features that normal computer files do not have.



**a) Network consensus**

A Blockchain file is always stored on multiple computers across a network – rather than in a single location – and is usually readable by everyone within the network. This makes it both transparent and very difficult to alter, with no one weak point vulnerable to hacks, or human or software error.

**b) Cryptography**

Blocks are linked together by cryptography – complex mathematics and computer science. Any attempt to alter data disrupts the cryptographic links between blocks, and can quickly be identified as fraudulent by computers in the network.

Bitcoin transactions are recorded on a digital ledger (or record) known as the Blockchain. The core concept that upholds Bitcoin's usefulness is decentralization. With decentralization, the Blockchain is not owned by one single person or entity. In fact,

everyone has access to it. Therefore transactions are publicly broadcasted across the network, which ensures that both parties have upheld their end of the agreement. The code is open source so anyone can view it, this ensures transparency among all parties.

## 12. HOW DOES ONE INVEST IN CRYPTOCURRENCIES?

There are numerous ways of investing in Cryptocurrencies, these ranges from simply buying and HODLing the coins on an exchange.

You can acquire the Cryptos and Hodl them in a wallet for the amount of time you want to keep the Cryptos.

## 13. WHAT IS CRYPTOCURRENCY TRADING?

Cryptocurrency trading is the act of speculating on cryptocurrency price movements via a CFD trading account, or buying and selling the underlying coins via an exchange.

Both are leveraged products, meaning you only need to put up a small deposit – known as margin – to gain full exposure to the underlying market. Your profit or losses are still calculated according to the full size of your position, so leverage will magnify both profits and losses.



### Bitcoin Trading Is More Straightforward Than Forex

But even though Bitcoin exchanges talk about “trading pairs” just like Forex traders, trading Bitcoin is not like Forex in important ways. Mostly, those ways have to do with the fact that Bitcoin was invented in 2008, not centuries ago like most Forex-traded currencies.

Consequently, Bitcoin trading is simpler and more straightforward than Forex. Another key difference is that the IRS treats Bitcoin as property, not currency, for tax purposes, so the tax consequences of Bitcoin trading may be different from trading fiat currencies.

So, today, it’s better to think of trading Bitcoin (BTC) more simply: it’s like buying an asset, watching its price rise or fall, and choosing to hold or sell it at a later time.

## 14. BUYING AND SELLING CRYPTOCURRENCIES VIA AN EXCHANGE

When you buy Cryptocurrencies via an exchange, you purchase the coins themselves. You'll need to create an exchange account, put up the full value of the asset to open a position, and store the cryptocurrency tokens in your own wallet until you're ready to sell.

Exchanges bring their own steep learning curve as you'll need to get to grips with the technology involved and learn how to make sense of the data. Many exchanges also have limits on how much you can deposit, while some accounts can be very expensive to maintain.

## 15. EXCHANGERS;

There are more than a hundred exchanges that you can get on to be able to trade the currencies; these are the examples;



- Binance
- Bitpay
- Poloniex
- Kraken
- CoinExchange
- Coinfalcon
- Bittrex

And many others.

## 16. ENTERING THE MARKET

The first thing you'll need to do is decide which cryptocurrency you wish to purchase. There are hundreds to choose from, and each is slightly different from the other.

Rather than researching the multitude of Cryptocurrencies currently in existence and diving headlong, especially for first-time investors, it may be a better idea to spend some time following the trends and getting to know the basic and most prevalent currencies, and then begin to branch out once the basics of a few tokens are fully understood.

## 17. HOW DO CRYPTOCURRENCY MARKETS WORK?

Cryptocurrency markets are decentralized, which means they are not issued or backed by a central authority such as a government. Instead, they run across a network of computers. However, Cryptocurrencies can be bought and sold via exchanges and stored in 'wallets'.

Unlike traditional currencies, Cryptocurrencies exist only as a shared digital record of ownership, stored on a Blockchain. When a user wants to send cryptocurrency units to another user, they send it to that user's digital wallet. The transaction isn't considered final until it has been verified and added to the Blockchain through a process called mining. This is also how new cryptocurrency tokens are usually created.

## 18. WHAT MOVES CRYPTOCURRENCY MARKETS?

Cryptocurrency markets move according to supply and demand. However, as they are decentralized, they tend to remain free from many of the economic and political concerns that affect traditional currencies. While there is still a lot of uncertainty surrounding Cryptocurrencies, the following factors can have a significant impact on their prices:

- **Supply:** the total number of coins and the rate at which they are released, destroyed or lost
- **Market capitalization:** the value of all the coins in existence and how users perceive this to be developing

- **Press:** the way the cryptocurrency is portrayed in the media and how much coverage it is getting
- **Integration:** the extent to which the cryptocurrency easily integrates into existing infrastructure such as e-commerce payment systems
- **Key events:** major events such as regulatory updates, security breaches and economic setbacks

## 19. HOW DOES CRYPTOCURRENCY TRADING WORK?

To trade in cryptocurrency you need to speculate on whether your chosen cryptocurrency will rise or fall in value. Prices are quoted in traditional currencies such as the US dollar, and you never take ownership of the cryptocurrency itself.

CFDs are leveraged products, which means you can open a position for a just a fraction of the full value of the trade. Although leveraged products can magnify your profits, they can also magnify losses if the market moves against you.

## 20. WHAT IS THE SPREAD IN CRYPTOCURRENCY TRADING?

The spread is the difference between the buy and sell prices quoted for a cryptocurrency. Like many financial markets, when you open a position on a cryptocurrency market, you'll be presented with two prices. If you want to open a long position, you trade at the buy price, which is slightly above the market price. If you want to open a short position, you trade at the sell price – slightly below the market price.

## 21. WHAT IS A LOT IN CRYPTOCURRENCY TRADING?

Cryptocurrencies are often traded in lots – batches of cryptocurrency tokens used to standardize the size of trades. As Cryptocurrencies are very volatile, lots tend to be very small: most are just one unit of the base cryptocurrency. However, some Cryptocurrencies are traded in bigger lots.

## 22. WHAT IS LEVERAGE IN CRYPTOCURRENCY TRADING?

Leverage is the means of gaining exposure to large amounts of cryptocurrency without having to pay the full value of your trade upfront. Instead, you put down a small deposit, known as margin. When you close a leveraged position, your profit or loss is based on the full size of the trade.

While leverage will magnify your profits, it also brings the risk of amplified losses, including losses that can exceed your margin on an individual trade. Leveraged trading therefore makes it extremely important to learn how to manage your risk.

Leverage is a key feature of CFD trading, and can be a powerful tool for a trader. You can use it to take advantage of comparatively small price movements, 'gear' your portfolio for greater exposure, or to make your capital go further.

## 23. HOW DOES LEVERAGE WORK?

Leverage works by using a deposit, known as margin, to provide you with increased exposure to an underlying asset. Essentially, you're putting down a fraction of the full value of your trade – and your provider is loaning you the rest.

Your total exposure compared to your margin is known as the leverage ratio.

**NOT LEVERAGED.**

For example, let's say you want to buy 1000 shares of a company at a share price of 1$.

To open a conventional trade with a stockbroker, you would be required to pay 1000 x 1$ for an exposure of $1000 (ignoring any commission or other charges). If the company's share price goes up by 0.2$, your 1000 shares are now worth 1.2$ each. If you close your position, then you'd have made a $200 profit from your original $1000.

If the market had gone the other way and shares of the company had fallen by 0.2$, you would have lost $200, or a fifth of what you paid for the shares.

**LEVERAGED.**

Or you could have opened your trade with a leveraged provider, who might have a margin requirement of 10% on the same shares.

Here, you'd only have to pay 10% of your $1000 exposure, or $100, to open the position.

If the company's share price rises to 120%, you would still make the same profit of $200, but at a considerably reduced cost.

If the shares had fallen by 20% then you would have lost $200, which is twice your initial deposit.

### 24. WHAT IS MARGIN IN CRYPTOCURRENCY TRADING?

Margin is a key part of leveraged trading. It is the term used to describe the initial deposit you put up to open and maintain a leveraged position. When you are trading Cryptocurrencies on margin, remember that your margin requirement will change depending on your broker, and how large your trade size is.

Margin is usually expressed as a percentage of the full position. A trade on Bitcoin (BTC), for instance, might require 15% of the total value of the position to be paid for it to be opened. So instead of depositing $5000, you'd only need to deposit $750.

### 25. WHAT IS A PIP IN CRYPTOCURRENCY TRADING?

Pips are the units used to measure movement in the price of a cryptocurrency, and refer to a one-digit movement in the price at a specific level. Generally, valuable Cryptocurrencies are traded at the 'dollar´ level, so a move from a price of $190.00 to $191.00, for example, would mean that the cryptocurrency has moved a single pip. However, some lower-value Cryptocurrencies are traded at different scales, where a pip can be a cent or even a fraction of a cent.

It's important to read the details on your chosen trading platform to ensure you understand the level at which price movements will be measured before you place a trade.

## 26. PROCEDURE OF TRADING CRYPTOCURRENCY.

### 1. Start at a Licensed Exchange

The first step toward trading Bitcoin or any other crypto is to create an account at a cryptocurrency exchange.

### 2. Choose Your Trading Currency

Once you have an investment account at a digital asset exchange and have funded it with US dollars, or another accepted currency, you're ready to trade.

Select Bitcoin from the list of various Cryptocurrencies available to trade, which is shown on the far left side of the homepage.

Two pull-down menus will appear, allowing you to Buy, Sell, or create an Alert; and set the frequency of the order.



### 3. Begin the Trading Process

To start trading: - Select buy and once or recurring, type the dollar amount you want to buy into the next box, and click "Review order." - You'll see the quantity of BTC you're purchasing and your fee - Click "Place order"; you'll get a "Success!" image along with your transaction details.

### 4. Begin Trading Cryptocurrency without Dollars

Once you've bought your first cryptocurrency, you can begin trading in currency pairs without dollars, if you wish—for example, buying ether or Zcash with Bitcoins.

### 5. Setting up Bitcoin Trading Alerts

Some Web exchange homepage like Gemini or mobile app lets you set up alerts to inform you when the price of Bitcoin (or other available cryptocurrency) passes a certain threshold, up or down. You can determine the trading alert threshold by typing in a dollar value above or below the current trading price, or by typing a percentage change (which the system translates into a specific dollar value).

Once your alert is established, you'll get an email immediately when the price hits or passes the threshold you set. Alerts help you act on particular trading strategies you may choose to pursue.

### 6. What about Bitcoin Limit Orders?

In addition to "market" orders, with which you buy Bitcoin or another cryptocurrency at whatever the current market price, the ActiveTraderTM interface offers more order types like limit orders.

### 7. What Is a Limit Order?



Limit orders let you specify a price at which your trade will execute; if the price isn't reached, the trade won't happen.

In a basic limit order, your Bitcoin trade is filled at or better than the price you specify, and any part of the order that is not filled immediately stays active until it is filled or until you manually cancel it.

### 8. Other Types of Limit Orders

There are six more limit order types of differing levels of complexity that you can set, such as "immediate-or-cancel," in which any part of your order that is not immediately filled is automatically canceled; and "fill-or-kill," in which your order is either filled in full immediately or entirely canceled.

### 9. What Is a Stop-Limit Order?

Stop-limit orders are notable because they give Bitcoin traders very precise control by combining two different order types. In a “stop” order, you specify a price that triggers an order to buy a cryptocurrency once reached. Your order then fills at the market price.

But what if the market is moving extremely fast? That’s where the limit order comes in: it sets an upper limit to what you’re willing to pay. So, with a stop-limit order, you specify a price that triggers your Bitcoin trade, and that trade will execute only if the price remains in the range between your trigger price and limit price.

Let’s say, for example, you’re following a momentum trading strategy and Bitcoin is trading at around USD $30,400. You place a stop-limit order for USD $30,600-$30,900. Your trade will trigger when BTC cross USD $30,600. But if the price rises above USD $8,900, any portion of your order not yet filled will be canceled.

## 27. COMMON BITCOIN MYTHS DEBUNKED



Like all technological innovations, there are a number of points that uninformed players do not understand. As such, misinformation spreads which causes fear, uncertainty and doubt - which only hurt the technology going forward.

### 1. Bitcoin is illegal.

Just because a currency is not backed by a government, does not make it illegal. For you, the user, by operating as a virtual currency, Bitcoin is legal, so long as you are using it for legal means.

### 2. Miners or developers can change the amount of Bitcoins available to benefit themselves.

The way the Bitcoin algorithm works ensures there are no shortcuts in obtaining one. If a counterfeit Bitcoin does not satisfy all the conditions required, any transactions made using it will be rejected. This is similar to how banks reject counterfeit bank notes.

**3. Bitcoin isn't worth anything because it isn't backed by a central government.**

With all currencies, they are only worth what someone is willing to exchange for them. In the same way that gold or US dollars have no inherent value, Bitcoin is just a means of exchange.

**4. Bitcoin's main use is for criminals and the government will shut it down.**

Yes, at one time a significant % of Bitcoin usage was used for illegal activity. Much of this activity was facilitated on the underground black market website Silk Road.

However, this is no longer the case. Bitcoin is now accepted by over 160,000 merchants worldwide and adoption continues to grow. The technological uses like minimized transactions fees have far more use for large financial institutions than they do for some 25 year old trying to buy LSD from a guy in another country.

It's worth noting that fiat currencies are also used for criminal activity.

This one also relies on the myth that Bitcoin is completely anonymous. Yes, there are no named Bitcoin accounts, but each Bitcoin address is unique and every transaction is recorded on a public ledger (the Blockchain). Therefore with a little legwork, it is possible to determine who is behind a Bitcoin transaction.

As far as a potential government shutdown does, that's a little trickier. Governments do have the power to make life difficult for citizens dealing strictly in Bitcoin, but this difficulty only goes as far as taxation on Bitcoin is concerned.

**5. 21 Million Bitcoins is too small of a total number for effective daily use**

Where this one falls short is that it fails to compute that Bitcoin is divisible to eight decimal places. 0.00000001 BTC is actually the smallest unit available, this is also known as 1 Satoshi. There are really 2,099,999,997,690,000 (just over 2 quadrillion) maximum possible units or Satoshi in the Bitcoin system.

When 1 Bitcoin becomes too large for day-to-day transactions, we will simply move on to smaller units for convenience, similar to how we use pennies now for small transactions.

**6. Hackers can simply steal all the Bitcoins**

It's important to differentiate between exchanges or websites being hacked, and the Blockchain itself being hacked. Exchange hacks exploit security weaknesses of private companies, whereas the Blockchain is not centralized so there is no single weakness for hackers to exploit.

The same argument can be applied to the US dollar, just because a store is robbed does not mean the US dollar as a currency has been stolen from the source. That said, you should take appropriate security precautions when storing your Bitcoin such as creating a safe offline wallet.

**7. Bitcoin is a pyramid scheme/Ponzi scheme**

Pyramid schemes are a zero sum game. The founders and early adopters profit from the money put into the scheme by late adopters. With Bitcoin everyone can profit, no matter when they first made their initial investment. The other illusion here is that there is one central founder of Bitcoin.

Bitcoin is decentralized and there is no "CEO" or person at the top of the pyramid.

**8. Bitcoin is dead/There is no point investing in Bitcoin now**

As early as 2012, you can find commentators saying it was "too late" to invest in Bitcoin. Yet, real world adoption continues to grow, and the price keeps on rising. Is that to say there won't be issues in the future? I'm sure there will be.

However, if Bitcoin transactions keep increasing, the currency shows no signs of slowing down any time soon.