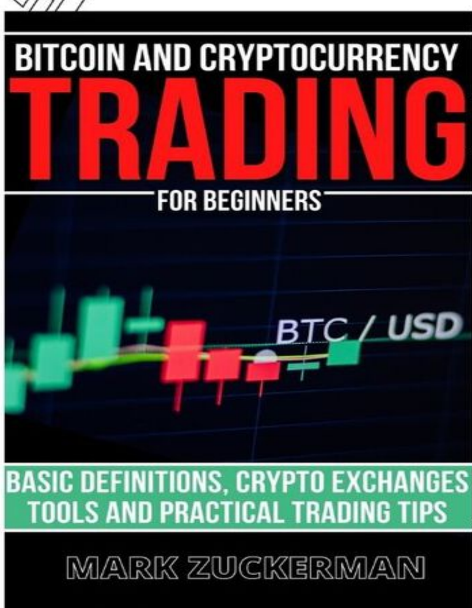
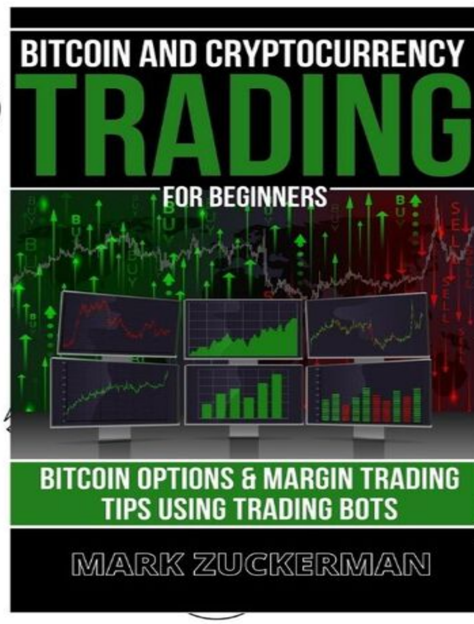
BITCOIN AND CRYPTOCURRENCY TRADING FOR BEGINNERS

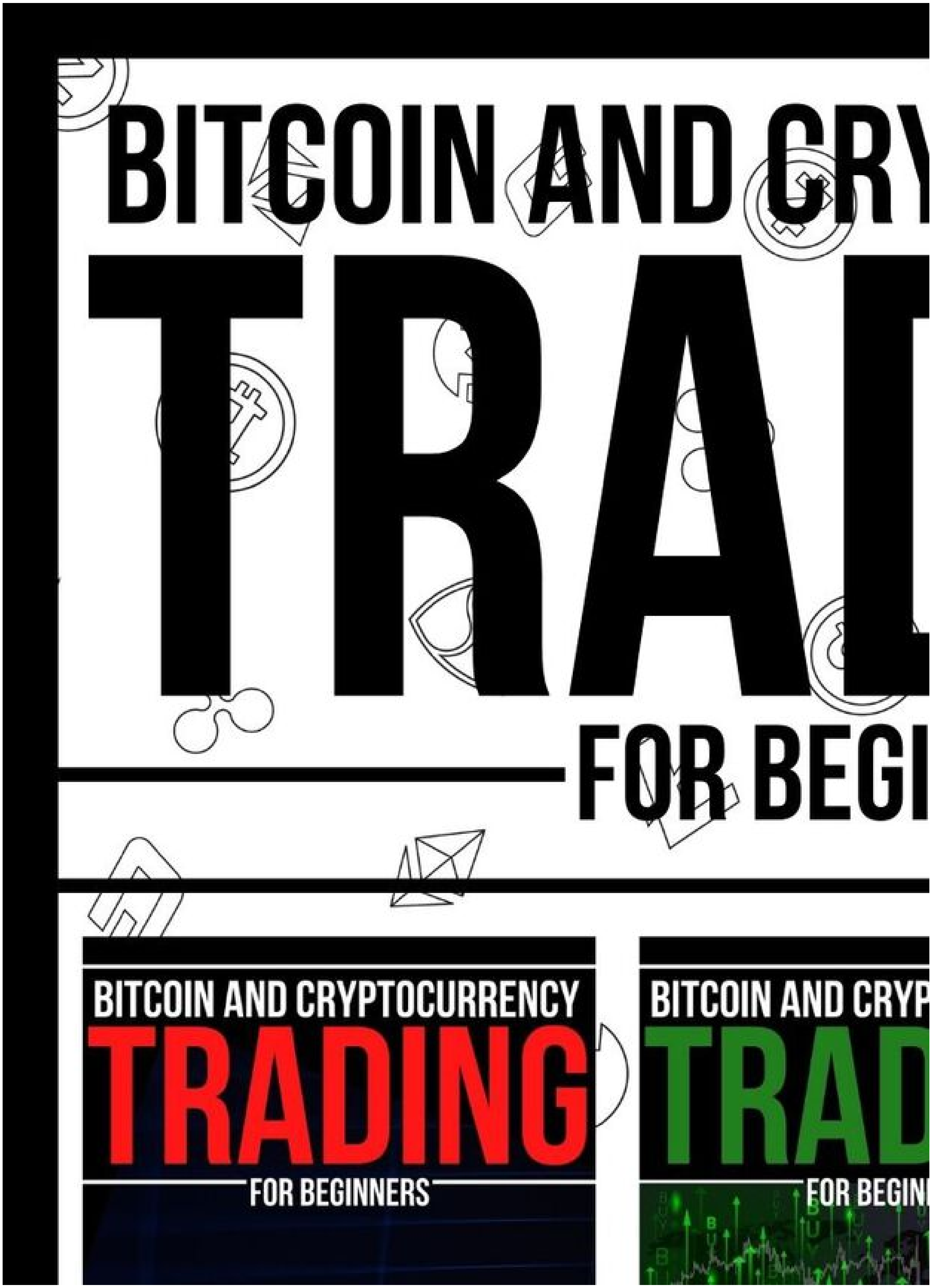




3 BOOKS IN 1

NOVICE TO EXPERT

MARK ZUCKERMAN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3 BOOKS IN 1
BOOK 1
BASIC DEFINITIONS, CRYPTO EXCHANGES, TOOLS AND PRACTICAL TRADING TIPS
BOOK 2
BITCOIN OPTIONS & MARGIN TRADING TIPS USING TRADING BOTS
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TECHNICAL ANALYSIS: HOW TO READ JAPANESE CANDLESTICKS, CHARTS, VOLUME, TREND AND INDICATORS
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Introduction

This book includes 3 manuscripts which are all revolving around trading Bitcoin and other cryptocurrencies.

In book 1 we will cover the king all cryptos called Bitcoin as a trading instrument and understand why it’s an excellent choice for traders. Next you will learn what are best cryptocurrency exchanges that you can register and start trading right away. After that, you will learn what are the best Mobile and Hardware Wallets for trading crypto. Next, you will learn some basic trading terms such as currency pairs, base and quote, order book, bids and asks, stop limit option and dollar cost averaging. After that, you will learn how to use BNB as a Trading Tool to exchange Bitcoin or other cryptocurrencies on various platforms. Next, you will learn how you can earn passive Income on Coinbase and how you can earn interest with Compound Finance. Moving on, you will learn few tricks on how to sell & withdraw Crypto from Coinbase Pro paying the least fees there is. In addition, this book has several practical guides on how to install and use the Binance Widget Trading Tool in Brave browser, how to place Market Orders on Coinbase Pro, Blockchain & Binance and how to buy, sell and trade crypto on eToro. Lastly, you will learn how to value DeFi tokens and what my top 5 cryptocurrency picks are for 2021.

In book 2 you will comprehend the importance of the cryptocurrency market cycles, market manipulation tactics and how to avoid them. Next you will learn about leverage trading and margin trading strategies step by step. After that you will learn about the best crypto trading bot platforms and how to use them successfully. Next, you will learn about option moneyness, put call ratio, options skew and market parameters. After that, you will comprehend a few practical trading tips and learn how to trade Bitcoin Options and how to build a position on Deribit. Moving on, you will learn about the biggest trading mistakes newbies do and how to avoid them. You will also learn how to avoid the Gambler's Fallacy, the Law of Small Numbers, Survivorship, Hindsight, Correlation, Recency and Attribution Bias. Lastly, you will learn how to avoid the Sung Cost Trap and how to become a successful disciplined trader. If you are ready to jump on board, let’s first understand the cryptocurrency market cycles so you can make better trading decisions!

In book 3 you will learn what are the best exchanges for trading cryptocurrencies are and what essential trading tools you must utilise using trading checklist. Next we will cover the differences between Winners and Losers and what kind of trading strategies exist that you can use. After that, you will learn about Implied Volatility and how to set up a trade order. Moving on, you will learn the differences between Fundamental Analysis and Technical Analysis, then you will also learn how Technical Analysis work and why it is working. Moving on, you will learn comprehend what is Support and Resistance, what time frame you should use on the chart and how to read Japanese Candlesticks. You will also learn about basic chart elements, bearish Candlesticks and bullish Candlesticks such as Bullish engulfing, Hammer, Doji, Morning Doji star, Bearish engulfing, Dark cloud cover, Shooting star, Inverse hammer, Piercing line, Three white soldiers , Hanging man, Evening star, Three black crows, Spinning top, Falling three methods and Rising three methods. You will also learn how to read Volume, how to read moving averages, how to read Trends and how to read Indicators. Lastly, you will about the best Crypto TAX software there is! If you are ready to jump on board, let's see why Bitcoin is one of the best trading instruments there is!

BOOK 1

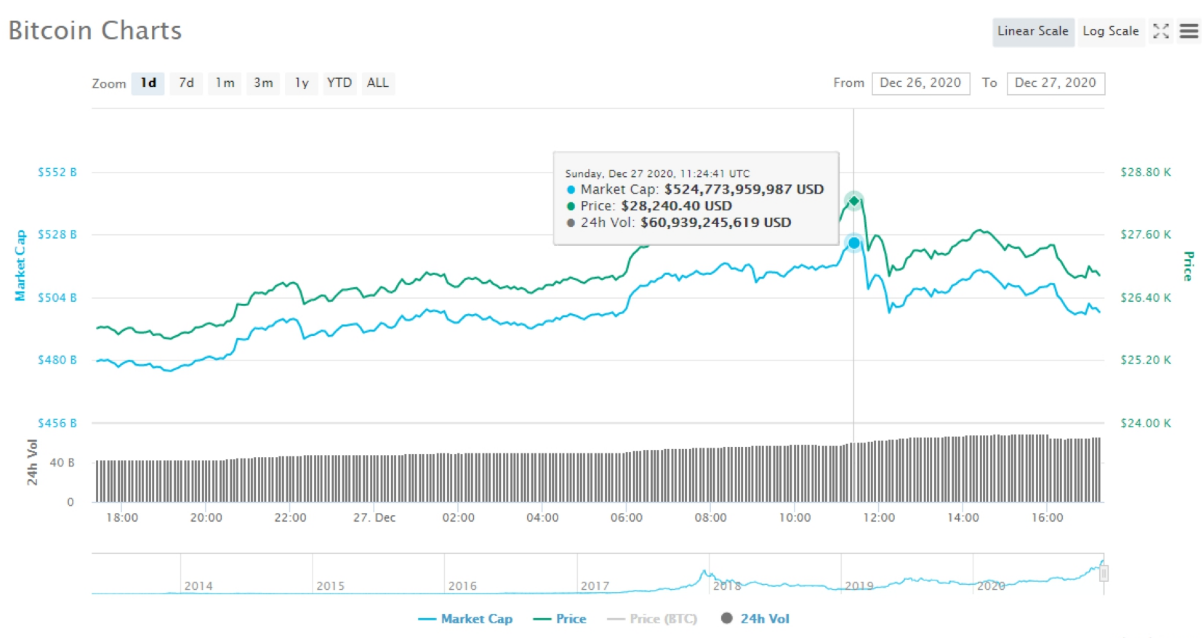
Bitcoin and Cryptocurrency Trading For Beginners

Basic Definitions, Crypto Exchanges, Tools and Practical Trading Tips

Mark Zuckerman

Chapter 1 Should you Trade Bitcoin?
This one time Bitcoin was worth 44 cents and it went all the way up to 30 dollars and then it crashed back down to 7 dollars.

And then this other time it was worth 13 dollars and it went all the way up to 213 dollars but then it crashed back down to 65 dollars.



Then this other time, Bitcoin went from 147 dollars to 1100 dollars and then it crashed back down to 480 dollars. And this other time Bitcoin was worth 1100 dollars and it went up to 19,000 dollars and then it crashed back down to 3,800 dollars, but just today Bitcoin hit a new ATH (all time high) of

28,240 dollars. So, do you think it's a great trading asset class? Well, I hope you do. But what is Bitcoin? Well, I know for some people Bitcoin is a scam and there is nothing you can say to those people that would ever change their mind. Then there's the other half of people who treat Bitcoin like a religion so don't you dare say anything offensive to make them feel uncomfortable. Well, let me try to squeeze through the middle of that crowd and talk objectively about what it means to have good money in the first place and if Bitcoin really is going to $1M dollars and beyond because for the first time ever Bitcoin crossed the psychological threshold of 20,000 dollars. If you use a Kardashian scale to predict Bitcoin value, it would eventually become worth a million dollars because it would become a type 1 civilizations form of money, which is money for the entire world. First I want to give credit to Bitcoin for teaching me what money actually is. One of the cool things that I got out of owning Bitcoin besides obviously making money from it is understanding what good money is. And that is very important to understand if you want to make money from Bitcoin trading it, or for long term because holding on to it is terrifying. Imagine holding a stock that's up 30% today but then down 50% tomorrow. It's scary. When we think about money it seems like such an easy concept to understand. For example imagine that you are holding a hundred dollars note in your hand which you can physically see and touch and exchange for other goods. But money isn't something that we just flick on the switch, put in fabric on one end and get money out the other. It's something else entirely and to create good money is very hard. First, Bitcoin is not actually printed like the dollar. Instead, it's digitally created by a process called mining. But instead of Minecraft, imagine thousands of computers all over the world that are working hard to solve complex mathematical algorithms. That sounds wasteful and pointless but it does have a purpose and we can use the analogy of a Rubik's cube which contains all of the transactions that we have. So anytime I send you a Bitcoin and you send it to a friend, those transactions then get stored inside of a Rubik's cube and we can see which transactions they are because they're publicly displayed for everybody else. It's the public ledger that you can kind of think of as sort of the leader board or the scoreboard for gaming which is also why by the way the government loves Bitcoin because it makes tracing illegal or criminal activity very easy. Now all these transactions that get sent to the Rubik's cube are just going to be waiting there to be confirmed or made official. The way we make them official or to confirm them is we actually solve the Rubik's cube. It's a limited size. There's only so much data we can fit inside of one Rubik's cube which means that in every 10 minutes we have to jump to a new block with this entire process gets repeated over and over again. So just imagine that every time it gets solved, it cracks wide open and out of it come the Bitcoins basically. To keep things fair because technology and computers get better and better and they evolve and get more efficient, every 2016 Rubik's cubes or roughly in every two weeks the difficulty in solving these Rubik's cubes increases. That's just to make sure that we don't invent a computer that's suddenly powerful to just mine all of the Bitcoins out of the space. To control inflation, which is something that the governments of the world have typically not been very good about, Bitcoin was designed to be a deflationary type of asset which means that instead of printing more money over time, there's only going to be less Bitcoins introduced into the economy over time. This happens roughly every four years when a miner solve the Rubik's cube, that reward gets cut in half, and then in half again every four years systematically which is also why the last Rubik's cube will be solved sometime in the year 2140. So we've definitely got some time. But the reason that Bitcoin is so valuable on a technical level is because it is the best form of money that human beings have ever created up until this point in history. It's also very scarce. It's very rare and it's also the first one that we've ever made. So Bitcoin has a lot of advantages over other forms of money and here's a few examples. To be considered a good form of money, money has to have five things and the first is called divisibility. So gold for example is pretty bad because I can't divide it exactly and precisely to however much you need and then pay you for any goods. The dollar is only divisible up to 100 pennies. Bitcoin on the other hand is divisible up to 100 million times into individual units called satoshis which is a tribute to the creator or the group of people who created Bitcoin. The reason that divisibility is so important to a type 1 economy is because it allows us to go more on demand and one that's based on consumption. For example when we pay for our phone bills we pay on a monthly plan. Well, imagine we paid for only the data that we used up to the precision of eight decimal points if that's how precise we need to be. That allows us to transition to a potentially better form of taxation because instead of taxing people's incomes, we'd focus on taxing people's consumption levels. So if you're somebody wealthy and you're a billionaire with yachts and jets and mansions and Lamborghinis, you'd instead be taxed on the consumption and the effects that you'd have on the environment. The second thing a good form of money has to have, is durability which means how strong money is. So gold for example is pretty bad because you could easily melt it down and mix it in with impurities therefore just destroying its entire value. The dollar is arguably even worse because you could destroy paper money pretty easily as well. The third thing that it has to have, is that it has to be rare. That seems like an easy one for good money to have but it took human beings a really long time to come up with a standard that we were all happy with because the people that lived near the beach, obviously wanted to use seashells because that was rare. So it took us forever to settle on the gold standard just because we found out that gold was relatively evenly spread throughout the earth and it was hard to get for pretty much everyone equally. The dollar is the exact opposite of that because we print the dollar, sometimes in the billions of dollars per day. That's also why people say that your money loses to inflation. It loses value because we continue creating more and more every single day. The last thing a good form of money should have is uniformity and acceptability. By acceptability, it means to be accepted worldwide from your local grocery stores all the way to your website. The second thing is uniformity which means it should be exactly the same from each unit of measure where you can't tell the difference between the two. That's also referred to as fungibility. Fungibility just means that there's no way for us to discriminate from one unit to the other. Bitcoin actually has a problem here because we can trace the origin of each Bitcoin from wallet to wallet back to the beginning which means in theory, the government can look at where your money has been and then argue against you that your money was involved in some illicit activity, therefore we're going to repossess it and now it's ours. So as you can see that some Bitcoins that are pure and weren't involved in anything sketchy would be more valuable than ones that aren't. But I do think that it's eventually going to be solved because it's a privacy issue solved by things like shufflers and mixers. So for example if Bitcoin A was stolen and Bitcoin B wasn't, what you would do is you would then break it up into satoshis and then you would mix the two up together before sending that transaction which means now you don't know which coin was A or B. Now the problem solved. All of this stuff about money, we've known for a long time but it's finally now that institutional hedge fund managers are starting to realize it and they're finally starting to see the light. That's why we're seeing billions and billions of

dollars poured in from their hedge funds into Bitcoin. But that's the narrative. The reality is that those people are extremely intelligent and they along with corporations and banks have quietly been buying Bitcoin behind the scenes, all the while telling everyone else that it's just a scam. That's because back in 2017 it wasn't cool to admit that you had any Bitcoin. Now it's cool among the rich kids to admit to themselves how much money they actually have in Bitcoin. By the way by rich kids I mean very intelligent very successful billionaire hedge fund types that have finally started to reveal their bags to us. So December 16th was a monumental day for investors because it broke past the psychological barrier of 20,000 dollars and it's seemingly increasing every second. The best part about this, is that this time unlike 2017 its smart money because this time we don't have a crazy spike in Google searches and all these retail investors that are FOMO-ing into it. That'll be part of the process soon, but for now it's just smart money at the addition of PayPal accepting it and all these other institutional investors that are joining in, along with the biggest factor of them all which is economic uncertainty and the Federal Reserve’s policy of infinite quantitative easing. This is not normal and should not happen in a healthy economy but when times like this happen, that's when assets like gold and like Bitcoin increase in price like crazy. In fact we even had Scott Minerd who is the Chief Investment Officer of Guggenheim Investments who just recently publicly came forward and admitted that his billion dollar hedge fund was buying Bitcoin since it was at 10,000 dollars. His team believes that the fundamental value of Bitcoin is 400,000 dollars.
To read the full article on this story, please visit:
https://www.bloomberg.com/news/articles/2020-12-16/guggenheim-s-scott-minerd-says-Bitcoin-should-be-worth-400-000
So there's no telling how high the Bull Run will go but in the meantime be ready for a wild ride as we continue to crash forward and set new record highs. If you are investing in this, please be careful when investing and don't put in more than 10% of your net worth into this asset unless you're a huge believer and you 100% understand every concept of Bitcoin. If you can hold on to it and if you don't speculate too much on it, I do think you'll be highly rewarded. Additionally, due to its volatile market and because it has no opening or closing value, you can trade it 24/7, hence traders just love Bitcoin as a trading instrument.

Chapter 2 Best Crypto Exchanges

In this chapter I'm going to take you through some of my top cryptocurrency exchanges. If you're just getting into cryptocurrency and buying your very first Bitcoin or if you're an experienced trader looking for the best cryptocurrency exchange for you, it can be tough. With so many things to consider in terms of liquidity, trading volume, fees, how safe they are and whether or not the platform is actually supported in your region. Well don't worry because I am going to take you through some of the cryptocurrency exchanges that I've personally used over the years and run you through some of the factors that lead them to be part of my top picks. Just a word of warning though, no matter which exchange you use, nor how safe it's reported, you should never keep large amounts of funds stored on there. It's always much safer to withdraw your coins back to a secure personal wallet such as a hardware wallet like a Ledger or a Trezor where you have control over your private keys and therefore your funds. First up, let me talk about Binance. Binance currently dominates the global exchange space, making up a significant portion of crypto trading volume daily. In my opinion, Binance is one of the best cryptocurrency exchanges out there with a strong focus on altcoin trading. As a regular leader of the cryptocurrency spot exchanges, in terms of traffic, liquidity and trading volumes on the likes of Coinmarketcap, it really shows that people trust the platform and that there's going to be more competitive prices available. Binance offers hundreds of trading pairs between different cryptocurrencies and although it does offer some fiat to crypto pairs, most of its pairs are between cryptocurrencies. You can start by buying crypto with fiat from the site using third parties, bank transfers and credit or debit cards. They have some of the lowest trading fees of any exchange starting at 0.1 percent which can then be reduced further depending on trading volumes, promotions or you can get these even lower by using their own BNB coin. Binance not only have an exchange but they have a whole host of financial services including staking, liquidity pools and swaps as well as derivatives education and their own trust wallet. In terms of how safe Binance is, Binance did have a security breach in 2019 where it was hacked and resulted in 40 million dollars of Bitcoin being stolen. However Binance refunded all affected investors and is deemed as a safe platform since.
Next is Coinbase and Coinbase pro which in contrast to Binance can work out quite expensive in terms of fees. However Coinbase is very user

friendly and most people getting into crypto do tend to start here. Especially with sign up offers such as their ten dollars of free Bitcoin. The interface is easy to use and ideal for newbies with their simple buying process.
However these newbies will soon be aware that Coinbase has some of the highest fees in all the exchanges, ranging from 1.49 to 3.99% for trading on Coinbase and from 0.5 percent on Coinbase pro which has a wider range of tokens and is more aimed at experienced traders. Coinbase supports customers in over 30 countries including the united states most of Europe, Singapore, Canada and Australia with some very high volume and liquidity. Plus their Coinbase earn feature is one of the best ways to get your hands on some free crypto where you can earn up to 177 dollars in altcoins by taking some quizzes and learning about each crypto. Another thing that makes Coinbase one of the top crypto exchanges is the fact that the platform is very secure. While there have been multiple different attempts to breach the exchange's security, Coinbase is yet to suffer a huge hack and they store 97% of Bitcoins offline. Coinbase has however got quite a negative press in the crypto community and this is mostly due to their poor customer services and tracking of how and where you spend your Bitcoins which has led for Coinbase users to start to find alternatives.
Next we have Kraken which is another great option for newbies with a simple and basic interface to get started with. Whilst at the same time being a good option for more experienced traders too and one of the oldest exchanges and have been operating since 2013. It offers users more than 150 different cryptocurrencies to trade, buy and sell. Plus you can trade with different fiat currencies including USD, Japanese Yen, Canadian dollars, British pounds, Euros and Australian dollars, meaning you don't need to visit other exchanges before you start trading. In terms of fees, Kraken takes anywhere between zero up to 0.26 percent from your transaction which is pretty low in terms of cryptocurrency exchanges. But it will obviously depend on your trading amount. Their trading volume and liquidity is high too with a ranking on Coinmarketcap at number five, and they also have some great staking options and rewards too where you can stake the likes of polkadot, cosmos and tezos. Not only that, but in some countries you can even stake fiat currencies too such as Euros and US dollars. Kraken isn't only popular for being a cryptocurrency exchange with some of the lowest fees, but it's also considered to be a very secure space to trade crypto coins with most of its cryptocurrency being stored offline.

Next, let's take a look at KuCoin. KuCoin is one of the newer platforms on my list and they were created in 2017 and allow you to buy and sell 200 cryptocurrencies worldwide. They have a relatively high liquidity, a high number of users and a wide selection of supported assets and services. This exchange is another great option for low trading fees where you'll be paying 0.1 percent of the amount that you're buying. There are several trading options available to suit different trading levels, including spot trading, instant exchanges and margin trading. Plus you can earn crypto with KuCoin crypto lending, staking, soft staking and KuCoin shares bonus. KuCoin have not reportedly been hacked, however there are still quite a new exchange and they offer two-factor authentication as an extra level of security too. Additionally, it does not force KYC checks on all of its users which is great for those that are more privacy conscious.
That moves us on to Uniswap which is an automated token exchange based on the Ethereum blockchain that launched in 2018. Unlike centralized exchanges Uniswap has no order book for executing trades. Instead, it allows users to trade without a middleman or third party with a high degree of decentralization and censorship resistance. This may not be suited for the newbie first getting into crypto as you'll need an understanding of DIFY and already have some Ethereum in your wallet to get started. But DIFY platforms have certainly risen in popularity over the past 12 months. Although the volume and liquidity does not match the most popular centralized exchanges, its average daily trading volume can be up to about 200 million dollars making it the largest DIFY exchange. There are endless options of ERC 20 tokens available in Uniswap. Their trading fees are 0.3 percent but there are also Ethereum gas fees to pay which will depend on how congested the Ethereum network is. Uniswap also offer users to become liquidity providers and earn up to 0.3 fees on all of the trades, proportional to their share in the pool. Unlike a centralized exchange, with a decentralized exchange you are in control of your funds therefore it's pretty safe. However, because anyone can list a token on Uniswap and its decentralized nature means that there's no review process, it's easy for scammers to create a token with a name similar to a popular DIFY platform and trick users into purchasing worthless tokens. But Uniswap have tried to resolve this using token lists.
To check out these exchanges, please visit the following links;
Binance → https://www.Binance.com/en

Coinbase → https://www.coinbase.com/
Kraken → https://www.kraken.com/
KuCoin → https://www.kucoin.com/
Uniswap → https://uniswap.org/

Chapter 3 Best Mobile Wallets for Trading Crypto

Are you constantly on the go? Or do you just hate the inconvenience of being chained to your computer to manage your crypto? Well if that's you, then chances are that you can benefit from a top-notch crypto mobile wallet. All that begs the question. What is the best crypto mobile wallet? Well, in this chapter I'm going to answer exactly that. I'm going to reveal my five favorite crypto wallets and tell you about the pros and cons of each. To kick things off, I'm just going to give you a brief overview on why you might consider using a crypto mobile wallets in the first place. You don't need a rocket scientist to tell you that a crypto mobile wallet allows you to manage and store your coins on your smartphone. So why bother with all the hassle of downloading an app setting it up and moving your coins off an exchange? Well most crypto newcomers do not know this, but keeping your crypto on an exchange is almost never a good idea. The reason why is that when you keep your coins on that exchange, you're more or less giving up ownership and control of your coins. After all, that exchange holds the private keys to your crypto. What that means is that you are forced to trust the crypto exchange and it also means that if it's hacked then you can literally lose all your funds. Am I sounding like a paranoid conspiracy theorist that feeds off scare mongering? Well it's probably for good reason. Hacks actually happened quite frequently in the crypto space. One of the most famous examples of that was the MTGox hack which saw over 850,000 Bitcoin liberated from the exchanges coffers. More recently an Italian exchange called BitGrail got hacked for 170 million dollars in crypto and you then had problems over at the largest Canadian exchange Quadriga CX which led to users losing over 119 million dollars. Honestly I could write a whole book on going through all the different exchange hacks but I won't bore you with all that. I think you get the picture. Another thing to know is that there are also some exchanges suspected of running fractional reserves with some users reporting issues when it comes to getting their funds off the platform and withdrawing them. That is why so many people in the crypto burse repeat the same phrase to crypto newbies; “not your keys, not your crypto”. Seriously, those coins you think you own on an exchange are merely a promise from that business that you earned them and nothing more. So that's basically one of the main reasons people use offline wallets where you hold your keys. Mobile wallets also have the added benefit of portability and being easier to access. Let's face it, we're all glued

to our smartphones now days. That means they're also ideal for actually buying things at bricks and mortar stores with crypto being able to check your balances on the go and sending or receiving a payment or two. I want to share my five favorite mobile wallets with you now. That way you can own your private keys and access that crypto wherever you are.
At the number five spot I have the Ledger Nano X. The Ledger Nano X is a hardware wallet that allows you to store your crypto on a physical device which looks similar to a USB Drive. These devices store your private keys within the device itself and don't expose them to the outside world. All that literally defends the keys to your crypto fortune against a plethora of cyber attacks and secures them with a pin number. That means that any would-be crypto thief is going to either have to get your device in their hands and know your PIN code or they can try and guess your twenty word Recovery seed. The Ledger Nano X also comes with a top notch mobile app for Android and iOS called Ledger Life. The app pairs with your hardware wallet device via bluetooth and allows you to securely manage the 1,000 different cryptocurrencies that are supported by the device. Another cool thing is that the app can be secured by either touch ID or face ID for that extra peace of mind. So what does this app allow you to do? Well you can manage your ledger balance see your transaction history and send or receive funds. All that whilst enjoying Fort Knox levels of crypto security. Now you might be wondering why I have this top-of-the-line crypto hardware wallet at number five. Here's the downer. If you want to actually send a transaction using the app, you'll need that Ledger Nano X with you. That's because you need to authorize any transaction you send on the physical device itself. That means that if you are out and about and have forgotten to bring your Ledger Nano X along you won't be able to send any payments at all. Also imagine the hassle of trying to buy something in a bricks and mortar store with that kind of setup. It's simply not the fastest or most elegant solution out there. Truthfully, other mobile wallets do a way better job when it comes to actual real world crypto payments. Another thing to note is that it's obviously great to have the best crypto security money can buy, however is all this fuss really worth it if you're literally going to spend a few dollars buying that coffee from Starbucks. For that kind of use case it's a bit like getting a safe installed in your house to store a five dollar bill, a little overkill on the security front. The final issue I have with ledger live as a mobile wallet is that it might encourage some pretty big HODL-ers to

walk around with that Ledger Nano X in their pocket. After all most people get these devices to store quite large amounts of crypto securely and that's typically thousands, tens of thousands or even hundreds of thousands of dollars in crypto currency. I don't know about you but I don't think it's a good idea to be walking around with that kind of money in your pocket. You're nearly begging to get mugged. All that being said, I do own several Ledger Nano X’s. The reason why is due to the device supporting over 1000 crypto currencies literally you could close your eyes and point to a random coin on Coinmarketcap and the chances are you could store it in a Ledger. On top of that, Ledger is the most secure wallet I know of. Literally the only security breach I have heard of is when scams buy Ledger's open them up to generate that recovery seat and resell them to unsuspecting people. The crooks then sit there and wait for the buyer to ship their crypto into their ledger and access it using the recovery seed. The good news is that you can avoid that problem entirely by only buying this device from the official Ledger store. So who is the Ledger mobile wallet for? Honestly, if you want to go out there and spend crypto in stores then I recommend you choose another wallet from my list. However if you're the type of chap that loves trading big amounts on their mobile away from a computer, then you should certainly consider using Ledger as a mobile wallet to store those funds securely as soon as you've finished that trading session. Entrepreneurs who don't have access to their laptop constantly and often need to make pretty sizable and time-sensitive crypto payments to keep their business running, could certainly benefit from a Ledger Live and Ledger Nano X combo. To get your hands on that Ledger Nano X, you'll need to shell out 119 dollars and the Ledger Live app is entirely free. For that money you get the best crypto security money can buy. However I somehow doubt that this sort of cost is worth it for most mobile wallet users. Particularly when you consider the practicalities of using it on the move.
At number four I have the Coinomi mobile wallet. What you need to know is that Coinomi is one of the OG-s in the crypto wallet space and that it's been kicking around since 2014. Coinomi only offers a completely free mobile version of the wallet for both iOS and Android. The main driver behind the popularity of this wallet is that it supports over 1,700 crypto assets. So if you like to speculate to accumulate and dabble in your fair share of low cap altcoins then Coinomi is the mobile wallet for you. Honestly, the mobile app is super clean and I'm a massive fan of it's easy to

use interfaces. Another area where this wallet excels is in privacy. That sank to the people at Coinomi hiding your IP address which means that if you're the kind of person that likes to view a bit of paid for raunchy content on the go then this wallet is the way to go. Also your private keys are stored securely on your phone and not on Coinomi servers that means you have full control of that crypto. The Coinomi app also makes tax reporting easy by allowing you to export all your transactions in just a few taps. It's also compatible with crypto domains like .crypto, .eth and .dill which means that you can send and receive crypto easily to and from this app, using that hot crypto domain you might have purchased. Another top feature of this app is that it allows you to cold stake a bunch of coins and earn passive income within the wallet app. Also you can trade cryptos using the app thanks to its integration with Changelly. If you want to make store purchases using a mobile wallet, then Coinomi has you sorted with its QR code scanner. However some users reported that the app crashed while trying to use this feature a few months back. I've not had any issues with that but that might be something to watch out for. Finally the app has full support for ERC71 tokens which means you can store access and manage your earth collectibles from your smartphone. So is Coinomi the wallet for you? Well, if you're the type who either likes to hold exotic coins, values privacy and has got into Ethereum based collectibles then you should certainly check out this wallet.
At number 3 I have the Trust wallet. This really is a first-class option for anyone wanting to carry their crypto on their mobile. The app is free and you can get it on both the Apple app and Google Play stores. Trust wallet is yet another mobile crypto wallet and it's even able to interact with decentralized applications through the app, thanks to its web free browser. What that means is that if you're partial to a bit of dap gaming then Trust wallet has you covered. The app is completely open-source. That means that the underlying code is open to anyone to audit and check out. In the crypto space this is viewed favorably because it means that the community is able to vet the code and confirm the security of the app. Another bonus is that this wallet works perfectly with the KNC network protocol and the Binance decks. What that means is that you can make instant decentralized trades through the app with no fuss. Those that are inter staking have not been forgotten about in this mobile app either. Here you can stake the likes of Tezos, Tron and Cosmos. When it comes to coin support, Trust wallet

supports a ton of them. That means pretty much every major cryptocurrency all ERC 20 tokens and all tokens issued on Binance chain or the Tron blockchain. Speaking of Binance, the king of crypto currency exchanges has made Trust wallet their official wallet after acquiring the app back in 2018. A pretty strong endorsement indeed. In short, I believe that Trust wallet to be the perfect option for pretty much anyone wanting a free multi crypto wallet app.

I've given the second spot to Atomic wallet. If you like the idea of beautiful looking interfaces, then I can nearly guarantee that you'll love this wallet. The mobile app is available via the Google Play and Apple app stores so you can get your hands on this wallet regardless of what smartphone you have. One of the key selling points here is the large number of coins you can stake within the app. Right now you can generate passive income on the go with all the coins right here. You can also buy and sell crypto within the atomic wallet app due to its integration with Shapeshift and Changelly. There is however the option to buy crypto with fiat however the minimum fee is $10 and you'll end up paying about 7% in fees. That's frankly ridiculous and I recommend you look at other options if you want to do that. Atomic has got that QR code scanner so if you want to hit the high street and pay for that item with crypto, then it's no problem with this mobile option. So who is Atomic wallet for? Well honestly if you're looking for a great looking mobile wallet with some of the best staking support out there then you should definitely give Atomic wallet a try.

Now it's time to discuss my mobile wallet champion and it's going to have to be Exodus. The Exodus wallet app is literally the most beautiful crypto app I've ever seen. The portfolio tracking screen is stunning, which makes it super easy to monitor your portfolio and see what the state of play is at just a glance. You can even secure the app with face or touch ID and Exodus encrypts both your private keys and transaction data on your phone so that no one but you can access your crypto. When it comes to coin support, Exodus is highly likely to have you covered with over 100 different cryptocurrencies supported. If you are a pro altcoin prospector then it's unlikely you will be able to find support for those random altcoins so you're probably better off using the likes of Coinomi. The Exodus mobile wallet also has an inbuilt exchange which makes it super easy to make those trades when out and about. Really useful if you ask me however a word of warning; you will pay a premium for the convenience of using that inbuilt exchange and to spread it between 2% to 5% is charged by Exodus on every trade you make here. To put that into context the decentralized exchange Changelly charges just 0.25% in fees per transaction. So if you use Exodus to trade you'll be paying through the nose for that convenience. Still, this is basically how Exodus manages to fund such an amazing free wallet service. This app does have a QR scanner feature which allows you to send or receive crypto effortlessly. That's pretty handy if you found that store which accepts crypto and you don't want to mess around when it comes to paying at the checkout. Something that I really respect Exodus for, is that they're the only crypto wallet company I know of that offers 24/7 live chat support. That's customer support with a real human being. You can access that within the app and get those questions you have answered within minutes. Finally, one other thing I need to let you know is that there is no flexibility within Exodus to choose your transaction fees. You will literally be forced to send every transaction with a default fee. That's not normally an issue for me however if that matters to you then you might want to use a different option. Who is Exodus for? Seriously, whenever any of my friends ask me to recommend the mobile wallet, I always suggest Exodus first. In my opinion it's the most beginner friendly wallet out there. It has that 24/7 customer support, great coin support and it looks beautiful. There are a few features I'd like to see added like the ability to change transaction fees and the wallet lacks some of the features that other wallets on this list have. Still with all that said I think that Exodus is probably the best mobile wallet for the vast majority of people out there. I would definitely recommend you give it a go.

That's my lists for the top 5 mobile wallets in crypto. Honestly, the best mobile wallet for you will depend on a variety of different factors like what coins you want to store and ultimately how you intend to use it. There is no one-size-fits-all here. I do want to talk about how I personally use mobile wallets and give you a few handy tips. Now although the wallets mentioned are all pretty safe in my book mobile wallets in general are more vulnerable than other types of options like Hardware wallets. So I really would not recommend that you store any meaningful amount of funds on them. However mobile wallets are still a sight better than leaving your funds on a crypto exchange. Personally I always keep the vast majority of my crypto portfolio secure in a Ledger Hardware and only keep $100 or so in my Exodus mobile wallet. That's convenient when I come across a cafe that

accepts crypto or I want to send my mate some to play around with. However it seemed that I hardly ever spend more than that when I'm out and about. It doesn't really make sense to keep hundreds or even thousands of dollars on a mobile wallet. It's a bit of a pain having to carry around your Ledger Nano X to send a transaction with the ledger live app. However I would honestly recommend using that solution if you intend to make any big ticket purchases with crypto. So if you are heading off to the Lambo dealer to get your hands on that fancy supercar for the love of God, don't load up your exorcist mobile wallet with a few hundred thousand dollars worth of crypto and bring that to the dealership. If that were me I would go with the slightly cumbersome Ledger Nano X and Ledger Live combo.
To check out these wallets, please visit the following links;
Ledger Nano X → https://shop.ledger.com/pages/ledger-nano-x
Coinomi → https://www.coinomi.com/en/
Trust wallet → https://trustwallet.com/
Atomic wallet Apple Store → https://apps.apple.com/us/app/atomic-wallet/id1478257827
Atomic wallet Google Play Store → https://play.google.com/store/apps/details?id=io.atomicwallet&hl=en_GB&gl=US
Exodus → https://www.exodus.io/

Chapter 4 Best Hardware Wallets for Trading Crypto

Many crypto investors wonder; what is the safest way to store their coins? After all there's surely nothing worse than thinking you're a crypto millionaire and checking your balance only to find that all those cryptos have vanished in a puff of smoke. That is why so many people have decided to get their hands on the most secure crypto wallets money can buy. So what type of wallet am I talking about here? Well, that would be a crypto hardware wallet and in this chapter I'll reveal my five favorite hardware wallets on the market right now as well as the pros and cons of each. I also have a few top tips to further upgrade your crypto security so to kick things off I want to go over the various ways you can store your crypto and explain why you might want to opt for that hardware wallet in the first place. Most crypto newcomers simply buy their cryptocurrency on an exchange and leave it there. After all, doing that is a convenient way to store that crypto. Honestly, most crypto veterans will tell you that is not a good idea. The reason why is that you don't actually have the private keys to your crypto and that means, you don't control it. Essentially, you are the proud owner of an IOU issued by a company. Not an ideal situation. Even if that crypto exchange operates honestly, you're still trusting that they will be able to keep your crypto safe. Here's the thing. Exchanges typically hold hundreds of millions of dollars' worth of cryptocurrencies for their customers if not billions. That makes them a dumb tempting target for hackers and sometimes these online pirates actually succeed in raiding those exchange coffers. Many exchanges collapsed and left their users holding the bag. Then there are some of those dodgy exchanges that end up pulling a fast one on their users. Some completely collapse like Quadriga CX or others restrict withdrawals and make it impossible to get your coins out. There are a lot of exchanges out there and one can't paint them all with the same brush. Indeed, security at some of these exchanges is super secure. But the point remains; you cannot be 100% certain of the security of your funds. The next best thing you can do is to take control of your crypto private keys and the most common way of doing that is by installing a wallet application on your smartphone or computer. The main advantage of this type of crypto wallet is that they are typically completely free to use, super convenient and they put you in the driving seat by giving you possession of all of those important crypto private keys. The downside is that those keys are exposed every time you connect to the internet. That means that if you download a malicious app or get a virus on your computer then a hacker could steal all your crypto. This is why so many people only choose to store small amounts of cryptocurrency in these types of wallets. They are amazingly useful when it comes to buying your first coffee with crypto but I really wouldn't recommend for storing any meaningful amount of cryptocurrency. Then you have paper wallets. These were popular back in the early days of Bitcoin however I really don't know anyone that uses them today. The main reason why is because they're super hard to create without using a network device like a printer so they are insecure. They encourage people to reuse crypto addresses; bad for privacy. Finally, they are pretty easy to lose or spill water on. So that brings me on to the final kind of wallet; the hardware wallet. I'm not going to beat around the bush here and just say that if you have more than a few thousand dollars in crypto then you are probably going to want to get one of these. So what are they? Well, hardware wallets are physical devices that act a bit like a flash drive and store your private keys. The key thing here is that the private key never leaves the hardware wallet. The entire transaction validation process is done on the hardware wallet itself. That all means that your private keys are never exposed to the outside world and that you can use that hardware wallets safely on a computer even if it has been compromised. This matters because the main purpose of hardware wallets is to protect against remote attacks. Indeed, according to a Binance security survey the biggest perceived threat on crypto holders minds was just that. So if you're like the majority of people and are worried about remote attacks like malware and viruses then a hardware wallet is what you want. Another key benefit of hardware wallets is that unlike paper wallets, they are pretty practical to use. So even if you need to send a bunch of transactions a month, you really shouldn't have any issues here at all. Before you get the impression that hardware wallets are a fail-safe way to store your cryptocurrency securely, I do want to bring up two key vulnerabilities. The first is that any wallet is still susceptible to what the kids call the five dollar wrench attack. A hardware wallet isn't really going to protect you against someone kidnapping you and hitting you around the back of the head until you give them access to your crypto. The second vulnerability is buying your hardware wallets from an unofficial supplier. The reason why this is dangerous is that people have been known to buy hardware wallets, write down the seed words and resell them. These nasty pieces of work then wait

until the buyer loads up that hardware wallet with crypto and then they steal a lot. You can protect yourself from all that by only getting your hardware wallets from official stores. But if you see a discounted Hardware wallet on eBay, I would recommend that you run for the hills.
I now want to share my five top hardware wallets so you can decide which option is best for you. At number five I have KeepKey. KeepKey was founded in 2015 and was acquired by ShapeShift in 2017. The CTO who oversaw the development of this wallet is called Ken Hodler. With a surname like that he was always destined to do big things in the crypto storage space. Feature wise the KeepKey hardware wallet offers the most screen real estate for any device I've tested. So if your eyesight isn’t as good as it supposed be, then you should definitely consider this option. KeepKey also has full integration with ShapeShift. That means this hardware well essentially has a full crypto exchange right inside it. That's convenient if you want to trade cryptocurrencies in one of the safest possible ways. Like most hardware wallets the device is secured by a pin code and is backed up with a 12 word recovery phrase. When it comes to security, I do need to tell you that KeepKey has had one or two vulnerabilities. For example the guys at ledger basically discovered a way to extract pin codes from KeepKey devices. The good news is that this pin vulnerability required physical access to the device and it was fixed in a recent firmware update. When it comes to supported cryptocurrencies, KeepKey natively supports over 40 different coins. However you compare keep key with My Ether Wallet to store any ERC 20 token. I'm just going to be straightforward and say that KeepKey competitors allow you to store way more cryptocurrencies on. So if you're looking to hold a diverse portfolio of alt coins in a hardware wallet there are frankly better options out there. Is KeepKey worth it? Well I think this device lags behind the other hardware wallets on this list. One major gripe I have with keep key is the limited range of coins it supports. Personally I would rather have the option to store more crypto in general. I see that as more future proof for the needs of my personal portfolio. That being said I cannot argue with keep keys price point. At $49 is the cheapest hardware wallet. That makes it an ideal option for casual traders or newcomers to crypto who want to spend the smallest amount possible on a hardware wallet. But if your budget can stretch a bit further I do think there are other better options.

At number four, I have the Trezor Model T. The Trezor wallets are the original hardware wallets and they were first released by Satoshi Labs way back in 2014. The Trezor Model T is their latest device and it comes with a full-color touchscreen. However be warned. This premium hardware wallet comes with a pretty high washing price tag of a 165 dollars. The device has a USB C connector and allows you to plug in the wallet to either a computer or mobile phone. The thing to know here is that mobile support is for Android only. If you're looking for the easiest hardware wallet device to set up and use, you're going to want to get a Trezor Model T. Literally you just install it the Trezor bridge, install the latest firmware on your Trezor and you're good to go. You can have a look around the app but you won't be able to generate a wallet until you've backed up your device with some seed words. When it comes to this, I always recommend getting that pen and paper out to write those down immediately. Once you have these written down I suggest that you keep it in a really secure place. It is after all the master key. The really cool thing with Trezor is that once you have Trezor bridge installed you can access your crypto by simply going to Trezor.io, hitting wallet selecting Trezor Model T and punching in your PIN code. That means everything is in your web browser. But if you're using Safari, to stop your MacBook Pro from overheating, you should know that this browser is not supported. That means you have to fire up the likes of Google Chrome and get you crypto transactions done before your laptop has a meltdown. There is literally no point in getting a hardware wallet if the coins you want to store are not supported. The good news is that Trezor supports over 1,000 cryptocurrencies. Pretty much any crypto currency worth holding is supported and those that aren't supported, well the chances are they're probably not the type of cryptocurrency you want to hold. If you that want to store XRP, Tezo,s Monero or Cardano, you need to know that if you opt for a Trezor, you will want to get the model T. For some reason these cryptos are supported by this device and not the cheaper Trezor 1. So just be aware of that. Earning passive income through staking does seem to be all the rage right now and if you're into that you might want to think twice about getting the Trezor. These hardware wallets simply do not support the same range of staking options that its competitor Ledger does. So when it comes to security, all Trezor wallets do have a specific vulnerability you need to know about. In short, Kraken found a way of cracking into a Trezor in about 15 minutes by exploiting voltage glitching

in the device to get hold of the encrypted seed. The encrypted seed can then be accessed by brute forcing the pin number securing the funds. This all sounds super scary and you might be wondering why people still use Trezor. The main reason why is that this method of hacking each resort requires the thief to be in possession of your device. It really depends on whether you're worried about someone ever getting their hands on your device. When it comes to Trezor integrations the one that I definitely want to bring up is the partnership with Exodus Wallett. Exodus is hands-down my favorite free crypto wallet and given how popular it is, it seems that a ton of other people agree. What this integration means is that you can basically secure your Exodus wallet with a Trezor. That's pretty handy if you love using Exodus and want to upgrade your security. So who is the Trezor T for? Honestly if money is no object and you want the easiest Hardware wallet to set up and use, then you have to take a serious look at this option. But I do think that the Trezor 1 is better value.
At number three, I have the Trezor 1. It does not have a fancy color touchscreen and micro SD card backup and supports a few less coins but the Trezor 1 only costs 55 bucks. These extra features are simply not worth that sort of price difference to me. Pretty much everything else that I've said about the Trezor Model T applies to the Trezor 1. So if you want to go ahead and spend that extra one hundred plus dollars then be my guest. However if you're weighing up which Trezor to get and are a bit of a value hunter then chances are that Trezor 1 is for you.
In the second spot I have the Ledger Nano S. If you want to get your hands on one it will set you back $59. With Ledger Hardware wallets you'll be using the Ledger Live app to manage the applications installed on your device. You'll also be using it for your different cryptocurrency accounts. That includes things like sending and receiving crypto or even just checking your balances. With the Ledger Nano S you do need to be aware that you can only store four or five applications on it. That means if you have a portfolio with a ton of different coins and hate the idea of uninstalling and reinstalling apps, then you might want to consider another option. You might be thinking; everyone owns more than four or five cryptocurrencies. Well, it's not all that bad, because each separate blockchain will have their own app. So you can use the Ethereum app to store eve or any ERC 20 token. That means that only being able to have a couple of apps on your device at any one time is not as limiting as it may first appear. Ledger also

supports over 1,000 cryptocurrencies and the asset coverage is slightly better than Trezor. If you are into staking then Ledger also has you covered with support for popular staking coins like Tezos, EOS, Tron NEO, waves and more. Moving on to security, Ledger honestly provides the most secure devices on the market and there are no known hacks for any of their devices. Another thing to know about ledger is that it works with a ton of stuff in the crypto verse that includes things like integrations with popular web free wallets like MetaMask. So if you're looking to dabble in DEFY securely then you probably want to grab yourself a Ledger. So who is the Ledger Nano S for? Well, honestly if you only want to store a few cryptocurrencies and won't need more than a couple of apps on your Ledger, then this is the one to get. $59 is phenomenal value when you consider it buys the best crypto security on the market.

It's now time for my final hardware wallet pick and that is the Ledger Nano X. I've recently really been appreciating the bigger screen on the Nano X. Pretty much everything that I've said about the Ledger Nano S is true for Nano X. The key differences are that the Nano X will set you back 119 dollars. It's got that bigger screen Bluetooth connectivity and you can use it with the Ledger Live app on your mobile. The final major difference is that the Legend Nano X can store up to 100 applications on a single device versus, the five that the Ledger Nano S can store. Essentially, if you've got two Ledger Nano S-s which cost the same as 1 X, that would mean that you could only have 10 apps at the same time. 10 versus 100? You can clearly see why I think the Nano X is better value. So who is the Ledger Nano X for? Well if you think you can benefit from the bigger screen want to hold a boatload of different coins and like the idea of using your hardware wallet on the go, then this is the hardware wallet for you. For everyone else, save the extra money and get yourself the cheaper Nano S.

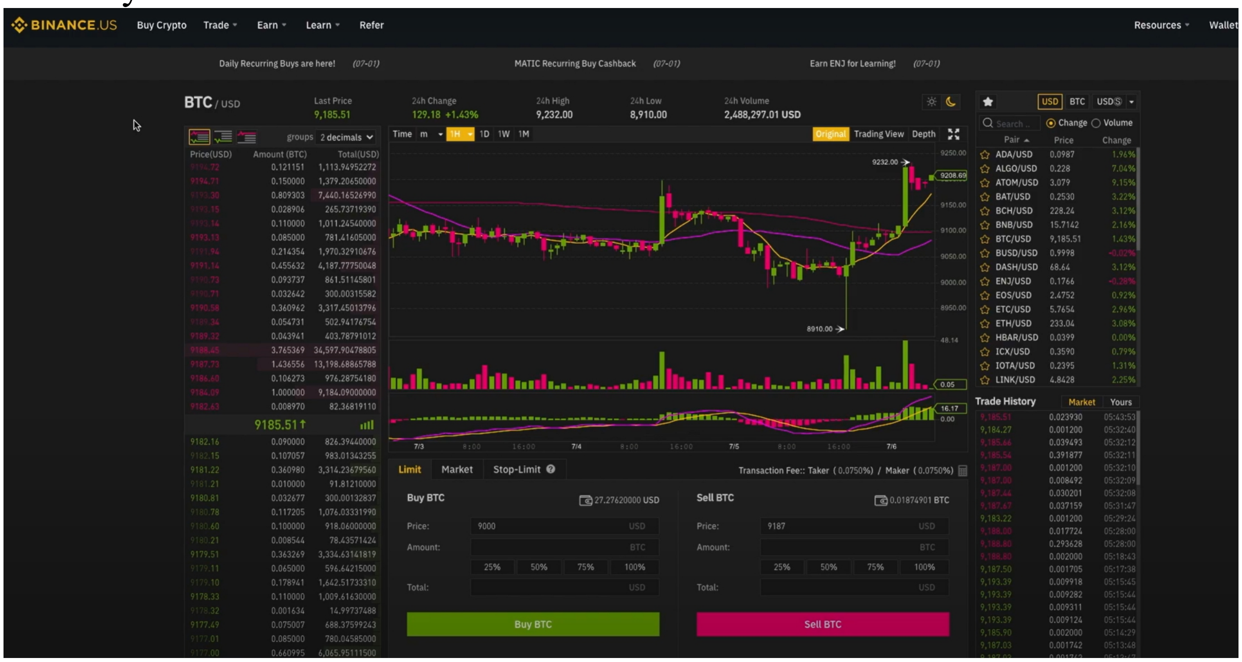
That is that my list of the top 5 hardware wallets on the market. The best hardware wallet for you will honestly depend on what coins you want to store. The functionality that you value, your budget and what level of security you're comfortable with. I don't think many people can go wrong with a Ledger Nano S, however if you want to screw the rest and get the best then I'd go for that Ledger Nano X.

How can you further upgrade your hardware wallet security? Well, here are my three top tips. Firstly, when it comes to storing your seed words instead of using the provided Hardware wallet seed card and using a normal pen,

you may want to opt for a more nondescript method. You can buy pens on Amazon that have ultraviolet ink. You can only view the writing under ultraviolet light. So you write out the seed in an old book of yours and store it in a hidden location. That way if you ever get burgled, the thief won't think anything of that ancient Lord of the Rings book stashed in your closet. Secondly, do make use of safe deposit boxes. For my cold wallet where I have most of my crypto stored I keep the device in one box at one location and then keep the seed in another box at a different location. Have to spread that risk. Then finally there are two methods that you can use to prevent that $5 wrench attack. The first is of course the most obvious don't tell anyone about your crypto or how much you have. The second one is a bit more of a trick. Both the Trezor and the Ledger allow you to create hidden wallet. Then if you're forced to hand over the password to your wallets, you can always give them the pin for the main decoy wallet with your primary funds hidden. Setting this up however is a bit more involved but you can find the required resources on both Ledger and Trezor’s website.
To check out these Wallets, please visit the following links;
KeepKey → https://shapeshift.com/keepkey
Trezor Model T → https://shop.trezor.io/product/trezor-model-t
Trezor One → https://shop.trezor.io/product/trezor-one-white
Ledger Nano S → https://shop.ledger.com/products/ledger-nano-s
Ledger Nano X → https://shop.ledger.com/pages/ledger-nano-x

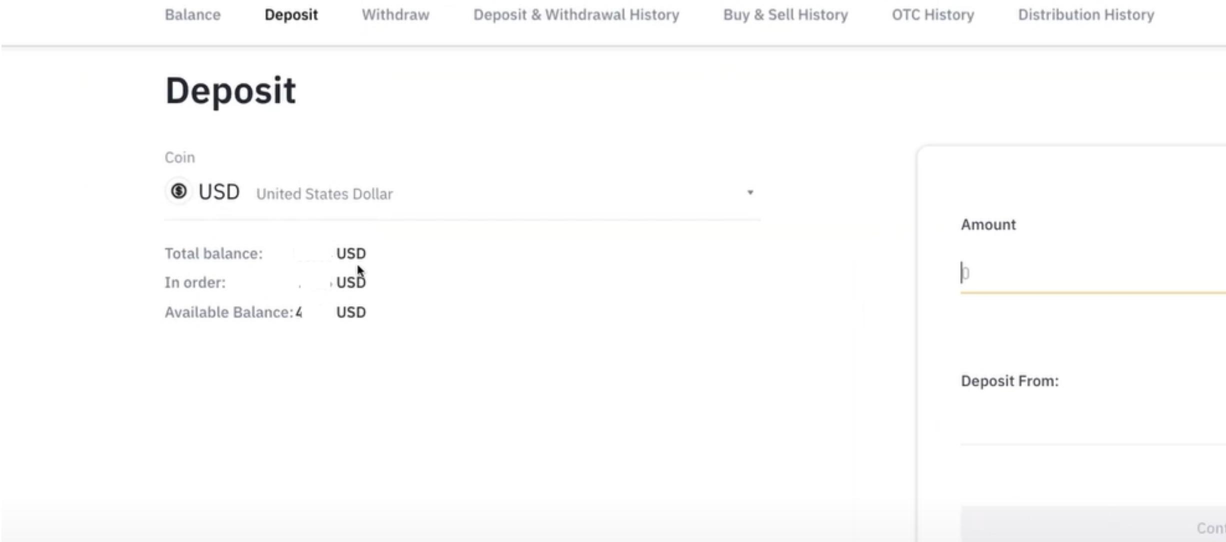
Chapter 5 Currency Pairs - Base and Quote

Now that you have a basic understanding of Bitcoin, cryptocurrency wallet technology and exchanges, it’s time to look into some trading basics. In this chapter I wanted to talk about some keywords that you should know when it comes to choosing what currencies to trade with and that is the base currency and the quote currency or what you might hear as the counter currency.

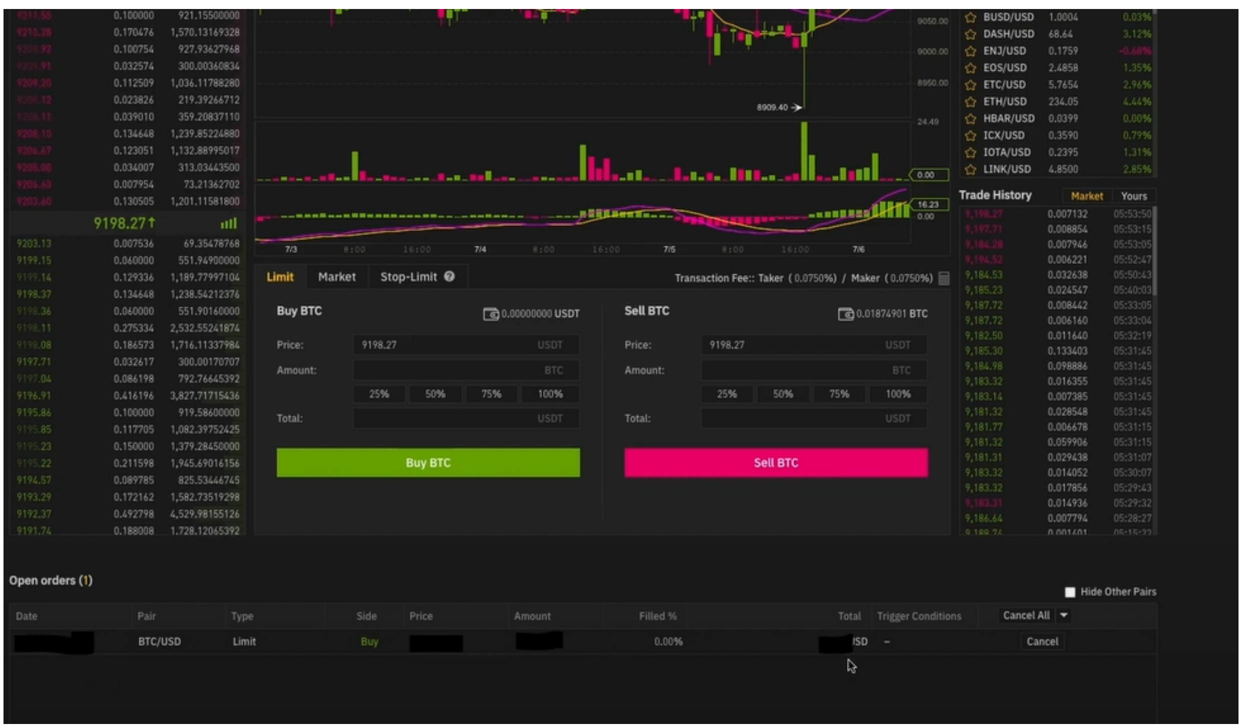


So for example in Binance you have BTC/USD. The first one on here Bitcoin is said to be the base currency. The second one on here is the quote currency. Whenever you see a pair like this, the one on the left is what we are buying and what we are selling. The one on the right is what we are using to buy and sell. So we're buying Bitcoin and we're selling Bitcoin using United States dollars. So we pay United States dollars for the Bitcoin and when we sell the Bitcoin we get United States dollars in exchange. There's a lot of different pairs that you can use. You don't just have to use BTC/USD although if your primary goal is to trade Bitcoin, that's probably the pair you're going to be using unless you're from a different country. If you're not on Binance.us you might have a different quote currency or counter currency but I'm using USD and that comes from what I deposit from my bank account. If you click on Wallet, then Deposit you are given the option to deposit Bitcoin, but you can switch it to a fiat currency too, in my case specifically for USD and put an amount coming from your bank.

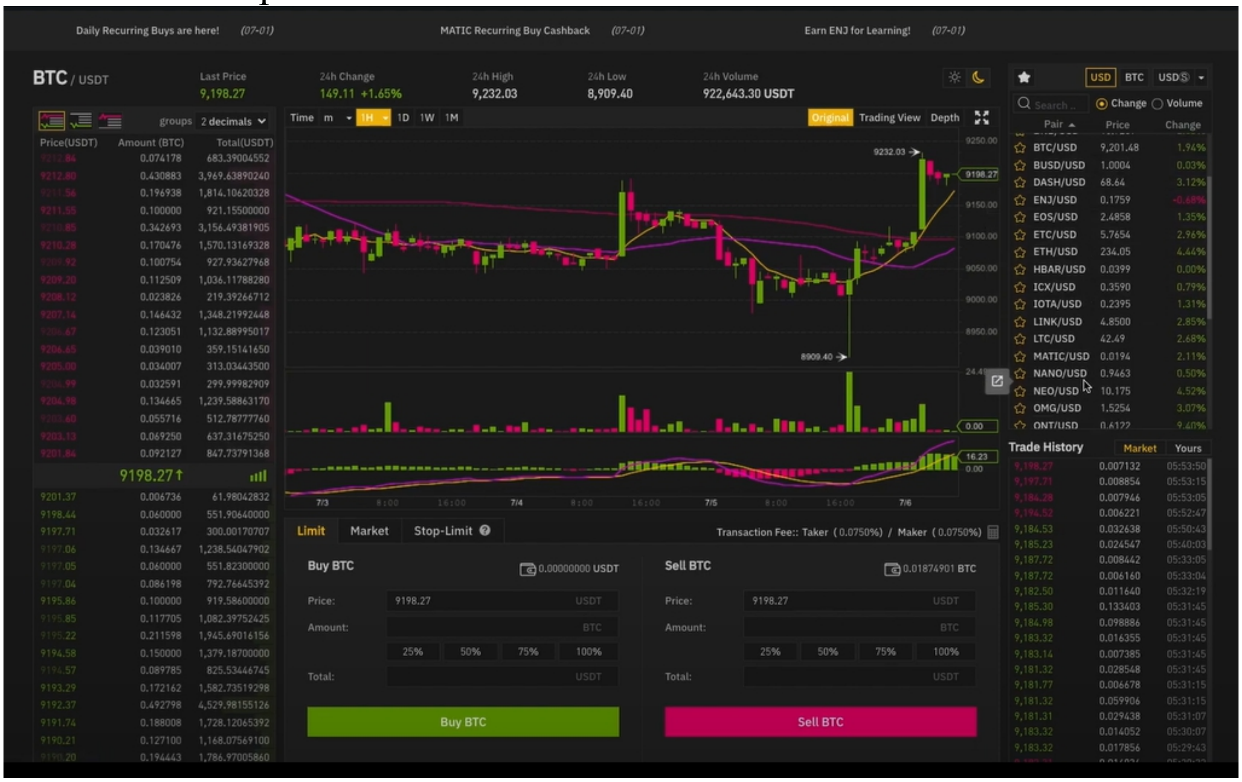
You'll also see a breakdown including “Total balance” and then there's an “In order” and “available balance”.



The available balance is what is available for us to use. In order is currently being held and we cannot use this amount. That's because it is currently being used in one of our orders. So if you go back and click on Trade, you can scroll down and you can see your open orders. You can see right here that this is an order.



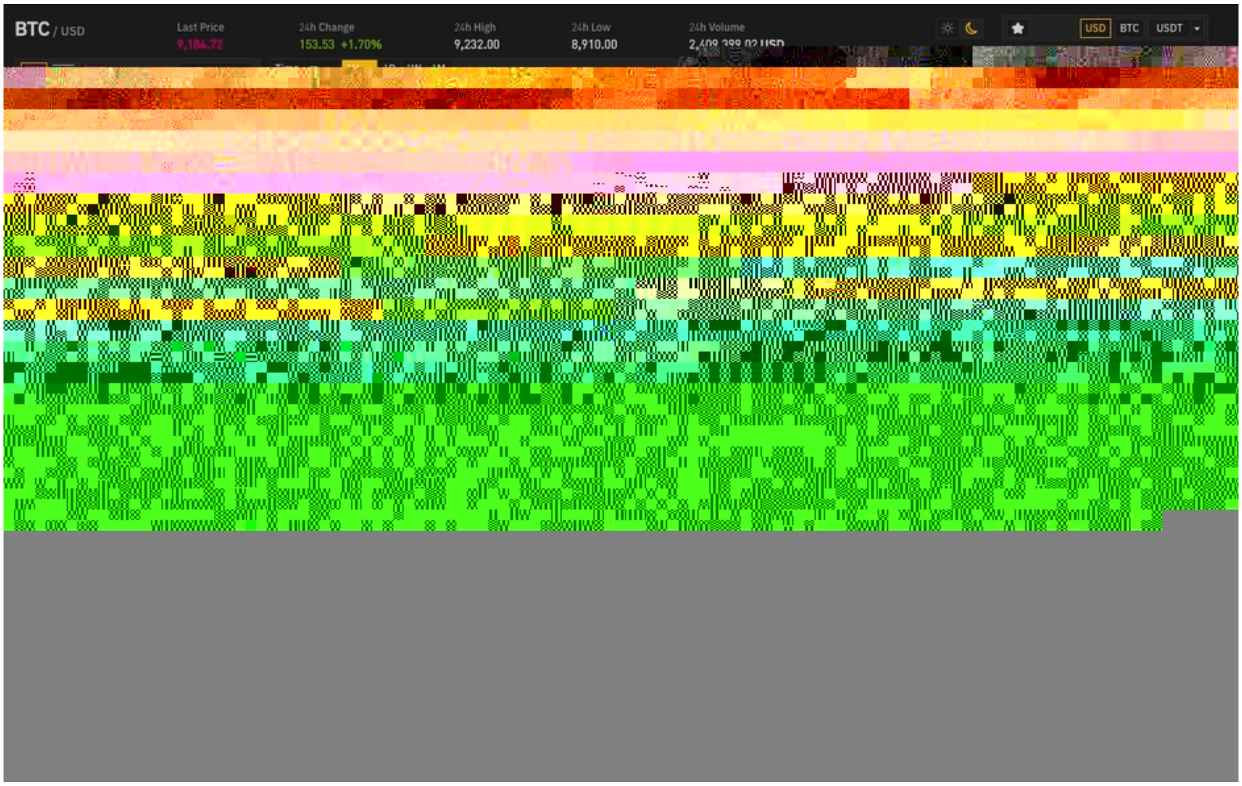
It basically subtracts that amount from our total available balance for use. Now let's talk a little bit more about currency pairs. Whenever we want to switch currency pairs we can go over here on the right and look at all of these different options.



On this list here you'll notice there's one thing in common between all of these and that is on the right there is always USD. What that means is that we are in a category where we are going to be buying and selling these cryptocurrencies using United States dollars. So Bitcoin is just one of the available base currencies here but there are a ton of other options. You might see ETH regularly which is Ethereum. Ethereum is one of the most popular cryptocurrencies besides Bitcoin and oftentimes in the cryptocurrency space you will hear everything that's not Bitcoin grouped as altcoins. So Ethereum would be an example of an altcoin although not everybody uses that phrase because it might just group things a little bit too broadly. Pretty much anything besides Bitcoin being an altcoin, however that's what that word means. A lot a of other different cryptocurrencies we can buy on this list for example XRP which is Ripple. Ripple is another popular cryptocurrency but you don't have to know all of these, I am just focusing on those very popular but if you're just trying to learn about trading, start with Bitcoin or BTC. If you want to change the quote currency or in other words if you want to buy Bitcoin using something besides United States dollars, you can actually do that. If you click on the USD drop down icon, there's a couple of different options for example there's USDT which is Tether. Tether is another popular cryptocurrency so if you're really familiar with Tether, you could use that as the quote currency. I would say beyond USD the second most popular quote currency is Bitcoin. You can buy and sell Ethereum for example using Bitcoin and you could trade one Bitcoin for x number of Ethereum and then sell that Ethereum for a certain number of Bitcoin. If you want to keep your hands out of the fiat currencies, then you might want to use a cryptocurrency for the quote currency. However if Bitcoin is your quote currency then it can't also be your base currency because that doesn't make sense. You can't sell Bitcoin to get Bitcoin in return. Whatever your base currency is, it has to be different than your quote currency. One benefit of using Bitcoin for your quote currency is if you created your Binance account and you did not go all the way through the KYC verification, you're still able to do crypto deposits and trading. That means that you could transfer Bitcoin into your Binance account and use that as your quote currency and do all of your trading without ever having to touch fiat currency or worry about identity verification. Then once you're done and you want to withdraw to get actual money, you could transfer that Bitcoin out of Binance to another exchange or another wallet such as Exodus wallet which is completely free. You can go into your wallet and then for any of the cryptocurrencies you have you can select “withdrawal” and then put a Bitcoin address in there. This was the introduction to currency pairs and in the next chapter we will look at the user interface.

Chapter 6 Order Book - Bids and Asks

In this chapter we are going to be talking about the order book. What is the order book? Well, the order book as what you see on the left side of the screen.



All these numbers that are regularly changing. The goal is to understand what is going on with these lists. Well the way trading works is that you put a buy offer or a sell offer in and whenever you do that it's added to this list. The green numbers are the buy orders from anyone who's currently trading at this time. The red numbers are the sell orders. The way you should think about it, is that the red numbers push towards down and the green numbers push towards up until they meet in the middle. The point is that the numbers meet in the middle to an agreed upon price. In order for someone to buy Bitcoin, the bid has to be higher than the ask. Once that happens that's when a new Bitcoin price is determined. Every time there is an agreed upon price, there's a trade and then the price is updated. You can see that price also on the right in the trade history where you should see the most recent trade price which is the same price you're going to see on the left between these two sections. You're also going to see it up on the screen where is labelled as "Last Price".

If you want to see your offer showing up on the list, just type in the amount you are willing to pay for a Bitcoin. But here you will have to put two figures in. One of them represents the lowest and the other is the highest price you are willing to pay and then click on “buy”. Once you have done that, you will see a notifications saying “Limit buy order created”. You will also see that is added to your list down under “Open Orders”. No matter how hard you look at the order book, you are not going to see in the order if it's not close enough to the current price. So for example if the price is 25,000 dollars but you put in a limit order for 18,000 dollars, while your buy order was created, it’s not close enough to the current price therefore it will not be visible within the order book. So instead you can cancel this order and try to get as close as possible to the current price. So if one of the ask is willing to take this price, the order will be met. Once this order gets fulfilled, you will see it within the open orders and it should appear inside of the trade history. Next, once it was fulfilled your open order will disappear and you should be able to see it over in this trade history. Next, you can do the same thing with selling Bitcoin but this time you have to click on “Sell” instead of “Buy” which is called a “sell offer”. Of course, you want to put in a higher price than what you bought your Bitcoin so that goes through then you will make a profit.

You don't have to just buy and then sell because you can do both at the same time as long as you know what you're willing to pay for it. You can place a buy order in and it’s going to be waiting in your open orders until the price of your crypto asset drops. This is how you can work with the limit option so in the next chapter we will cover the stop limit option.

Chapter 7 Stop Limit Option

In this chapter you will learn how the stop limit order option works. In order to understand this, it really important that you understand these other two options; the limit and market orders. If you already understand how they work that's great but I just want to make sure you are on the same page as me. So first let's talk about market orders. This is the fastest way to get in or out of the market. When you do a market order, you are not guaranteed a specific price, instead you are basically willing to buy the Bitcoin at the going rate and sell it at the going rate. Limit orders are a little bit more strict and you often have to wait for them to be fulfilled, so if you place a limit offer you will either buy a little bit less than what the value of Bitcoin is currently, or you will sell a little bit higher than what the Bitcoin value is currently. If you for example wanted to buy Bitcoin cheaper than the current price, you can put a limit order and that's going to go into your open orders which might not going to be fulfilled because there are other people willing to pay more than what you are willing to pay. But if the price were to go down then your open order would be fulfilled. That is how the market orders and the limit orders work. It just depends on your goal. If you're trying to get in or out of the market as quickly as possible, you will want to use a market order. If you instead want to be a little bit more strict and specify the price you're willing to pay or the price you're willing to sell for, then you would use a limit order. The stop limit is a little bit more complex but the way it works is you're basically going to say that you are willing to put in a limit offer once the price of Bitcoin reaches a certain amount. It's an extra layer of condition. It's kind of just like an if statement checking on the price of Bitcoin. You will often see the extra entry called "stop" which you'll often see when you're selling Bitcoin. Let's say the price stop is 9,100 dollars and in that situation we would assume that the price of Bitcoin is going down. So before it goes down too much and we lose everything we want to put in an offer such as 9050 dollars and then place the order. So when you do that, that's going into your open orders but you will see an extra condition saying when the price of Bitcoin is less than 9100 dollars then this is going to be converted to a limit order at 9050 dollars.

That is functionally how it works, but now I want to talk about when you might want to use something like this so you can understand it a little bit better. If you hover over the question mark on Binance Stop Limit option, it's going to tell you the following: “A stop limit order is in order to buy or sell a coin once the price reaches a specified price.”

You can get more information about it by clicking view more, and it goes into all the information of how you might want to use this. Basically it is to prevent extreme loss of your cryptocurrency value. Let's say you bought Bitcoin when it was really high and you were expecting the price to continue to go up, but unfortunately you were wrong. If you didn't have a stop limit order, the price could have crashed all the way down and you could have lost a lot of money. With a stop limit order you could have said for example “if the price hits 15,000 then I want to sell the Bitcoin.” That would have basically prevented you from losing a lot more Bitcoin. This concept is known as cutting your losses. Basically you realize you made a bad decision and the price is going down, you want to get out of that before it's too late and you lose all of your money. You're going to have a little bit of a loss, however if you get out of the market fast enough you will not lose everything and you can still have some money to do some trading with. If you have experience with long-term investing you know maybe you have a 401K at work, you probably understand that you don't want to cash out or sell your investment when the prices are low. But I am saying that you can sell when the prices are low so what exactly is going on and what do you want to do in these situations? Well, it really depends on your investing strategy. Typically if you're doing trades, you will want to cut your losses and not hold on to the cryptocurrency for an indefinite amount of time. The alternative investing strategy is holding the cryptocurrency or what you might hear as “HODL”. in cryptocurrency terminology “HODL” means where people who hold their cryptocurrencies are going to wait it out for the price to go back up. Let's say you bought it for 20,000 and it tanks. What am I going to do? Well, you're just going to wait and over time hope that the value eventually surpasses your initial investment cost. Hopefully at some point in the future the cost of Bitcoin is higher than 20,000 and you can get that money back out. These are two completely different investing strategies and if you want to become a trader, more than likely you're not going to want to hold your cryptocurrency until the price returns back to where it was. The reason that is because of a concept known as opportunity costs. When you are just holding a cryptocurrency and not doing anything with it; you're not making trades, not buying or selling it, it's just sitting there and it's not doing anything for you. For the people who are holding out on the cryptocurrency, they gave up and waiting for the price to get back to where it was. If instead you decided to cut your losses and you got out halfway through a crash, you could have then continued to trade and hopefully got all of your money back by making profitable trades. The opportunity cost of holding your cryptocurrency is that you can't use that money for other trades. Those trades could actually earn you more money than just waiting for the price to go back up. All of that rambling to say that the stop limit can be used to cut your losses and programmatically sell your Bitcoin. So let's go through a simple example. Imagine the following situation. We have a stop limit order. The stop value is 9,100 dollars. If that price is met that means we are ready to sell we don't want to lose any more money so what we're going to do is we're going to then create a limit for 9,050 dollars. This will assure us that if we bought our Bitcoin for 10,000 dollars and it tanks down to 9,000 dollars, well we do lose some money but we don't lose everything if the price continues to decrease down to 1,000 dollars for example. This is the best way to protect your portfolio from huge dips in value. If you're still not able to understand the value of this, start thinking about trading as smaller transactions. You're going to trade a little bit of cryptocurrency and make a profit, you're going to trade a little bit well it didn't work out you lost a little bit but on average you should get more wins than you get losses. By putting a stop limit you're able to ensure that you always have enough capital to continue to do these trades so you don't want to trap all of your money waiting for the prices to go back to some arbitrary value. There is one gotcha when it comes to a stop limit order and that is if the price tanks extremely fast. Let's say it goes down to 4,000 dollars just as an example. Well, if the price goes down to 4,000 and you're trying to sell it for 9,050 that limit order may not be met. In that situation you continue to lose money because you were not able to sell your Bitcoin. The price went too low before your order was fulfilled. In this scenario Binance says you have the ability to change this to a market order. You can appeal to market orders to quickly get out of the trade but I'm not entirely sure how that experience goes because I haven't had that situation come up yet. Basically if that happened you would say; I'm willing to accept less than 9050 just get rid of this Bitcoin I want to sell it, whatever the market price is. Hopefully this helps you understand the stop limit as well as cutting your losses and opportunity costs and just the appropriate way to think about trading as compared to buying and holding cryptocurrency.

Chapter 8 Dollar Cost Averaging

The concept known as dollar cost averaging is a technique to buy cryptocurrency with lower risk. Let me go through an example of why you might want to do something that's a little lower risk. You may have bought Bitcoin at its highest price when it was around 20,000 dollars, and then realized it crashed and you lost a ton of money. The dollar cost averaging approach; instead of investing all of your money at one point, you're going to invest a consistent amount over time. The amount is measured in dollars so instead of saying you are going to buy one Bitcoin every month, you can say something like you are going to buy 50 dollars' worth of Bitcoin every week or every month. The reason why it's important to have a consistent amount in dollars is because this is going to neutralize risk. If the price is high, you're going to buy less Bitcoin but if the price is low you're going to buy more Bitcoin but the actual amount in dollars is going to be the same every single time. You can set something up like this inside of Binance and it's really simple. You don't have to find the dollar cost averaging button instead you just click on "daily recurring buys" to read more about it.

For example on Binance you can just click on "Buy Crypto" and then you put in an amount; for example 20 dollars, and instead of a one-time purchase you could do every day or you could do every week.

Then you can use the United States dollars that you transferred into your account or you can select your funding source such as your bank account. Then you can hit buy Bitcoin and that's going to transfer every single day or week. Make sure you check "confirm purchase" and that's it.

As you see in a nutshell, dollar cost averaging it's an investment strategy that aims to reduce the impact of volatility. In other words, the high spikes in value upwards or downwards. Which as you should know Bitcoin is extremely volatile so dollar cost averaging could be a good thing to do with Bitcoin. That is how you set up dollar cost averaging and it's just going to take a consistent amount every single week in dollars. This is not going to give you the most gains compared to investing all of your funds when the price is low. For example if you invest when the price is low, and then the price goes up and it continues to be higher than when you invested, that's going to be the best way to make money. The problem is that you have to time the market and timing the market is either extremely hard or it's

impossible and you can't actually know the price of Bitcoin in the future. You can do fundamental analysis or technical analysis to get better probabilities when you should either sell or buy but the reality is that most people just do not know what the price is going to be in the future.
So instead of trusting my intuition, you can just invest a little bit over time and that's going to be the easiest way for you to increase your Bitcoin balance without getting a ton of risk by just throwing all of your money into Bitcoin at one time. If you're buying and selling Bitcoin this might not be as useful to you, however if you are instead using Bitcoin to buy other currencies, different base currencies than Bitcoin, then getting a lot of Bitcoin is going to be really important. If you go into Binance, then click on trading, you can choose a different base currency and a different quote currency. For example you can choose Bitcoin to trade with Ethereum, if you were doing a lot of Ethereum trading, you want to get enough Bitcoin that you can make larger purchases and get higher gains in the process. But instead of throwing all of your fiat currency into Bitcoin immediately, I would suggest considering the dollar cost averaging transferring your fiat currency to Bitcoin over time. The same thing can apply if you're trading Bitcoin. So you might have a dollar cost averaging investment going on for 20 dollars a week or even 100 dollars a month, while you can also start trading another 100 dollars monthly. If you want to get a pretty large Bitcoin balance but you just want to make sure you're doing it with low risk, you can use dollar cost averaging to grow the amount of Bitcoin you have and at that point you can execute sell offers to get back your fiat currency and hopefully make a profit. I think the dollar cost averaging is more targeted for people who are buying and holding cryptocurrencies but it's definitely something that's useful to know about when it comes to trading especially if you just want to increase your cryptocurrency portfolio.

Chapter 9 How to use BNB as a Trading Tool

So far we have been looking at working with Bitcoin, buying and selling Bitcoin as that's our base currency. We have been using the United States dollar to fund these transactions so that is the quote currency. However another popular currency that you're going to be using inside of Binance is called the Binance coin. You may also see this as BNB and you should be able to see it over the order book. So if we wanted to buy some Binance coin, you would have to select the currency pair called BNB/USD. You can buy it using the United States dollar. Many people have a mixed feelings about Binance coin because it feels like it's just a coin that Binance is trying to benefit from by forcing it on people but if you use Binance coin you can actually save some money when you're trading on the Binance platform. It's not that there's anything wrong with Binance coin, it's just that there's a lot of pressure from Binance to buy this coin. One of the benefits of owning Binance coin is that you can save on fees. If you use BNB to pay for fees, you can get 25% discount. So if you want to save as much money as possible it's probably best that you have this turned on and you have some Binance coin in your portfolio. To buy some, you have to click on “buy crypto” and select Binance coin. Saving on fees is not the only benefit of owning Binance coin. Many people find this irrelevant but one of the ways you can make money is through referral and affiliate links. If you can get people to sign up for Binance using your affiliate link, you get a percentage of the fees for their transactions. It doesn't cost any extra to those people using your affiliate link, instead less amount will go to Binance and some of it goes to you. If you want to understand a little bit more about this, you can get up to 40% of commissions on the people that you refer. To learn more about referrals, check out the following link:
https://www.Binance.com/en/activity/referral
Once you are on that page, you will see that by default you are able to get up to 20% referrals and you can increase this referral rate to 40% if you hold 500 Binance coin or more. So if you really want to get into the referral program, it's your best interest to own at least 500 Binance coins and just let them sit there in your portfolio. You could always sell them later but that means you get less from your affiliates which is another interesting thing about the Binance referral program. That’s being said of all of the referral programs I know of I think this is one of the best because it's residual. It's not for like a temporary amount of time and it's not just like a little one-time

bonus. There are people who have actually made a significant amount of money regularly just through referring people to Binance because of that on-going fee share up to 40%.

Chapter 10 Passive Income with Coinbase

The way this is going to work is certain coins allow us to grow our portfolio without doing anything. For example you can generating reward with Tezos. Tezos is an example of a proof of stake cryptocurrency. Basically when you own Tezos it's going to generate more Tezos in your account which you could then sell for United States dollar or whatever your fiat currency is or trade it for another cryptocurrency. This concept is known as “staking”. When you stake a coin it's going to build over time. Coinbase supports Tezos for staking. If you click on your portfolio you can see there's another option for USD Coin as well. USD Coin is also generating a reward but the return is very low. The USD Coin only generates 0.15%, comparing that to Tezos which generates 4.9% it’s very low but this is free money really. So if you want to hold cryptocurrencies and you're not really sure what to hold, it might be in your best interest to buy some proof of stake cryptocurrencies and watch those grow over time. That’s being said, your first reward should appear between 35 to 40 days after each purchase and then three to six days onwards after that. At some point your rewards will be added to your balance. This is a great introduction to staking, it's a great way to build passive income however there is one problem. Not to be a downer but here is the thing. Coinbase is fabulous and I recommend Coinbase to anyone. Well, it's one of the easiest ways to get started with cryptocurrency investing or trading but the fees for the staking are a little bit on the high end. That is unfortunate because it's not really transparent when you're staking with Coinbase. This 4.9% is actually lower than what you might get on other exchanges because Coinbase is keeping a hefty percentage of that. To get a little bit of extra information, you can go to https://coinbase.com/staking

The page discusses getting rewards with Tezos but if you scroll through you'll notice that there is a fee and you can find it in the user agreement so it's kind of hidden and you will see that the fee is a 25% commission. So you are losing quite a big percentage of your reward 25% might not be a whole lot but that's 25% that you're not going to have Compounding for you and that could add up to a lot over time. So here are my final thoughts to conclude this. If you're on Coinbase already you have coins in here and this is just where you want to store the coins and you want to broaden your portfolio and get some staking coins then by all means do it. But, if you're hoping to do this as a form of long-term investment maybe have it as a passive income stream then Coinbase might not be the best route to do this. There's all kinds of different exchanges and different ones have different fees but the one I recommend for staking is Binance. On Binance if you click on “Earn” then click on “steaking” you can stake three different coins.

If you're not in the US, you'll want to use Binance.com and there's even more options for Binance.com. Here are all the options on Binance.com. Over time Binance.us will look more like Binance.com as there's definitely a lot of options. This is compared to just the two options here Binance.us which is Tezos and the USD Coin, so definitely would recommend Binance. The benefit with Binance is that it is the fee free. That’s right. Instead of 25% like Coinbase, it's actually 0% fee so all of the returns from staking these cryptocurrencies will go to you. This could lead to a much larger portfolio over time and that's probably what I would recommend. So if you want to do that with Binance, you're going to need to register, sign up, go through the KYC verification and you can buy these cryptocurrencies using a bank account but you could also transfer Bitcoin into your Binance account and purchase one of these cryptocurrencies with that. For example on Binance you can choose a currency pair for Tezos and Bitcoin by finding XTZ/BTC which means that you're going to be buying Tezos using Bitcoin, you can either add the number of Tezos you want to buy or the amount of Bitcoin you want to spend. If you prefer to use USD then you can just go to “buy crypto”, then select the currency and then you can choose your source either a bank account or a USD balance and then you buy it.

Another note is that if you have cryptocurrency in a wallet that's not attached to an exchange, you'll probably want to transfer that into the exchange to do the staking. So for example if you have a Coinbase mobile wallet and it's not attached to your exchange account but you have Tezos on it, you would either want to send it to Coinbase or Binance, depending on where you wanted to do the staking. There's a send button, put the amount and then for where to send it to, whatever exchange you're using, go into your portfolio, select the coin such as Tezos, hit “receive” and then add the address you're going to use to receive Tezos. The potential for staking is huge especially as more and more people adopt cryptocurrencies. These currencies could go up in value and that would be on top of the extra cryptocurrency you get from staking, so you might get 5% or 6% from staking and then if the cryptocurrencies go up in value, you're getting a pretty high return on investment. It's very promising in terms of the future of cryptocurrency and while you are trading, you can also staking as part of your investment strategy.

Chapter 11 How to Earn Interest with Compound Finance

In this chapter I'm going to explain how you can borrow and earn interest from your crypto.com with Compound Finance. When most people buy their crypto to hold, they store it safely away into a wallet or leave it over an exchange without earning any interest in the sense that a traditional bank or savings account would. However Compound Finance are on a mission to change that. Compound Finance is a service that lets you borrow cryptocurrency or lend it out and earn interest. Both lenders and borrowers get more value from their crypto. Lenders will earn interest while borrowers deposit crypto to gain access to credit. This is all done without the headaches or rules of banking. Plus you can even earn money by borrowing and taking out a loan with Compound Finance but more about that later. There are quite a few DeFi platforms emerging but Compound Finance are one of the biggest and have some of the highest rates around right now. They have the backing of some very prominent investors who include the likes of Polychain Capital, Bain Capital and Coinbase who have also recently announced their support for their governance token. Called Comp. The Comp token is given to lenders and borrowers to incentivize them to participate in the different markets across the Compound protocol which users can collect and withdraw or use to vote on the governor's proposals for the protocol. There's no minimum for either lending or borrowing and lenders earn interest about every 15 seconds or every Ethereum block. You can use Compound for as long as you like without any penalties for withdrawing other than paying the gas fee. Because it's decentralized ID verification or KYC is not required either so that anyone could start lending or borrowing from anywhere in the world. So let's take a look into Compound Finance. If we head across to markets at the top of the screen, on this overview you can see the total supply, in other words how much people are lending across the top three different markets, plus you can see the total number of suppliers in here – then you have the total that's been borrowed and the number of borrowers as well.

At the bottom of the screen here you'll see all the different types of markets thinking you can borrow or supply.

So from here you have the options of the likes of Tether, USD Coin, Ether or Basic Attention Token and it then shows you the gross supply, the supply

APY, the gross borrow and the borrow APY. These APY-s will obviously fluctuate but at the moment you can see that the basic attention token is providing the highest APY around 20%. If you're interested in lending, as I said this isn't the only Defi platform around and there are others such as Abe but if you go to site such as https://DefiRate.com, you'll see where you can get the best yields across all the different types of assets.

You can view these as their current rates and you can also view them as a 30-day average too. But going back to Compound, if you wanted to lend out or borrow some tokens, you'll need to make sure that you have that token. Plus some ease to pay for the gas which you'll need to pay a few times. So if we go to the app in the top right hand side of the screen, you'll then be prompted to connect your Ethereum wallet to Compound. You have the likes of a Coinbase wallet which is actually different to the exchange. You can connect a Ledger or a Metamask wallet and if you have the likes of a Trezor Hardware wallet, you could always connect this by your Metamask wallet.

If you're connecting up your Ledger, you'll need to make sure that you have the contract data and browser support set to yes. Then you want to unlock the Ethereum app. Then you'll need to select your address. Once you're connected, you'll see the dashboard and the balances for all the assets that are available to lend on the left or borrow on the right.

So if I wanted to earn interest on any of these assets, I can click on to it and you'll then be prompted with a new screen and it will show you the supply APY on the Left the price collateral fetcher which is borrowing up to 60% plus your wallet balance. At this costs money to interact in terms of gas fees. Gas fees are quite expensive but you do need to pay gas a few times. These can be edited, so you could always check over on earth gas station of what kind of rates will work for you. So if you want to edit that, go to the advanced tab and change that to another rate and then click on confirm. You'll then need to wait for the transaction to clear but you can also check that over on Etherscan if you wish. It will take roughly five ten minutes. Now that I've enabled 0x, I can supply my tokens. I can then enter in the amount that I'd like to supply or hit max, and then on to supply. Again you'll need to pay more gas fees which you can edit if you want and click on confirm. So now that's gone through it took about five minutes to complete and over on the dashboard you can see that the supply is now more in terms of dollars.

We also have the Net APY which will show you as an average if you are lending more than one asset. As I mentioned earlier you'll also be owning Comp tokens when you're lending and borrowing. That can be found under the Vote tab. Everyday 2880 comp tokens are distributed to lenders, suppliers and borrowers. Had this is done proportionally to how much interest is being paid to each market. With the majority being paid to whichever has the most interest. The Comp tokens can be collected and withdrawn or exchanged on the likes of Uniswap or you can use to vote on proposals for the Compound protocol which you can vote for manually or you can delegate this out to another user if you wish. Because the Comp tokens are tradable tokens and hold their own value, you may want to earn as many as possible. Many users fixate on the high interest rates for lenders and Compound however you can also take out loans too. All you need is some crypto to deposit as collateral and because it's decentralized there are no credit checks, income statements or delays. So you can use the assets that you have as collateral to take out loans by turning on the collateral. Just be careful as there is a liquidation clause so don't ever over borrow. To use your tokens as collateral again, you'll need to interact, connect and pay gas. As I said earlier there's a way that you can earn more of these and you can do that by farming the tokens. You can earn Comp as a borrower and also because you've deposited. This is a little outside the scope of this book, but you can use sites such as InstaDapp which you'll find on their list of integrated sites. You can maximize your Comp with mining.

As you can see from here there are whole host of community built interfaces integrating the protocol. For example you can click on “earn” and view some integrator pull some wallets.

Then under “manage”, you have the likes of Exodus where you can earn interest on your DIA from right inside your wallet.

This is great as you won't need to integrate or connect these platforms up separately. That was a brief overview of Compound Finance. If you want to learn more about Compound Finance, check out their website at https://compound.finance/governance/comp

Chapter 12 How to Sell & Withdraw Crypto from Coinbase Pro

In this chapter I'm going to explain how you can sell your Bitcoin or other cryptocurrencies from your Coinbase account and how to withdraw your funds into your bank or PayPal account. If you're not a fan of holding your crypto for the long run and you want to cash it in and withdraw here is a beginner's guide to do so. The first way that I'll explain is how you can easily sell your Bitcoin using Coinbase. So if we head over to your portfolio, you'll see that you have some Bitcoin that you may want to cash out. Before you can withdraw, you first need to sell your Bitcoin and convert it into your chosen currency. So if you scroll back up to the top and click on “trade” then if you choose “sell” from here it will first ask you which type of cryptocurrency you'd like to sell.

You can look under the arrow and if you're selling another type of crypto you can see that you have lots of different options available here but obviously you'll need to have an active balance. So you can choose to sell Bitcoin and it will then ask you what currency or wallet you'd like to deposit to. You have the opportunity in a Euro wallet, GBP wallet or US Dollar wallet and the different currencies that you'll see may depend on your location. So if you have some Bitcoin and would like to deposit into your US dollar wallet is going to ask you how much you would like to sell. At the bottom it will show you what’s your current BTC balance is and you can choose to sell all of that or you could type in the amount that you would like to sell. You can then also convert this into Bitcoin, and then when you're ready you can click onto the “preview sell” button. In here will show you what you are actually doing; so it's telling you the amount in Bitcoin that you would like to sell. It's telling you where you are going to be depositing it to and that’s your chosen currency and then it's telling you the price. When you're on Coinbase, you're actually creating a market order. Meaning that you're selling at the current market rate. This could mean that you're getting slightly less for your Bitcoin. This is due to their convenience. You might see that you are being charged quite a high fee so if you just click onto the “Coinbase fee question mark” you will see the amounts that you will pay in terms of fees. It will depend on the different transaction amounts so these fees can all add up and they're a little bit steep. So I'll explain you how you can reduce these using another method shortly. But if you're happy with your sell order, you can go ahead and click on “sell now”. Once the payment has been completed, the amount would then show within your US dollar wallet and then you would have the option to withdraw from this wallet. For withdrawal, you would need to have a linked bank account which you would find under your “settings” and then “payment methods” and then you can link a new account. If you're from the UK, you can withdraw to PayPal, a Euro bank account, a UK bank account, you can set up credit and debit cards and Swift accounts too. However just be aware that other countries do differ and don't necessarily support the likes of PayPal. When you are linking new accounts you may be asked to send across a small deposit to verify a link the two across. Just make sure that you do use the reference number that is shown on any screens when making your deposit so that they can map your bank account to your Coinbase account. So selling within your Coinbase account is really convenient but as I said those fees can be quite high. So what if you want to get more money for your Bitcoin or if you're not in too much of a rush and you want the best possible sale price? Well, there's another option and that's using Coinbase pro. What's great is that not only can you save yourself on fees but it's also free to transfer your funds from Coinbase to Coinbase Pro unlike the likes of Blockchain.info who will charge you to send funds from your wallet across the Blockchain exchange. So if you head over to Coinbase pro and already logged into Coinbase then you never get across and click on to login, you'll also basically be logged in using the same credentials as Coinbase. Over on Coinbase Pro, the first thing you need to do is deposit our Bitcoin so that you can sell it which you can do by clicking onto the deposit button over on the left hand side, and then it will ask you what type of currency or asset you're going to be depositing into Coinbase Pro.

In this example I'm going to be depositing Bitcoin but you could be depositing the lights of Ethereum, Ripple or Bitcoin cash. You then need to select where you're going to be depositing your Bitcoin from. You can do this from an external crypto address or from Coinbase.

This is instant and free. So if you are going to select that, it's going to go from Coinbase and it automatically picks up what your active balance is and it's going to send it to your portfolio over here. You then need to type in the amount that you'd like to send across in Bitcoin or you can click on to “Max”. Then it will show the available amount to deposit on too. It shows you off the fees which is obviously nothing and it shows you your limit which is unlimited.

It tells us what the processing time and it says that that is instant. So let's go ahead and deposit these funds. It now sits that my deposit is now complete so if I click on to “done” and if I go across to my portfolio deposits you'll then see that I have that deposit showing under my deposit section.

Now that we've deposited our funds, we're ready to trade but we'll need to select our market. So if you click onto the drop down under “Select Market”. The markets that we're looking at the moment is the Bitcoin market and I can trade Bitcoin to Dollars however you can see there's lots of other different types of markets that you can select from. But I'm going to be selling my Bitcoin for US dollars. Once you select that market, we're going to be selling so you need to click onto “sell” and then you can select your order type. The order type you can select is market, limit or stop orders. For the purposes of this guide, I'll use the simplest market order. But you could save yourself more money by defining the price you would like to pay, using something like a limit order. When you select a market order it'll fill at the best available or the market price. You can then enter the amount that you'd like to sell or you can click on to the max which will take your own entire Bitcoin balance. The fees are currently at 0.5% for orders under 10,000 dollars.

These are reduced fees, depending their trading amounts and the different order types after 50,000 dollars. As you can see you can be saving yourself a lot more money by using Coinbase Pro. When you're happy with that order you can click on to place sell order. That sell order will complete instantly with a market order. Next you should see your US dollars under your balance. Once you have your US dollars, you can withdraw. So if you click on withdraw, then here will show up any links to your bank accounts. If you have one set up and select your US bank transfer, you have to type in the amount then you will see that your fee is at zero. It tells in your limits and the processing time which is at one business day. You can then go ahead and withdraw US dollars. It will say that your withdrawal from your default portfolio to your bank account will be complete within one day. Then you should also receive an email stating that the process is now started. If you didn't have any bank accounts linked I'll just explain how you can go through and do that within Coinbase pro.

If you go to your profile information, then banking, here is where you can link your new account. You can add a Swiss bank account, US bank account and Euro. But what if you wanted to withdraw that amount to PayPal? Well I'm going to explain that now how you can do that. If we go across to withdraw again and go to US dollars, this time you have to transfer your funds across to Coinbase. As we already know, these transfers are instant and they're free. So click onto that and you will see there's no fee and that's instant. Click on to withdraw, go to done, then head over to a Coinbase, go to your portfolio and you'll see that you now have an active balance under US dollars. You now have the option to withdraw and from here you can select your different type of bank accounts but you also have the option to withdraw to PayPal. You can then put in the amount you would like to withdraw and you can click on to continue. Next just click on confirm and that’s it, you are done. Again, you should receive an email that the Coinbase withdrawal has now been started and under a minute later your Coinbase transaction should be completed. So as you can see there's two easy ways that you can sell and withdraw your Bitcoin or other crypto currencies from the Coinbase platforms.

Chapter 13 Binance Widget Trading Tool in Brave

In this chapter I will explain how to use the newly released Binance widget that is now available to all Brave desktop users. In the latest version of Brave desktop update, version 1.8, Brave have now released the Binance widget into its privacy-based browser. After announcing their intended partnership and integration back at the end of March 2020, Binance and Brave enthusiasts were only previously able to preview a version of the widget. But since the 1st of May 2020 the Binance widget is now easily accessible from within Brave browser. Meaning that millions of users can now seamlessly trade and manage crypto without ever having to leave their browser to check their balances or buy new coins. But users of the mobile platform will have to wait for the update. Brave have rapidly grown in popularity with over 13.5 million active users. Binance is the world's largest cryptocurrency exchange by trading volume and users. So by integrating the two platforms it should be mutually beneficial to both companies. With the hope that more Binance users will adopt Brave browser and Brave users will sign up to the Binance trading platform. The widget is available for both Binance and Binance.us users. Although us-based users may not be able to buy using the widget which is due to be released soon. To get access to your Binance widget, the first thing you'll need to do is update your browser to the latest version 1.8. You can check out your current version of Brave by heading over to the settings or the hamburger menu in the top right hand corner, then if you go down to about Brave and in here you can check which version you're currently running in the bottom left hand corner. It'll also check for the latest version which you can then go ahead and update and re-launch Brave. Or you may be automatically prompted to install the latest version where you can then go ahead and follow the steps on screen update and re-launch. You can now see that my browser has been updated to the latest version and if for any reason the update isn't available from here you can also download using the following link:
https://brave.com/download/

The link will take you to the Brave website then of course to get started you need a Binance account to connect. Then once your browser has been updated the Binance widget can then be found on the new tab.

You can then choose between Binance.com and Binance.us. If you want to buy a certain crypto in your chosen currency you can start your purchase here but you'll need to connect your Binance widget to your Binance account. If we click on to connect on the widget you'll then be prompted to sign in to Binance login to continue with your Brave browser.

From here you'll need to enter your credentials and it then provides you with some information in relation to what Brave browser will be able to do. That's the use your email address associated with your Binance account, your Binance wallet address, your Binance wallet balance and let you do crypto to crypto conversion on their platform. If you're happy with all of that, you can go ahead and log in to connect. It's then confirming what Brave can do and you can then click on to continue. Then once you're signed in you are all set to start using the widget. The first tab is your summary which is not visible by default however you can make this visible by clicking onto the eye icon just to view it and this then shows you your balances.

If you then just take a look at the icon with the three dots you have the option to hide your Binance widget, to learn more, refresh your data or disconnect your Binance account. If you then just take a look at deposit, this will show you your deposit addresses.

If for example you search for Bitcoin you can then view your deposit address or QR code and you can then click on “copy” to send your funds over. Just taking a look at convert, you can easily convert from one crypto to another by selecting these from the drop down.

So if you select BNB, you can view your available balance at the top. You then state the amount that you would like to convert in BNB, for example 1 BNB and then you can state which crypto you'd like to convert to. For example if you are going to select Ethereum from the drop down, you can then preview your conversion and the quote here is valid for 30 seconds.

It'll show you your associated fees and how much Ethereum you will actually receive. You can go ahead and confirm when you're happy. The Binance widget will then reflect the new balance in the summary tab soon after the conversion is completed. Then finally we have buy option where you can buy any crypto you like from here from the list in your chosen currency.

You can say that you'd like to buy with USD, and then you can put in the amount that you'd like to spend and then you can say which cryptocurrency you'd like to buy. Then you can click on to buy. Once you've clicked onto that, it'll take you across to Binance.com to complete the transaction. Then the final thing I'll show you is how to disconnect your account in case you ever want to erase your widget settings. But don't worry this won't affect your Binance account, it just means that the Brave browser can no longer interact with your account again until you reconnect it. You can do this by clicking on the three dots in the top right hand corner selecting disconnect and then if you want to use it again you can simply reconnect.

That is a very brief overview of the Binance widget within Brave which is really just another trading tool you can use.

Chapter 14 How to place Market Orders on Coinbase Pro, Blockchain & Binance

In this chapter I'm going to explain how to create a market order. If you're new to crypto or want to buy or sell Bitcoin or altcoins easily and quickly, you can place something called a market order. I'll explain how to do this on three of the most popular trading platforms; Coinbase Pro, Blockchain.info and Binance but the same terminology and process will also apply to other trading platforms. If you're in hurry and you want to buy or sell Bitcoin or other cryptocurrencies easily at the market price or the current price you can place a market order on in exchange. The first platform I'll show you this on is Coinbase Pro which is formally known as GDX. Once you're over on the exchange, the first thing you need to do is to deposit funds to trade with. Once you've got some available funds in your wallet, you're all ready to trade. At the dashboard the first thing you need to do is select your market.

From here you can set Bitcoin to USD however there are lots of different types of trading pairs available from the markets too. Then you have your buy or your sell option underneath that. You have the three different types of orders that are available on Coinbase Pro and they are market, limit and stop orders. The options below will be the same regardless of the market; all the pairings that you choose. In this example we're going to concentrate on the market orders. With a market order, all you need to do is enter the amount that you'd like to buy or sell in your chosen currency. Then the market price is then taken from the last trade price or the current price which is shown at the top. The amount of commission fees that you will pay on some exchanges will depend on whether you're considered a maker or a taker of the market. This will all depend on trading volumes. These may seem like small amounts at first but these fees can certainly add up so when you place an order that gets filled at the market price, you are considered a taker of the market and you pay slightly higher fees than other types of orders and this is due to the convenience.

To pay lower fees on some exchanges, you can play something called a limit order so that you're considered a taker of the market. Coinbase used to have different commission fees for maker or taker orders regardless of the amount you're trading with but now you only really see the benefit when you're trading with 50000 Plus.

Back to your order, when you're ready to place your order you can simply click on “place a buy order”. The order will then immediately fill and show in your complete orders. As I said the same process will apply to Blockchain.info exchange and Binance. Over on the Blockchain exchange you can see in the right hand side here you have your buy or your sell option.

Then under your “Order type” you can select from market or a limit order so exactly the same terminology using that market order and then all you would need to do is type in the amount you would like to purchase and then simply click on “place order”.

Then over on the Binance exchange if you scroll down under this exchange section, you'll see that you have limit, market or stop limit orders. If you select market, you can see that it's going to take the market price. You then type in the amount that you'd like to purchase and then you would click on “buy Bitcoin”

Once your order has been filled, you can then move your funds over to a secure wallet or a bank account.

Chapter 15 How to Buy, Sell and Trade Crypto on eToro

In this chapter I'm going to explain how you can buy, sell and trade crypto with eToro. eToro is trusted by millions of users and it’s a user-friendly platform enabling anyone anywhere to buy cryptocurrencies within just a few clicks. With eToro you can trade crypto in two different ways. Either you can purchase the actual tokens or you can trade CFD-s based on the underlying cryptocurrency price. Depending on local regulations in your country of residence, you can do one or both on the eToro platform. Similar to the likes of Coinbase, there are three individual platforms from eToro. There is eToro, eToro X and the eToro wallet.

eToro is the trading platform which has a nice and simple interface and is more aimed with the beginner in mind. You can buy and sell crypto instantly. There's hassle-free deposits and withdrawals and you can track real market data and follow each coin's trends. Plus one of the unique features with eToro is the ability to copy other crypto traders. So if you know nothing of crypto you can also copy more experienced traders. Next is eToro X, the exchange. This is aimed at more experienced traders. The exchange is more advanced. There's wider range of crypto assets and stable coins, deep liquidity and tight spreads as well as competitive fees.

Then finally there's the secure fully regulated wallet which supports over 120 crypto assets. You can exchange crypto to crypto, plus you can transfer your crypto to an external wallet. I will explain a combination of these three methods now. There is a lot more to eToro than trading crypto and it has more than 2,000 other financial instruments if you want to expand your trading. If you haven't already signed up, you'll need to sign up for an account with eToro. It's also worth mentioning that when you sign up you receive a 100,000 dollar demo account so that you can experiment with the platform with zero investment and buy and sell crypto without risking any of your money. Once you're signed up and verified or logged in, the first thing you'll need to have is some funds to trade with. If you're not using that demo account which you can do using the big blue button at the bottom of the screen stating deposit funds where you can deposit a whole host of methods including credit and debit card, PayPal and bank transfer.

One important fact to point out is that if you're purchasing cryptocurrency it's recommended that you deposit with bank transfer. If you transfer using credit or debit card or PayPal and want to move your Bitcoin or other crypto into another wallet, you'll have to wait 180 days before you can do so. although this does seem excessive, eToro have had to put this in place to protect themselves from credit card forward such as stolen credit cards and chargebacks. You can select from the amounts at the top or you can click onto customer mount and enter the amount that you'd like to deposit. Just ensure that if you're sending a bank to bank wire transfer that you include the transaction id is this is what will map your bank transfer and your account together. eToro doesn't charge any deposit fees here but there are some minimum amounts. With credit or debit card or PayPal that's 200 dollars or 500 for bank transfer. Just be aware that when you're transferring your funds all deposits are made in dollars therefore eToro are converting your local currency into dollars at their own exchange rate. Then once you've deposited some funds to trade with, you can start to buy your Bitcoin or other cryptocurrencies. eToro offers a whole host of cryptos and crypto related assets such as Bitcoin, Ethereum, XRP with many more being added.

If we click onto Bitcoin for example, you'll then see a whole host of information relating to this asset. It provides you with a news feed similar to the likes of Twitter or Facebook. There's information with regards to the asset itself.

You can view stats and price charts as well as view research information. You can also buy from the trade market screen. Please be aware that the crypto market is very volatile. Even though there's potential for some huge gains this can also go against you and the market can go down for prolonged periods. You can buy from the main screen or you can simply search for the asset that you want to buy.

For example if you want to create a simple trade which is instant and at the current market price, click on to trade from the drop down and you're going to want to make sure that you're on the buy tab at the top of the screen.

It'll then show you the rate which is the price of Bitcoin you'll be paying at as well as the 24 hour change. All prices in here are in us dollars unlike other markets it's always open 24/7 by 365. Then enter the amount of Bitcoin that you'd like to buy and the minimum here is 25 dollars. If you're a beginner you can start off with small investments and you can change this from dollars to units, which will then show you the amount of Bitcoin that you want to buy. Because we're making a simple market buy order, we don't need to concentrate on stop loss, leverage or taking profit. However in the future you can set parameters for stop loss or taking profit to suit your strategy and automatically protect your investments. If you change your leverage which is a more advanced functionality aimed at day traders and something that I wouldn't recommend especially considering how volatile crypto markets are; this will then allow you to 2 X your trade and is then deemed as a CFD, therefore you don't own the crypto. If you go ahead with our trade, your crypto will then appear under your portfolio. That's a really simple way that you can purchase your crypto in just a few clicks. If you don't want to pay at the current market price and instead you want to define the price you'd like to pay for your crypto, you can do this by creating an order instead of a trade which you can select from the drop down.

You can define the rate in here or the price that you want to pay. Then simply wait for the market to reach the price that you've set as the price that you're willing to pay. Or alternatively, depending on your trading experience or level you may get better prices using eToro X. That's a more advanced trading system and one of the negatives for a beginner is the minimum fiat deposit which is 10,000 US dollars.

But you can also deposit crypto directly into the exchange. By the way, the price for Bitcoin on eToro is potentially better. Some of the price differences are due to the convenience that you have with eToro. You also have its simplicity and smaller deposits and the fact that any fees are already included in the price that you see. With eToro X fees are based on a maker-taker model starting at 0.10 and 0.24%.
Once you've bought your crypto, you can now track your assets and performance under your portfolio. You can then view information with regards to the current buys and sales plus your profit and loss. Where this differs a lot from Coinbase is with all the information that you have available in relation to your asset. Now that you've got your Bitcoin, you have a couple of options of what you want to do with it and this is where

the terminology differs to a lot of different cryptocurrency exchanges or sites. You can either keep your Bitcoin, then close your trade when the time is right for you and hopefully take some profit. If you sell in eToro, this is when you're actually shorting the asset. This opens up a new order which is an entirely new transaction and doesn't relate to the asset in your portfolio. A sell order is deemed as a CFD where you don't actually own the actual asset. To take profit and withdraw, you will be closing your trade in eToro. Another option you may be able to take, depending on your deposit method and the amount of units that you traded, is to transfer your crypto from your portfolio to the eToro wallet. If you don't want to hold on to your crypto and say for example the price has gone up and you're fancy closing your trade and withdrawing from the platform then I'll explain how to do that now. Under your portfolio, you can either close using the cog icon on the right-hand side of the screen which will close all of your open trades, or click onto the individual trade and click onto the X. Then you will see the amount that you have invested, your current profit or loss and you can then go ahead and close your trade so that you can withdraw. Just be aware that withdrawal fees do apply and are subject to a 5 dollar fee. Also any withdrawals sent in currencies other than us dollars are also subject to eToro's own conversion fees. If you'd prefer to hold your cryptocurrency in a wallet instead and aren't interested in closing your trade, you could be able to send this to your eToro wallet. Unfortunately people that have used credit or debit cards or PayPal as an option to deposit their funds, may not be able to transfer the crypto for 180 days. It also takes one business day for eToro to process the transaction. This is because all transfers are subject to a manual review. Just be aware before you move your crypto that it's not currently possible to send coins from the wallet to the eToro trading platform. However you can transfer your crypto between your eToro wallet and the eToro X exchange for trading. Plus you can also send crypto from the eToro mobile wallet to another wallet.
You can go ahead and download the wallet from the App Store but it's also available on Google Play for android. With the mobile wallet you can send and receive crypto and you can keep on top of your crypto trades. An important question here is where is your private key? Well the wallet is custodial and eToro state that they secure your private key using market leading security technologies. The eToro wallet gives existing eToro users easy access to the crypto market using the same credentials as their trading

account so you don't need to create any new accounts for the mobile wallet. So if you wanted to send your crypto from eToro desktop to the mobile wallet, you can easily do so. Over on eToro, simply click onto the trade that you'd like to transfer and the option here would then be available. Then there is both a crypto transfer fee charged by eToro and a Blockchain fee which you can check out on their fees page.

That may take around one business day and will then appear in your eToro mobile wallet. Once you've created a wallet for your cryptocurrency, you can also buy crypto with a minimum of 100 dollars using Simplex. Just be aware that the buy price is indicative and is based on market rates, Blockchain fees, Simplex fees of 4% and an eToro fee of %. So most certainly this won't be the cheapest way to buy your Bitcoin although it could be one of the most convenient which you'll be paying for. If you have any crypto assets in your eToro wallet you can also use the conversion feature to convert to another available crypto asset in the wallet. Plus you could send or receive from the wallet too. So if you wanted to send your funds from your mobile wallet across to a hardware wallet like a Ledger or a Trezor where you have complete control over your crypto with access to your private keys, you can do so from here too. Plus under trades, you can also view any open positions. Then one last thing worth mentioning about eToro, is that you can also copy people or copy portfolios. Copytrader was created by eToro not long after the launch of Bitcoin as a system that enables traders to allocate some of their funds to copy other top performing traders. So when they trade you trade. When it comes to cryptocurrencies there are quite a few traders on eToro who specialize in these digital assets and you can copy them on the platform. There are also cryptocurrency copy portfolios and crypto funds allowing you to play the cryptocurrency market by using funds built up of cryptocurrencies.

Chapter 16 TOP 5 Crypto Picks For 2021

There is no doubt that we appear to be in the next crypto bull run. Bitcoin is already at it's new all-time highs and the market appears poised to break some really exciting levels. This is not only good for Bitcoin it is a godsend for the altcoin market. For those that have followed the crypto markets for some time they'll know there's usually a pivot to altcoins once Bitcoin has rallied. However given how more sophisticated the markets have become, it's unlikely that this rising tide will lift all boats. Only some altcoins are likely to capture those gains you're striving for. This then begs a very important question. Which ones? Well that's exactly what I'm going to cover in this chapter. I'll be taking you through five of my top altcoin picks for 2021. Picks that are not only well diversified across tech, market cap and use cases, but altcoins that really could explode this year. This is not a financial advice so please only read this as educational, and I must implore you to do your own research.

It's worthwhile to give you a quick overview of how I've chosen these picks. It's an important insight into my thinking of broader portfolio diversification and allocation. The way I like to approach coin picks is the same way I approach my portfolio. It's all about diversification. Diversification to underlying use cases, market cap and sector. This is important because oftentimes despite how good a project is on paper. The sector within which it operates may not be as hot however if you've chosen projects in different sectors you are diversifying your sector risk. Something else that I try to diversify is the market cap of the coins in the list. As you'll see with some of these picks some have a relatively high market cap within the top 50 whereas others are more of your moon shots with market caps below the top 200. This is important as you'll know that the chances of making a 50 X return on a token are much more likely on a low cap gem than they are on a promising yet high market cap coin. Why? Well, maths. But of course low cap coins are inherently more risky and volatile. The risk of the token falling through the floor is higher on smaller projects than it is on higher cap and more established ones. That's a bit of context for these picks. I should also point out that these are presented below in no particular order so don't read too much into that. But whatever you do please do try and pay attention to why I've chosen each of these coins.

First pick is Monero. Apart from having the most cutting-edge cryptography protocols on the market, it also stands for something much more fundamental; financial freedom. Truly anonymous peer-to-peer digital cash; Satoshi's vision. It's a pretty well established crypto that's been around for about six years now however it's been in the news quite a lot recently and that's because of who has it in their sights. That's right the powers that be are not too happy about pure financial freedom after all. I'm talking prosecutors, regulators and other large enforcement agencies with three letter acronyms such as the IRS, NCA or even EC3. Therefore it’s pretty clear that Monero has some powerful enemies so you may be wondering how on earth I can put it on my list. Well one man's meat is another man's poison. I take the view that this intense focus by these agencies shows that they view Monero privacy enhancing technology as a threat. A threat that they struggle to control. This can only mean that it's working as intended and despite having so much thrown at it by all of these players, they've still not been able to crack the encryption and de-anonymize users. Ciphertrace has developed a patent that helps to track transactions, but this is purely a probabilistic approach. It uses well-known techniques in transaction clustering to hone in on likely address flows but it's far from cracking the algorithm. But apart from this there are a number of other reasons as to why I'm so bullish on Monero. Firstly as mentioned the privacy tech is supreme. Secondly, this tech is constantly evolving as the developers work to harden the protocol and secure its privacy. Speaking of those devs, they are some of the most hardcore cypherpunks in the crypto space. A broader collective of idealistic individuals all driven by their goal of preserving financial freedom.I should also point out that all funding for RND on the Monero network is coming from the community, no outside interests. Another reason why I'm more bullish on Monero than other privacy coins is because it has the highest liquidity among them. This is despite the fact that exchanges have been put under pressure on privacy by default coins like Monero. The fact of the matter is that Monero is still a very popular cryptocurrency. There will always be a market for it and an exchange willing to service it and even if the centralized exchanges make it difficult to use exchange XMR, decentralized alternatives will eventually fill the breach. That's because one of the most promising community-funded RND programs that have been worked on right now; is XMR-BTC atomic swaps. This will allow users to easily exchange their Monero for Bitcoin and vice versa cross chain. A seamless bridge from where the all-seeing eye reigns to where it is blind. I should also note that Monero is actually one of the more decentralized proof-of-work cryptocurrencies. This is because of a number of changes that were made to its mining algorithm. As you'll no doubt know, centralization is one of the biggest risks to a distributed system. For example there are a number of fears around the centralization of Bitcoin's mining hash rate in China. Finally, I'm bullish on Monero because of the state of the world. If there's one theme that's emerged last year, is that privacy is under assault from anti-encryption bills to mandatory exchange reporting requirements, from the elimination of cash to the launch of central bank digital currencies. As more people realize that these freedoms are being rug pulled from under them, they will gravitate to solutions that preserve said freedoms.

The next pick would be Algorand. We all know that there's a lot of hype around smart contract blockchains. You need to look no further than the excitement around Ethereum 2.0. It's one of the reasons that it makes up such a big chunk of my portfolio. However one size does not fit all and it won't be a matter of winner takes all. That's why it could be wise to diversify in your allocation to other developer friendly blockchains. There are a lot of promising networks out there but Algorand is one of the more intriguing which has been on my radar for quite some time. Let's start with a bit of an overview. Algorand is a blockchain that has actively set out to solve the pretty well-known blockchain trilemma. More specifically they want to develop a blockchain that is scalable, secure and decentralized. How they plan to achieve this is down to their highly performant consensus mechanism. It's called pure proof of stake. The main benefit of this is that Algorenn's technology finalizes blocks in seconds and provides immediate transaction finality while preventing forks. Why am I bullish on Algorand? Well let's start from the top. The team behind this project are like a who's who of cryptography. It's comprised of some of the smartest brains in the field from universities like MIT. The founder is a professor called Silvio Mccarley who is famous for first conceiving zero knowledge proofs. That fundamental technology you hear about from so many cryptocurrency projects. He also won a Turing award for his work on this. But it's not just brain power backing the project. It also has a lot of capital. Algorand actually has a separate VC arm that has raised a lot of funding specifically for the incubation and adoption of projects building on Algorand. You can think of it as analogous to consensus for Ethereum or Emurgo on Kardano. This Algorand entity has already incubated a number of projects and as we know adoption is key to utility demand for a blockchain. Speaking of adoption it was recently announced that the USDC stable coin has been integrated into the Algorand blockchain. This means that USDC users will be able to send the stable coin on the Algorand network cheaper and faster than would be done on Ethereum for example. It's also no secret that USDC is becoming the de-facto stable coin globally. For example you had the recent monumental news that Visa would be offering USDC settlement to all its 60 million merchants. All of this transaction demand will need a super-fast and efficient blockchain to be settled on. All of this transaction demand on Algorand will of course naturally lead to a demand to pay for the transactions which are paid in Algo. While we're on the subject of utility demand for the blockchain I should also point out that Algorand is actively trying to court the DIFI sector with their unique smart contract language called Teal. (Transaction Execution Approval Langauge) It's a non-turing complete language which although it limits functionality is often considered safer to write and execute. Perhaps it could be an attractive alternative for enterprise developers worried about solidity smart contracts. Algorand is impressive but why has the price been lagging? Well it mostly comes down to an initial oversupply out of the listing in 2020. They seemed to have sold quite a bit in the early auctions and when these hit the market the price slumped. However they have engaged in a number of buybacks and have redesigned their tokenomics. I should also point out that it is a staking blockchain which means the more staked, the less circulating supply. All price accretive. So Algorand could be an attractive smart contract play in 2021.

Next token on my list is called Theta. Theta is a project that is looking to completely transform the way we think about streaming and online content delivery. More specifically, they want to decentralize and democratize it. The Theta blockchain is the only end-to-end infrastructure for decentralized video streaming and delivery currently on the market. This type of scale is all possible thanks to some pretty mind-blowing streaming and blockchain technology. Firstly, streaming itself is really hot. You need to look no further than YouTube and Twitch with billions of users. These are all on centralized platforms and use centralized content delivery networks so you can see why Theta is appealing here. Secondly this is not just smoke, Theta is actually streaming content. They started with e-sports but have since moved on to Poker, Cryptocurrency events and have also partnered with

MGM to briefly stream Hollywood classics. You can also add the Space-X launch and K-Pop events to that list. I also want to note that Theta has a strong team and even stronger advisors. These include the likes of Stephen Chen a YouTube founder and Justin Kan the founder of Twitch. Theta has also received investments from Samsung. I should also point out that in September 2020, Theta labs got a US patent for their decentralized blockchain streaming technology formally titled “Methods and systems for a decentralized data streaming and delivery network.” Patents help secure business modes. When it comes to the tokenomics of Theta, there are two tokens herel; Theta and Theta fuel. Theta has a cap supply and all tokens are now in circulation. This means that you're not at risk of any dumps from investors or team members. Also note that 55% of all the Theta tokens are being staked which means less token supply on the market. When staking these Theta tokens you'll earn Theta fuel or T-fuel. T-fuel is used as gas for smart contracts and once used will be permanently destroyed. So not only can you own rare and limited Theta tokens as well as stake them, but you will also earn T-fuel tokens which should become more valuable over time as they're burned, assuming protocol inflation doesn't outweigh it.
Something else that you should note from a utility demand perspective is that Theta smart contracts will be compatible with Ethereum. This means that Theta could also bring in a bit of that hot DEFY flavor that Ethereum has been the recipient of 2020. This utility demand could drive price.
There's one more thing waiting in the wings that could boost that Theta price. That is a potential Coinbase listing. In July of 2020, the exchange placed Theta on their list of tokens that they are considering listing and we all know the impact of the infamous Coinbase pump. So I think Theta could be an attractive and diverse play for your 2021 portfolio.
Now I want to move on to my next pick and this is a medium cap gem. The Injective Protocol is a decentralized derivatives exchange that's built on Cosmos. It was one of the most exciting DEX launches 2020 and has already picked up quite a bit of steam. They are trying to create a paradigm shift in the DEX space. Quite simply, it will allow users to trade spot swaps and futures in a completely permissionless way. They'll also be able to structure their own derivatives on the platform and create a market for it. Anything that has a price, users could eventually be able to issue their own decentralized derivative contracts for. Technically, it's implemented as a Cosmos SDK module, and is built with Ethermint. This basically means it

has one major advantage over most of the Ethereum based DEX-s on the market; throughput. this is because it's a layer 2 cosmos zone and hence does not have to put up with the congestion that other Ethereum based DEX-s do. Moreover, because it's built on Cosmos you can exchange more than just ERC 20 assets. This basically comes down to the nature of how Cosmos stones operate. Instead of one singular blockchain, there are a number of independent and interoperable blockchains. Clearly, I am bullish on the tech behind the Injective Protocol but there are a number of other reasons why it's one to watch in 2021. Firstly Injective Labs is backed by some pretty well-known VC-s in the space. These include Pantera Capital and Binance. Secondly, the team is also quite accomplished and they've actually been working on the protocol for quite some time; since 2018 in fact. More recently, they have released their Solstice Testnet and it's looking just as hot as the Summer Solstice. The amount of community enthusiasm around this Testnet launch was quite intense. It also attracted some media coverage with stories on the like of Techcrunch and Cointelegraph. Turns out that this was only the first salvo though and the injective team recently released a version two of their Testnet only eight days after version one was released. If it all goes to plan on the test net then we're looking to a much hyped mainnet launch in 2021. When it comes to the INJ token itself, it actually has some pretty favourable tokenomics. There was only a limited percentage; only 9% of the total supply. There was such high demand for it in the IEO that the price immediately rallied once trading commenced. I also would not worry too much about any of those private sale or founder tokens flooding the market anytime soon. That's because the token unlock schedule appears to be quite reasonable. No cliffs over here, and once the main net does launch, these tokens will be used in order to pay transaction fees. These fees are then burned which of course leads to a reduction in circulating supply. At that tokens taken off the market to stake on the network and you have two factors which are long-term price positive. That's not even including the potential demand that there could be to hold the token to take part in decentralized governance. As we've seen from the DEFI space, the opportunity to take part in decentralized governance of the protocol is an important valuation metric in the token. Apart from all that, INJ has a lot more upside potential than the first three picks and that's because of its market cap. Higher return multiples are likely for smaller cap

coins and speaking of market cap it's time to reveal my micro cap moonshot pick of 2021.
BarnBridge is a DEFI project is a mind-blowing protocol. Basically it's a project that's looking to tokenize risk. So what do I mean by that? Well, they're trying to isolate and tokenize different yield risks in the DEFI space. Essentially it works by pooling funds on the platform and then allocating these funds to different DEFI protocols. These include AVE, Compound, dydx, Synthetics etc. Then once the funds have been pulled, they will tranche the yield such that it can be tokenized individually. This therefore means that DEFI investors are able to invest in different risk tranches based on their yield and risk tolerance. This is called their smart yield product and it was the first one that they launched. However they're also working on a similar product called smart alpha. This will be more complex and won't be based on tranching DEFI yield or interest but by separating out token returns into different risk tranches. Essentially risk exposure will come from price instead of yield. All you need to know though is that it's a completely unique project in the DEFI space. Not only is it matching users up with their desired risk tranches but it will also allow users to invest in fixed interest rate defy instruments; certainty around that yield. So why am I bullish on BarnBridge? Well, firstly it's well positioned to take advantage of the massive shifts we're seeing in DEFI. The total value locked into DEFI protocols has gone parabolic in 2020 and I don't think it's likely to slow down in the next few years. Given the unique nature of BarnBridge's protocol, it's likely to be that much more attractive than all the plain vanilla lending platforms and DEX protocols. Secondly the project has also been backed by the founders of both Arve and Synthetics who no doubt know a thing or two about growing a DEFI protocol. They only raised a minimal amount of initial seed funding and ran a pretty fair launch of the protocol. There was no ICO and 68% of the bond token will be distributed to the community through a number of yield farming and liquidity incentives. These governance tokens will then be used in order to vote on important governance proposals on the platform. There are plans in the pipeline to eventually release smart contracts governed by the DAO where users can define what they would like the core contracts to do. This will mean that the members of the BarnBridge community may have a say in how risk is tranched and which protocols to invest in. So much like the case of wi-fi where token holders make economic decisions which progresses the entire

yearn finance platform forward, bond token holders will be able to do the same. So this adds fundamental value to the token. Apart from that we can also just look at the broader tokenomics. There will only ever be 10 million Bond tokens distributed. Once they've been fully distributed in about two to three years, you won't be able to mine any more of it. Hence you have an asset with a naturally limited supply. Think about yearn finance for example, once those 30,000 wi-fi tokens were distributed, they became pretty valuable. Moreover, the BarnBridge community seems to be quite engaged in the project and two days after yield farming went live, there were already 200 million dollars locked into the protocol. The Devs are also hard at work building out those lending products which are likely to go live within the next few months. If these products do truly live up to its expectations, BarnBridge may be a DEFI darling of 2021. When it comes to those Bond tokens, they are currently only available on Uniswap for trading. Although if you have some free stablecoin capital then you could also join their liquidity pools and farm some Bond. Given the currently low market cap of Bond, the upside potential from here is quite substantial. I will of course caveat this all and say that it is still a new protocol and as such there are risks. These are my top five picks for 2021. These were carefully curated to give a well-diversified altcoin play for 2021. So I would therefore discourage you from yellowing all in one of these particular projects. You open yourself up to idiosyncratic risk which cannot easily be hedged away. I also will say that this list is not the only coins or tokens I have my eyes on for 2021. There are many other interesting projects which I'm also bullish on but in this chapter I only wanted to cover my top 5 picks.

Chapter 17 How To Value DeFi Tokens

There's no doubt about it; 2020 was the year that DEFI shined. Indeed those projects that saw the largest gains in their token price, operated in this smoking hot crypto niche. It's not just the token price gains that were off the charts however, true value locked in DEFI has literally pulled a 20 X from the start of 2020. However all of these headline numbers got me thinking; how do you actually value a DEFI protocol and which tokens are incredibly undervalued? Well, in this chapter I am going to be exploring just that. I'll be going through some of the most important valuation metrics and indicators that you have to use when picking protocols. All that is to help you snag the opportunities and avoid the pitfalls in the DEFI land. You might think that it's as simple as bundling onto Coinmarketcap and looking up the market cap of that DEFI protocols token. Well market cap is perhaps one of the most flawed valuation metrics. Let's take a look at an example. You might know about Uniswap's Uni airdrop. This was when the DEFI decks distributed millions of their governance tokens to the ecosystem. Currently the Uni market cap stands at about 717 million dollars. However, before that Uni token release did Uniswap have zero value? Well, no. So that's why market cap alone is a pretty poor metric to value these DEFI protocols with. Even today there are well-known DEFI protocols like dydx that simply don't have a token and are merely listed on crypto price aggregators as an exchange. So it's not as if Uniswap was a one-off example here. How else are DEFI protocols valued? Well, a common metric that's often bandied about is total value locked or TVL for short. That's just a geeky way of expressing the total balance of eth and erc20 tokens in the smart contracts of a specific DEFI protocol and expressing that value in US dollars. In other words this TVL figure is essentially the balance sheet for any given DEFI protocol. That figure does matter to a certain degree as a unused protocol with a TVL of zero is probably not going to be worth much. No matter how you slice or dice it. Most people probably overvalue TVL as a DEFI metric because that's the stat most commonly used to rank DEFI projects. The problem is that it gives people the impression that this value is locked. That's far from the truth. Let's take Uniswap as an example again. Back in September 2020, a Uniswap fork called SushiSwap migrated over 830 million dollars of crypto assets to its own version of the protocol. At the time, that represented 55% of the assets staked on Uniswap. In other words the TVL of Uniswap dropped by more than half in a single day, hardly locked value. Indeed, this liquidity swayed back to Uniswap from sushi swap when Uni tokens were introduced and crazy as it may be back to SushiSwap when Uni liquidity incentives ended recently. What this example shows is that TVL can be cannibalized by protocol forks very quickly indeed and is by no means a static measure of value. Hardly a killer valuation metric. All that is probably not surprising to those that truly understand what DEFI protocols are. In short, they merely provide the rule logic and incentives to encourage economic activity. Most of the time that's done by crowdsourcing crypto assets and using them to do things like crypto lending, market making or to create synthetic assets like synthetics. So why would anyone want to supply their crypto assets to these protocols? Well, it's because we are all incentivized to do so with things like interest or the ability to earn a percentage of the fees generated by the protocol. All that's happening with DEFI protocols is that users are putting up their crypto in return for these value flows. What all that means, is that value creation in DEFI is contingent on how well a DEFI protocol monetizes that balance sheet or TVL. I know that sounds like wizardry but it really isn't. Balance sheet monetization is exactly what banks do with your bank deposits. That cash doesn't just sit there, instead the bank monetizes that balance sheet through loans, investments or using it to provide other financial services. In essence, DEFI protocols fundamentally work in a similar way. Except those pesky banker middlemen are replaced with smart contracts on public blockchains. So that brings me on to a very serious topic. How is value created and captured by DEFI protocols? Well, to understand DEFI protocol value creation, we have to define who the main stakeholders in these protocols are. There are four major categories of people here. People that supply liquidity to build up that protocol balance sheet in the first place. Users, the developers who have built maintain and add features to the protocol. Finally, you have token holders at least for those projects that have a token. These chaps tend to govern DEFI protocols and take a cut of any fees generated. Liquidity providers get value through economic incentives and the value proposition offered by a specific DEFI protocol. This includes not only trading fees and interest rates but also token incentives which consequently makes them a token holder as well. So, DEFI protocols can create tremendous amounts of value by offering unique or superior value propositions to liquidity providers. They also offer users access to the services they want, which then attracts more token holders who want the governance right to that protocol and a cut of those fees. That makes for a pretty serious value creation loop. However the deal value creation is one thing but value capture is another thing entirely. Sustained value capture is actually super difficult for DEFI protocols to achieve. The reason why, is that this value proposition needs to remain attractive compared to competitors. Otherwise, it's highly likely that there will be capital flight. You might be getting some decent economic incentives for lending out your crypto on a certain DEFI protocol, however there is nothing stopping another project from offering a slightly tweaked economic model that provides better incentives. But, that's not the only thing that DEFI protocols need to do to retain or grow the amount of liquidity supplied to them. Security is a big deal too. How many of you would be happy to supply your hard-earned crypto to a DEFI protocol that has been shown to have buggy smart contracts or to a fall and fouled exploits? Take value DEFI as an example. This decentralized finance yield aggregating protocol was exploited to the tune of 7.4 million dollars in DAI recently. What's maybe even more embarrassing is that the value DEFI team had recently declared that it had flash loan attack prevention. When all was said and done here that attack ended up resulting in a 6 million dollar net loss. I can't imagine that after all this people are queuing up around the block to supply liquidity to value DEFI anymore. What all that means is that the TVL for a DEFI protocol can go up in a puff of smoke if things go wrong. A bit like how a fund manager who makes a catastrophic decision, can expect massive capital flight from their fund. Protocol users essentially want the financial services they are using to work. Shake that confidence and those users are likely to jump ship to a competitor real fast. When it comes down to token holders, it's essentially very straightforward. If the token price outperforms the wider crypto market and other DEFI competitors, then these stakeholders are likely going to be happy. Finally, you have developers who get value through their protocols succeeding. That's normally done through their token holdings and salary. What you should be able to see, is that fundamentally it's hard to value DEFI protocols. Similarly, it's hard for them to value capture because there are so few economic notes. Also, if there is a single security compromise, that could literally shatter the confidence of stakeholders and spell the end of that DEFI protocol. I've thrown around the term economic moat as if it was nothing. Let's take a look at why these matter when it comes to the value capture of DEFI protocols and why it could be a problem for their valuation. The term “economic moat” was popularized by Warren Buffett, the same legendary investor that called Bitcoin rat poison. In short, an economic mode is simply a distinct advantage that a company has over its competitors. This allows a business to protect or increase market share and profitability. In other words, pulling up the drawbridge on its competition and making its dominance almost unassailable. Needless to say, these businesses tend to create and capture tremendous amounts of value which in turn leads to sky-high valuations. The problem for DEFI projects is that building these economic modes is very tricky. After all someone can withdraw their crypto from a DEFI protocol whenever they want. What that means is that capital can quickly flow from one protocol to another. Also, the crypto versus propensity for open source development means that traditional competitive advantages like economies of scale, patents and regulatory licenses are simply not there in the DEFI ecosystem. But you may say; what about liquidity? The likes of Binance are top centralized exchanges in part due to their oceans of liquidity across numerous trading pairs. That might be true in the centralized world, however in DEFI liquidity cannot exactly be defended well. As mentioned earlier in my Uniswap SushiSwap example, other protocols can vampire mind that liquidity. Another case of this vampire mining can be seen in swerve finance's successful cannibalization of 40% of curves deposits in just four days. Again that was another case of a DEFI project fork attracting a ton of the TVL from the original. So why is it that every time I talk about liquidity cannibalization it involves a fork? Well, that would be down to the open source nature of DEFI. Which means that pretty much anyone can copy and paste that code and open up their own copycat defy platform. On top of all that, you have the problem of one single security breach or smart contract problem leading to the potential for loss of confidence in the protocol and a plummeting of its token price. Take Harvest Finance for example; in October 2020 the protocol was hacked for 24 million dollars’ worth of stable coins and that led to the Farm token dropping 60% in a single day. So if there's one thing you should take away from this, is that it's extremely difficult to build economic moats in DEFI. However it's not impossible. Let's take a look at some economic modes for DEFI protocols to help you pick those value capturing winners. The first type of mode in DEFI would be integrations. It takes a certain degree of skill to integrate external services like Chainlink pricing Oracles. By doing that you're allowing your DEFI protocol to take advantage of secure and reliable off-chain data. So these types of integrations could be seen as a type of moat. After all, they do have a replication cost. Next, you have the protocols community. If history has taught us anything is that well-supported crypto projects tend to have a better chance of success than those with small support bases. A strong community usually means an army of people shouting about a protocol and that in turn attracts new supporters. In a way, it's a bit like network marketing. Sometimes protocols attract high value ambassadors; that might be a crypto YouTuber with a big following who constantly talks about how great the project is to their audience. A note that few people talk about is an easy to use interface and user experience. After all, actually using DEFI protocols can be frustratingly difficult and the truth is that many people simply give up using them all together. So, if you have an easy to use front end like wi-fi that's easy to navigate and a situation where all its competitors have fiddly interfaces, which one do you think people are going to choose? It's a bit like how Apple has been so successful over the years. They have rarely had the best hardware and generally command a price premium. But those apple products sell like hotcakes due to those easy to use interfaces and smooth user experiences. The UI can also be forked but if a project is able to be the first to design a new user experience, it could allow it to build some network effects as people migrate to it. Moreover, those DEFI projects that tend to do really well are those that constantly tweaking and improving the user experience. So that's UX; an important factor to gain users. Another economic mode has got to be reputation and security. This is of primary importance when it comes to DEFI as we are talking about people's money after all. I doubt you would be happy chucking a decent chunk of value into a smart contract you weren't confident in. So when there are issues like the SushiSwap exit scam or the fact that Harvest Finance is built by anonymous developers, it is simply harder for that DEFI protocol to capture value. That's why I personally look to see if a DEFI project has had a security audit and look into the project's reputation when I do my own research. The resources at the disposal of a DEFI protocol team is another factor I like to pay close attention to. These funds may have been raised through crowdfunding, institutional investors or even profits from the protocols operation. However, the point is that protocols with a war chest have a competitive advantage over those that don't. Those resources can be used not only on RND and community development, but they can also be used to pay for all those extensive security audits. So essentially, these DEFI projects can use one mode to further strengthen their other competitive modes. My final economic mode to look out for has got to be the team behind the DEFI protocol. Being nimble and constantly innovating is valuable. Teams that do this are always ahead of the curve and everyone else is playing catch up. A good example of innovation serving as an effective business mode would be Yearn Finance; the project offers a plethora of services ranging from token swaps, automated investment management to credit lending. This is all thanks to a developer called Andre Cronje who is quite a legendary figure in the DEFI space. So maybe when you're evaluating DEFI protocols you should ask yourself; has anyone else built this service before? If not, then chances are that you're looking at a DEFI protocol with an innovative team, rather than one that just forks someone else's work. If someone did just fork code and launch a new protocol you can't be guaranteed of the same level of ongoing innovation being implemented on the original protocol. Code is one thing experienced developers are another. A lot of these economic modes are pretty intangible but that's the point. The truth is that DEFI protocols are incredibly difficult to value right now, seeing that all of them are in their primitive states. These protocols will constantly evolve and become more refined over time, however we're just scratching the surface with DEFI and no one is quite sure how this space will evolve in the future. That's why you should be incredibly cautious when you hear about some hot new DEFI project and paying sky-high valuations for DEFI tokens. But that all begs the question; what could the future hold for DEFI balance sheet monetization? Well, I'm a big believer in the idea that he who monetizes their balance sheet best, will ultimately capture the most value. So how might DEFI protocols do that in the future? One thing that isn't happening in DEFI yet is a differentiation between long-term and short-term liquidity providers. The fact that liquidity providers can literally jump from one protocol to another in the blink of an eye is one of the problems preventing true value capture. We essentially have a situation where long-term liquidity providers are not rewarded for adding more value to a protocol and short-termism isn't punished. So one of the things I'm on the lookout for are protocols that implement features that enhance value flows for locking up capital for longer time frames. Indeed, any protocol implementing such a feature would have real TVL; true value locked. Capital that's locked up for a certain period of time can then be used in order to generate above normal returns in other yield generating assets in the crypto space. Yields that are more favourable, than those that you can get with short-term lending. Hence, by sacrificing short-term liquidity providers get higher interest and DEFI protocols get more sticky liquidity. This process of locking up longer term deposits to be used to generate additional yield, is actually pretty common in traditional finance. It's called rehypothecation and this is what allows those banks to offer higher interest to longer term depositors. Currently, I don't know of any decentralized DEFI protocols that operate on a rehypothecation model. There are however centralized crypto lending solutions that operate on this long-term deposit model. One of these is Celsius, which is perhaps the most well-known centralized platform on the market. Of course it's centralized and the antithesis of DEFI so it will be interesting to see if there are any decentralized solutions that can implement a similar model and if they do, how can they convince users to lock up their funds in a smart contract for a certain period of time. This would therefore make it inaccessible until said time elapses. As we all know, Yield Farmers move oceans of capital so it's an open question as to whether they would be comfortable with this. I'm sure there are many so-called influences out there that tell you there's a magic formula for valuing these DEFI protocols or make out that they know what a project's price potential is. The truth is that DEFI is still in so earlier stage that it's impossible to know. However I thought it would be valuable to share my insights on what I personally look out for when weighing up these projects to give you an insight into my thought processes.

BOOK 2

Bitcoin and Cryptocurrency Trading For Beginners

Bitcoin Options & Margin Trading Tips Using Trading Bots

Mark Zuckerman

Chapter 1 Comprehending Cryptocurrency Market Cycles

Imagine that we are at the end of 2021, Bitcoin has just hit its all-time high and is showing no signs of slowing down. Some altcoins have 10xed or you happen to be holding a substantial amount of one or more of these altcoins. The destination is clear; the moon. Is clearly in sight and now that you're so close to it, you start to realize that you never took the time to seriously think about the most important question in cryptocurrency investing. When should I sell? Perhaps you fly past the moon and you panic as you find yourself watch in shock as all your gains get burned up of the FUD. Well, in this chapter I will focus on a few metrics you can use to help you plan your own ultimate altcoin exit strategy, regardless of what altcoin you're holding. To build a bulletproof exit strategy it is crucial to first understand the asset we're dealing with. This understanding starts with putting everything into context. The world economy consists of multiple financial markets such as housing markets, foreign exchange markets, stock markets and thousands of others. Almost all these markets follow some kind of visible cycle. It can be a one year cycle, a four-year cycle, or even a 12-year cycle. In some cases these longer cycles contain even smaller cycles that last a few months or even a few weeks. These cycles can also change over time. Usually becoming longer as a given market matures. The cryptocurrency market is very young and that makes it very volatile. This is simply because nobody knows for sure what the actual value of the market is. Older and more established investors hold much of the wealth in financial markets worldwide. These investors are generally more conservative and less prone to taking risks with their investments. Especially when it comes to new markets which consist of technologies they don't understand. This was actually the reason why Mastercard pulled out of Facebook's Libra project. CEO AJ Bangor said “when you don't understand how money gets made it gets made in ways you don't like”. In contrast, younger investors are a bit more tech savvy. We know how Bitcoin works as well as many of the promising altcoins in the space. We're also more prone to taking risks and many of us have serious “hope addictions” when it comes to our favourite altcoins. Not only that, but cryptocurrency markets are not restricted to suit and tie traders. All you need to participate is an internet connection and that means a lot of inexperienced investors. This makes the cryptocurrency market even more volatile and irrational on a day-to-day basis. Despite all the daily chaos in the crypto market, when you step back you can see a

pretty clear market cycle. This cycle seems to last around four years and consists of a two to three year bull market, followed by a one to two year bear market depending on how you draw your indicators. The cryptocurrency market cycle seems to be caused by the Bitcoin halving. The Bitcoin block rewards for miners are cut in half every four years. Assuming demand stays the same, the sudden decrease in supply eventually leads to a spike in Bitcoin's price. Since most altcoins are highly correlated to Bitcoin, they also see a massive swing to the upside around that time. This explosion in value, makes it to the media which brings even more money from both experienced and inexperienced investors into cryptocurrency markets. The most recent halving took place in May of 2020, leading many to believe that we are on the heels of another big move in the crypto market. Some would say we are already in it. In contrast to the two previous cycles, there is more smart money from financial institutions and experienced retail investors in the crypto space than ever before. This is in part due to governmental regulators around the world who have started doing their homework and realize that there is much more to cryptocurrency than Twitter hacks or ransomware attacks. And, the cryptocurrency market currently consists of anywhere between 7600 to over 8200 coins and tokens. The total market cap of all these assets combined currently stands at around 562 billion dollars. To view an up to date Global chart for the total Cryptocurrency market capitalization, please visit:
https://coinmarketcap.com/charts/
Bitcoin takes the largest share of this with a market cap of around 543 billion dollars as of the beginning of 2021. As such, the cryptocurrency market is quite small compared to other financial markets and markets for similar assets such as gold. For context, the foreign exchange market is worth roughly 6.6 trillion dollars. While the market cap of gold currently stands around 9 trillion dollars. Many have interpreted this contrast in markets to be proof that the cryptocurrency market still has a lot of room to grow. Now that we have a solid grasp of the cryptocurrency market it's time to take a closer look at the individual assets inside of it. As we all know Bitcoin is the first cryptocurrency and remains the largest and most popular by a wide margin. Every other cryptocurrency is consequently referred to as an altcoin. While this dichotomy is debatable it is a very important one to keep in mind nonetheless and here's why. The likelihood that the market cap of any altcoin will be larger than Bitcoins anytime soon is very low even

during the next Bull Run. This is for one simple reason Bitcoin is where most of the smart money from institutional investors and experienced retail investors is going. You won't see huge companies buying the dips on altcoins like any time soon. Even Ethereum is having a hard time getting into the hands of serious investors. This seems to be partially due to the upcoming release of Ethereum 2.0, which has some large investors like Greyscale which do hold Ethereum, calling ETH 2.0 a material risk to investment. Compared to altcoins, Bitcoin is much less volatile and its volatility has been gradually decreasing over the years. What's more is that its price action has a significant influence on altcoins. When Bitcoin goes up altcoins go up. If Bitcoin goes up too quickly, many altcoins tend to see losses in the short term, especially those with a smaller market cap. Why? Well, because most of the money invested in altcoins is coming from crypto rocketeers who are looking for the quickest path to the moon. When we see Bitcoin taking off many of us ditch our altcoins and rush to the Bitcoin spaceship. And when Bitcoin loses steam and the price drops everything comes crashing down to earth. Altcoins tend to see their best gains when Bitcoin is gradually increasing in price or when it's trading sideway. This is partly because opportunistic investors get bored with the price action from Bitcoin and the other large altcoins and start inching closer and closer to the deeper and more chaotic waters of what lies beyond the top 10 or 20 altcoins. These dynamics between Bitcoin and altcoins are absolutely critical to understand because your ultimate altcoin exit strategy starts with the awareness that it will be heavily influenced by what Bitcoin is doing. The upper limit of where your altcoin could go is effectively set by Bitcoin's own market cap. While it's true that Bitcoin's market cap will likely continue to grow as the bull market marches on, planning to sell your XRP when it hits 1000 dollars is not a realistic exit strategy because that would give XRP a market cap of over 50 trillion dollars. That's more than double the size of the entire US economy. Now you have a sense of how Bitcoin's price action seems to influence altcoins and have also hopefully come to the realization that the market cap of your favourite coin is probably not going to be larger than Bitcoins anytime soon, the next step is to factor in the tokenomics. If the US dollar was a cryptocurrency, it would have some of the worst tokenomics in the crypto space. It has an inflation rate of around three percent per year. It has no supply cap and can be created at will by a centralized authority. Most of its circulating supply is held by a very small amount of people. This makes it a very poor choice as a long-term investment and this has prompted one of the largest collective exit plans in financial history called cryptocurrency. It is quite amazing that almost every single crypto coin has its own unique tokenomics. What's more, is that the open source nature of many of the blockchains these cryptocurrencies are built on, make it easy for anyone to see exactly what is going on with their favorite tokens. This sort of transparency is refreshing as it's quite rare in legacy finance. However, it also shows us that the cryptocurrency space is not immune to the same sort of corruption and greed found in our current monetary systems. I've lost count of the number of times I've come across a crypto project that was promising in every way only to be let down by its tokenomics. So many cryptocurrencies have solid development teams with functioning products and platforms that have clearly defined and valuable use cases, even boast partnerships with numerous internationally recognized institutions. Then you open the block explorer and it's worse than going through you could ever wish for. We are going to cover the key tokenomic factors which you need to keep in mind when it comes to planning your ultimate altcoin exit strategy. The first is token allocation. Every cryptocurrency has its own unique token allocation and a select few had no token allocation. Instead, a genesis block was mined by one or more parties at the beginning without any sort of special token distribution. This is known as a fair launch and is unfortunately quite rare in the crypto space. Most cryptocurrencies we see today had something called a pre-mine. This usually involves allocating a fixed amount of the initial or total supply of a token to select parties or causes. Some of these tokens go to the founders, others go to early investors of the project and usually the largest chunks go towards the ICO and mining or staking rewards for those who will participate in that cryptocurrency's ecosystem. When you look at the altcoin you're holding, take note of how these tokens have been allocated in the crypto project's ICO documentation. Then check to see if those tokens have actually been allocated in the way that was initially outlined. You can do this by using a block explorer, which you can usually find on your altcoins website. If the altcoin you have is an ERC20 token you can use Etherscan to easily check what's going on behind the scenes. Your mission is to figure out which wallets are holding a large number of tokens and whether those could be suddenly sold if the price were to increase significantly. It's safe to assume that tokens allocated to opportunistic venture capitalist firms or angel investors will be some of the first to go. If you see a single wallet holding more than 10 of a token's total supply, you might want to reconsider your altcoin pick. That said, some cryptocurrency projects have vesting schedules for allocated tokens. These mean that those tokens given to investors or founders will not be available right away, but over time or just at a later date. If you see a vesting schedule like that you might want to consider selling your tokens sooner rather than later. The second thing to watch out for when it comes to tokenomics is inflation and total supply. Inflation is not necessarily an issue, so long as it's low and so long as you aren't planning on waiting to sell when you retire. It's also important to mention that inflation is used by many projects to incentivize network participation. This means you can sometimes avoid this inflation by staking or delegating your tokens if you plan on holding onto your tokens for some time. However, the sort of aggressive token inflation that's used to pay liquidity providers in many D5 protocols will probably cause several issues in the first place. With these tokens, it is best to follow the wise words of finance's creator: “do not buy it, earn it”. The DiFi token might just be the best example of how important the supply metrics of a token is, in regard to its price. DiFi is one of the few cryptocurrencies that have a higher price tag than Bitcoin. The simple explanation for this is that the demand for the token is exponentially greater than its maximum supply of thirty thousand. Who wouldn't want to own a token that gives them a say in how one of the best D5 protocols is run. This small supply is also why DiFi's market cap is just 400 million USD. Not only that, but all DiFi tokens are in play. There are no additional DiFi tokens waiting to be mined or minted. DiFi also had a pretty fair launch with no pre-mine. All tokens were earned by liquidity providers on yearn finance. These characteristics have led some to label DiFi the Bitcoin of D5. In summary, check that your altcoin had a fair launch or at least an equitable pre-mine with a vesting schedule that doesn't make you run for the hills. Make sure that inflation isn't too high and see if there are ways you can mitigate against it, until you decide to sell. And be sure to take note of the circulating supply, compared to the maximum supply assuming there is a maximum supply. Otherwise, you might find your tokens suddenly losing value as additional coins start to flood the market to drown out demand. There is one last thing you need to take into account to finish planning your ultimate altcoin exit strategy and it's what the technicals are saying. An exit strategy relies on technical indicators. While technical indicators can be very useful, their utility declines in the absence of other critical factors, such as the ones we've outlined in the previous chapters so far. What's more, is that technical analysis can suggest different trends, depending on the time frames you're using and the way you decide to draw your trend lines. That said there are two technical indicators you need to pay attention to when it comes to deciding when to pull out. The first is Bitcoin dominance. Bitcoin dominance is how much of a cryptocurrency's total market cap is accounted for by Bitcoin. Currently it's 63.4% and seems to have been declining steadily since the past year when it was around 68%. During the last crypto bull run in 2017 and 2018 Bitcoin dominance fell to just 37%. This is important because the large amount of money moving into altcoins is part of why many alts saw their all-time highs during that period. Assuming this downward trend in Bitcoin dominance continues, we may just see another sudden drop in Bitcoin dominance in the next year or two. If this happens, it will once again bring a flood of money into the altcoin space and take many alts to new all-time highs. Historically, big drops in Bitcoin dominance have lasted around one to two weeks, meaning you would have plenty of time to exit during that window if that's part of your ultimate altcoin exit strategy. The second technical indicator to keep in mind is your altcoins value against Bitcoin. Most of us are focused on the dollar value of our favorite altcoin and prefer to trade against a stable coin like USDT. While this may make it easier to keep track of our portfolios, it is the value of your altcoin in satoshi's that gives you the best indication of whether your cryptocurrency is rising in value, relative to other assets in the crypto space. Let me give you a simple narrative we're all familiar with. Suppose your favorite altcoin has been rising in dollar value. You're feeling good and you start to feel the keys of that Lamborghini materializing in your hands. Then you click over to the rankings and see that other altcoins are making even more impressive gains and your favourite altcoin is barely keeping up. Maybe even lagging behind. Well, if you'd taken a closer look at the Bitcoin pairing of your altcoin you would have noticed that even though your altcoin was rising in dollar value, it was actually losing value in satoshis. Whereas some of those other altcoins had been gaining value in satoshis. Again, the time frame you use to analyse this trend might influence whether it's going to the upside or the downside. If you're lucky you'll see a clear trend you can spot on a short to medium term time frame that will tell you whether your altcoin is valuable in terms of real money or in terms of fiat. Keeping a close eye on Bitcoin dominance and your altcoins trend against Bitcoin will help you figure out when is the best time to sell. Now that we've covered all the metrics you need to build your very own ultimate altcoin exit strategy, it's time to run a model. Suppose there is a cryptocurrency called XYZ coin. XYZ coin currently has a market cap of 100 million dollars meaning it just barely cracks the top 100. Like other altcoins it is highly correlated to Bitcoin which currently has a market cap of 300 billion dollars. I really love XYZ coin but i know it's not going to be bigger than Bitcoin. I also have doubts that it'd be bigger than Ethereum which currently has a market cap of 50 billion dollars. As such, if it were to go suddenly parabolic now I know it would probably not be likely to pull off more than 50 times move in price. Since that would make it as big as Ethereum. XYZ coin has an initial supply of 50 million and a maximum supply of 100 million. Each token is currently worth 2 dollars and the inflation rate is one million coins per year, meaning I can wait up to 50 years before XYZ coin enters uncharted territory. 100 of XYZ coin's initial supply is currently on the market and 20 percent of this supply has been reserved for my friend who was an angel investor of the project. But he's not able to touch his tokens until January the 1st 2023. So I know it will probably be a good idea to sell before then because I know my friend is all about fiat currency and will dump as soon as he can. Now let's fast forward. It's the end of 2022 and XYZ coin has already 10xed in price over the last few months. Meaning that each token is worth $20 and the market cap is just over 1 billion because of inflation. Bitcoin's market cap is just under 1 trillion and Ethereum's is over 500 billion even though ETH 2.0 still hasn't been released. Bitcoin dominance saw a sharp drop one week ago and money is flooding into altcoins, meaning I have no more than a week before that trend starts reversing. XYZ coins pairing with Bitcoin could be better but if I look carefully, I can see a slight uptrend on the one day time frame and XYZ coin has jumped to almost $30 within a minute. I think that a 20x from my initial entry is possible but reason that a lot of traders are going to sell XYZ coin at the psychologically comfortable level of 50 dollars. To play it safe i set a limit order to sell my XYZ coin at $34. I go to bed then I wake up and see that XYZ coin has hit a high of over $65 while I slept, but now is only $18. It would have been nice to sell the top but that's an impossible task. Price looks bearish now and all indicators suggest we're headed for a huge correction across the board. Should I sell? Well I better do then stay on holding because my friend will dump within a week and the price will get even lower. As you see, all it takes is a bit of research, a bit of strategy (and lots of luck).

Chapter 2 Market Manipulation T actics and how to avoid them

You are being played every day in the crypto markets. There are numerous forces at work to manipulate the markets and steal those hard-earned cash. This can be incredibly frustrating for most of those traders who are just trying to break into the market. It's tough enough as it is to manage crypto market risk so adding an additional layer of risk from manipulation just isn't that fair. So how do you avoid this then? Well by knowing how to spot it. In this chapter I'm going to be taking a look at some of the most pervasive crypto market manipulation. I'll also give you some top tips that could help you sidestep those hidden landmines. Before I get into the nitty-gritty of wicked tactics, I wanted to give you a bit of an overview on market manipulation. It's not something that is exclusive to the crypto markets. Some of these have been used in traditional finance markets for a number of years. The only difference is that many of these tactics have been outlawed by the SEC. They have developed monitoring and reporting procedures which make these tactics incredibly risky for those who perpetrate them. In most developed markets the participants can pretty quickly be identified and prosecuted. The same can't be said about the crypto markets. Unregulated and mostly anonymous, those with large holdings can act with impunity and profitability. You don't know who is behind large sale pressure on a crypto coin or token. You can't identify who built up that order wall you see on the exchange. Essentially, it can be a murky old mess. Is this a massive problem? Well, yes and no. Crypto is about financial freedom. Freed from the strictures of traditional finance. It's an opportunity for users to take individual responsibility for their finances. This means that they also have to manage the risks on their own. With that out of the way let's take a look at how you manage these risks. The first and perhaps most pervasive manipulation tactic used in the crypto markets is the pump and dump. You may have heard of it but for those that haven't the impact can be severe. So what is it exactly? Well the name says it all really. Insiders or other market participants will try to pump the value of a coin until it starts gaining attention. Once other unwitting traders start jumping into the markets then the group dumps the coin on them at a handy profit. These used to be used on penny stocks back in the day but low liquidity altcoins have become a fertile breeding ground. You don't need a lot of crypto in order to pump these low cap altcoins. Moreover, a lot of these pump and dump operations are well coordinated. Users band together in telegram groups and brazenly perpetrate these actions. Some of these groups and channels have pretty obvious names like “McAfee pump” or “rocket pump”. Some of these groups have tens of thousands of participants. Indeed it's worth pointing out that many of those who could get burned by a pump and dump are those that are late to the pump. Kind of like a game of “crypto chicken”; those who wait too late to dump their coins are left holding a bag. It's not just the pump groups. Even exchanges have gotten in the action in the past. Pump and dumps in crypto have attracted a hell of a lot of attention and have even been the focus of academic studies. For example two researchers from Imperial College London use machine learning algorithms to see whether they could identify a pump and dump scheme. How do you spot a pump and dump? Well there isn't a single data point that you can look at to identify these things. Although there are a number of factors that will add to the likelihood that something is a pump and dump. Firstly these tend to happen in low market cap coins. Most definitely out of the top 100 coins and most likely below the top 200. Pump and dumps do happen with high cap old coins but they are the exception not the norm. In the case of the research piece I mentioned, they stated that half of the pumps took place all coins that had less than 100 Bitcoin which is a pretty low cap coin. Another thing to consider is where the coin is listed. Generally pump and dump errs we'll choose those coins in which there are limited listings, preferably only one listing. This will allow them to have a greater impact on the price on Coinmarketcap. It will also mean that potential victims will have to come and buy the coins from them on the only exchange they can. Pump and dump schemes may happen on a particular exchange even if it is listed on more than one. In this case you can view it with suspicion if there is a lot of price and volume movement on only one exchange. This could be an indication that it's a coordinated action and not general market sentiment. Speaking of volume this is another really important indicator that you can use pre-pump to help you determine whether there could be manipulation. Remember that the pump and dump operators are looking to profit from it so they likely accumulated a lot of coins beforehand. If there is a lot of volume that seems to have come out of nowhere prior to a price increase, then it could be an admin accumulating the coins. Perhaps the last and most important indicator that a pump-and-dump is going is of course the price. That is after all the target of these groups. To dupe people into buying them by giving them some serious

FOMO. So if you can't really understand why coin is pumping then don't just buy it. Just remember a dump often also harms those who think they can profit from it. The next market tactic that I want to look at is a variant of spoofing and it's called “wash trading”. Wash trading is a tactic that's used in order to create the perception of an active market in a particular asset like the other tactics mentioned previously. It's illegal in established financial markets but appears to be fair game in the crypto space. It usually entails the simultaneous buying and selling of the same asset by one individual or between a group of individuals. The hope is that it creates an illusion of volume in the asset itself. In general, traders are more likely to trade a cryptocurrency that has more volume and hence liquidity than those that do not. Of course this volume is nothing but a facade and those traders will soon discover that the underlying liquidity is not there. Those who take part in the wash trading are usually either specific crypto projects or those backing it as well as the exchanges themselves. This was actually brought to light in 2019 by a Russian coder who developed BOTS to fake exchange volume. This is all done in order to pump the volume numbers on Coinmarketcap. This duped the newbies into thinking other people a trading the coin or using the exchange. This is actually a pretty important point that has been raised on countless occasions. Those volume numbers that you see on Coinmarketcap are not as they appear. There was actually a pretty interesting presentation by Bitwise Asset Management as an SEC hearing in 2019. They claimed that over 95% of the volume is fake or non-economic in nature. Although CMC have been making a concerted effort to improve their filters. So how do you spot a wash trading on an exchange? Well, perhaps your first bet is to avoid dodgy exchanges. There is now such a large selection of reputable exchanges that should have the coins you want to trade. There's no need for you to use some bucket shop operator out of an offshore location. You can also then look at the order books of suspicious exchanges in order to spot the faking. The tell-tale signs of faking are an almost uniform pattern of buy sell orders. You'll also notice that on every time stamp you have a matching pair of buys and sells. These trades will also be roughly equal in size so that both the buy and sell match. Then when it comes to the order sizes in general, they're quite random and have never less than a certain threshold. Finally, if there is a pretty large bid ask spread on an exchange that is supposed to have high liquidity, it's usually something you should be cautious of. Also sometimes these things come down to a bit of gut feeling. Should some obscure unheard of exchange really be doing almost as much volume as coin based Pro? It also helps to do your own research. Tap the community to ask their opinions about particular exchanges. There are some that are known to be unreliable at best and complete scams at worst. The next manipulation tactics I want to talk about is called order book spoofing. Order book spoofing is a crypto whales photo it's one of those gets them every time moves. So what is it exactly? Well it's basically a tactic where a market participant will place a large set of orders with no intention of ever having them executed. The market participant is trying to create the illusion of large demand or supply in the market even if there is none. It's also sometimes termed “painting the tapes”. This manipulation tactic has been used in the commodities markets for a number of years. In fact a pretty recent example is our friends over at JP Morgan who are facing a criminal probe in relation to their spoofing in the metal markets. Jamie Dimon, the JP Morgan CEO has called Bitcoin a fraud on a number of occasions. This is a tactic that has been well adopted by the large crypto whales in the ecosystem. The practice was particularly rife during the 2017 bull run, as Bitcoin prices surged to record highs. The crux of the strategy is to basically build up a large buy or sell wall on the order books of the exchange. When market participants see these order walls, they're likely to react to them. I mean if you see a cell wall of over 1,000 Bitcoin on an order book, that's likely to spoof your analysis. Are you likely to buy Bitcoin if you think that it won't break past a cell wall? Probably not. However in the background the whale is secretly accumulating Bitcoin while the market hits those sell orders. Then as if it came out of nowhere, you'll see that the cell wall evaporates into thin air. The whale then pulls his order knowing that his deed is done and the market has been fooled. This can of course happen on the other side of the trade as they build up those large buyer walls. You think that there is support to hold up selling pressure. This creates some bullish sentiment among the rest of the market participants. You go long on Bitcoin expecting that the Bulls have the edge until you realized that those bulls were nothing but wolves in Bulls clothing. And the opportunity to profit from spoofing becomes that much more lucrative, when these same whales take positions in the Bitcoin futures market. They can profit from volatility in a derivative market, where they are manipulating the price discovery in the underlying market itself. It really is a fascinating tactic. Devious, but fascinating. Another market manipulation tactic is called FUD. FUD stands for Fear, Uncertainty and Doubt. It is often one of the most effective ways to move a crypto assets price without actually buying or selling anything. Crypto traders can be pretty jaded and negative news sends them for the hills. It's actually a well-known psychological heuristic that human beings have a strong aversion to loss. In fact they feel more upset by taking a loss on the downside than they feel good about taking an upside profit. Traders hate taking losses, hence if you create a fake news narrative around a project of some sort, then you can have a pretty large impact on the price. Sell the rumor and buy the news. Propagating false information is used with great effect by many long/short equity hedge funds. They will usually push false information about a company just after they've taken a sizable position on it. Out of all the other tactics spotting fake news in crypto can be quite a difficult endeavour. The whole crypto news space is filled with so much junk that it's really hard to filter. A lot of it will have to come down to your own judgment. Is the source reputable? Are there facts to back up the claims? Is it being pushed by known trolls in the space? Could the trolls have an ulterior motive for spreading the FUD? Also, you don't want to fall into the category of person who dismisses everything as FUD sometimes concerns are legitimate and they will likely manifest themselves in a useless project. Let's not forget that many of Bitconnect connections were at some point shouting “FUD“. Sometimes crypto whales like to go hunting for all of those stops. Stop loss hunting is a tactic that used to force market participants out of their positions by driving the price of an asset low enough so that it triggers their stops. The hope of the whale that is using this tactic is that they will be able to pick up the asset at a lower price. It's just using your significant market influence in order to force the hand of other participants. Also most traders will tend to place their stops at key technical levels. Absent of any market manipulation, these levels generally tend to signify key capitulation points. So the whales have an idea of where to target when they're pushing the market down. Let's take a look at an example.

Here is some unidentified altcoin on Bitfinex. Let's call it example coin. The Green Line is where the stops are positioned. Whales love it and want to stock up on example coin so they execute a whole host of cell orders and push the price towards the stops. Once it reaches key technical levels, a host of automated sell orders hit the market and the well can scoop up his example coin. As you can see the market recovers almost immediately as the whale buys the example coin and other market participants realize that it's going on the cheap. You on the other hand wake up to discover that your stops were hit overnight and the price is where it was just before you went to bed. So how do you avoid being the prey in this hunt? Well this is a bit tricky. You still want to be placing those stops as these are essential to manage risk. More likely than not the market is legitimately moving down, and you'll want to protect your downside risk. But what you could try and do is place a stop limit order. These are basically stop orders that will have an execution price above the trigger price. So once the market goes through your stop limit sell orders will be placed a few points below the stop level. The benefit of this is that you're still protecting yourself from large downside risk. However you are leaving a bit of room to confirm that it is indeed a legitimate capitulation point. There are a number of exchanges that offer variants of stop limit orders. If you're trading futures then buy what they call conditional orders. Stop hunting is a really intriguing market tactic. The truth is that they are becoming much less lawless these days. Most of the reputable crypto exchanges won't allow some of the tactics on their platforms. Moreover, even though there's no crypto trading regulator the CFTC and SEC have taken notice. Both of either issued consumer advisories or pursued legal cases against miscreants. In any event, it's important that you're aware of these tactics so that you can avoid these potholes.

Chapter 3 Leverage Trading Strategies

Leverage trading is one of those highly controversial subjects. some view instruments like futures and swaps as directly responsible for the wild moves in the crypto markets. Some see them as a tool to actually hedge said price moves and timber volatility. Some people see them as a dangerous product that have wrecked many inexperienced traders. Others view them as an essential tool when used responsibly. So who's right? Well that's exactly what I will explore in the following chapters. I'll take a look at both arguments and break them down, separating fact from fiction. We'll also explore some of the more unsavoury practices in the space as well as some of my personal tips when it comes to using these instruments. Before I can take an in-depth look into the leveraged trading industry, we need a bit of an intro to it. So what is leverage trading? Well quite simply it's trading with more money than you have. To expand on that a bit more, it's entering positions on the market that are many multiples of what you're putting down as collateral. This collateral is more commonly called your margin and it usually measured as a percentage the amount that you can trade with. So for example if the margin is 20% of the position, it implies a leverage of five times. The margin of 10%, implies a leverage of 10 times. This means that your position is levered up by a certain factor. Gains and losses a magnified by the said factor. It's this quality of leverage trading that can either make it lucrative or deadly, depending on which side of the trade you are. Leveraged trading is quite broad and there are a number of different instruments that can give you leverage. You have Financial Futures, Swap Instruments, CFDs or Contracts for Difference or even pure Margin Borrowing to trade. There is another aspect to some of these leverage instruments and that is their ability to be used to short sell an asset. This basically means that you'll be able to make money from a fall in the price of said asset. That is a basic overview of what leverage instruments are, but in order to understand their role in the crypto markets, we have to take a brief look at their history in traditional finance. Futures instruments are almost as old as finance itself they were initially used centuries ago as a method for farmers to hedge the risk out of forward prices for commodities. They would sell their product into the future in order to secure a price for it when it came to market. Fast forward a few decades and these instruments became tradable products on large exchanges such as the CME or Chicago Mercantile Exchange. No longer were they just a product to hedge the risk for farmers and buyers, but they became a method to speculate on the price of a commodity. Who just wants to speculate on soybeans and orange juice? Well, futures markets eventually rolled out to the currency markets in the early 1970s. Interest rate markets in 1975 and stock indexes in the 1980s. Eventually by mm you had futures instruments on single stocks as well. These were mostly traded by institutional investors on large regulators exchanges such as the CME and CBOE. Those traders would keep margin accounts at exchange members which required less than the notional size of the contract. These margin accounts pretty high and hence implied a leverage of only between three to five times. The fact that futures were not offered to retail traders is an important point though. There were indeed quite high risks that came with trading them. Losses could be multiples of the margin and retail investors were not considered well-versed enough to trade these financial products. Eventually these did make their way into the retail markets through the numerous online brokerage accounts offered to US traders. Futures and margin borrowing were no longer exclusively the purview of institutional investors. However leverage limits have remained between 5 to 20 times depending on the asset. Also it's worth noting that these brokers are heavily scrutinized by the likes of the US Securities and Exchange Commission and the CFTC. Fast-forward to early 2013 when trading started picking up in a new and relatively unexplored market. That was of course the Bitcoin market and with it came the opportunity to offer exotic and uncheck leverage trading instruments. One of the first exchanges to offer leverage Bitcoin trading through futures was BitMEX. BitMEX is registered in the Seychelles and ran out of Hong Kong. This was one of the major Bitcoin futures exchanges for a number of years. They gave Bitcoin traders the opportunity to trade their perpetual futures instruments of up to 100 times. Given that the Bitcoin markets are largely anonymous and anyone could have created an account, anyone could have traded them and they did. From large-scale whales to small fishes, all hoping to cut their teeth in leveraged Bitcoin trading. The thing is that whales eat small fishes and so do exchanges too. BitMEX started generating a reputation as being a bit of a meat grinder for the small fry. An extremely efficient liquidation engine was pretty effective at cutting highly leveraged traders down to size. Without any oversight regulation or competition BitMEX literally controlled the Bitcoin futures market. There were also a number of rumors that they operated their own trading desk and used their users positions to their own advantage. Would be similar to playing poker with someone when they can see your cards. Traders still gathered to the exchange however via law of being able to make a hundred times your initial investment on a single trade was overwhelming. But not only were the cards stacked against these traders but they also had no clue what they were doing. Forums were flooded by cautionary tales of traders who got wrecked and speaking of wrecked, there was actually a Twitter bot that was started to track the size of the liquidations on the BitMEX exchange. I don't mean to scare you away from leverage trading, I just wanted to give you a bit of a background of it in the crypto markets. BitMEX has since restricted us accounts and they have a lot more competition. So they've had to defend their market share. There are a overabundance of futures exchanges that have opened up in multiple regions. Here is just a few of them; Deribit, bybit, FTX, Phemex, KuMEX and you also then have numerous spot crypto exchanges that have either offered their own futures products or enabled some form of leverage trading. These include Binance, Kraken Huobi DM and OKEX. Even Coinbase has enabled some margin trading functionality on their platform although with lower leverage limits. Something else also happened back in 2017. The CME and CBOE both released their own regulated and Exchange listed Bitcoin futures. Demand for these products has steadily been increasing over the past three years. This was mainly driven by a surge in institutional interest in Bitcoin futures. So much so that other providers like Bakkt also listed their own physically settled Bitcoin futures, the first of its kind. So the point is that the Bitcoin futures and leveraged trading market has evolved quite a bit. Much like the spot Bitcoin markets themselves they're less Wild West more Wall Street. Less unregulated online casino, more sophisticated and regulated instruments. This is the general statement about the shape of the Bitcoin futures and leverage training market. At the end of the day it always comes down to the individual trader and how they use it. It's a tool that can either be used effectively in a risk managed way, or irresponsibly in a reckless and destructive manner. The first major responsible use case for futures instruments is actually as a mechanism to reduce your portfolio risk. Essentially, it's a method for market participants to hedge out the volatility of the underlying asset. Think about an asset manager that has a large physical Bitcoin portfolio. They may want to reduce the risk around a potentially volatile period. The having for example. They could then short the futures market and effectively eliminate that risk. Or, what about miners that are bringing new Bitcoin to the market. How do they secure that price for their product? Much like the farmers of yielding times they want a method in order to be able to sell the product at a predetermined price in the future. Not all those who are using futures are going to be hedging. There are many that are trading them as they are more cost effective method than trading the physical coin itself. If you're a Bitcoin trader you want to be able to maximize your return for a given price move. Leverage helps you do that. Those who use leverage responsibly are also generally more experienced with trading in general. They would have made money in the spot market but preferred to enhance those gains. They also always play stop losses and know exactly how to avoid particular trading mistakes. Finally, they also know how much leverage is enough. This is a clear distinction between them and beginners. They know that you don't really need more than ten times leverage to be able to trade effectively and responsibly for the long term. This is in stark contrast to those that are using futures instruments and leverage trading irresponsibly. Sadly it's these people who the exchanges make most of their money off of. So what is this irresponsible behavior of which I speak? Well people should not be trading with leverage if they don't know how to trade spot. If you are not going to make a profit trading with no leverage, you sure you aren’t going to with leverage. You should also not be using leverage if you don't know how it works or how to manage it. Most tend to forget that it's a double-edged sword that can also chop you down to size if not controlled on the downside. For example many still do not trade with stop losses which is silly. But perhaps the biggest mistake that these traders make is the amount of leverage that they take on. Exchanges will flash a headline number of 100 times leverage and those new of the game, will go and open up an order. With that exposure this sets them up perfectly as food for exchange liquidation engines. Even minute moves in the price of Bitcoin can have large impacts on the PNL of your position. Let's also not forget that Bitcoin is one of the most volatile markets in the world. It's also no coincidence that the leverage factors and margin requirements on regulated exchanges or retail brokers is much lower. This could either be down to regulations or whether high leverage levels are even demanded. For example over at Bakkt the initial margin requirement is about 37% which implies a leverage of only about 2.7 times. On the CME, margin could be as high as almost 50 which implies a leverage of only about two times. This is indeed quite low for many professional traders but it shows you how little leverage is really needed for a product to be appealing to retail investors. The guys who manage billions of dollars are perfectly fine using this leverage. So why do you need 50 or even 100 times leverage. The main reason that anyone will want to trade with such high leverage ratios is because of the same reason that they throw some numbers down on a roulette wheel. It's not trading, it's gambling. This gambling is great business for the exchanges. At the end of the day an exchange is just a centralized trading engine that matches buyers and sellers of futures contracts. They will charge Commission on all of the trades that they match. Apart from facilitating the exchange they also make sure that the trading pool is kept solvent. They have to make sure that in the event of extreme market moves, those that are close to depleting their margin will have their position closed. This is to protect what is called bankruptcy in the position. To do this exchanges operate liquidation engines. These are basically mechanisms that will close out trades at the liquidation level. This liquidation level is usually above or below the bankruptcy level, depending on whether it is long or short. Having this buffer in place ensures that the exchange is able to close your position long before it threatens the solvency of the pool. When they run their liquidation engine it executes trades which mean trading fees for the exchange. Simply, higher leverage means more liquidations, which means more trades, which means more trading fees for the exchange. Not only is the exchange earning bank on that liquidation but they're also using any excess funds after the liquidation is executed to fund their insurance pool. What is that? Well, it's a reserve fund that will be used in order to prevent situations of socialized losses. Basically, those situations in which the other side of the trade are harmed, those insurance funds can grow to become immense. For example over at BitMEX the fund stands at over 37,000 Bitcoin. All funded from the margin of wrecked margin traders. The larger the leverage, the larger the gap and more likely a liquidation and the more chance of your margin being chucked into the insurance fund. High leverage also has a broader impact on the spot Bitcoin market. As more traders use excessive leverage, it leads to unwarranted situations ripe for mass market liquidations. All one needs is a small price adjustment and a cascade of liquidations whipsaws the spot Bitcoin market. Only those who could see a mass liquidation event coming; whales for example will profit from this. Everyone else is left holding the back. So on every level high leverage that above ten times is suboptimal for everyone apart from the exchange. Firstly, you should consider if you even want to do it. Have you traded in the spot market before and have you developed a trading strategy? This could be a fundamental one based on price action or a more technical one that is shaped by the charts. Do you have a money management strategy? Essentially you should know exactly how much you're willing to trade. This should be viewed as a completely separate component from your huddled portfolio. It should also be funds that you should be comfortably able to lose without breaking the bank. You should then decide on what exchange you want to trade. You have no shortage of different options anymore. The chances are that if you're already using any large crypto exchange, then they could have a margin trading or futures feature. Exactly what exchanges you use will depend on the functionality you need as well as the coins that you want to trade. Bybid for example have the most efficient trading engine and a highly functional trading interface. It's one of those exchanges that offers high leverage but you should never go above fifteen times. You can find out more about bybit by visiting their website at https://www.bybit.com/en-US/

There are many people who don't want to use a centralized leverage exchange like bybit and that's understandable. Another exchange that I have used in the space is called dYdX. They are basically a decentralized margin trading platform that uses smart contract technology to facilitate leveraged trading. The max leverage over here is five times on the margin trading platform and ten times on their perpetual contracts, which is good enough for most. Caution; liquidity is pretty limited and you don't have nearly as much functionality or efficiency as a centralized exchange. This is just the nature of defy currently. We hope that the launch of Etherium 2.0 and other scaling solutions could help to supercharge decentralized trading platforms. In the end it's a really touchy subject. Some view them as instruments that have been shielded to inexperienced traders to benefit whales and exchanges. But one can't paint the entire billion dollar Bitcoin futures market with the same brush. Leverage trading when used responsibly can optimize portfolios and actually reduce risk. It's not about the instrument itself but how it's being used. Irresponsible trading will wreck people whether they trade Bitcoin a hundred times, go all-in on some altcoin or sink all their ETH into a defy lending pool. Risks should be assessed and managed. Some leveraged exchanges make it all too easy for beginners to get Rekt'. They offer the same instruments to those traders with years of experience as they do with those who just started trading a few days ago. But that's why it's imperative that those margin trading on these exchanges understand exactly what they're doing. They need to know just why high leverage is suboptimal and dangerous. If we have less people trading these instruments as a casino and more people using them in a responsible manner, we'll have less people with unpleasant experiences. Moreover, if we have fewer people leveraging the markets then we won't have those price swings that make the markets feel like a roller coaster.

Chapter 4 Trading Mistakes you Must Avoid

Humans with inherent emotions that make us susceptible to making certain mistakes. These mistakes can be increasingly costly when you place money into the mix. Even some of the best traders in the world can fall victim to these psychological mistakes. But what are these mistakes? Well, in the following chapters I will share with you exactly what they are. I will also give you some top tips in order to prevent you from falling into the trap. It's important to point out that these mistakes are relevant for trading any type of markets. This includes cryptocurrency, Forex stocks and commodities. It's also quite a comprehensive list that covers a number of trading errors from the well-known to the less well-known. So if you feel that any of them in particular don't apply to you feel free to jump to the next chapter. The first and most fundamental mistake that newer traders make is not having a plan. No trading formula or investment hypothesis no structure to formalize their trading in a consistent and well-thought-out manner. They treat trading like a roulette wheel at the casino. Throw a few hundred bucks on one trade after the other. Hope for the best and maybe you pick the right trade that turns profitable. Quite expectedly this strategy is not profitable. In fact it's unprofitable. You'll win some, you lose some but in the end the trading fees will build up. Most of the time that new traders jump into the market they're doing so in expectation of making money. They want to move to that stage from the get-go and would prefer to forego the few days required to formalize a plan. What do I mean by a plan? Well, defined goals around target returned and the timeframe in which you want to achieve them. How much are you willing to risk and is it well within your budget. Then once you've formalized you need to develop a trading strategy. This itself is a pretty large task but can pay dividends in the future. What sort of markets are you looking to trade? Are you going to focus more on technical analysis or fundamental? In each of these there are a host of separate decisions that need to be made; timeframe, indicators and metrics. So you should be doing your homework. If you treat the markets like the casino then you'll always lose to that house edge. People hate taking a loss especially when they think that there's a conceivable chance they can recover from a loss. This fear of taking a loss often leads them to make sub-optimal decisions. This is true for trading as much as it is for anything. They avoid cutting a losing trade as they hope it could recover. Even if the trade has proven to be a bad one, the trader will keep it open on the off chance that he was right and the market will correct itself. This is a fool's errand that often leads to more losses. Momentum is a pretty powerful force in the financial markets and if a trade breaks from your hypothesis, cut it quickly. Take the minor loss and reassess your position after that. On a purely psychological level you can think more clearly about your analysis when you're not being swayed by a losing position. Has the market really shifted? Was there some news that changed the variables and inputs? Did the market breach some key technical levels? All important questions that need to be answered before you place your next trade. While we're on the topic of placing new trades there is only one mistake more destructive than not closing a losing trade. That is chasing it and adding to it. Doubling down on a bad trade is one of the quickest ways to get wrecked and deplete your capital. Gamblers do it often and the term is called “gamblers ruin” as we've established. If a trade is going against you, it's more likely to continue with the momentum. Therefore if you add to that trade you could be slowly digging a hole that many traders have disappeared down. Of course there is one simple way in which you can avoid all of these risks in time. That is by simply avoiding one of our next mistakes; failing to place stop losses. The next mistake and this one is another classic rookie error; trading too many markets. Some of the best traders in the world are specialists. They know the ins and outs of a particular market and they focus on that almost exclusively. Essentially they own their domain. They know which markets they're most profitable in and which they are not. Some of the less experienced and newer traders on the market tend to want to trade a number of different markets. They want to be a jack of all trades. They'll jump into cryptocurrency and then trade Forex on the side all the while trying to experiment with stocks. Even if they're only trading one asset class having positions in too many different assets can be detrimental. A single trader can only pay a certain amount of attention and focus to a market. The moment you start splitting that attention onto other markets, you're hampering your performance in both. There is a very good reason as to while you'll want to focus in on only a few assets. You know exactly how it will react to important news. You learnt the relationship it has with key market variables. You get a bearing for all its quirks and features. There's also a precedent for this in some of the most profitable hedge funds and banks around the world. If you look at their trading floors, most traders will own a particular market. There will be a trader who specialises in gold options. Another in oil futures and a third in euro swaps. Those who are most skilled at a particular craft can provide so much more to an economy than those who try to perform 15 different tasks. So use the same principles when trading. Find a market that you'd like to trade and make it your own. Learn its ins and outs. Study the historical charts and understand its particular features. You could either do this when you're formulating your initial trading plan, or you can progress towards your ideal markets when you initially start trading. Of course that this does not mean you shouldn't trade more than one market. It means you should just be more discerning in the markets that you trade and put most of your attention on those you know you have a realistic chance of crushing. The next trading mistake I'll talk about is a slight variation of this and it is called Overtrading. Many people seem to think that trading returns are somehow correlated to trading activity. Then the amount of trades you push out could have some sort of an impact on your profitability. This is a fallacy and more often than not the opposite is true. You have those trading fees that are charged on every trade that you make. The more trades that you make the more that these can rack up. Often the most valuable time spent those are the biggest ROI is when you're doing your research. When you're studying your charts and formulating your trading parameters. Actually executing the trade should only be a minor use of your time. After it is live you should be monitoring your open positions and adjusting them when your analysis warrants it. What is considered overtrading? Well, there's no real hard and fast rule. It really depends what kind of trader you are. Day traders will tend to trade more than those who have a longer-term perspective. Scalpers will trade even more than day traders. Sometimes if there isn't an attractive opportunity you don't have to trade at all for the day. Basically you should never feel compelled to trade even when there are no opportunities. There are no opportunities because analysis has not found a reasonable chance of profit. If you just trade for the sake of it then you're likely to confirm as much. So keep those itchy fingers away from the execute orders. Stop losses are automated orders that are placed at key levels above or below your entry point. Dependent on whether you're long or short. Their orders that will close a trade without any intervention and can help eliminate the risk of flawed psychological thinking. If a trade goes against you and you don't adjust your stops, they'll be closed and will stop your losses. Another very important reason for stop losses is of course that they will still be executed even when you're not monitoring your trades. This is especially true of overnight markets like Crypto in Forex. We have to sleep and won't always be there to monitor our trades. There are numerous strategies when it comes to placing these stops as well as a large array of stock types that you can set. For example you can set stops at define technical levels. Or you can set them a few percentage points away from your entry level. You could also set a trailing stop that will remain a few percentage points away from your trade. It will automatically adjust if your trade moves into profit. Whatever stops you're going to be placing it should be done in tandem with your broader trading strategy. If you are scalping, then they should be very tight stops. If you're monitoring longer term trends then it can be placed just above a key capitulation point. So set a stop and let it ride. If you hit it there will be a loss but one that you mentally budgeted for and are willing to accept. So you have a budget set aside for trading but you now also need to be responsible with how you manage your risk. Another really common mistake I see traders making is using way too much leverage. Leverage is a double-edged sword. It can enhance your gains but it can also chop you down to size. Placing trades with limited margin down means that one unforeseen swing in the market could wipe out your trading account. This is particularly relevant in the cryptocurrency markets where you're trading incredibly volatile assets. Bitcoin has many mood swings and a negative move can leave you with less than half your money. Leverage to that and the losses are even more severe. Moreover, there's no reason whatsoever for you to max out your leverage. Just because you can trade with 100 times your capital, does not mean you should. You can be just as successful in the long run using leverage of even less than 20 times. So a well-thought-out money management strategy overlaid with a carefully crafted risk management strategy is the most effective way to stay in the game even in the bad times. On to the next mistake and this one is one more for the technical analysts out there. Using too many indicators. Those charts that some experts draw up with so many indicators and trend lines that it looks like a Christmas tree. The term is called analysis paralysis, and this is exactly what using too many indicators will do to your trading. This can cloud your judgment and overcomplicates your trading. Moreover, many of these indicators could contradict each other. You could have a great opportunity on the MACD and the RSI is at a reasonable level. But, the stochastic oscillator contradicts that. You throw on the money flow indicator and your trading analysis turns to mush. The same can be said for time frame analysis. If you're looking at moving averages from a plethora of different time frames, it could throw off your current analysis. For longer-term analysis the 200, 100 and 50 day timeframes are used. For shorter term trends you could examine the 10 or 20 day moving average. However there is no need to plot excessive moving average charts onto your graphs. So try to be on the side of simplicity for your analysis. Just because it looks overly complicated, does not mean it's better. You can easily spot that golden signal in the noise with a well-defined, yet limited set of indicators and charting tools. The next mistake is another really big one that people tend to make not only when it comes to trading but any sort of investments as well. You should never trade with more money than you can afford to lose. It's only practical. Apart from being highly irresponsible, it's also illogical. When you invest with most of your free capital you tend to be emotionally invested. The implications of losing funds become so dire that you can't help in it interfering with your analysis. You miss trades that you should have taken and you chase losses that you most definitely should not be chasing. So it's just sub-optimal from every perspective. You need to have money management strategy like you have a trading strategy. You have to carefully carve out a trading budget that you're comfortable staking. You should also be completely comfortable losing this stake, should the worst happen. If that happens you may cool off from trading for a month or two but you'll still have money in the bank. A roof over your head and food on the table. The next mistake and this is one that most make before they've even placed a trade. Choosing the wrong exchange or broker can be a pretty big mistake but it's entirely avoidable. It's essential that you do proper research before you start using a particular exchange. These guys aren't the counterparty to your trade and they determine your trading environment. It's also worth pointing out that the broker and exchange space is littered with scams and bucket shop operators. Either they're out to rip you off or are so incompetent that your trading experience their leaves a sour taste in the mouth. So then what should you be looking for? Well there are a number of things but here is just a quick summary. Reasonable fees; it directly impacts on your profitability. Secure fund storage; you want your funds to be safe. Do they use segregated Fiat accounts in cold storage for their crypto asset coverage? You want to have some selection. Platform functionality; does it have all the technical tools you require? Is it intuitive and bug free? Execution effectiveness; can it place trades quickly with limited slippage?

Are there regular system outages? Reputation; if they've been bad, you can be pretty sure other traders will have complained. Are there warnings and advisories out there? What are other traders saying? While some of these can be found out through just a bit of digging, most others can be discovered by trying the exchange or broker out. Create a test account, use demo funds, work your way up to the first deposit and even then start small. Once you've found an exchange that suits your trading style and ticks most of your boxes, then that's one less hassle to worry about. The next most overlooked mistake is called overconfidence. Overconfidence and cockiness can work for certain fields and careers but it most definitely won't work when trading. When you start getting complacent about your trading price you start to get lacks in your analysis, you don't critically analyse your trades anymore and forget some of the key strategies that you employed to secure that profitable position. Arrogant traders also tend to take on more leverage, trade markets they don't know too well or worse yet, invest more than they really should. This is not a mistake that only inexperienced traders make. Some of the best traders in the world have yield to their own hubris. All examples of some really professional traders who thought they were invincible and in the end were proven not to be. So a healthy dose of humility pays huge dividends for long term trading gains. The next mistake on my list is close to choosing the wrong exchange and that is following bad advice. We've all seen them on Twitter, Instagram and even on YouTube so called trading experts with their rented Lamborghinis and fake cash traders who advertise their lucrative trading returns as the reason as to why they can boar. The sad thing is that 95% of these wonder kids are nothing but effective marketers. People who could not really trade to make money so they're trying to sell their “incredibly successful trading services”. This could be in the form of paid telegram groups signals education packages or other money-making tips. Some of these guys make a killing selling these so much so that they can afford the lifestyle that makes newbies think they're great traders. It's a vicious cycle. There are so many free resources online. Everything that you could possibly want is at your fingertips. It just requires a bit of digging here or there. There are lots of successful traders and not a single one is successful because of the secret advice from an online guru has shared. Who are some of these false prophets? Well, I'm sure that you can spot them if you just use the simple rules of thumb just mentioned earlier. Most of these mistakes that I've mentioned are in relation to avoiding losses. But in order to be a successful trader you also have to effectively secure your gains. This brings me on to the final of the few mistakes traders tend to make. Never be scared to take a profit. If your trade has proven successful and you're comfortably in the money, then bagging those gains could be well worth it in the long run. Also traders tend to fall into the psychological fallacy that a trade that was successful will continue to be successful. They want to “ride their gains”. The problem is that this is more of a gambling tactic and it's equivalent to chasing losses. You're making decisions that are based on your gut rather than your brain. Gut feel trading is not the most reliable strategy for the long run. By all means, if you are analysis points to even better returns then keep the trade open. But do place some stops above your entry so that you can lock in those gains. It's also best practice to place some take profit stops at key levels or a certain percentage away from the entry. Blank the case with stop losses; this can remove the emotional component and will also ensure execution if you're away from your PC. Moving on let's assume that you've been placing a number of successful trades and things are going well. These trading mistakes you just can't afford to make. I hope these examples will help you avoid potential landmines that could blow up your trading returns. But truth be told much more is required if you want to be a consistently profitable trader. It's an iterative process that requires a hell of a lot of research and analysis. It takes time to formulate your trading plans and find the right markets and products to trade. Not only that, but learning the ins and outs of said markets can only really be done after months of actually trading them. There are no get-rich-quick trading schemes, but if you stay the course and keep your focus you will eventually start seeing the returns.

Chapter 5 Margin Trading Tips & Strategies

Cryptocurrencies are all about decentralization. Individual control of our assets that no one can restrict or seize. Yet it's always puzzled me why seemingly decentralized assets are overwhelmingly being traded on centralized exchanges. Nowhere is this more prevalent than on the crypto derivative and margin exchanges. People think that there are no real decentralized alternatives and even if there are, they require a PhD to operate. Well that was until dYdX opened their protocol. In the following chapters I'm going to share with you everything you need to know about dYdX. I'll also take you through the process of trading lending and borrowing on dYdX, as well as comparing it to some other apps. So what exactly is dYdX? Well, simply put it's a noncustodial decentralized crypto exchange or DEX. However unlike most other Dex's, here you can lend borrow and trade on margin. It's an open source trading protocol that was built on the Ethereum protocol and is powered by smart contracts. Given that it's non-custodial it means that no one else but you are in control of your private keys. Trading is done by connecting your Ethereum wallets to the exchange. No KYC, no limits, no questions. It was started back in 2017 and they raised over ten million dollars in seed funding from some well-known VC funds. It went live in May of 2019 and has grown considerably since then. There is currently just under 19 million dollars locked into the protocol and it's the 8th most used app. There has also been over 200 million dollars that has been traded on the protocol. So much growth for dYdX? Well, this comes down not only to its functionality but also its relative simplicity. An ideal mix for adoption from the broader crypto community. Let's take a look at some of these features starting with their primary MO; margin trading. Trading on the margin means increasing the size of your exposure to an asset through leverage. At the large centralized exchanges such as BitMEX the exchanges will loan you a position in an underlying crypto for only a small deposit, the margin. With a leverage position your gains and losses are magnified by the leverage factor. At a decentralized exchange, they will monitor your positions and if they deteriorate to a certain level then you will be liquidated. This is all done by the internal liquidation engine that these exchanges run. You can't see how these engines work and you don't know all the parameters that are used in those algorithms. At dYdX on the other hand the protocol is open-source. Fully auditable smart contracts adjust leverage ratios, free up margin and if need be, liquidate positions. You can see exactly how the protocol works in a fully transparent manner. Leverage at dYdX goes up to a maximum of five times or an equivalent margin position of 20%. You might be thinking that you can get up to 100 times over on BitMEX! Well, yes you can but do you really need 100 times leverage to be profitable? Let's not forget that leverage is a double-edged sword and you can lose just as quickly as you can gain. Is the benefit of trading with so much leverage worth the risk of trading against your preferred instrument? Five times leverage on a decentralized exchange is pretty good for most traders that know what they're doing. Also with lower leverage you have less risk of liquidation.

Another really good feature that you have a dYdX is that you have two types of margin mechanisms you have isolated and then you have cross margin. Isolated margin is the mechanism that you're most likely to be quite familiar with. It's where you will isolate a particular amount of your funds as part of a trade with a specific leverage level. If there is a liquidation, the losses will be capped to your isolated position. But cross margin is something different. This utilizes all assets that you have in your account. It takes into account your combined position in your account when it is determining leverage and limits. There are a number of reasons as to why you may want to cross margin your trades. When it comes to trading pairs you have ETH-DAI, ETH-USDC and DAI-USDC. You can trade the difference between a centralized and decentralized stable coin. While leveraged trading is one of the selling points of dYdX, don't forget that's also a standard Dex. You can trade the above spot assets in the spot market. The next feature that I want to share with you on dYdX is their lending feature. When you're lending your crypto out on dYdX, it's being lent out to other users on the platform and you are earning an interest on that deposit. This interest is earned on a continuous basis and is sent straight to your wallet. This is also relatively risk-free lending because the dYdX protocol ensures that the borrower's are over collateralized. What do I mean by that? Well, they have a collateralize a shin ratio that requires more crypto collateral than they have borrowed. This means that the market was to move quickly, there are enough funds to pay back the lenders. Another really great thing about dYdX and defy lending gaps like it is that there are no restrictions on the deposits. You can withdraw the funds lent whenever you like. The concept of a term deposit is alien in the crypto space. Given that this is a decentralized app there is no entity or intermediary that's controlling your lending. It's all managed through the use of transparent and decentralized smart contracts. This makes it quite different from other crypto lending platforms such as BlockFi or Nexo. The final primary feature of dYdX is the ability to borrow. Part of the reason that dYdX can operate a leverage Dex is because of the global lending pools facilitated by the protocol. These pools apply to a particular asset and are all operated by smart contracts. Supply and demand in these lending pools will determine what is called the utilization ratio. This is basically just the amount of funds that are utilized in the lending pool. So borrowed amount divided by supplied amount. This will have a direct impact on the interest rates that are being charged or earned. It's pretty clever. The same happens in traditional financial markets. Interest rates are seen as the cost of capital and they move according to how many people want to borrow a fixed portion of capital, versus those who want to supply it. That aside, borrowing on dYdX can be done up to a minimum collateralization ratio of 125%. Anything below this level and you cannot borrow any more crypto. Once that crypto hits 115%, your trade will be liquidated. This is in order to keep the trading pool solvent and keep the lenders that we talked about earlier hole. Those who are liquidated will have to pay a liquidation fee of 5%. This is done in order to make short borrowers keep their accounts well collateralized and firmly above the liquidation level. Now you have a reasonable overview of the main features of the dYdX platform, but how can you use it? Well, it's actually pretty simple. So simple in fact, that you can even be forgiven for forgetting that it's a Dex. From the homepage of dYdX, you can select what you want to do trading, borrowing or lending. For me I'll discuss trading, so if you click on that, the main dYdX user interface it's pretty well laid out and looks much like your typical centralized cryptocurrency exchange. Here, you have your order forms, your order books, the buy/sell walls, charts open orders and positions. It's actually neat that they've included this trading view chart as this will allow some of you more technical traders to run your TA. You can also switch the chart here to view the market depth. In order to trade on dYdX or any decks for that matter, you have to connect your wallet to the dap. You can choose from any wallet here you can connect your ledger if you want but I will give you an example with Metamask. Once you wallet is connected, you'll need to approve the transaction on your device and you're ready to go. Like with any exchange, you'll need to deposit assets in your account. Given that you also have that lending component, you should note that the moment you deposit funds at dYdX, it will be placed into the lending pool and you will start earning interest. Give it some time for the network to process the transaction. Once it's fully confirmed and deposited into your account it will be reflected on your balance. Now you're ready to trade. Given that we're going to trade on margin, you have to select that one. Going to go long on ETH-USDC pair, you can choose the position size as well as the leverage. As mentioned your max is 5 but you can set a custom leverage limit if you want. When it comes to the Advanced Options, you can set your max slippage. This is basically the maximum amount that you will allow the price to fall and would still be happy executing the trade. If the price slips past this max slippage point, then the order will be cancelled. Regards to the expiry time point, dYdX trades are not perpetual. You can think of them more as regular futures that have expiry times. So once you reach expiry, the position will be automatically closed out. Once you're fully comfortable with the parameters and then you can place the order and it will go into the books. You'll be able to monitor your trade in the positions tab as well as your PNL. You also should keep an eye on that collateralization ratio. If you slip below the liquidation point, then you'll have your position closed and lose that liquidation fee. That’s it. This is the margin trading feature. Spot trading is much like the other standard Dex-s that you have seen. You will technically be swapping one crypto for another. You also have a lot more order functionality than you do on the margin trade. These include placing market orders, limits as well as stop orders. You can also select how long you'd like the order to remain open. It's time forced. So there is a bit more customization options around your orders here. Do note that if you have any leverage trades open, trading in the spot market will impact on your margin and in turn, collateralization ratio. So keep an eye on that. When it comes to lending on dYdX it's pretty simple. As mentioned, the moment that you deposit crypto onto the exchange, it will start earning interest. You can see those interest rates over in your balances tab at the top of the platform. Here you will have both the lend and the borrow rate on the various assets. You should also note that dYdX will take a 5% cut of all interest payments in order to fund an insurance pool to protect the protocol. This is already reflected in the rate. These rates are annual percentage rates but have paid continuously into your wallet. To complete this walkthrough, let's take a quick look at the borrowing feature. Here, at the top is the tab to borrow funds on dYdX. It's a pretty straightforward layout. On the left you have all your asset balances. Here you can repay outstanding balances and you can borrow new assets. Then in the center, you have all your outstanding borrows. Borrowing crypto is pretty simple. All you need to do is select the crypto that you want to borrow. Choose the amount you want to borrow as well as the crypto that you'll be depositing. For example if you want to borrow DAI and will be depositing ETH, you hit borrow DAI and confirm the transaction on your wallet. You will see the outstanding burrow show up in the center as well as all the interest rate that you'll be paying. That does it for the platform walkthrough so let's take a look at something I'm sure you want to know; the fees. Until recently it used to be free to trade on dYdX. You would sign a message to create an order in the book. When those orders were matched, dYdX submits a transaction to execute the match trades on chain. dYdX would have to pay the gas costs for this transaction. While this works smoothly with smaller trading volumes, as volume picked up this year so did gas costs. In February 2020 they had to fork out over at least $40,000 in gas fees in order to cover it. There was a change in March of this year where they announced that they would start charging fees in order to cover this cost. The fees that are being introduced will follow a standard maker take a model. Essentially those who are making markets and providing liquidity will get a lower rate than those who are taking it off the book. In the case of dYdX, makers will have zero fees and takers will be charged a few percentage points. Do note that there is a different take a feat for those who are trading less than 0.5 ETH. This is only logical as gas fees on transactions for small orders are just as large of those of larger orders. If we were to compare these fees to some of the larger exchanges such as Binance, the taker fee on orders above 0.5 ETH is slightly lower. Whereas its higher with orders below 0.5. Still pretty impressive for a decentralized exchange. In terms of any other fees that you could have to pay on dYdX, you have that liquidation fee that I mentioned and then if you allow the trade to expire, it will have to be traded. This trade carries a 1% price spread. All in all these fees are reasonable and are the cost of maintaining a secure and highly functional defy protocol. dYdX has built a pretty simple client and trading API that will allow you to build trading BOTS. Much like you can build BOTS that interact with the large centralized exchanges, you can develop them here to trade on chain at dYdX. Except, when trading a dYdX you can place instant non-custodial trades. There are also a number of other benefits that can come with building bots at dYdX. Not only can you programmatically partake in the margin trading, but you can also run a liquidation bot. What is that? Well at dYdX you can also participate in the liquidation of under collateralized positions. Doing so, earns you that 5% liquidation fee that I mentioned before. If you're running a bot 24/7, you can basically scan for these under collateralized accounts and take advantage of them when the moment arises. dYdX have even provided the code for an open source liquidation bot. One of the final few things I want to look at is the competing d5 project dYdX is up against and how they compare. There are a number of other projects ranking higher in value locked than dYdX.

The top three are actually quite interesting called; maker, synthetics and compound. Maker is a decentralized autonomous organization or DAO, upon which the DAI stable coin is built. Since the issuance of DAI, it's become the most popular decentralized stable coin on the market. There was also recently an upgrade of the eco system to the multi collateral DAI. Basically this is also a lending protocol that has got a decentralized exchange feature as well. This is all done through the Oasis defy hub. While the lending and borrowing features are pretty straightforward the trading feature is left wanting. It's pretty basic and is way less advanced than dYdX's. Just after maker is synthetics, this was another really exciting project. It's a decentralized trading protocol that allows crypto traders to take positions on synthetic crypto assets. It does not only have to be crypto but it can also include a number of traditional asset classes. You can also trade inverse assets which would be similar to shorting a pair. There is no doubt more trading optionality than dYdX, you don't have margin trading. I also find that the trading interface is pretty basic when compared to that of dYdX. Of course some people find it's simplistic which is a plus. Finally, you have compound finance. This is a lending protocol that has also been making waves recently. It also has a pretty sizable lending pool. Apart from the size of the lending pool you also have much more optionality when it comes to lending and borrowing. Something that is pretty neat was the wrapped Bitcoin lending. This basically means that you can lend an ERC20 asset that tracks the price of Bitcoin. You can't trade on it like a Dex and you don't have margin trading optionality, so it won't really satisfy your needs there. I really like what the team is doing and they have built a pretty effective Dify dap. It's pretty easy to use for most crypto traders used to the large centralized exchanges. The simplicity does not come at the cost of reduced functionality. Lending, margin trading, borrowing and liquidation are all part of the dYdX package. The recent introduction of trading fees may disappoint some of the earlier traders on the protocol but it was always expected. Upgrades take time and developers got to eat. I would recommend giving dYdX a try if you haven't already. Of course be sure to manage your risk and never trade lend or borrow more than you can afford. If you are interested to sign up or want to look at the platform you can find it at https://dydx.exchange/

Chapter 6 Best Crypto Trading Bot Platforms

When it comes to day trading crypto there are such an amazing opportunities out there. But there is one major problem. Crypto markets never sleep and most people need to catch sleep from time to time. That leads to many traders going to bed and waking up only to discover they missed out on a huge market move and an amazing trading opportunity. This isn't a problem for some traders. Why is that? Well, it's because some use crypto trading BOTS. In the following chapters I'll explain what crypto trading bots are. I will also go over the pros and cons of using them and compare the top trading BOTS side-by-side. So what are crypto trading bots? Well, they are computer programs that trade on your behalf with a given set of instructions or rule criteria to act on. So that might be something like buy X amount of Bitcoin if a certain price target is hit. Once that rule criteria is met, then the bots will automatically execute the trade you wanted. What this means is that in order to use a crypto trading bot, you will need to connect it to a crypto exchange account using something known as an API or application program interface. Basically that API gives your trading BOTS the ability to place trades programmatically at the exchange. The result is that you can execute trades in your sleep. You're essentially handing over access to your exchange account to a computer program. What happens if there is compromised code in the bot or the company that made the crypto BOTS turn out to be scammers? These are all very real concerns that you must be aware of. Are the machines going to take over your Binance account? Well not exactly. The good news is that you can set permissions for exchange API's. You can determine what particular API keys have the ability to do in your account. So for the crypto trading BOT, you can set the ability to only write orders buy or sell but not to initiate a withdrawal. Most likely a good idea. You can also limit IP addresses too. What that means is that any instructions must come from your own IP address which is a neat way to protect yourself against a scammy crypto trading bot. So now that you know what a trading bot is I want to go over the pros and cons of using them and give you some cold hard truths. One major Pro is that these BOTS enable you to trade 24/7 and execute trades in your sleep. That means you'll never miss out on the another trading opportunity ever again. Also trading BOTS help take the emotion out of trading. You are simply setting the rule criteria or instructions in the bot and leaving those trades to execute if your criteria are met. That means you should be less susceptible to FOMO or panic selling. Another benefit of using bots is that they allow you to back test your trading strategy. What that means is that a bot can take that strategy you're using and apply it to all that historical crypto price data and tell you how successful it is. Finally trading bots simplify trading. But they are pretty expensive. Given that a crypto trading bot can access and simultaneously carry out multiple trades across multiple different exchanges you only need a laptop to be trading. Still not all is well when it comes to crypto trading BOTS. I'm going to have to be straight up on the cons. Many people seem to be under the illusion that trading BOTS are some form of magical money printing machine. Get one, switch it, on and you make money all day long. Sorry but that's not the case at all. With a bot you have to constantly tweak your trading strategy. That is work and it is certainly not a set and forget it money printer. Another con for crypto BOTS is that there are a bunch of scams out there. Even if you find a legitimate one some are so poorly coded that it's going to be impossible for you to execute a single profitable trade. Therefore you need to be really careful with crypto trading BOTS. If it sounds too good to be true then it probably is. I will list a few trading BOTS shortly, but if you choose to use a different trading BOTS that’s completely fine. It's always good to assess your options but if you see trading BOTS claiming to guarantee returns for low one-off pricing, please run for the hills. More than likely it's a scam. Another thing many people do not realize is that crypto BOTS need to be monitored. Do not expect to switch on a crypto trading bot and be laughing all the way to the bank. The market is cyclical. Trends come and go all the time. Basically a bot is not a substitute for being a smart trader. To use them, you will need to keep your funds on an exchange. There are a lot of highly reputable and secure exchanges out there but hacks do happen. With all that said, in the following chapters I will list some of the best and most well-known crypto trading bots. Shrimpy is a social portfolio management tool and crypto trading platform that bursts onto the scene in 2018 and quickly gained a ton of popularity in the trading community. The value proposition was simple. Provide as many top-of-the-line trading tools for the lowest price possible. That's why they offer a good range of services for free. What's important to note is that Shrimpy is not designed for signals or indicators. So it's not the best tool for day traders. Instead it is a longer-term portfolio management tool which automates things like portfolio rebalancing, dollar cost averaging, and stop losses.

That approach is perfect for anyone that wants to take a top-level view of their portfolio and wishes to automate the management of that. Unlike other trading bots that provide almost every possible indicator, signal and stat, Shrimpy eliminates that complexity by focusing only on core long-term trading strategies. That makes things super easy for beginners and this is also why Shrimpy is normally the first crypto trading bot I recommend to friends interested in this bots. Another important feature is their social portfolio management. This enables you to take a bit of a backseat when it comes to managing your funds and allows you to select other traders to manage your portfolio for you. You can also select the best traders on the platform and get a copy of their trading strategy without, copy trading them. That's a great learning tool and you should definitely check out. Also Shrimpy offers a pretty powerful back testing tool. So if you have that ultimate trading strategy that you want to put to the test, then you can do so right here. Right now Shrimpy doesn't have a mobile app. If that's important to you then you should certainly weigh up other options. The Shrimpy crypto trading bot is also supported on a ton of different exchanges such as KuCoin, Binance, Coinbase, GEMENI, OKEX, Bitfinex, Poloniex, BITtrex, BitMart and Huobi Global. What's the cost of all this? Well Shrimpie offers a pretty extensive free plan that allows you to link unlimited exchanges to monitor your portfolio performances, blacklist assets gives you access to an asset balance tracker and more. However if you want to automate that portfolio management back test those trading strategies or use Shrimpie social trading features, then you'll need to opt for a paid plan. That will set you back just $13 per month if you opt for the annual plan or $19 per month if you want to pay monthly. Additionally, Shrimpie does offer an enterprise plan too. So what are the benefits and drawbacks of Shrimpie? Well they offer a lot of features entirely for free and the subscription fees are quite reasonable. If you are a crypto HODLer and want to automate things like portfolio rebalancing and dollar cost averaging, then Shrimpie is going to save you so much time. The social trading feature is also ideal for anyone that wants to leverage the knowledge of top crypto traders that do nothing but eat, sleep, trade and repeat. In terms of drawbacks ,Shrimpie is not open sourced so you're going to have to trust the thousands of people using it that the code is good. Also there's no mobile app which could be a deal breaker for some. Finally, Shrimpie does not provide the functionality that most active day traders will need. If that's you then there are certainly better options out there coming up in the following chapters. In my opinion Shrimpie is a top option for long term crypto holders who want to automate that portfolio management or want to copy trade some of the best traders in the space. To learn more about Shrimpie, please visit their website at https://www.shrimpy.io/

TradeSanta is cloud-based BOT and has a solid reputation with over 45,000 active users 14,000 active trading BOTS and 1.8 million completed trades. However I do want to give you a fair warning. It may take you a while to get used to some of the functionality. When it comes to features, TradeSanta offers a long bot template to use when you expect a crypto asset to rise in price, a short bot template when you think it will fall and a custom template which gives you the freedom to leverage the full functionality of the bot. In addition to all that TradeSanta offers you a excess of technical indicators to digest. These include things like Bollinger signals, trade filters and volume filters. Another neat feature that is great is the real-time tracking, which enables you to monitor the bots progress on-the-go with transparent analytics and telegram notifications. TradeSanta has also got an iOS and Android app. When it comes to exchanges, TradeSanta supports HitBTC, Binance, BitMEX, Houbi, OKEX, Bitfinex and BITtrex too. In terms of pricing, the good news is that TradeSanta offers a 5 day free trial. So you can jump in there and play around with the bot to see if it's worth your hard-earned money. After that you can use the free version which gives you access to just two bots and has a maximum monthly volume limit of $3,000. On top of all that, you'll get access to an unlimited number of trading pairs, all TradeSanta strategies, telegram notifications and general customer support. The basic plan gives you access to everything the minimum plan offers, while unlocking access to up to 49 BOTS and allowing you to run an unlimited amount of trade volume through the bot. That will set you back $14 a month. This is the plan I recommend for most people who choose to opt for TradeSanta. However you can upgrade to the hit BTC promo plan for another $7 per month. This gives you everything in the basic plan plus 0% trading fees on HitBTC. Some might say that's a valuable benefit but I'm not the biggest fan of HitBTC. The top pay plan on TradeSanta basically gives you access to everything the basic plan does, plus the 0% in trading fees on HitBTC and access to an unlimited number of bots. That will set you back to $70 per month. Honestly I doubt any of you will really need to shell out $70 a month. So what are the pros and cons of TradeSanta.

Well you should certainly have this bot on your short list if you want lots of automated trading options and are looking for an intuitive interface and reliable security measures. The bot is also well suited to beginners dipping their toes into the crypto bot waters. Needless to say, automating your crypto trading with such a tool is going to give you loads of time and there is a super active trading community, to meet like-minded traders too. Still, there are drawbacks. It lacks support for some of the major high liquidity exchanges like Kraken and KuCoin and doesn't support any decentralized exchanges. It's also not really suitable for taking advantage of arbitrage opportunities and is not open source. Who is TradeSanta for? Well, in my opinion this bot is ideal for any crypto day trader that's not interested in futures trading and envisions that they will take crypto bots seriously. It's also beginner friendly, so if you're new to the world of crypto bots then this is a great place to start. To learn more about TradeSanta, please visit their website at https://tradesanta.com/en
Next crypto bot on my list is called Crypto Hopper. Crypto Hopper provides expert trading tools without the need for coding skills. If you are into more advanced trading stuff like market making and exchange arbitrage, then this bot has you covered. The Crypto Hopper marketplace also boasts a plethora of trading templates, strategies and signals to choose from. These signals allow you to subscribe to professional analysts around the world and Crypto Hopper uses these signals to trade. But be warned that not everything in the marketplace is free. If you want to access your trading bot on the go, the good news is that there is an Android and iOS app. When it comes to crypto exchange support, Crypto Hopper integrates with KuCoin, Binance, Coinbase, OKEX, Bitfinex, Poloniex, BITtrex, HitBTC Kraken and Huobi Global. In terms of cost, Crypto Hopper offers a 7-day free trial. The basic pan will set you back 16 dollars per month and is ideal for more day traders. If you're into exchange arbitrage then you'll be paying $41 per month and the market making license is 83 dollars per month. What are the pros and cons of this bot? Well on the pro side it is easy to setup keenly priced. The marketplace is great and there is good coin and exchange support. If I was to have one gripe it would be that I cannot see who is behind the bot. Transparency goes a long way in crypto. Who can benefit from Crypto Hopper? Well honestly almost anyone that is interested in using a pro level crypto bot at a reasonable price. To learn more about Crypto Hopper, please visit their website at https://www.cryptohopper.com/

The next crypto bot on my list is called Gunbot. Gunbot also known as Gun-T. It's a pretty popular crypto bot that is compatible with Mac, Windows and Linux so you can run it on practically any computer. When it comes to features Gunbot comes with numerous inbuilt trading strategies that include the likes of step game, gain and ping pong. Another cool thing is that you can customize your trading strategies in Gunbot and the bot will execute those trades for you. When it comes to mobile support Gunbot is pretty well mobile optimized. Gunbot also supports a ton of top-tier exchanges like Coinbase Pro and margin trading on BITmex, Kraken and OKEX. What’s the pricing for Gunbot? Well this one differs from the rest which have a subscription-based model. Instead Gunbot charges a one-time license fee. The starter pack is 0.02 Bitcoin. However you'll only be able to use Gunbot to trade on one supporters exchange and access free trading strategies. Gunbot standard offers access to all trading strategies, but you will still only be able to use the bot on one exchange. That will set you back 0.05 Bitcoin. Gunbot Pro is where things start really heating up in the pricing stakes it will set you back 0.075 Bitcoin but you will be able to use the bot on three exchanges and you'll get access to trading strategy back testing too. The bot also offers a wide range of add-ons and upgrades as well. In terms of pros and cons, I really like the variety of trading strategies on offer at Gunbot. It's also easy to use and supports exchanges like Coinbase Pro but the downside is that Gunbot feels relatively expensive with its one-off fee structure. Who is Gunbot for? Basically anyone who wants a beginner friendly crypto trading bot that intends to be trading crypto seriously for a long time. To learn more about Gunbot, please visit their website at https://www.gunbot.com/

Next crypto bot on my list is called Crypto Hopper. Crypto Hopper provides expert trading tools without the need for coding skills. If you are into more advanced trading stuff like market making and exchange arbitrage, then this bot has you covered. The Crypto Hopper marketplace also boasts a plethora of trading templates, strategies and signals to choose from. These signals allow you to subscribe to professional analysts around the world and Crypto Hopper uses these signals to trade. But be warned that not everything in the marketplace is free. If you want to access your trading bot on the go, the good news is that there is an Android and iOS app. When it comes to crypto exchange support, Crypto Hopper integrates with KuCoin, Binance, Coinbase, OKEX, Bitfinex, Poloniex, BITtrex, HitBTC Kraken and Huobi

Global. In terms of cost, Crypto Hopper offers a 7-day free trial. The basic pan will set you back 16 dollars per month and is ideal for more day traders. If you're into exchange arbitrage then you'll be paying $41 per month and the market making license is 83 dollars per month. What are the pros and cons of this bot? Well on the pro side it is easy to setup keenly priced. The marketplace is great and there is good coin and exchange support. If I was to have one gripe it would be that I cannot see who is behind the bot. Transparency goes a long way in crypto. Who can benefit from Crypto Hopper? Well honestly almost anyone that is interested in using a pro level crypto bot at a reasonable price. To learn more about Crypto Hopper, please visit their website at https://www.cryptohopper.com/
My number one trading bot is called 3commas. What you need to know is that this is one of the most popular BOTS out there with over 140,000 users and 65 million dollars in trade volume every day. It has a super intuitive interface packed full of detailed analytics and a ton of functions. The bot also enables you to set stop loss and take profit targets and craft your own trading strategies. Personally I find 3commas smart trading functionality particularly useful. For example you might want to buy Ethereum with Bitcoin. But on some exchanges when you make an audit you need to decide if you want to set a take profit, or a stop loss. You cannot always set both and that's pretty inconvenient. But with 3commas that is something you can do as well as set trailing stop losses easily and quickly. That means, if the market jumps up 5% then the trailing stop loss raises your stop-loss by 5%. Some exchanges do allow you to set take profit levels and stop losses at the same time but if that trading pair you want to trade isn't there, then you don't have to pass up that opportunity anymore. On top of all that 3commas offers back testing, dollar cost averaging BOTS, a ton of different trading tools, a traders diary to keep all your trades in one place and a highly developed signals marketplace which allows you to mimic and automate the trades given by the top signals providers. That means you can follow them signals and let the bot do the hard work. 3commas has not forgotten about mobile users too. Just hit that App Store and you will see that the bot supports all sorts of major exchanges such as KuCoin, Binance, Binance DEX, Binance Futures, BitStamp,EXMO, YoBit, GateIO, CEX.io Coinbase Pro, OKEX, Bitfinex, Poloniex, BITtrex, HitBTC Kraken and Huobi Global. Cost wise, 3commas offers a free three day trial and prices range from anywhere between $14,50 per month and $49 50. If you are not

into futures trading then the plan for $25 is what you want. Onto the pros and cons, in my opinion 3commas has one of the best interfaces out there. It's got copy trading supports a ton of exchanges and offers that sweet signals marketplace. On top of all that I cannot stress how useful that smart trading feature is. 3commas is probably not the best pick for inexperienced traders. So if you're an experienced trader looking for all the bells and whistles, you need look no further than 3commas. As mentioned before one drawback of using these bots is having to keep your funds on an exchange. Which of course does have its risks but there is no getting away from that if you want to use them. So if you're going to be running trading bots then I do recommend that you split your funds across more than one exchange. These bots support multiple exchanges which makes it easier to spread that risk. Also if you're going to be using a bot that I haven’t mentioned before, make sure that you do your research and extra suspicious of any bots that promise returns. There have been a number of instances in the past where API Keys have been phished in order to conduct malicious trades so be aware of that. In the end crypto trading BOTS definitely won't make you a millionaire, but if used correctly they can equip you with the tools to improve your trading game. To learn more about 3commas, please visit their website at https://3commas.io/

Chapter 7 Option Moneyness & Put Call Ratio

We are all in search of that hidden edge on the markets. That slice of information that when used appropriately can give us outsized gains over the rest of the crowd. The only problem is that most of this information is reserved for a chosen few. Either that or it's ridiculously expensive to attain. But what if I told you there was a cheap and effective way to get hold of this. A free resource to better read the Bitcoin markets and be two steps ahead. Well, in the following chapters I'm going to explain how you can use the Bitcoin options market to your advantage. Not only when it comes to option analysis but also when trying to determine Bitcoin's price direction. All that is to help equip you with the tools you need to get the market edge. I want to start with a quick beginner's overview of options. An option is a financial instrument that gives the holder the right to buy or sell an asset at a pre-specified time and at a pre-specified price. A call option gives you the right to buy the asset, whereas a put option gives you the right to sell the asset. Because these options are instruments that give you optionality there is a cost that comes with them. This is the option premium and it is the price of the option. Options are themselves derivative instruments that are traded on their own market which is separate from the spot market. You can think of it as analogous to the futures and spot markets. There are a lot of variables that will impact on the premium of an option. These are collectively called the "Greeks" and they are inputs into the legendary black skulls pricing equation. If this appears daunting to you don't worry. All you need to understand are the main drivers of an options price. The first thing that i want to introduce you to is the moneyness of the option. This refers to whether an option is in the money or out of the money. Basically, if you're looking at a call option if the spot price "S" is above the strike price "K", then the option is in the money.

Example: $S > K$ options is in the money or ITM.

Conversely, if the spot is below the strike it is out of the money. Example of that is: $S < K$ Options is out of the money or OTM.

When you have the strike equal to the spot then it is at the money. An example of that is: $S = K$ options is at the money or ATM.

For a put option you just flip the arguments for the in or out of the money levels. The moneyness of an option is important as it impacts on the delta variable in the black skulls. Delta is a measure of how sensitive the price of the option is to a change in the price of the underlying asset. Then you have other factors such as the implied volatility. This is also a very important input in an option price and generally the higher the implied volatility, the higher the price of the option. It's only logical. A more volatile asset will demand a higher option price to make up for the risk in said asset. Then you have the time to expiry. This is also generally positively correlated with price. As the longer that you have to expire the more time value you have of the option. The sensitivity of the price of the option to the rate of change in time is called “theta”. This time value also makes sense when you think about it. The longer you have till the expiry of the option, the longer the time period in which the option could either be in or out of the money. These are just some of the main factors that will impact on the price of an option and they are perhaps the most important for you to understand if you want to trade them.

It’s time to explore how to use the option data to infer market trends and sentiment. Firstly I want to discuss the put call ratio. This is a measure of the ratio of the open interest or the volume of the puts, versus the calls. The open interest is a measure of the total amount of notional outstanding on a futures or options position. The volume is of course the total amount of options or futures that have been traded in a certain period. For example if we're talking about the open interest put call ratio, we're measuring the total notional outstanding value of all puts to that of the notional outstanding value of all calls. So what can we read from a put call ratio? Well it's able to give us a rough idea of general sentiment in the market. If there is more open interest outstanding for puts than calls, then that means there are larger bearish bets than bullish bets. Hence, a put call ratio of greater than one is viewed as more bearish than a ratio of less than one and vice versa. You can also view the put call ratio through time to get a feeling for how this broader market sentiment has changed. The ratio is slightly more than one when viewed with the volume metric and less than one when viewed with the open interest. I generally tend to use the open interest metric as this gives a more reliable indicator of outstanding trades than the total value of all the options being traded. So based on a put call ratio of 1.36, it means that the put option open interest is about 36% more than the corresponding call notional outstanding. On balance option market participants have more puts outstanding than they do calls. You may be wondering why is this relevant? Well, knowing how options traders are positioning themselves can give you a rough idea of which way they expect the spot market to go. And you should not really be fixated on the absolute number of the put call ratio but rather on how it moves. Whether it's increasing or decreasing, this can help give you a better sense of how that sentiment is changing. okay That's the put call ratio. Of course all this gives you is an overview of how the broader market is positioned. It doesn't really allow us to get a direct comparison in the pricing of puts or calls. This is where the option skew comes in.

Chapter 8 Options Skew & Market Parameters
Option skew is a measure of the relative richness of the put, versus the call options expressed in terms of implied volatility. It's a measure of how much higher the implied volatility of put options with a specific delta are to call options with the same delta. All normalized by the at the money volatility. Here is the equation that's used to calculate the option 25 delta skew.

As you can see we're trying to get a measure of how much more implied volatility there is on the puts than the calls, relative to a standard measure of the implied volatility. Given the direct relationship between implied volatility and option premiums, you can also view this ratio as a rough measure of how much more the cost of puts are to calls. If we have two options with a similar sensitivity to the price of the underlying asset, how much more are people willing to pay to take on the puts; bearish versus to take on the bullish view with calls. Let's take a look at a quick example. Let's say that the 25 delta options skew is sitting at about 20%. This basically means that the implied volatility of a put option is about 20% greater than that of a call. We can also therefore infer that the price of similar put options is greater than the calls to a similar degree. This therefore means that option buyers are willing to pay more to buy put options, than they are to pay for calls with exactly the same parameters. You can view it as a more bearish sign. We can also say the opposite if the ratio is negative. Much like the case with the put call ratio, you can view the options skew over time. This is helpful as it allows you to get a sense of how the relative value and hence sentiment has changed recently. For example here you can see the 25 delta option skuw on skew.com for the past three months.

This is for a range of different option expiry times from one month all the way out to six months. If you only look at the three month option skew, you can see this is currently at negative 8.3%. This implies that the call options have a much higher implied volatility and hence the premium is greater than the puts. Generally a bullish sign. However if we take a look at how this has moved over the past three months you can see that it's been trending lower. What we can read from this is that market participants are paying more for calls than the puts. Not only that but the difference has increased over time which shows that their bullishness has too. If you take a look at the spot price of Bitcoin over the period you can see that it's quite well correlated with this fall in the skew. I should also point out that option skew is much broader than just this. You can compare the skew across the entire volatility term structure. You have something called the volatility smile which illustrates this well.

But that's an entirely different topic. All you need to know about option skew is that it's a helpful metric that I often use in order to gauge relative value and sentiment of an option. That's the skew. Now let’s take a look at another metric. It would be great if you could use the option price to calculate the probability of Bitcoin being above a certain price at maturity. Well, that's actually a reality thanks to the black skulls model. Assuming that you have the price of an option as well as all the other parameters in this equation, you can back out the potential price distribution of an asset on expiry. For those of you who did stats at University, you'll know all about probability density functions like the normal distribution.

If it's foreign to you, don't worry. All that we're doing here is using the market parameters of the options in order to back out the probability of it being above a chosen strike price. This is also something that you don't have to calculate yourself. skew.com has a graph that calculates this for us. Here you can see the probability distribution for a number of different option expiries. Let's take a look at the December 2020 option just to isolate it.

As you can see the probability of the price being above 22k on the 25th of December is about 28%. If we move down more we can see that the probability of being above 24k is about 19%. We can also take a look at the longer term options like the March and June 2021 ones to draw similar probabilities. So what can these probabilities tell you? Well, they can give you a rough idea of how likely certain future prices are based on pricing in the options market. I like to use these as they help to give me a sense of more realistic outcomes. In crypto we're quite desensitized to these parabolic price predictions, so much so that we can sometimes get caught up in the hype. However over on the options market, most of the participants taking out the largest positions are professional investors. I'm talking institutional funds and sophisticated market makers. The prices that they are willing to pay for option protection and exposure are likely to be a better benchmark for their real price predictions than what they claim on TV. Of course I should also caveat that you should not use this as any sort of bible. It's just a probability measure backed out from market data. It's a useful data point you can use in order to further inform your analysis. That is option price probabilities.

Chapter 9 Trading Tips: Options Expiry Dates

Something else that I really want to touch on now is the option expiry dates, more specifically the impact that this tends to have on the spot market. If you follow any sort of crypto news website or trading group, you'll sometimes hear reference to the “option expiry dates”. If there are a lot of options that are expiring on the date then this could be an indication that there's likely to be quite a lot of volatility on the day. So the important question here is; why and how can you judge the likely price direction on the expiry date? Let's start with that first one. There is volatility around these expiry dates because market participants are trying to adjust their positions for physical delivery of the underlying asset. Similarly, some market makers may need to adjust their hedge positions in the spot market, as they approach these pivotal moments in the option price. So what you have, is a situation in which option expiry events are having a direct impact on the underlying spot markets. When there's a large number of outstanding options, the impact on the spot market is likely to be that much greater. This is something that's been known in the equity markets for a number of years. These are sometimes termed the expiry weeks where volatility in the underlying share starts to pick up. However given the growth of Bitcoin options, we've also seen these instruments impacting the Bitcoin spot price. This usually tends to happen about two days before the actual expiry. Those participants that hold the option may either close out of their position or roll forward into new options on the expiry date. So we know that options expiry dates are usually dates of interest when it comes to price movements. But, is there a way to get a sense of which way it's likely to move? Well, there's no hard and fast way but you can get a vague idea by taking a deeper look into the options order books themselves. In this case, I'm going to be taking a look at the Deribit order books. They are the exchange with the most liquidity and functionality for retail traders. To logon to Deribit , please visit their website at https://www.deribit.com/

So let's take a look at some options that are about to expire soon. What we're looking for is to determine how much theoretical buying or selling pressure is likely to come in the spot market from the expiry from these calls or puts in the options market. Basically to get a rough back of the envelope put call ratio. Next, you can further the range of options to those that are relatively close to the money level. Here you might choose an acceptable range for both. In my case I'm of the view that on the 21th of

December Bitcoin is likely to be within the 21K to 23.5K level. Hence I take a look at all the options that fall into this range. Now I want to try and determine the total outstanding notional or open interest on the call and then the put side. With these option expirations, the total open interest on the calls is about 4200 Bitcoin. Whereas on the put side the total notional outstanding is about 1770 Bitcoin. So, what this shows us is that as we roll forward towards the December 21st expiry date, there are a lot more cool positions in the market; almost 2.4 times more. So theoretically, this means that there is more chance of there being buying pressure in the spot market as we head into the expiry than selling pressure. A more bullishly positioned market. Of course I should caveat that at the time of doing this analysis there was still about two weeks to expiry. A lot can change closer to the expiry date and as I mentioned before in the Bitcoin markets the impact on spot markets of the open expiry only tends to be felt two or three days before. So, if you're going to be using this analysis method, I would encourage you to re-examine the relative open interest balance as we get closer to expiry time. You should also note that this is not a science. There are many other factors that can swing the price on expiry. Let's not forget that you also have the impact of the futures markets as well as large whale orders going through on the spot market. But, it is a handy guide that I use from time to time. The truth is that the particulars of this relationship between the derivatives and spot markets are fascinated. There may be some things here that are hard to grasp and that's totally okay. The truth is that most people who trade options don't really focus too much on the underlying equations. They're more concerned about overarching concepts. Knowing exactly how the 25 delta skew is calculated is of way lesser importance than understanding what it means. What does it show about how the market is positioned and how you can use that information in your broader research toolbox. Similarly, having a rough idea of what price distributions are in the future, can help you adjust your expectations. You can get a rough idea of price probabilities from the options markets and it always helps to keep an eye on option expiry dates. Even if you don't try to conclude a particular price direction, it has been shown these dates cause spot market volatility. By having these dates pinned in your calendar, you're better prepared to deal with any potential volatility that could result. There's nothing worse than being caught off guard by a large price gap; be it up or down. So I hope that you can find some of these indicators and tools helpful in your price analysis. They can be that much more interesting when actually used to trade options themselves.

Chapter 10 Bitcoin Options Trading

As the Bitcoin markets evolved, the number of ways in which you can trade it does too. I'm sure you all know about the numerous futures markets out there, but did you know that Bitcoin options are being offered on an increasing scale. These instruments can open up a whole range of trading strategies you didn't know about. In the next few chapters I'll be going over what exactly Bitcoin options are, how you can use them to protect your portfolio, where they're currently being offered and my personal view on where the options market is headed. Before I can take you through any sort of option trading strategies, I have to lay the groundwork. So what exactly are options? Well their name says a lot of it. They confer on a holder the right but not the obligation to buy or sell an asset at some time in the future. When you enter a “call” option, it's the right to buy and when you enter a “put” it is the right to sell. They differ from futures instruments in that futures have an obligation to buy or sell the asset that you've entered a trade for. Basically with an option if you find that exercising the right to buy or sell is not profitable on expiry, you can let it expire worthless. With a future you have to either cash settle it or buy / sell it. This means that options are instruments with asymmetric payoffs. What do I mean by that? Well look at this graph of a simple call option.

And now look at the graph of the futures instrument;

Well, you can see that your loss on this trade is limited only by the option premium or cost of the option. You can't lose more than you've already paid. With the future on the other hand your potential loss is unlimited. Or take a look at this graph of a put option and now overlaid with a short futures contract.

Same thing on the downside. If the price of Bitcoin rallies you have a maximum loss with the put option whereas you have an unlimited loss on the short future. This is more applicable to the listed and OTC future varieties. Leverage futures trading exchanges will be quick to liquidate you to prevent negative equity and hence limit your downside. There's also another side of this option crypto coin. You can also sell options. This of course limits upside and could lead to unlimited losses. Why would anyone sell these you ask? Well, they can form some pretty unique trading strategies with them, something that are covered in a bit. Before I get onto that, I need to cover some option theory. So let's dive into the deep end and be sure to pay attention so as not to drown in maths. When it comes to options there are a number of variables or inputs that impact on its value. These are the strike price, the spot price, the time to maturity, the underlying implied Bitcoin volatility and the risk-free rate. The strike price is the price at which you agree to buy or sell the option in the future. The spot price is the price right now. Time to maturity is how long the option has to go and implied volatility is a measure of how risky the market is. Each of these factors impact on the value of the option in their own unique way. The difference between the strike and the spot has perhaps the most direct impact on value. However holding other factors equal, the higher the volatility the more valuable. The longer the times and maturity the more valuable. These variables or inputs are often labelled the Greeks.

They called the Delta, Gamma, Vega, Theta and Rho. The exact mechanics and maths behind these inputs can be quite complicated. There is one more thing that I briefly need to discuss and that is the “moneyness” of an option. It's that relationship between the spot and the strike price which has the biggest impact on the options value. Simply put an option could be in the money, at the money or out of the money. Here is what they mean. In the money is when the spot is above the strike for a call option or if the spot is below the strike for a put option. Out of the money is when the spot is below the strike for a call option and vice-versa for a put. At the money means the strike equals the spot price. I should also point out that these all assume the pricing of plain vanilla European options. You also have way more exotic variants that won't be covered in this book. Now have a vague understanding of options let's dive into options strategies. Given that options have an asymmetric payoff, you can structure some pretty unique strategies with interesting payoff profiles. For example, assume that you're bullish on Bitcoin in the short term and would like to go long. But you don't think that it will really moon beyond 14k by the end of the quarter so instead of buying a simple call option, you could buy a call option and finance part of that cost by selling a call option with a higher strike price. This is called a “bull spread” and has both an upside payout and a downside loss. The difference between this and a simple call option is that you have a lower downside loss. This bull spread can be done for a downside bearish trade as well.

Here is a bear spread we're a short put option decreases the cost of the short. Or how about if you don't really know where Bitcoin is likely to go but you are certain that it will be incredibly volatile in the next quarter. It could moon or it could tank. You could then buy both a call and a put at the same strike price. Here you have what is called a straddle.

If the price moves dramatically, either way, you get a decent payout. Of course buying two at the money options could be costly so you could buy a call and a put that are both slightly out of the money. What you have now is a strangle and this is your payout.

Or how about you sell away the upside on both options with two more options. You now have what is called an Iron Butterfly and it guarantees you a certain payout if Bitcoin rallies or tanks. It can also be called an iron Condor when done on a strangle.

What about if you perhaps have the view the Bitcoin won't move anywhere for a couple of months. Well then you can also sell straddle or strangle your play here is that volatility remains low. You can also limit your downside by buying another call and a put. These are only a few of the strategies and spreads that you can design. You can also build something called “calendar spreads” which structure options with different expiry times.

Chapter 11 Deribit Position Building Strategies

I'm sure that you're wondering where you can buy these options so let's take a look into that. When it comes to the market for Bitcoin options, they are far less developed than the futures markets. Yet, there are a number of places in which they are offered. There are three types of market where Bitcoin options exist. Through swap and option dealers like Ledger X. Listed on an exchange such as the CME Group or Bakkt. On retail exchanges such as Deribit.

To get to the Ledger X's website please visit: https://www.ledgerx.com/

To get to the CME's website please visit: https://www.cmegroup.com/trading/options.html

To get to Bakkt's website please visit: https://www.bakkt.com/bakkt-markets

And to get to the Deribit's website please visit: https://www.deribit.com/

For traders perhaps our best place to buy these options is on Deribit. This is a crypto Deribit platform that has been around since 2016. It's quite popular and also offers perpetual and quarterly futures contracts. But we're interested in their options instruments. They currently have two markets for options; Bitcoin and Ethereum. I'd rather opt for the Bitcoin options as these have the most liquidity. This option exchange works much the same way as traditional exchange order books, except that there are numerous markets. The markets will differ according to whether it's a call or put, the expiry as well as the strike. You can bid or offer options in order to build your required strategies. Let's build a strategy right now just to give you an idea of how it would work on the platform. What strategy should we build? Well, I'm bullish on Bitcoin in the next three months but don't think that it will rally much above 12 K. So I'll build a bull spread. A simple bull spread requires two call options; one long and one short. I'm going long a call option on 10 Bitcoin with a strike of $10,000. On the order form it implies a price of about 0.08 Bitcoin per option or 0.8 Bitcoin for the ten Bitcoin. With these options if Bitcoin is below 10K at the end of the next 3 months, I will have a loss of the 0.8 Bitcoin I put up. Still a pretty good sum. However I can reduce that potential loss by selling away a bit of the upside with a short call option at $12,000. Both of these options have an expiry in three months which is the time frame for my trade. Once orders a place and executed, my trade is live. There is something to point out here. The options under a bit are marked to market constantly. So your bull spread PNL will constantly be adjusted to reflected. You'll also have to put up a sizable margin for the short position as well. This is just so that Deribit can manage the risk posed by short options in general. On expiry of the trade your bull spread should have the same payoff as you pictured in your payoff diagram. Setting up any of the other strategies, works in the same way. Be sure to match the expiry and then you can choose the strikes that are needed for the strategy. For strike prices that are far away from the money, you may struggle with liquidity. This is just a factor of it still being a relatively new market.

Let's now discuss the broader potential for crypto options. One of the biggest markets for crypto options has to be from institutional investors and miners. The letter to finance operations and the former to protect or enhance crypto portfolios. Previously, large option contracts used to only be traded over-the-counter or through swap dealers. Dealers such as Ledger X structured bespoke option deals that saw some hedge fund traders make millions. These options had a strike price of $50,000 and an expiry date at the end of 2018. The problem with these OTC option contracts is that sometimes the dealer can't find a counterpart to their trade. The OTC market is chunky and idiosyncratic. This is where Exchange listed option contracts have an advantage. These markets are more liquid as the contracts are standardized. Hence it's a lot easier for institutions to structure trades. Bitcoin options are now being offered in listed form on a few exchanges. In December of 2019 trading began on quarterly Bitcoin options are Bakkt. Bakkt was the first regulated futures exchange to offer physically settled Bitcoin futures. In January of 2020 the CME announced the launch of their own listed Bitcoin options contracts. There was a lot of anticipation for the launch of these options as open interest in the CME futures markets spiked just before the rollout. On the first day of live trading, volume on the CME exchange exceeded all the volume that was traded on Bakkt since its launch in 2019. What's driving the demand? Well it's a number of things. Firstly, given that these options settle into CME Bitcoin futures, traders have another unique way to profit from the future settlement dates. They construct your option trades around these highly volatile dates. We also had the Bitcoin halving and the potential volatility this have thrown up in the Bitcoin markets. While this is only Bitcoin options right now, we could also see Ethereum enlisted contracts in the not-too-distant future. This is because it seems as if listed Ethereum futures are about to hit the market. Given that

Bitcoin options followed the Bitcoin futures, it is not beyond the realm of reason to expect the same from Etherium. What could all these options mean for the Bitcoin markets? Well, options are less of a speculative instrument than futures are. They're a great way to hedge risk in an inherently volatile markets such as Bitcoin’s. By reducing risk it could temper volatility. There is strong evidence that the introduction of option instruments to the FX markets have a calming effect and brought down the wild swings that it used to have in the past. As we know, one of the primary arguments made against Bitcoin is that it's too volatile to be used as a medium of exchange. If more stability is brought to the market, could we see more adoption of Bitcoin or crypto from the reduced volatility? Well, not sure. We are also hoping to see more retail exchanges offering crypto options which can be used by most of us. Although they're slightly more complicated than futures they give us a more sophisticated and less risky way to trade the markets. They're also more of a risk management tool than a form of speculation. If we take a look around crypto trading circles these days, it appears to mostly be centred around multiplying an investment rather than preserving a portfolio. Another thing that we're likely to see pretty soon is decentralized options built with smart contract technology. Already there are a number of projects that are building blockchain based solutions for derivative instruments. In other words we could one day see decentralized option exchanges. Think 0X (ZeroX) or Kyber Network but for bespoke option contracts. Defy option contracts built on the blockchain and traded on chain. Immutable, transparent and in your hands. I'm really quite excited about the opportunity presented by Bitcoin options. Firstly it's going to further credential eyes Bitcoin markets in the eyes of the institutions. With a regulated and liquid options market, these big funds are more likely to dip their toes in. It could also provide an important risk management tool, not only for these funds but also for those businesses that rely on Bitcoin. Miners could write contracts to hedge Bitcoin risk for future mined Bitcoins. By providing certainty of cash flows it could encourage more capital investment today. As these options bring more certainty and security to the Bitcoin markets it could quell some of that intense volatility. A more stable Bitcoin is a better outcome for all. No longer will you have to hear the argument the Bitcoin is too volatile as a currency. Moreover, if Bitcoin options turn out to be a success then it could open up the possibilities of numerous other cryptocurrency options. There are a whole host of more exotic option types that exist in the financial markets. If vanilla options on Bitcoin turn out to be a success, we could see more exotic variants eventually being launched. Could we see American options or maybe the digital variant? These are advanced options with unique payoff parameters. They're regularly priced in traditional financial markets and they provide their own unique benefits. Indeed, there may be an OTC broker right now that's already facilitating deals of more exotic cryptocurrency options. If there's one thing that we've learned it's that dealers will line up to provide markets as long as there is demand. Liquidity is increasing and efficiency is on the rise. Volatility is decreasing and ignorance is on the decline.

Chapter 12 How to avoid the Gambler's Fallacy

While most people like to think that they are rational, most humans aren't very rational. Especially when money is on the line and time is scarce human decision making can be very flawed. Trading is one of the fields where erroneous and irrational behaviour patterns are especially common. In this chapter we're going to look at the most common cognitive biases and irrational decision making patterns and how to avoid them. Being aware of these thinking flaws has two main advantages. Firstly, it helps you avoid them in your own trading and secondly it can help you identify and explain seemingly irrational market behaviors caused by these biases. Most of these so-called cognitive biases were discovered and introduced by the Nobel winning Daniel Kahneman and Amos Tversky. The first cognitive bias that I want to talk about is the gambler's fallacy. The gambler's fallacy is incorrectly over or understating the likelihood of an event based on a series of past events. This can be illustrated with a simple example of a coin flip. The probability that a coin will land on heads is 50%. No matter how often you flip a coin this probability does not change. So even if your coin just landed on heads 10 times in a row, this does not affect the probability of the next coin flip. Like the name implies, the gambler's fallacy is especially common in gambling. But this pattern of thinking is quite common in trading as well. Let me give you some examples. Have you ever opened a long position because a stock had many consecutive down days or vice versa? If so, you have fallen prey to the gambler's fallacy. Another example would be the reaction to a losing or winning streak. If you ever felt that after many consecutive wins the chances of losing increased and you decreased your position size, you have been guilty of the gambler's fallacy. The odds of winning on a trade, don't magically change just because you had multiple losses or wins before this trade. Speaking of winning streaks if we assume that you found a trading strategy that guarantees you a 70% chance of winning on every single trade, what do you think the odds of winning 10 times in a row are? Well, the answer is under 3%. In fact, even the probability that you will have two consecutive wins with this strategy is under 50%. This means it is less likely that you will have two consecutive winners than that you won't. And remember, this is with a strategy that guarantees you 70% chance of success on each trade. Most strategies won't have nearly as good odds. To calculate the probability of “n” consecutive wins you simply have to take the estimated odds of your trading strategy to the power of “n”.

Note that this assumes that the trades are independent from each other and the probability of winning is constant. If we look at the odds of losing streaks we get a similar picture. Here's a diagram that shows the probabilities of multiple consecutive losses with a trading strategy that has a 40% chance of losing on any single trade.

As you can see with a 40 chance of losing it is extremely unlikely that you will have more than a handful of losses in a row. So what can we learn from this? Firstly no matter how good your strategy is, losses do happen. You can't win all your trades. Therefore you have to implement solid risk management practices and keep the size of your losses under control.
The odds of having many losses or wins in a row is quite low. So if you often have more than 10 major consecutive losses, you should seriously start doubting the quality of your trading strategy. But always remember, even though the probability of winning 10 trades in a row is very low, the probability of winning on any single trade is not lower just because you won on the last 10 trades.

Chapter 13 The Law of Small Numbers & Trading

You might have heard about the law of large numbers that states that the average of a growing sample size converges to the actual mean of the total population. This is a very powerful rule in probability theory that allows you to estimate a population's parameters with large enough samples. But like the name implies, this only works for big sample sizes. This is where the fallacy of the law of small numbers comes into play. Most people intuitively use the law of large numbers incorrectly, namely with two small sample sizes. Let me give you an example. Have you ever tried a trading strategy for a handful of trades and then concluded that it doesn't work? If so, you have been guilty of using the law of small numbers. A few traits is not a big enough sample size to give you any significant information about the quality of a trading strategy.

How you can avoid the law of small numbers? Well, you have to efficiently test the effectiveness of a trading system. The goal is to use this trading system for at least 20 trades. It might seem scary to use a new trading system for over 20 trades when you have no idea how good or bad it might perform. Therefore you should trim down your risk to a level so that you can easily afford to lose on all these 20 trades. Your goal with these trades is not to make money, but to test out the given trading strategy. When making these 20 trades try to be as mechanical as possible. Create clear rules for every market scenario imaginable and follow these rules on every trade. If you don't have a clear set of rules to follow, you can't reliably test your strategy since there is no strategy to test. Furthermore make sure to keep a detailed and thorough trade journal. After every trade, track entry prices, exit prices, profit potential, money at risk, time in a trade and more. After you've followed all these steps for at least 20 trades, you're ready to evaluate the strategy. Ideally you should now have a rich collection of data on this strategy to evaluate it and make an informed decision on how effective this trading system is. I know that this might seem like a lot of work just to test the trading system but without having a big enough sample size, you can't really evaluate anything. Making a decision based on one or two occurrences, is like saying roulette has a 100% win rate because you won one round.

Chapter 14 Confirmation, Survivorship and Hindsight Bias

The confirmation bias is the tendency to seek out information that confirms your pre-existing beliefs. This is a bias that without a doubt, the vast majority of traders have been guilty of. After opening a trade it is only natural to continually seek out information that confirms your trading idea. You might look at dozens of indicators or social media posts and only focus on those that confirm your beliefs. Finding something that agrees with you is a good feeling and certainly can boost your confidence in a position. The problem is that by doing this you often ignore signs that your trade wasn't the best idea and something might be wrong. Instead, you convince yourself more and more that everything is fine. By searching Twitter for a ticker symbol you're almost guaranteed to find at least a few people that have the same market assumption as you. But this doesn't mean anything. One way to avoid confirmation bias in trading is by having a clear set of indicators and rules to follow for your trades. If you have such a clear set of rules and indicators, there is no need for you to go out and look for any other confirming signs. Furthermore, it is best to avoid social media as a trade decision making guide. The next cognitive bias that we're going to look at is the survivorship bias. Wikipedia defines survivorship bias as “The logical error of concentrating on the people or things that made it past some selection process and overlooking those that did not, typically because of their lack of visibility.” Let's once again look at a couple of examples to better understand what this means. If you look around it is easy to arrive at the conclusion that most ETF-s Mutual funds and even individual stocks go up over time. But in reality, this is a wrong conclusion. That's because the universe of funds and stocks that you look at, is already skewed in one direction. One reason why stock did not go up but instead fell is that it went bankrupt. And a bad performing fund usually gets closed after a few years. In other words only those funds survive that performed well enough. So when you say that most stocks or funds go up over time, you aren't considering all those that didn't survive. Therefore the results obtained by only looking at survivors can be vastly flawed. To give you some data a Vanguard group study recently found that an investor in a large cap growth or value fund in 1997 stood just a 22% chance of finding a fund that would survive and outperform its benchmark through 2011. The problem of only considering a universe of investments that survived a certain selection process is especially common when back-testing and analyzing trading strategies on historical data. But also when analyzing success stories outside of trading, survivorship bias can be a big problem. The results of looking at shared trades of highly successful people, doesn't actually yield very significant results. Typically, many unsuccessful people also share these traits but they weren't considered in such a study which can dramatically skew the results. Often successful people succeed in spite of certain traits, not because of them. The phrase that history is written by winners very much also applies in business and financial markets. In general, when looking at and analysing investments make sure to think about that what you can't see. Is there a seemingly invisible filter that you are missing? If so, your results can be vastly skewed in an unwanted direction.

Lastly, let's take a look at Hindsight bias. Hindsight bias is the tendency of overstating the odds of an event that has already happened. Here is a great quote from Nobel prize winning Daniel Kahneman about hindsight bias. "A stupid decision that works out well becomes a brilliant decision in hindsight." Hindsight bias is especially common amongst traders. Way too many traders evaluate the quality of their trades based on their outcome. This is a very flawed way of evaluating your trades. A trade that has a 70% chance of making 200 dollars and a 30% chance of losing 100 dollars is without a doubt a great trade. No matter its outcome, even this trade won't work out three out of ten times. But that doesn't make it a bad trade. Sadly this is how many traders evaluate their trades. Hindsight bias is also the reason why technical analysis seems so attractive. Finding chart patterns on historical charts is very easy, but without the benefit of hindsight things aren't nearly as easy. If you ever felt that the past price move seemed so obvious, you have fallen prey to the hindsight bias buyers. To avoid hindsight bias, you need some way of evaluating your trades not based on their outcome. Instead you should focus on the quality of your decisions along the way. Did you have a clear trade plan and strategy? If so did you follow it? If not, why not and what could you do better next time? In general, it is best to have a consistent way of evaluating your trades that is not affected by the outcome of your trades.

Chapter 15 Correlation, Recency & Attribution Bias

Correlation does not imply causation but sadly it is often treated as if it does. There are different types of this fallacies so let me cover three of the most prominent causation fallacies. The first is reverse causation. An easy example of this is the correlation between rainy days and the usage of umbrellas. When it rains people tend to use umbrellas much more. Does that mean that using umbrellas causes it to rain? Of course not. It's the other way around. This might seem like an obvious mistake, but often things aren't as clear. If for instance asset A and asset B are heavily correlated, does that mean that an opt move in A's price causes a reaction in B's price or the other way around? Another causation bias is neglecting the fact that the third variable might be the cause of two correlated variables. For example two oil stocks might be highly correlated but this doesn't mean that a move in one of the stocks causes a move in the other stock. Instead, a third variable namely the price of oil might be the cause for the moves in both of these stocks. Last but not least, two variables can also be correlated without having any causal link. In fact, if you have a big enough set of data, you're almost guaranteed to find some variables that are correlated purely by chance. One example of such a coincidental correlation is the correlation between per capita consumption of chicken and US crude oil imports. These two variables have a historic correlation of almost 90% over about 10 years. Nevertheless, I wouldn't use chicken consumption data to try to predict US crude oil imports. There are countless similar examples of seemingly nonsensical correlations. So going forward never assume that correlation means causality. Proving correlation is very straightforward, but proving causality is a totally different story.

Recency bias is the illogical way of putting more weight and importance to recent events, compared to historical ones. This can easily be observed by looking at the cyclical nature of markets. The longer a bull market is, the more and more people forget that prices don't only go up. Thus investors pay less and less attention to their risk, even though it should be the other way around, since the further prices rise the more they can fall. The same is the case directly after market crashes. This is when people typically over manage their risk because they overestimate the odds of future drops. This can be a great time to sell overpriced insurance products such as options and volatility.

A different bias that can be observed in the trading news business is the attribution bias. The attribution bias is the bias of constantly trying to assign some reason to an event, even if your reason has nothing to do with reality. Financial news companies are in the business of satisfying this bias. They seem to have an explanation for every single price move, even if their explanations sometimes are contradictory. Sometimes you can't break down a price move into a simple cause and effect relationship. But this doesn't stop us from trying. The problem is that humans are very good at finding an explanation for almost anything, even if the explanation doesn't make sense. Basic traits on these explanations can do more harm than good. So make sure to be careful when looking at the reasons that financial news organizations assign to certain price moves. The best explanation for an up move, will always be that they are simply more buyers than sellers.

Chapter 16 How to Avoid the Sung Cost Trap

If you ever held onto a position far longer than you should, you have been guilty of this fallacy. The sunk cost fallacy is the tendency to refuse to stop an action because you've already sacrificed a good amount of money and or time into it. Sometimes it's best to just cut your loss than to further waste money and time on a project or trade. Some costs should not be a reason for you to stay in a trade. If you wouldn't open your trade at its current price level, you should not stay in it. Regardless of how much you already have lost. One way of combating the sunk cost fallacy is by having a clear trade plan with clearly defined exit points before you enter a trade. We have now covered a wide variety of different cognitive biases that can dramatically impact your trading and decision making in general. Let me now cover briefly look at how you can avoid these biases. First and foremost, it is already a good step in the right direction to be aware of that these biases exist. But sadly, simply being aware isn't enough to completely avoid them. In fact it is almost impossible to fully eliminate these biases from your life, since they are so deep ingrained in your human psychology. That said you can definitely do things that can reduce the frequency of them and thereby improve the quality of your decisions. One thing that can dramatically increase the likelihood of using these cognitive biases, is trying to make a decision under time pressure. So avoiding time pressure is another step in the right direction. One way of avoiding time pressure in trading, is by preparing beforehand. Instead of trying to improvise and rely on your intuition always have a clear trade plan before you open a trade. The trade plan should have all the information you need to mechanically carry out your entire trade. Besides a trade plan, a good trade journal is another way for you to improve upon your decision making and trading. Otherwise try to actively monitor yourself for these cognitive biases. Especially in situations where the likelihood of a bias is high, step back and rethink the entire situation from another perspective. Furthermore, avoid making important decisions when you're in a bad mood or not fully focused due to a lack of sleep. For instance if you are interested in learning more about this topic I highly recommend checking out Daniel Kahneman's book called “Thinking fast and slow”.

Chapter 17 How to Become a Disciplined Trad er

In this chapter I will explain how you can develop a winning attitude in trading. But first of all, why psychology and trading even important. Well, trading is a very unique activity. It's unlike every other activity that you can imagine. In some cases even contradict some beliefs that we have acquired throughout our lives. Let me give an example of this. Most people think that the more work you put into something the better results you will get. For instance most jobs are paid on a per hour basis but this isn't necessarily the case for trading. Just because you spend countless hours analyzing the fundamentals, the technicals or anything else of an asset doesn't mean that you will make money. You may very well even lose money and a trade that you spend countless hours preparing. Trading is a very emotionally demanding activity. Seeing your hard-earned money vanish in front of your eyes isn't easy. But also huge gains do affect your emotions. Trading confronts us with constant uncertainty. May very well lose money on a day but you may also very well make money. It's not uncommon to see people lose weeks or even months of gains on one bad trade. Nevertheless, it is important to try to avoid emotional trading. Letting emotions influence your trading decisions can dramatically decrease your trading performance. It can be very hard to control your emotions when hard-earned money is on the line. There are five fundamental truths that can help traders to develop a winning mindset. First of all, anything can happen. In essence, the markets aren't anything else than millions of different people expressing their thoughts about different assets. People that think in assets prices low will likely buy, those that think in assets prices high will sell and others will wait for a better opportunity. But every single trader of these millions of people can impact the price. Therefore theoretically anything is possible. But even though everything is possible not everything is likely. The probability that an assets price will rise by hundreds of percent is relatively slim. However the probability is not zero. It is possible. This brings us to the second fundamental truth. You don't need to know what is going to happen next in order to make money. You don't only don't need to know what is going to happen next. You can't know what is going to happen next. We just learned that the markets aren't anything else then millions of people expressing their beliefs. If you know what's going to happen next, you would have to be familiar with the beliefs of all of these millions of people interacting with the markets. It's safe to say that this is impossible but that doesn't matter you can still make money in the markets. If you have the trading system with the true edge it really does not matter what's going to happen next? Well, the outcome of next trade is irrelevant. For example a casino has a true edge. The odds are on their side. Let's take roulette as an example. The casino has a higher probability of making than losing money on a game of roulette. However they do not know what's going to happen on the next roulette spin, nor do they care. They may very well lose money on the next spin of roulette. But that doesn't matter to them because they know that they will win in the long run. The same goes for your trading. As long as you have a trading system with the real edge all you have to do is stick to that trading system. The outcome of your next one two or even more trades does not matter. As long as you stick to your plan, the numbers will work themselves out in the long run. The next fundamental truth is that there's a random distribution between wins and losses for any given set of variables that define an edge. This goes hand-in-hand with the previous truth. Just because the odds are in your favour does not mean that you will be right. Let's look at our casino example once again. The odds of winning a game of roulette are strongly in the favor of the casino. However that does not mean that they will win guaranteed. They will still lose money on some games. If you really believe in a random distribution between wins and losses, could you really ever feel betrayed by the market? If you flip the coin and guess right, you wouldn't necessarily expect to be right on the next flip simply because you were right on the last. Nor would you expect to be wrong on the next flip if you were wrong on the last flip. Let's move on to the next fundamental truth. An edge is nothing more than an indication of a higher probability of one thing happening over another. Hopefully this is relatively simple by now. Once again I'd used the casino example to explain this. In a game of roulette, the casino has a higher probability of making than losing money. So that is their edge. The final fundamental truth is that every moment in the market is unique. If this wouldn't be the case, it would mean that every single person and entity that interacted with the market during a previous moment would have to do the exact same thing again. They would all have to enter and exit their positions just like last time. This is more or less impossible and therefore every moment in the market is unique. If a moment isn't unique you would have to know every variable which once again isn't possible. So what are the takeaways of these five fundamental truths? Well, first of all you do need a concrete trading system with concrete rules. Otherwise, you wouldn't have an edge and then trading would be pointless. Remember, random trading will lead to random results. Besides a trading system, you also need a trading plan. You should always create a trading plan before every trade. It's very important that you create your trading plan before you open a trade because that's the only moment where you still are able to think 100% rationally. After you enter a trade your hard earned money is at risk and then your emotions will influence your decision making. Some key components of your trading plan should be your max risk, your max reward, your risk to reward ratio, your exit point, your entry point, your adjustment point, your position size and ideally even more. If you truly believe in the five fundamental truths, you will automatically create a trading plan before every trade. For instance if you actually believed that you don't know what's going to happen next and anything is possible, you would always define your risk and cut your loss. If you believed in your edge and all the truth why would you do it from your trading plan. Why would you revenge trade or double up to make back the losses from a previous trade. Why would you ever feel emotional pain if you believed in your edge. Does a casino feel emotional pain just because it lost on a single game of roulette? No, and neither should you. The more specific your trading plan is the better. If you have trouble sticking to your trading plan write it down. In theory, your trading plan should be so concrete that you would be able to give it to someone else who then could execute the entire plan without having to ask you. The more specific a trading plan is, the less you will have to think about what you're going to do and thus you will trade more mechanically. Another tip for trading more mechanically is using trade alerts. If you know that they're going to exit or adjust a position if a price reaches a certain point, you can set an alert at that point. As soon as that price will be reached, you will get notified and can adjust your position without having to think about it. Alternatively, you could use automated orders like stop losses or take profit orders. But probably one of the most important takeaways is that you should trade small. You should never risk more than a few percent of your total capital on one trade. If you truly accept the risk before entering a trade and keep your position sizing small, you will never ever have trouble sleeping at night. Remember that you don't and can't know it's going to happen next and therefore it's not unlikely that your next trade will be a loser. If you risk all of your capsule at once and the next trade will be a loser, you will lose all of your capital at once. That's a disaster that you should never risk. This is also why casinos said betting limits. They know that they can very well lose on a single game of roulette. If someone wants to bet millions of dollars on a single game of roulette, the casino will likely decline. Because it knows that the odds aren't heavily in its favour. Their edge only really works in the long run when the number of occurrences is high enough. You should think the same way with your trading. So never risk too much of your capital at once. If you're currently familiar with the seemingly profitable trading system but somehow can't manage to be consistently profitable with it, it might be due to your mindset. So instead of trying to learn tons of new trading strategies, you could try to focus more on your psychology.

BOOK 3

Bitcoin and Cryptocurrency Trading For Beginners

Technical Analysis:

How to Read Japanese Candlesticks, Charts, Volume, Trend and Indicators

Mark Zuckerman

Chapter 1 Best Exchanges for Trading Crypto

There are a lot of crypto exchanges out there. Gone are the days when you were strapped for choice. Today, the choice is overwhelming. This is not only a challenge for those new to crypto. But it also means those who are currently using an exchange constantly have to wonder if they really do have the best deal. Do not worry, because in this chapter I am going to give you exactly what you need to know about the best exchanges on the market right now. I will cover both pros and cons and compare them side by side. This is to help you assess your options and pick the right crypto exchange for you. I'm sure that many of you are like me and some of your friends make fun of you when those crypto markets are in the toilet. However when those markets are blasting off then I certainly get asked the question; what's the best crypto exchange? Every single time I turn around and just tell them that they're asking me the wrong question. The better one to ask is; what's the best crypto exchange for me? After all we all prioritize different things. So there really is no one-size-fits-all answer here. With that in mind I want to be straight up and just say the following exchange picks are in no particular order. Still first I will start with Coinbase Pro which is an advanced trading platform, operated by Coinbase. So who are these Coinbase people? Well, they were one of the first companies to enter the crypto exchange game back in 2013. The company is based in San Francisco and has 35 million users that have traded 220 billion dollars in volume. Another fact is that Coinbase's most recent round of funding for 300 million dollars valued the company at 8 billion. This means it’s a pretty serious crypto exchange. So that brings me on to a key question; who can use Coinbase Pro? Well the good news is that Coinbase is accepted in over 100 countries. So the chances are that you'll be able to trade on Coinbase Pro. This also includes the US in any state other than Hawaii. Signing up to Coinbase Pro is pretty straightforward, but the thing to know is that you need to create a regular Coinbase account first and then log into Coinbase Pro. Your login and password for Pro are exactly the same as your basic Coinbase account. Once you log into Coinbase Pro you'll see a trading panel. Here, you can place a market or limit order and stops. I know that may sound complicated and daunting to crypto newcomers but I can promise you that it is quite straightforward. Another feature offered on this exchange would be leveraged trading up to three times. I would not recommend using leverage unless you know what you're doing and the comfortable trading spot markets. For many newbies this is a very fast way to get to a place called “wrecked”. Not a place that I recommend to anyone to visit. When it comes to deposit methods it's a little all over the shop at Coinbase and dependent on which country you're based in. But major supported payment options include bank transfer, PayPal debit and credit card. Now let’s look at the fees. It can be tempting not to pay too much attention to these, but they do add up and can seriously eat into your long-term profitability. There are two main fees here; deposit and withdrawal fees and trading fees. Let's look at deposits first. The thing to know is that ACH and swift deposits are completely free. USD wires are charged at $10 and SEPA Euro deposits incur just 15 cents in fees. Withdrawals are free for ACH 25 for USD wires 15 cents for super transfers and $1 for swift. The good news for people wanting to withdraw crypto off the exchange is that this is entirely free. If you are like most people and are trading less than 10 000 per month, then you'll be paying 0.5% in trading fees. That scales down the more volume you do. The next thing to talk about is the range of cryptocurrencies available for trading on Coinbase Pro. Some people might use Coinbase Pro to just buy Bitcoin and send it over to another crypto exchange to buy more altcoins but right now about 40 different cryptos are available for trading. That's not too bad at all. All of us hope to never have to use customer support, but it is something worth considering when choosing an exchange. After all it's annoying if you have a problem and you're left hanging for ages. At Coinbase Pro you can submit a support ticket through their form and they'll get back to you over email. But being honest, personally had my patients stretched to breaking point by Coinbase support. They just seem to ignore me for days so just be aware of that if you opt for Coinbase Pro and pray you never need to reach that customer support. Coinbase Pro does offer phone support 6 am and 6 pm but here's the bad news. These support agents cannot help with any account specific queries like order statuses, specific transactions or your account history. Every customer support query I've ever made has been linked to one of these things. So this type of support might as well not be there if you ask me. The next thing to discuss would be security. Coinbase Pro holds 98 of user funds offline. Those private keys are then split with redundancy, encrypted and copied to super secure USB devices and paper backups. These are then popped in safe deposit boxes scattered throughout the World. So if you want to keep your funds on an exchange, Coinbase is pretty secure. Coinbase Pro also has FDIC insurance for US dollar accounts. This is the same insurance banks use to protect customers. What that means is that us dollar balances below a quarter of a million dollars are insured by the US government. Good news if you're a US citizen and are holding us dollars on Coinbase. In terms of securing your account, Coinbase Pro has a host of security features like two-factor authentication. One major drawback that I need to tell you about is the frequent exchange outages at times of high market volatility. That can be annoying if there is a massive market move which you can't take advantage of. Finally, Coinbase Pro does offer IOS and android mobile apps for those that want to trade on the go. If crypto trading bots are something that you're interested in then the good news is that most major third-party bot software supports Coinbase Pro. Now you know the ins and outs of Coinbase Pro, you might ask; who is it for? Well, honestly Coinbase Pro is probably the easiest one to use but you should know that you'll be paying some of the highest exchange fees out there for that privilege and dealing with less than stellar customer support. If you're new to crypto and are wanting an easy way to get into crypto using fiat, then Coinbase Pro is certainly worth considering. But there are probably better options out there for more experienced crypto traders. To get started with Coinbase, please visit https://www.coinbase.com/ Once you have registered, you can also be able to log on to Coinbase Pro on the following link: https://pro.coinbase.com/

The next exchange I will introduce is called FTX and this one is for advanced traders out there. FTX is an exchange founded in May 2019 and is registered in Antigua and Barbuda. Their offices are based in Hong Kong. The exchange has also raised 8 million dollars in external funding and was raised by Alameda research, a quantitative trading firm that trades up to one billion dollars a day and manages over 100 million dollars in assets. Who were some of those investors? Well one was Binance who announced a strategic investment in FTX earlier in 2020. The key takeaway here is that FTX is a serious crypto exchange with some serious backers. When it comes to blocking countries, FTX doesn't accept residents of the United States, Cuba, Iran, Syria, North Korea or Antigua and Barbuda. So if you're living in any of those places then you are out of luck here. In terms of features, you first have the standard spot markets with dozens of different cryptocurrencies to choose from. Then you have the widest range of perpetual futures markets that I've seen. Then you have a host of three-time short and long leveraged tokens, volatility tokens and some really interesting indexes. You can buy a basket of coins on FTX using their index or maybe you just want to get exposure to defy easily by getting their defy index. If you're an options trader, FTX has also got you covered with some Bitcoin options as well. The exchange also offers an OTC portal so those whales can get those trades done with minimal slippage. A great deal if you need to get large block trades done. So FTX has a whole host of features geared towards the more advanced traders out there. But, what are the fees? Well taker fees start at just 0.07 and scale down from there according to trade volume. FTX is the cheapest exchange. When it comes to deposits and withdrawals for crypto assets FTX has the best price possible; free. Though the thing to know here is that if your deposit or withdrawal amount exceeds your trade volume on the exchange, then you might be charged a 0.1% fee. So you probably don't want to deposit here if you're not going to trade much. When it comes to fiat deposits credit cards and wire transfers would be the methods available to you. I need to be honest and warn you that if you're withdrawing fiat using FTX then you'll incur a $75 fee for withdrawals under $10,000. In terms of crypto support, FTX doesn't offer the widest range of cryptos for spot markets but it does offer the largest range of perpetual futures that I've come across and a ton of special futures products like the coin index. So, if that's what you're looking for, then FTX is a great choice. In terms of the support, FTX has simple email support options. When it comes to security, FTX operates a cold storage protocol, so the majority of the funds are stored offline. For individual accounts, they also have two-factor authentication and you can whitelist IP addresses too. Finally, as FTX operates a leveraged exchange one of the major risks is volatility and that's why FTX operates an insurance fund. This insurance fund acts as a reserve in case liquidations of losing positions cannot be done fast enough. That insurance fund currently sits at about 2 million dollars and an additional 5 million FTT tokens. So, who is FTX for? Well, the exchange is for experienced traders looking to use those instruments like perpetual futures and leveraged tokens. If that's want you wish to trade, you won't find a better selection anywhere else. If you're interested in signing up to FTX, please visit https://ftx.com/en

My next exchange pick is called Binance. The first thing to note is that there are several versions of the Binance exchange. You have the likes of Binance Singapore, Binance Uganda, Binance US etc. The thing to know is that these are different exchanges from Binance.com. Which you can think of as Binance's global exchange. Very simply, Binance is the biggest exchange in the world and processes around 2 billion in daily volume. So who can use Binance.com? Well if you're based in the US, Uganda or Singapore, you'll have to use the version of the exchange for your respective countries. Aside from that, the only countries blocked are those that fall under US sanctions. When it comes to exchange features, on Binance you get access to the most extensive crypto spot market in the cryptoverse. A suite of advanced trading tools such as the ability to trade on margin and an over-the-counter service to get you better pricing without slippage. Then, there are a host of advanced derivative products. These enable you to dabble in futures markets with up to 125 times leverage and to long or short tokens with up to three times leverage. Next you have crypto finance services like Binance earn, which allows you to earn bank interest rates on your crypto. The Binance crypto card gives you cashback of up to eight%. You also have access to flexible collateralized crypto loans. Then there are exclusive initial exchange offerings that you can take part in on the Binance launch pad. So there are plenty of features to Binance. When it comes to deposit methods all crypto deposits are free. Withdrawal fees are variable and dependent on the crypto or fiat currency you're getting off the exchange. Binance also supports some of the lowest fees for any exchange too. Remember I mentioned before that you would get rinsed for 0.5% in trading fees on Coinbase Pro? Well, Binance kicks things off with a 0.1% maker and taker fee. Pay that fee with BMB coin and you'll get another 25 off. Trade a ton, and you'll get further fee discounts too. Binance also supports a range of deposit options for many different currencies. Yet they have recently activated Visa and Mastercard deposits in addition to methods like bank transfers. Bank card fees for Euros and GBP attract a fee of 1.8%, whereas UK faster payments and SEPA bank deposits are entirely free. That brings me on to supported cryptos. In short, literally almost any crypto worth looking at is listed here. In terms of customer support, Binance has you covered 24/7 with an online ticket system. Those Binance customer support agents will then get back to you over email. I have never had to wait more than 24 hours to hear back from them. When it comes to apps, Binance has gone the extra mile with an excellent mobile app for android and ios and a desktop app for mac os, windows and Linux. So if you like apps, then Binance has you covered. Touching on security, Binance does use best practices when it comes to cold storage, multi-signature wallets, tiered access and enhanced cyber security detection systems. But the exchange did get hacked in 2019 for 7000 Bitcoin which was about 2% of all its Bitcoin holdings. What we can learn from this, is that Binance holds about 98% of its users funds in cold storage. Pretty much the same as Coinbase Pro. With all that being said users impacted by the hack were all reimbursed by Binance. Needless to say, Binance is supported by every third-party trading bot worth considering. So with all that in mind, who is Binance for? Well, honestly Binance is for anyone who isn't shy of dabbling in altcoins. To check out Binance, please visit https://www.binance.com Next Exchange on my list is called Uniswap. Uniswap is a decentralized market making exchange. It's essentially an open source dap built on Ethereum that enables you to swap eth for any ERC20 token in a truly decentralized way. All that is combined with a simple and easy to use interface that also connects to popular web 3.0 wallets like Metamask. How does Uniswap differ from centralized alternatives like Coinbase Pro? Well, on Uniswap there is no company holding your funds and instead, you're always in control of your own crypto assets. In other words, it is non-custodial. I know that may not sound like a big deal but try telling that to the poor souls who had their crypto controlled by the likes MTgox or cryptopia. The lesson to learn from these centralized exchange disasters is that things can go bad in a very big way if you trust the wrong company with your crypto. Indeed that's the key reason why so many people in the crypto space support decentralized exchanges. Here's something that a ton of people don't know. In September 2020 Uniswap actually reported more trading volume than Coinbase. Gone are the days when DEX-s were a plaything of crypto geeks. The upshot of Uniswap's decentralized nature is that there are no country restrictions to speak of. In terms of unique features, liquidity pools are what makes Uniswap decentralized and are the mechanism through which you can actually earn trading fees with Uniswap. These are basically pools of tokens which sit in smart contracts. Another feature that privacy adds value is that there is no KYC to speak of on Uniswap. So if you value that, then this is the exchange for you. Because Uniswap is non-custodial, that means there are no such things as deposit or withdrawal fees. Instead, you'll pay Ethereum gas fees to send those tokens to the protocol and a 0.3 liquidity provider fee to swap them. I do need to give you a brief warning about these Ethereum gas fees. If the network is super congested, then these can cost you a lot! Indeed, in early September 2020 a straightforward ETH to Defi swap on Uniswap cost $55 in gas fees. Since then, these fees have fallen to more reasonable levels but just keep an eye on those fees before you make a swap. Another thing to note is that Uniswap is solely an ERC20 crypto to crypto exchange. That means to use it, you'll need to have at least some Ethereum or ERC20 tokens already. There are no fiat deposits or withdrawals here. In terms of supported cryptocurrencies if you want to get your hands on an ERC20 token then chances are it's listed on Uniswap. There is literally hundreds of cryptos but just be aware that you won't be able to get your hands on any cryptocurrencies outside of the Ethereum ecosystem here. Next, let’s look at the Customer support. As Uniswap is a DEX, things work a little differently here. The best way to get help here is by bumbling into the Uniswap discord group and asking your question in the support chat there. For those of you that are trading whilst out and about, Uniswap doesn't really have a dedicated mobile app. However you can launch the app in your mobile browser and connect to a mobile wallet. The Uniswap UI is well optimized. Seeing that Uniswap is non-custodial you might not think there are any security concerns. But the key risk here is the same as any other D5 project and that would be smart contract bugs. I've not heard of anything on that front, but just be aware of that. So who is Uniswap for? Well, in my opinion it's the perfect exchange for anyone who is reasonably experienced in crypto and wants to keep control of their private keys and not entrust their funds to a centralized exchange. Privacy hawks will also love the lack of KYC. But some might find the lack of support for crypto outside of the Ethereum ecosystem limiting and gas fees can sometimes make the exchange excessively expensive to use. To get started with Uniswap, go to https://uniswap.org/ Also, while I've explained about exchange security, I don't recommend anyone keep large coin holdings on a centralized exchange unless you're actively trading. No matter how secure an exchange might be, there is simply no substitute for a hardware wallet to give you that maximum security. It's an old saying but it's always been true: “not your keys, not your crypto”.

Chapter 2 Must have Trading Tools

When I first started investing in crypto back in the day, I used to do it so haphazardly I opened numerous different exchange accounts and downloaded endless cool wallets to stash my absolute bizarre of unique altcoins. The problem is I pretty soon started losing track of all the crypto I owned. In fact I'm pretty sure that I still hold some coins on some old paper wallets stuck in my drawer. However things change for the better when I started using a portfolio tracking and analytics app. It was like night and day. Therefore it's time to share with you some of the best crypto tools out there. In this chapter I'll cover the top five portfolio management tools. The pros and cons of each and I'll give some top tips on how I personally use each of them. Let's get started on my number one crypto portfolio tool is the ever popular Blockfolio app. If you are new to crypto, the chances are that you are having a hard time working out exactly how your portfolio is doing. Blockfolio basically solves that problem of price tracking and having to go through Coinmarketcap with a calculator. To get this app, please visit https://blockfolio.com/ Once you've downloaded the app from the Blockfolio website, you can add coins in just a few taps by clicking the big plus sign at the bottom of the screen. Next you'll have the option to connect an exchange account which will import your transaction history for you. Or you can search for the coin you hold and click that crypto to add it to your portfolio. You'll then be asked to manually enter in the number of coins you bought and you can key in the price you got on the exchange tot. Bash that save by the transaction button and you would have added the coin to your Blockfolio. It only takes a few clicks. Then it's merely a matter of rinse and repeat for all the other cryptocurrencies that you own and you should have your portfolio set up and tracked on Blockfolio. Why bother going through all this hassle? Well Blockfolio will automatically refresh and tell you the new value of your crypto portfolio every few seconds. It is great for those especially who wants to know what the crypto markets are doing every few seconds. This will allow you to know the true value of your crypto portfolio at any given time and the app looks pretty flashy too. When it comes to Blockfolio's other features there is a pretty handy news function that brings together the latest crypto related articles from some of the biggest publishers all in one place. So this makes it a lot easier to keep up to date with the latest crypto news. Or to put that another way if you're into buying the rumor and selling the news then you can use the Blockfolio app snooze function to help you with that trade. Blockfolio also has what they call their signals section. Not to be confused with trading signals. In a nutshell crypto projects push out announcements over Blockfolio signals and you'll get a message if you have that coin added to Blockfolio. What I have found is that for those projects that use Blockfolio signal service, only tend to send out the most important updates here. That saves you a bunch of time hunting through a project's numerous Twitter posts to find that super important bit of news. Finally, Blockfolio has markets section. This is basically a version of Coinmarketcap which displays key price data and market cap figures. If I click on Ethereum for example, you can see a quick chart of the price for every coin. Every coin also has a profile page. Here you'll get an overview of the coin the consensus method used, the type of token it is and what it's used for. If you scroll down, you'll find important links to the project's white paper, github, website and socials. I find that pretty useful when I'm doing a bit of crypto research on the go. There's also a plethora of additional data at your fingertips in this section of Blockfolio. This includes things like the order books and trade history on major exchanges the coin is listed on. One feature that I like to ensure I have activated is called “price alerts”. What this means is if the coin changes in value by 5% in an hour then you'll get a push notification sent to your phone. That's pretty useful to know if you're waiting to buy the dip, sell a pump or if you're trying to monitor an open position. In summary I really think Blockfolio is an essential must-have tool for anyone serious about crypto. It simply takes the complexity out of monitoring your portfolio value, scouting new coins and keeping up to date with the latest crypto news. And it's absolutely free too, so there are no excuses not to try it out. My next top crypto portfolio tool is called Altpocket. The tool is available for both mobile and desktop and you can use it as a crypto portfolio tracking tool, similar to Blockfolio. On your profile page you click the little plus button and add a coin in a very similar way to Blockfolio. Then you'll be given the option to auto sync your transactions from a crypto exchange or at the menu. If you are going down the manual route, you just need to key in your transaction details, hit that Add button and rinse and repeat until you've added all your coins. You'll then see your entire portfolio in the profile section of your old pocket account. That is all well and good however it's not the main value Altpocket has to offer. If you hit the best performance bar under top lists then, this will bring up the top performing traders on Altpocket according to their weekly monthly or quarterly trading performance. You can then click on their profile to see what coins they hold, the percentage weightings and see the trades they've made recently. With Altpocket you can essentially follow the top performing traders, get

notifications when they make a trade and meet other traders on the Altpocket social platform. So if you've always wondered what other people are buying or selling wanted to copy trade for free or just concentrate a truly terrible trader, then Altpocket is a crypto portfolio tool you really should have in your locker. If you want to try it out for yourself you should visit the following link: https://altpocket.io/
Moving on to the next essential crypto portfolio tool I've got is called the Delta app. In a nutshell, Delta is a mobile crypto portfolio manager tool, much like Blockfolio. It connects with wallets and crypto exchanges to import your transactions and sends you those push notifications to alert you to the latest price movements of those coins you hold. So that means you'll have to decide whether to go up with Delta or Blockfolio. The app looks and functions very much like Blockfolio and if you want to input those crypto transactions, it works in a very similar way. Delta also has its own version of Coinmarketcap where you can check out the latest price action in the crypto sphere. When you click into a coin you'll see general data on the coin be able to view your trading activity see price alerts and order book data. Delta also has a crypto news aggregator section which will help keep your finger on the pulse of them crypto markets. There is truly not too much difference between Delta and Blockfolio and you'll be perfectly fine with either option. But Blockfolio was the first tracking app I ever used and Blockfolio leads the way when it comes to adding new features like Blockfolio signals, which Delta later cloned by launching Delta Direct. Moreover Blockfolio does seem to still be leading the way when it comes to innovation in the crypto tracking industry and you might rather get those shiny new things first than be left hanging. If you are now shore whether to go with Delta or Blockfolio, why not try them both out and see which one you personally prefer. They are free after all. If you want to give Delta for a spin then visit the following link: https://delta.app/en
My next pick is called Messari. Although you can't really track your portfolio with it, I honestly think Messari is the best tool out there when it comes to crypto data aggregation. An essential service that helps you scout those hidden gems to add to your portfolio. In crypto, knowledge is power so when it comes to a data-driven approach to evaluating different crypto currencies or just trying to use data to make better trading decisions, then Messari is a tool you need to be looking at. It gives you numerous options

to see what is trending in the space to find new coins and evaluate them. To get this tool visit https://messari.io/
If you head over to the Messari's screen then there are tons of ways you can sort coin information by clicking the columns and filters button. This will then bring up the filters panel which allows you to filter coins by things like liquid marketcap, stock to flow, on chain data metrics, sector coin category, social media stats and a whole lot more. You can get access to a ton of data filters for free, however there is some data that is hidden behind a pay-wall and to access that it will set you back $25 per month. But I don't think many people truly appreciate how useful it is to be able to sort different crypto projects by sector. With just a few clicks you can find all the smart contract platforms, stable coins, scaling solutions, payment platforms and so on. you can even put a filter on a filter and say "I don't want to trade a tiny market cap coin or anything that is a liquid" and Messari gives you the option to easily pull up that list of coins. Or, if you're a Pro altcoiner' then you can solely look at micro cap projects. Another thing is great about Messari is that they take a pretty cautious view when it comes to reporting things like the trade volume. It's pretty well-known in crypto that there are numerous exchanges accused of pushing out fake trading volume in order to gain Coinmarketcap ratings and grab the attention of traders. What Messari have done is also build a list of what they deemed the ten most trustworthy exchanges in crypto. Here you can also have a look at what Messari term real volume or just look at the reported volume from every exchange. Another cool set of stats I want to share with you on Messari is that you can get the all-time high price for all crypto assets and what is termed "the cycle low". This is basically the lowest price the crypto has reached after setting an all-time high. So with Bitcoin the all-time high was around 20K and since then the lowest price it traded at was about 3.1K. All that is pretty useful data when it comes to determining long term bullish trends reaching lower highs. In short the way you can use Messari is to help create that short list of coins in a certain sector and with that risk profile you then typically want to see how the coin is priced today and compare it versus the all-time high and cycle low to get to a feeling of whether you are getting a decent price. From there you can dive deeper into the project and do your research before deciding what coin you want to finally add to your portfolio.

My next pick for the best crypto portfolio tool is going to be cointracking. The way I like to think about coin tracking is that it's a crypto portfolio one-stop shop. It's got both mobile and browser-based options and offers both a paid and free version. Basically manual exchange CSV imports are pretty straightforward and fast. So the chances are that most people will never need to opt for any of the paid packages. This tool basically supports over 7,000 crypto currencies and integrates with several exchanges wallets. One really awesome feature is that you can set up coin tracking to actually watch your crypto wallets for incoming and outgoing transactions. That's pretty useful if you hate the idea of having to check your wallets every few hours to see if that transaction has come in. The Cointracking dashboard may not be the nicest looking one out there but it certainly does give you the most data. Having all this information in one place should certainly help you make better and more informed buying or selling decisions. You can also pull reports for realized and unrealized gains or losses. This is set by default to something called the "first in first out" method. But you can change the setting if you wish. The reason why this matters is that if you're a law-abiding champed, you'll be concerned about working out how much tax you need to pay. Another thing that the bean counters seem to always want to know is the average purchase price for each cryptocurrency. Cointracking makes this simple by automatically generating a report for this. I also find this type of report pretty useful when I want to work out how much of my initial investment in dollar terms I need to withdraw from a coin to let the rest right. I have no idea what the tax laws are in your country and you might also leave the numbers counting to your accountant. But if you do make it to the land of "Lambo money" then you'll have to generate a tax report. By upgrading to one of Cointracking's paid plans you can get access to the do-it-yourself tax report generator. If you do use your own account the report will save money on those accountancy fees. These types of reports make it much easier for your financial guide to work out what's been happening. I am a fan of Cointracking but I do realize that it's certainly not for everyone. Basically if you're making less than 100 trades a year then I doubt you'll get any value from the paid for plan and you're best off sticking with Blockfolio or Delta. Yet if you are doing a tons of trades and likely to have to submit tax reports, then I go as far as saying that coin tracking is essential. If you want to check out this tool please visit https://cointracking.info/

In summary, I know first-hand that it isn't easy to manage a portfolio and make the right moves in crypto. However keeping on top of your crypto investments is a hell of a lot easier with the right tools in your locker. What I would urge you to do is try out all these great crypto portfolio tools for free and see which ones are useful to you and actually save you time. Knowledge is power and having that bigger picture of what's happening with your portfolio will help you make even smarter crypto decisions.

Chapter 3 Must have Trading Checklist

One of the worst mistakes beginning traders make is to not pay enough attention to their trade entries. Neglecting the importance of a good entry and exit can make a huge difference to your bottom line. In this chapter you will learn all the do's and don’ts of opening and closing trades. Before we get into the nitty-gritty of actually setting up the best possible trade order, let me first talk about how to set your trades up for success. One of the biggest mistakes that you can make is to not have a clear trading plan. Without a plan you're basically trading blind. To help you always have a trading plan from now on I'm going to present you a step by step checklist that walks you through every aspect to consider before sending any trade order. If you go through all these steps you should never again be in a trade that you don't know what to do with. Let's now go through this trading plan template. First of all I recommend taking a look at upcoming events. Even though this doesn't directly affect your trade looking at future events before opening a trade can save you from unwelcome surprises. Are there any upcoming dividend payments earnings or other upcoming events that might clash with your trade plan? Around these events stocks often behave differently and they normally would. So either be aware of this or avoid trading through these events. Next, define your risk. Never open the trade without knowing your max loss. Way too many traders don't do this even though this is a must for you to be able to manage the risk. Besides defining your risk you should also define your reward. Have a clear profit target that tells you when to take profits. Without a clear profit target it's easy to tell yourself to wait for just a little more. Doing this will lead to winning trades turning into losing ones. After defining your max risk and Max reward is very easy to calculate your risk to reward ratio. So make sure to do exactly that. Actually calculating and seeing your risk reward ratio will give you more insight into the payoff of your trade. A good rule of thumb is that your risk to reward ratio is better than 1 to 2, but note that you should also take the probability of profit into account. It's totally ok that your risk is greater than your reward as long as your probability of profit is high enough. Furthermore, you should also define the time frame of your trade. Is it a day trade, swing trade or long term investment. You don't need to know the exact time that you're going to be in the trade but you should have an estimate of the trades time frame. Inside of your trade plan you should also have a concrete entry plan. This plan should entail your entry price, position size and how you want to open your trade. Do you want to open the entire position at once or slowly average into it? Lost as important is your exit plan. This should describe how you're going to close your position. This could include possible trade adjustments, your trade exit price and exit trigger. The most obvious exit trigger would be a certain price level. But it certainly isn't limited to that. You could for instance also use a timeframe, probability of profit, certain indicator values or the P&L of your position as an exit trigger. Moreover, your exit plan should include how you're going to close the position. Last but not least, a trade plan could also include other notes such as the motivation behind the trade, your directional assumption, a trade description or something else. Hopefully this template gives you an idea about what a good trading plan could look like. It's very important to create such a trading plan before you open your trade. This allows you to stay rational and clear-headed. As soon as you open your trade, you lose the ability to evaluate the position objectively. Furthermore it's a great idea to actually write down your trading plan. Especially for beginning traders this is a good exercise. With time you will be able to do this in your head, but like everything this requires practice. So even though writing down your plan takes time it will force you to really think about your trade. This is also a great counter against impulsive trades or Gamble's. If you ever again find yourself in the situation that you have no clue what to do with your trade, just take a peek at your trading plan and you will see the answer to this question. After you close a trade you should always ask yourself; did you stick to your trading plan? If you didn't, why not and what could you do better next time? If you did, was it a good plan or how could you improve the plan next time? Asking and answering these questions will allow you to continually improve your trading plans and thereby your trades. A great place to answer these questions is in your trading journal. Having a good trading journal is another great way to evaluate your trades without falling prey to cognitive biases and subjectivity. If you currently do not have a trading journal I highly recommend starting one as soon as possible.

Chapter 4 Winners VS Losers

In this chapter I will reveal the secret to trading success and it's probably not what you're expecting. To become a successful trader he needs to know this. Around 90% of all traders lose money, so only 10% manage to be consistently profitable. But what is it that these successful 10% do different than the failing 90%? Well, first let's take a look at the typical trader of the 90% losing traders. Most people that are in this losing category are doing the following. They're somehow hear about trading and they believe that is all about the fancy lifestyle of a successful trader like easy money, work from anywhere in the World, expensive cars and the list goes on. They filled with motivation and greed. These people then sign up to the best broker that they probably found through some misleading commercial. Some people even watch one or two random trading videos before depositing their money to the broker platform. After signing up they usually start buying random stocks due to random reasons. To their surprise, the stocks rarely shoot up in price more from the not they exit their positions with a loss. Before they know it, they become part of the 90% losing trader group. Clearly not all losing traders go through these stages but a big deal of them do. I'm not saying this to mock the losing traders. I'm simply trying to compare losing to winning traders. My point is that consistently profitable traders actually know what they're doing. They usually have years of experience laid out and test the trading system. Furthermore, profitable traders have a trading plan and before they enter any trade, they know what they will do for changes in their position. In other words trading isn't easy. If it would be easy everyone would be doing it. Let's compare trading to other professions now. Would you try to fly an airplane without any guidance, education and practice? If you would, it would probably end through quite bad. Or would you try to perform a heart surgery without going to med school without any practice experience or education? Chances are high that you answered no to the previous two questions. To become a surgeon or pilot or anything else you normally need to go through years of training studying and practice. Why should this be different for trading? Just like no one is born as a perfect heart surgeon, no one is born as a perfect profitable trader. You need to study, practice and work your way up. If you try to fly an airplane without any education you would probably crash and blow up. The same goes for your trading account. Trading without any education, usually leads to you blowing up your account. Don't make the mistake and risk your hard earned money without educating yourself before. The key takeaway here is that you need education to become a profitable trader. The next question is; do you need paid education or can you learn how to trade for free? Both free and paid trading education have their advantages and disadvantages. First of all let’s take a look at the advantages of paid education. One major advantage of paid education is the motivational aspect. People tend to be more committed to things that they actually paid for. This is because they feel like something is on the line. A further advantage is the focus on one strategy. Most good paid trading courses focus on one strategy and teach you everything important for that particular strategy. Most paid education is therefore more specific and relevant than free education. In other words, many paid trading courses of higher quality than free courses. In addition to that, premium costs often come with personal support. Let's move on to the advantages of free education. The most obvious Pro is the fact that it's free. If the free education is bad, it doesn't matter because you didn't pay anything for it. Next up other disadvantages of the paid trading courses. First of all one disadvantage is the fact that it costs money, therefore something is on the line. If the education is poor quality, you wasted your money. Some of these so-called trading courses are scams so be careful. Another major disadvantage is the lack of transparency. Many trading educators earn all the money from their trading education and nothing from that trading. Just because someone tells you he is a massively profitable trader, does not mean that he actually is. The last but not least, the fact that paid education is very specific is also a disadvantage. It is always good to have a wide general knowledge. Most paid courses focus on their strategies and ignore the bigger picture. Lastly, we have the cons of the free education. Often free trading courses can be less thorough therefore it can generally be hard to find very good and in-depth free trading courses. Thus free education requires a little more work. Before we move on I just want to say that these pros and cons are generalizations. Not all of the advantages and disadvantages applied to all free and paid trading courses. Obviously there are exceptions. As you can see both free and paid trading courses have their advantages and disadvantages. It can be quite hard to pick one over the other. In my opinion it's best to combine free and paid trading education. This will let you take advantage of the pros of both free and paid education. I recommend starting with free education. All basic trading concepts can be learned from free education. I do not recommend spending any substantial amount of money just to learn the basics. You should be able to learn very important basic concepts such as asset types, basic charting, risk management and so on from free education. After doing this, I suggest asking some questions. Are you still interested in trading? Are you still willing to put in more work to learn how to trade? If yes, what trading style fits you? Aspects to consider here are starting capital, time, risk tolerance and so on. As you learned about different asset types, you should have an idea of what asset types fits you. Next, I recommend looking at paid training courses. You should already have a fundamental understanding of trading and the markets in general. Ideally you should also have a preferred asset type like options, stocks, cryptocurrency. When trying to find a good trading course, you should do some research. Try to find a course that fits you, your starting capital, your the time and so on. Look for proven track records and success stories. Generally, if something sounds too good to be true it probably is. Please don't skip the research part. There are countless scams out there so be careful. This is one of multiple ways to learn how to trade but you can do it differently as well. For example you could just pay for everything if you have more than enough money but remember; only the very last step is trading. Don't risk your hard earned money before you actually know what you're doing. Otherwise you will just end up like 90% of all traders. Before starting to trade real money, you should have a good understanding of trading at the markets. You should also have a proven profitable system a concrete trading plan and you should have had loads of education. Even after you start Trading, you should try to continue to learn more. Never follow random trade alerts. Never rely on one or two random indicators. Never listen to seemingly magic trading software. Just do it the right way. Educate yourself and learn how to trade. Remember, if it would be easy everyone would be doing it. The last piece of the puzzle is trading like is your profession and not as a hobby. The secret to trading success is the same as the secret to success in general. It's hard work, experience, education, taking action and practice.

Chapter 5 Trading Strategy with Implied Volatility

In this chapter you will learn everything you need to know about implied volatility, what implied volatility rank is and why it matters. First of all, what is implied volatility? Well, implied volatility can be derived from options pricing models such as the Black Scholes options pricing model. It can be thought of as they expected likelihood of certain price changes in the underlying asset. But what does that mean? Well, to understand this let's break down what goes into an options price. The black Scholes formula uses the following variables to calculate an options price. The underlying price, the strike price, the expiration date, the risk-free rate and implied volatility. The first two factors are quite obvious because they determine the intrinsic value of an option. The expiration date also makes a lot of sense as more time to expiration gives your position, more time to work. Thus time to expiration should definitely affect the price of an option. The risk-free rate only has a very small effect on an options price and doesn't change significantly over short periods of time therefore it can be ignored for now. Last but not least the volatility of the underlying asset should also affect the options price because more volatile assets tend to give an options trader more opportunity to profit from price swings, whereas on volatile assets have limited trading opportunities. For instance, a far out of the money option is far more likely to become in the money if the underlying asset is very volatile then if it's not. Therefore volatility is one of the factors used to calculate a theoretical options price. However, it's fairly easy to observe and measure the underlying price, strike price and time to expiration. But it's not as straightforward to measure the volatility of the security, especially not the future volatility. That's why models such as the Black Scholes Model use a formula to determine the implied volatility from the options price instead of the options price from the implied volatility. An options price can be observed in the markets together with all the other factors except for volatility. From all this you can calculate a theoretical volatility value. This volatility value is implied from the options price, therefore it's called implied volatility. So when you hear in some financial news that options traders are expecting upcoming volatility, what they're really saying is that the volatility implied by the current option prices, where the implied volatility is relatively high. Note that implied volatility is not the same as historical volatility. Historical volatility is the past actual volatility and it does not affect the options price, whereas implied volatility does.

Furthermore, implied volatility is a purely theoretical value therefore implied volatility values often differ from the actual volatility values over certain time periods. Hopefully this helps you understand what implied volatility is.
Well, first of all it's one of the main factors affecting an options price. This alone is one reason why you should pay attention to IV. Furthermore, implied volatility can give you insight into what kind of volatility the market is expecting. You can compare the expected volatility to your own analysis and potentially build a position around the difference in these two. An options trader should always look at implied volatility as well as the underlying trading price, expiration date and strike price before putting on a position. It's also possible to use implied volatility to calculate the expected price range of an underlying asset until the expiration date. To understand this let's first take a look at a normal distribution diagram.

Depending on which model you use, you might assume that stock price changes are distributed like this. That would mean that 68% of the time price only changed slightly and the bigger a price move is, the less likely it becomes. The one standard deviation move for less happens about 68% of the time. The two standard deviation move where anything less happens about 95% of the time and so on. This isn't necessarily a very realistic distribution for prices because bigger moves happen far more often than they should according to a normal distribution. Furthermore, prices can move more to the up side than they can to the downside. Nevertheless, a normal distribution is commonly used and it helps to understand what the expected move of an asset is. If you use the normal distribution you can calculate the expected move of an asset through this formula. One standard deviation equals, plus or minus implied volatility, times the underlying price, times the square root of the time to expiration divided by 365. Two standard deviations can be calculated by multiplying the one standard deviation move by two and so on.

Implied volatility is normally quoted on an annualized basis. That's why we divide the time to expiration by 365 to get the expected range until the expiration date. Let's look at an example to clarify all this. Currency XYZ is trading at $100. We will first look at an option with 30 days left till expiration and an implied volatility of 40%. So the one standard deviation range over the next 30 days is plus minus 0.4, times 100, times the square root of 30, divided by 365. This is about plus minus 11.5 which means the one standard deviation range over the next 30 days is 88.5 dollars till 111.5 dollars. This means that the markets expect XYZ's price to stay between about 88 and 112 dollars over the next 30 days with about 68% probability.

The two standard deviation move would be up to 123 dollars were down to $77. Now let's take a look at the same asset with the same implied volatility but 60 days instead of 30 days to expiration. The one standard deviation range would now be about 84 dollars to $116. The two standard deviation range would be 68 to $132. This makes sense because XYZ can obviously move much more in 60 days than it can in 30 days.

Note that all of this assumes that the distribution of prices is normal. This is not necessarily a very realistic assumption. Therefore in practice other distributions such as the log normal distribution or other ones are used much more commonly. Nevertheless, this simplified explanation of the expected move should give you a good idea of what the expected move is and how you can use it for your trading. Luckily, you will never really have to calculate the expected move yourself as most good broker platforms will calculate it for you.
By now you have hopefully realized that implied volatility is an important factor to look at when trading options. When implied volatility is high options are priced higher and when implied volatility is low options are priced lower. But how do you know if implied volatility is high or low? For instance, if an assert XYZ has an option with an implied volatility of 40% and asset ABC has an option with an implied volatility level of 30%, what does that mean? Well, just because the absolute implied volatility value of XYZ is higher than of ABC, we can't just assume that it's implied volatility is higher relative to itself. Let me give you a more specific example to clarify this. Let's say XYZ is usually a very volatile asset and has an average implied volatility of 70%. But now the IV dropped down to 40%, whereas ABC tends to have an IV level of around 20% most of the time. But now it's implied volatility has gone up to 30% and this means that ABC's implied volatility is relatively high and XYZ is implied volatility, is relatively low even though XYZ's absolute volatility is greater than ABC's. I hope that this explains that it's very hard to compare the implied

volatilities of different assets, because different assets can have very different trading characteristics. To solve this problem, we can use implied volatility rank. IV rank looks at the past year of implied volatility data of an assets and then tells you how the current level of IV is relative to the past 365 days. IV rank is always a value between 0 and 100. 100 being the highest and 0 the lowest level of applied volatility over the past year. Here is a brief example. Asset ABC has an IV rank of 20. This means that it's implied volatility is relatively low because it has been much higher throughout the past year. Therefore you can assume that ABC's options are relatively cheap compared to past times. If on the other hand IV rank would be at 100, you know that ABC's implied volatility has never been higher over the past year and therefore this could be a good time to sell options because they are very expensive. In summary, implied volatility rank brings some context to implied volatility. Here is the formula that is most commonly used to calculate IV rank. The current IV level minus the 52-week IV low, divided by the 52-week IV high, minus the 52-week IV low and all of this is multiplied by 100 to get the IV rank.

Note that some brokers often filter out very extreme implied volatility values from the past 52 weeks so that IV rank isn't skewed or distorted by these values. Don't worry you won't have to calculate this yourself because once again most good brokers will do this for you. Certain platforms even allows you to scan and filter assets by IV rank. This is one of the easiest ways to find assets with very low or very high implied volatility values. I hope this helps you understand implied volatility and how implied volatility rank works.

Chapter 6 How to set up a Trade Order

Even though setting up an order might seem like an easy task, there are still are many things that you can do wrong. For example the biggest mistakes that many traders make is using market orders. A market order gives you the next available price. This will get you filled very fast but more often than not the price will be bad. So what should you do instead? Well, instead of market orders, use limit orders. Limit orders allow you to set a fixed price at which you want to get filled out. Either you will get filled at this price or you won't get filled at all. As long as just don't set your price too aggressively and the security is liquid enough, you will get filled at your desired price anyway. But even if your order isn't filled it is often better to miss a trade and to accept a bad entry price, since a bad entry price would mean more risk and less profit potential. To choose a good limit price it is important to understand how the "Bid-Ask Sread" works. The bid price is the highest price a buyer is willing to buy the underlying security for and the ask price is the lowest price a seller is willing to sell it for. The bid-ask spread is the sprint between these two prices. To get filled as fast as possible, you need to move closer to the ask price when buying and closer to the bid price when selling. For most securities however these prices change all the time. Therefore you can often get filled at the mid-price. That's also why I recommend always setting your limit order price at the mid-price to begin with. If this doesn't get you filled, you can always readjust later on. Ordering at the mid-price can save you thousands of dollars over the long run. Last but not least I recommend setting your orders to expire at the end of the current trading session. But if you don't want this you can always choose a good to cancel order. This order type will stay active until it is either failed or you cancel it manually. This is especially useful to automatically take profits on a given trade. For instance, if you know your profit target you can just send out a good to the concert order as soon as you open your trade and let the order sit. The same can be done for the downside with a stop loss. An alternative to good to the cancel orders are good to date orders. The only difference between the two is that good to a date expire after a certain preset days whereas the good to cancel order has to be concert manually unless it's filled. Some brokers even offer bracket orders. These are also known as one cancels other orders. Such an order allows you to send out two orders one to take profits and want to cut losses and as soon as one is filled the other one is automatically cancelled.

This is a great way to automate your trading plan. It's hard to make discretionary trading more mechanical than this. Last but at least here are some tips to get feel it faster First of all, make sure to trade liquid securities. If you aren't trading liquid securities fails will take much longer and even worse, it will leave a lot of money on that due to a wide bid-ask spread. If you're trading options you could analyze option chains for options with high open interests and volume. Getting filled on these options is much easier than other ones. The next tip would be to scale into your trades. Instead of opening your entire position in one order break it down into multiple smaller orders. This can decrease field times dramatically. Note that you should only try this if your broker's commission structure doesn't charge you too much for each order. Otherwise, placing orders at route numbers can often help you since route numbers typically attract much more stop losses and limit orders than other prices. If none of these things help, you could always move your price closer to the bids or ask price. But only do this if the new price is still good enough. In summary, you should always have a clear trading plan and make sure you create this before your trade. If you don't know how to create a trading plan just use my template from the previous chapter. Furthermore, make sure to keep a trading journal so that you can track your progress and learn from your mistakes. Otherwise, don't use market orders but instead use limit orders. A good limit price to start with is the mid price. Last but not least focus on trading liquid securities with high-volume, otherwise you're just throwing money out of the window.

Chapter 7 Fundamental Analysis vs Technical Analysis

In this chapter we're going to look at fundamental analysis versus technical analysis. We're going to discuss each of them, compare and contrast the two methods and also investigate some of the pros and cons. So let's get into the details of fundamental analysis versus technical analysis. But both ways of trying to tackle a question that's always of interest to investors which is whether a company is cheap or whether it's expensive. Really they come at the problem from different directions. Fundamental analysis and technical analysis are not methods that are restricted to investing in shares. They used by lots of different types of traders and they all use fundamental analysis or technical analysis or maybe a combination of the two in different ways. But for this chapter I'm approaching their methods from the perspective of an equity investor. Let's start with fundamental analysis. Fundamental analysis takes the view that it's economic forces that drive prices, so why not investigate the economic nuts-and-bolts of a company in order to work out whether it's cheap, whether it's expensive or whether it's the right value. So let's look at this in detail. With fundamental analysis we're using available data to gauge a shares value taking the time to evaluate; all the information available, anything that's out there that affects the company economically. This can come in the form of quantitative information or qualitative information. Quantitative means the hard numbers. Things that can actually be counted as the name suggests; it's to do with quantity. Whereas qualitative is all the stuff that can't be measured numerically; the intangibles as the name suggests. This is to do with quality of the company; the essence of character. So let's look at some examples to further illustrate these two terms. Some examples of qualitative information is brand value, brand recognition, the management of the company; the people who are actually running it; what their track record is and what they have to say about where the company's going. Then some examples of quantitative information is dividends, earnings, sales or book value. Then we can actually compare these pieces of information to price with what we call valuation ratios; a price to earnings, price to sales and price to book value. For both quantitative and qualitative information; these together help us learn more about the financial health of a company and its prospects for growth going forward. In contrast, technical analysis says all those things that fundamental analysis is worried about; things like dividends, earnings and who's running the company. We don't need to worry about those separately because what we're going to assume is that all those things are already reflected in the price. So let's just look at what price has been doing. As we said technical analysis assumes it's all in the price. Therefore a technical analysis purist might say that effectively everything they need to know is in the charts. At a basic level just a chart by itself does offer a visual summary of what a stock has been doing. That tells you a lot more than just staring at price tables but beyond this, we have this concept that looking at historical price data, can be a guide to the future what has happened before. It might tell us a little bit about what is yet to come. When we talk about looking at what price is doing and has been doing recently, this is what we refer to as price action. Some key concepts here are support and resistance, trends and trend lines price breakouts. Alongside recognizing price action we have a host of technical the cases available like moving averages, isolators and measures of volatility. By volatility we mean how much price has been moving. Price action and technical indicators are just looking at price charts with no recourse to the fundamentals. Now that we've covered fundamental analysis and technical analysis let's take a dive into whether there are any benefits or any drawbacks from using the two different methods. With fundamental analysis one of the key assumptions is that the price will reflect fundamentals in the long run and investors relying on fundamentals. They see that a company is undervalued and therefore buying shares in the company due to it's data that will in time increase in value but we don't know when. It tells us nothing about the timing or when this eventually going to happen so it’s a drawback. Also because there is so much fundamental information available such as financial statements, balance sheets or announcements; so to stay on top of it for one company, it takes quite a chunk of time. To do it effectively, you have to look at lots of companies continuously. Thus fundamental analysis is time-consuming while technical analysis looks at things from a different direction to fundamental analysis whereas fundamental analysis looks at economic factors and driving price. Technical analysis can clue us in to sentiment and speculation that fundamental analysis doesn't look at. We can also use our technical tools to gain trading signals and therefore inform our timing for an investment. Fundamental analysis might tell us a crypto is undervalued and therefore we know we want to buy it, but technical analysis might be able to help us find an optimal time to buy it. Is one method better than the other? Well, it doesn't have to be an either/or situation. A lot of investors and traders do tend to use a combination of both, even if they lean heavily in favor of one over the other. Even someone who's heavily in favor of technical analysis is unlikely to ignore if a CEO has left a company or if the earnings are extremely weak. Looking at it the other way someone who is heavily in favor of fundamental analysis is probably still going to cast their eye over a chart just to get a feel for what the company's price has been doing. From my own personal perspective I want to use all the tools that are available so if there is any benefits were age to be gained from one of the tools, why not use it. Also the longer term investor is more likely to lean on fundamental analysis and taking that to an extreme a fund manager who's dealing in investments they're going to last years and years might not use technical analysis at all. Instead purely base their decisions on fundamental analysis. While short term traders might lean heavily on technical analysis only. But which tools to use? Well a TA Purist or technical analysis purist is generally using technical analysis 100%. Next someone we would call a heavy technician might make most of their decisions using technical analysis but keep an eye on things like earning reports or pay attention to major macroeconomic releases so would use technical analysis around 75% of the time. Next we have someone we call an Ambitrader who would look at both fundamentals and the technical, so 50/50. Maybe they use technical analysis to confirm the decisions they're making from looking at the fundamentals or maybe they use technical analysis as a way to time their entries and exits after deciding what to do based on the fundamentals. Next we have someone called a casual Chartist who heavily focuses on fundamental analysis but might cast their eye over a chart every now and then so these people would rather look at 25% of technical and 75% fundamentals. Lastly we have the Warren Buffett types of people who would purely look at fundamentals 100%. One might describe these people more like investor rather than traders however this doesn't necessarily have to be the case. Ultimately, it's up to the individual. The golden rule is to use what works for you well.

Chapter 8 Does Technical Analysis Work and Why?

If you are a little more skeptical about technical analysis or just getting into technical analysis, I want to share with you the concept of technical analysis and why really it kind of works out in the favor of the trade or in the favor of the stock movements and the way they move. In general when you look at investing we're looking to put some kind of money into something. Then in the end we hope to get back more than what we put in whether that's two times, three times or five times. Whatever it is you put certain amount of cash into an investment and you hope to get more money out of it through a passive means or through appreciation, through dividends or through other methods. This could be through crypto, stocks, buying in antique cars, stamps or rare coins and so on. There's a lot of forms of investing but in either case you put some money in and you hope to get more money out later. There's a couple of ways to do this when you're looking at crypto. One of the common approaches is through fundamental analysis. With fundamental analysis you're really looking at the company’s health, so you are looking at the balance sheet or for example how is the company earning or how are the active users, what are they spending money on. For example if their spending is greater than the money that they're making that's a bad sign but if they're using it to invest and grow their product pipeline then it might be okay. But in either case you're looking at a baseline of how the company's health looks under the company itself, of how the company operates. So that's really fundamental analysis. This is the way most people approach investing in a stock. So if you are fundamentalist, you will look at things more on a fundamental basis or at the company’s scope. The second approach to investing is you're looking more at technical analysis which is what we're talking about. With technical analysis, you're looking to predict ok future prices based on two main things; price history and volume. Those are the main factors. A lot of the other things that go with technical analysis are all based upon the price and the volume. So even if you look at MAC D, stochastics, moving averages are all based on the price and the volume mainly. If you understand price and volume, you can use the other indicators as well because they all stem and drive things from that. But in either case the goal is the same. Whether you're looking for a technical analysis or you're looking at fundamental analysis, the goal is still the same; you're taking money and you're investing it and you're hoping to get more money at some time at a later date. A lot of people can understand why

fundamental analysis works because if you have a company that's in good health, if you have a balance sheet that's in good standings, if you have a great active users, good revenue coming in and they're spending less than what they're making and the company is growing then it's easy to see why that company and their earnings would grow in the future as well. With technical analysis because it's not something that we're normally used to as we grow up as a child into adolescence and into mid-20s, we're not always aware of how technical analysis plays a role. It's something that we as traders get put into and we are aware of this concept and then it's put into our lap and then we wonder why does it actually work and does it really work? From my standpoint it really does work and the reason for that is because of crowd behaviour. Its all about crowd psychology and the law of supply and demand. If you want to take a look a little bit more about the psychology of how things work and evolve, there's a really simple and easy to understand video by Derek Sivers on YouTube uploaded since 2010, called "First Follower: Leadership Lessons from Dancing Guy". If you want to check out the video please visit the following link:
https://www.youtube.com/watch?v=fW8amMCVAJQ
It's a funny video really where basically a guy dancing at the park but it's really a lesson about leadership. It's got millions of views but really what happens in this 3 minutes video is that there's a guy dancing in the park alone. He's the first one just dancing alone but eventually 20-30 seconds later he gets a second person which is the first follower hence the name of the video. Over time, a little bit later you have another person joining in dancing so now you have those two people plus you have a third person who backs up that first follower. After a while this continues to grow so now people feel more comfortable. It's kind of like a social proof so now you have a group of 6-8 people join in and this continues until eventually everybody else joins the party. And now you have a huge group of people joining in and then more and more people, literally in less than 3 minutes there are at least 100 people dancing. So when you're first initially getting started, it's very difficult to move that crypto. But then eventually you have another person that comes in to fuel that crypto then more and more people start to come in and more and more people come in as they start hoping from that crypto. Then this crypto keeps moving due to the supply and demand. Demand is the buyers and supply are the sellers. Sellers are selling the crypto and buyers are buying the crypto. As you have one buyer coming

in and while you are looking at a chart, initially that crypto starts to move to the upside. Next, you'll get the scalpers coming in and the day traders then you might get some more value buyers coming in on the second stage. As people start coming in you got social proof. This is when that crypto is starting to head higher and looks to be like there's momentum there. Then again more people coming in and this continues to move up until you get to a certain point where this starts to top off because it starts to look a little stretched. If you're dancing in a little room there's only so much space but when some people actually leave the dance floor you can step in and get on the dance floor because there's only so much space. If everybody's jumping in right away, it's going to fuel that crypto. What does that mean? Well, this is due to the volume. As you start looking at a crypto initially, you might have a small little volume spike. Later as you continue that volume spike might grow even bigger. As more people come in, they will fuel that crypto. Then again you get even more volume that'll come in and this creates proof within that crypto that's moving. As that crypto starts to pull back and as we come back into this price level because the line opens up, as we have an opening in space, that volume might actually start to get weaker. As that volume gets weaker, that's a normal pull back because now the space opens up. Now the prices are not too high. Then you have more value buyer stepping in, scalpers coming in, day traders, swing traders coming in and they say; “okay, this level is a good buy”. So then what happens to the crypto again is that the volume starts to pick up. Then when the volume picks up, that crypto continues to head higher. You can see the volume is much bigger than before and that's what continues to fuel the crypto. So what does this mean? Well, this means that a crypto is different for everybody at different points and it's all based on that crowd behaviour. Some people won't join in until later, until the bounce or until this price level right or until that crypto bounces, while other people might be early. So we are looking at crowd behaviour or crowd psychology on how that crypto is moving. The issue here is when we have this line between called support and resistance, if there's enough people that are willing to step in on the dance floor the dancing will keep happening. But with crowd behavior the people get tired of dancing because there's no more people that crypto will continue selling off and this is when you look at the volume it's going to tell you some key signs. If you start seeing more selling and you start seeing larger volume as that crypto is selling off, which is why the volume is important, that crypto will roll over and that's where that support is going to break. The same thing happens on the resistance level. If you see it selling off in a heavy way at resistance level then you're looking at the volume, and if volume confirms that, you'll see it selling off even further. But it comes down to the key principle is this social and crowd behaviour. It's all about the buyers and the sellers. It's probably really simple for you to evaluate a dance floor to see when people are getting tired or based on the song when they're going to sit down. It's easy for you to see that because you've seen it happen. It's something you deal with on a day-to-day basis. When we're looking at crypto if there's buyers still coming back into the market, more experienced traders will monitor that and wait until there are no more buyers so they can sell off their crypto for profit. You can look at this concept from an intraday standpoint. Meaning, this happens on an intraday basis, it happens on a daily basis, a weekly basis or a monthly basis and the longer the timeframe you're looking at the more concrete these support and resistance lines are. When we look at the price action or when we look at the movement of a crypto, it all comes down to the crowd behaviour. The psychology behind it it's all about human behavior and it works. That's why the support and resistance works because people come in and they want to value buy. For example if you go to a restaurant and you really loved that place, are you willing to wait five minutes to get a seat or ten minutes? Probably because it's not worth it to go someplace else. It's just not worth the time and effort or energy because you're hungry. Same thing here; you're hungry for an investment to make money so you're looking at a good entry point. You get in when there is a reasonable price and that's what continues to move crypto. That's how it works. No matter what pattern you're looking at, whether you're looking at triangle patterns, support and resistance which are the basic but when you look at any of those indicators we will discuss shortly, it's all about crowd behaviour or crowd psychology. That's how technical analysis works and this is why it works; crowd behavior and the crowd psychology.

Chapter 9 What is Support and Resistance

In this chapter we're going to take a look at a simple but effective idea of support and resistance when it comes to price charts. We will also look at how support and resistance can help us figure out turning points, entry points and stop-loss points. Support and resistance is ignored or at least not given the weight it should be by plenty of new traders. They're too busy focusing on Fibonacci levels, Bollinger Bands, MAC D-s, Pivot Points and they miss out on this basic bit of market information. Because it's so important, first we're going to look at the principle of support and resistance. It's really easy. It's where the market decides where maybe things have got a little bit too expensive, maybe things got a little bit too cheap and reacts accordingly. For example if last month the price of oil fell to $45 and then rallied and got pushed as high as $50 if it starts going back towards $45 again where the market saw the value there a month ago, we want to see if the market see value there again and the expectation is that we're going to see the buyers come back in. But first of all let's look at a theory. We have a market that's going down hits the level, then rallies up to a level known as resistance level where the market rallied before and it can't get through. Some people would see a failure at resistance as an opportunity to sell short, which stops above. Let's say the market and starts to decline again like it did last time around. This can be any sort of time frame; in a weekly, daily, hourly or 10 minute timeframe. You will see this idea of support and resistance across the board. The market comes down, we may see the market rally but it doesn't break the old low so we have the potential for support forming. Some people would see this as an opportunity to buy with a stoploss underneath the low. That’s the theoretical version. We're going to look at some real examples in a second but plenty of people say what if you could use just one indicator; would it be Bollinger Bands or Stochastics or MAC D? Well, it would be none of those. Instead you should focus on support and resistance because it's the market telling us exactly where there is supply and demand and where there have been buyers and sellers. Let’s take a look at an example. This is a long-term example of a resistance. This is the price of oil.

Each candle represents a week's worth of trading. What I'm interested in what was happening here. These are weekly candles. It’s trying to break 55 dollars 20 cents and a few weeks later comes back to it again. About six weeks later its back to it again. So we have a definite level of resistance. Let's just pick up on that. Let's move forward in time and see what happens next.

The market sell off below $48 then comes back for another go. That’s resistance. People who think this resistance is going to stay in place might be looking to sell short with stops above and if moving the timeframe again, you can see that would have worked.

The market did sell off. It proved to be a really big level at the beginning of the year and what's interesting as we head towards the end of the year is that we are back up here again.

So how is this resistance level going to perform an interesting one to watch. Next chart is a slightly shorter term example. What we're looking at is that we are having a look of support. It's a daily chart of Euro Dollar. This is to the end of August and it starts coming off and we think where this market will stop? What we want to pick up on its previous pull.

Here it's the dip down to towards at a 116,50 before the market rallied 400 points.

So let's pick that one up by picking up our horizontal line and put it underneath those lows. So traders will be watching this level to see how the market performs. If it heads back down? Does it end up being support again? Because this market is so strong that is what we'd expect.

Let's jump forwards to October. The markets come off about 400 points. We're back down to the same level and we are seeing the slide stopping. So a trade here would be to be a buyer with the stop-loss underneath that line.

So let's jump forward a few more days. It's a short-term move but the market does move higher. It moves a couple of hundred points off at that level, so that support has done its job.

What's interesting now is what's happening with that support level. You can see the Euro is actually slipped below it. We've had one day where it slipped below and we have seen some recovery.

Hopefully you can see how this support did prove to be a good entry point. For the final example we're gonna go much shorter term. We're looking at the US 30 market here. The Dow has been an incredible rally since the presidential election last year but looking at this strength we can pick up on previous support levels. Let's say we were looking at the market here and it ran from 23,270 as high as 23,490.

So it’s a sizable rally. We might be thinking where's the market going to stop. When it sells off? Well we can pick up on the support. Admittedly, the market did spike below it by 10 or 12 points but hopefully you can see the principle here that these old levels can come back and prove to be big levels to trade off.

This was back at October, a couple of days later we see the market once again hold. When we walk this chart forward if we see the market start to sell-off, what we're looking at is how it reacts by the support. Does it give us a good entry point? As you see if you jump forwards we can see a fair bit of volatility. The market sells off really hard in the space of an hour and a half drops down about a 120 points. But where do we see the buyers come back in? Well, we've got this chunk of support from 23000 through to about 20350.

Once again, an aggressive trade here. We'll be buying into that support and if we jump forward to where we are now, you can see that once again the market is bounced back and actually taking out these old previous short-term resistance.

So it doesn't work perfectly, but it can give us an obvious area to look to initiate a trade and an area for a stop-loss point and an area where if things have changed we can see on the chart. We've looked there some simple entry points. If you don't look at support and resistance yet, you should start looking at it in terms of where you want to place your trades and place your stop losses.

Chapter 10 What Time Frame on the Chart to Choose

In this chapter we are going to take a look at different trading styles and what time frames and the charts are better suited to those styles. I'm always keen to stress the individuality of trading. From all different people, there are no two traders are exactly the same. We have different requirements, different preferences, different needs, different psychological makeups and therefore the idea of having a one-size-fits-all approach to trading doesn't really make sense. We need to look at ourselves and see what you are looking to achieve, what's going to suit the way you think, the way that you feel comfortable and do a bit of experimentation trading wise and find out what works for you. Thus let's run through some different trading styles and see generally what's out there and what kind of time frames the charts might those traders be best off looking at. We'll start on the long end of the scale. People who sometimes called position players are looking to profit from substantial moves in price in the market that occur over several months. Really we're talking about trend following here. The idea being that if a market is moving up steadily over 3, 6 or 9 months, if you can get on and stay with that trend at the end of it the amount of profit that you're going to make over such a substantial move should outweigh what you can make in shorter time frames over the course of a week. Now what kind of charts might this kind of trader will be looking at? Well, if you're looking at last three months or six months you might be looking as your main chart of reference at a daily charts. Often when you're looking at a main chart as the one that make your trading decisions primarily from, what can also help is to look at a time frame that's an order of magnitude larger. So if you were looking at daily charts to make your main trading decisions, you might also look above at a weekly chart just to give you that wider feel for prevailing forces in the market. One of the good things about long-term trend following is that it's fairly low maintenance. If you're making your decisions based on daily charts you're not really going to have to be keeping an eye on the market the whole time. You might only need to really sort of do a little bit of maintenance a couple of times a day just to check how things are going if say you had a stop in place to maintain your risk when you aren't looking. That's really a pro of this approach. The cons are that when you're trading in this kind of style the trading opportunities are actually going to be really quite infrequent. You might not be trading as often as you like but it depends on your style. This suits someone who's very patient. But it also suits quite a specific mindset because often trading strategies that go with trend following breakout strategies you are looking you see a certain amount of breakout, you jump on the back of it in the hopes that that develops into one of these long lasting trends but more often than not they don't. They break down which means that it can be quite tough psychologically so it takes a certain types of mindset to be able to live with the fact that a lot of time you're trading, you're losing, and then once every so often you make a really big profit that outweighs all those losing trade. Therefore it can be rough psychologically. A slightly shorter timeframe trading strategy is swing trading. Swing trading is similar in a sense to the last one in that you're looking forward to catch swings in price in a certain direction. You're looking for patterns that may occur where you're going to get these price moves occurring, but in a much shorter duration. You're looking for moves that last multiple days so you're looking for several days for a few weeks. The advantage of this is that all trading opportunities you are going to come along more frequently. The type of timeframes of charts you might be looking at is hourly charts all the way through to a 4-hour chart as your main chart for making your decisions, or maybe even a 30-minute chart. Then you'd be looking an order of magnitude above just to give you that wider picture. Let's say that you were looking at a 4-hour chart to make your main decisions or you might then be looking at a daily chart to look at the broader trend above that. Moving to a shorter timeframe we have day traders who put typically hold positions for a few hours. A true day trader would be out of their position as the name suggests before the end of the day. One of the advantage of this is that it mitigates the risk of breaking news overnight that adversely affects the market and might adversely affect your position if you had one. If you're a day trader and closing up before the end of the day, you can go away forget about the market come back the next day and start again. One of the disadvantages of day trading is the high requirement in terms of focus and attention for you paying attention to the market. It's high maintenance. The type of timeframes and charts that you might be looking at might be 5 minute charts, 10 minute charts or 15 minute charts typically. A specialist type of day trader who is in and out even more quickly is a scalper. A scalper is someone who's constantly in there. It's a high-frequency trader and they're just trying to beat the spread and make a few pips of profit here and there. This is the highest maintenance of these different styles of trading. It requires incredible amounts of focus and large amounts of time. You have to be paying attention all the time because one of a key requirement for this type of trading is to keep a really tight leash on risk management. If you're only making a few pips of profit when it goes right, it goes without saying that you're not going to be able to afford to take 15, 20, 30 points of loss when you get it wrong. Therefore you really have to stay totally focused and keep really tight discipline and really keep those losses in check. As it's jumping back to swing trading which can be described as sitting is a happy medium between the two in terms of these pros and cons of how much requirement for time you need and how high-maintenance it is or how many opportunities it offers to tray. Long term trading and trend following offers infrequent opportunities to trade and low maintenance. Scalping and day trading is the higher maintenance end of the scale with really high frequency trades trading in and out all the time. Swing trading is the happy medium between the two where it offers you a fair amount of opportunities to trade. It still has fairly high requirements in terms of maintenance but nowhere near as high as scalping. What suits you best is down to the individual. You need to look at yourself and see what suits you best. Some experimentation is probably required and then adopt the style that you feel happiest with.

Chapter 11 How to Read Japanese Candlestick Charts

You probably think that financial analysis is complicated but it actually comes down to 2 simple things: reading charts and reading news. There are many types of charts but Japanese candlestick or simply candlestick are the most popular ones. Such a chart consists of red and green "candlesticks", or "candles" lined one after another.

Each candle gives you detailed information about the price movement within a specified time interval. In fact, Japanese candlesticks are the best way to visualize the ups and downs of a price, so that you can spot potential opportunities to BUY or SELL. Let's take a more detailed look. Every candle consists of a body and one or two "tails" called “shadows” sticking out of it.

The body indicates the range between the open and close prices for a specific time frame, and the shadows represent the highest and lowest price levels reached for the set interval.

Japanese candlestick charts are easy to read. A red candle shows that the price is going down, and a green one represents an increasing price. If you are looking at a 10-minute chart, each candle represents a 10-minute time interval. We see a green candle when the open price is lower than the close price. If the price closes lower than it opened, then the candle is red. As simple as that. What kind of signals does a candlestick chart provide? Well, it is no surprise that candlestick charts are so popular. They are excellent for spotting market turning points. By looking at the patterns that candles create, you can often guess if a certain market is about to continue in its current direction, or reverse it. Patterns that show that the market could change direction are called reversal patterns.

They could be bearish: ones that indicate the change from an uptrend to a downtrend and should be perceived as a signal to SELL. Or bullish; these show that a price that has been decreasing is likely to start going up and we should BUY. Let's see the most popular candlestick patterns which encourage you to BUY.

Bullish engulfing
The bullish engulfing consists of a red candle, followed by a bigger green one, which fully engulfs the red candle.

The pattern is an indication for a market turning point. In simple words, it is likely that the market may start going up and you can BUY. The indication is even stronger if the green candlestick engulfs two or three red candles.

Hammer

The name of this candle is pretty much self-explanatory. You will recognize the hammer by its short body, lower shadow that is about two or three times the length of the body, and a shorter upper shadow or no shadow at all.

The hammer is usually a clear indication of a declining price, reversing its direction and starting to go up so you can start BUYing. But just to be safe, you could always wait for additional confirmation. Such confirmation is a green candle closing above the open of the hammer for example.

Morning doji star

This pattern appears when there is a slight market movement and consists of three candles: a red one, followed by a doji, followed by a green candle closing beyond the middle of the first candle.

If the green candle is longer than the red one, the signal is even more reliable. Spotting the morning doji star is a signal to BUY. Some chart patterns that mean you can SELL.

Bearish engulfing
This pattern is the opposite of Bullish engulfing.

A green candle is completely engulfed by a following red candle. When you spot it, you can SELL as the sellers on the market have possibly managed to overpower the buyers and the price direction could reverse.

Dark cloud cover
The dark cloud cover appears before the price drops down. A long green candle is followed by a red one that opens at a new high and closes below the middle of the green candle.

Keep in mind that when trading currencies a second candle opening at new high is rare so the red candle usually opens at the close level of the green one. Once you see this pattern you can go ahead and SELL, or you can wait for another, smaller red candle to form and confirm the dark cloud cover.

Shooting star
The shooting star is a red candlestick with a small body, long upper shadow and a short lower one.

When it appears at the end of an uptrend, it shows you that you can SELL since the price, which has been rising up to that point, may start falling instead. Reading Japanese candlestick charts is not rocket science. Just make sure to observe your charts carefully, and you will soon learn to spot patterns as they form.

Inverse hammer

A similarly bullish pattern is the inverted hammer. The only difference being that the upper wick is long, while the lower wick is short. It indicates a buying pressure followed by a selling pressure that was not strong enough to drive the market price down. The inverse hammer suggests that buyers will soon have control of the market.

Piercing line

The piercing line is also a two stick pattern made up of a long red candle, followed by a long green candle. There is usually a significant gap down between the first candlesticks closing price and the green candlesticks opening. It indicates a strong buying pressure as the price is pushed up to or above the mid price of the previous day.

Three white soldiers

The three white soldiers pattern occurs over three days. It consists of consecutive long green or white candles with small wicks which open and close progressively higher than the previous day. It is a very strong bullish signal that occurs after a downtrend and shows a steady advance of buying pressure.

Hanging man

The hanging man is the bearish equivalent of a hammer. It has the same shape but forms at the end of an uptrend. It indicates that there was a significant sell-off during the day, but that buyers were able to push the price up again. The large sell-off is often seen as an indication that the Bulls are losing control of the market.

Evening star

The evening star is a three candlestick pattern that is the equivalent of the bullish Morningstar. It is formed of a short candle sandwiched between a long green candle and a large red candlestick. It indicates the reversal of an uptrend and is particularly strong when the third candlestick erases the gains of the first candle.

Three black crows

The three black crows candlestick pattern comprises of three consecutive long red candles with short or non-existent wicks. Each session opens at a similar price to the previous day, but selling pressures push the price lower and lower with each close. Traders interpret this pattern as the start of a bearish downtrend as the sellers have overtaken the buyers during three successive trading days.

Doji

When a markets open and close are almost at the same price point, the candlestick resembles a cross or plus sign. Traders should look out for a short to non-existent body with wicks of varying lengths. This doji's pattern conveys a struggle between buyers and sellers that results in no net gain for either side. Alone a doji is neutral signal but it can be found in reversal patterns such as the bullish Morningstar in bearish evening star.

Spinning top

The spinning top candlestick pattern has a short body centered between wicks of equal length. The pattern indicates indecision in the market, resulting in no meaningful change in price. The Bulls sent the price higher while the Bears pushed it low again. Spinning tops are often interpreted as a period of consolidation, or rest, following a significant uptrend or downtrend. On its own the spinning top is a relatively benign signal, but they can be interpreted as a sign of things to come as it signifies that the current market pressure is losing control.

Falling three methods

Three methods formation patterns are used to predict the continuation of a current trend; be it bearish or bullish. The bearish pattern is called the falling three methods; it is formed of a long red body followed by three small green bodies and another red body. The green candles are all contained within the range of the bearish bodies. It shows traders that the Bulls do not have enough strength to reverse the trend.

Rising three methods

The opposite is true for the bullish pattern called the rising three methods candlestick pattern. It comprises of three short red sandwiched within the range of two long greens. The pattern shows traders that despite some selling pressure, buyers are retaining control of the market.

The best way to learn to read candlestick patterns is to practice entering and exiting trades from the signals they give. If you don't feel ready to trade on live markets, you can develop your skills in a risk-free environment by opening an test account. When using any candlestick pattern, it is important to remember that although they are great for quickly predicting trends, they should be used alongside other forms of technical analysis to confirm the overall trend.

Chapter 12 Basic Chart Elements

Every single trader that utilizes technical analysis at one point in time was very new to it at some point and everything seemed overwhelming. There is tons of information out there on the internet which should certainly be utilized but it's important that you stay organized and don't get overwhelmed. You have to be able to direct your focus and our education to learn what is most important and then be able to apply it in the real world to become more profitable traders and investors. First we're going to look at basic chart elements; what we are looking at when we see all those candlesticks shapes and all the lines on the chart. Then we will take a look at volume; that's important for knowing how much dollar volume is being traded. Volume basically is just the amount of shares going back and forth but there's lots of information that you can gather from that volume data. Next, we will look at moving averages; what they are and how they can be used in your trading plans. Next we will take a look at trends; which is just the basic overall understanding of it, what makes an uptrend at what makes a downtrend. Even if you're not going to be a full-time trader and even if you're not going to trade often, being a long-term investor knowing trends is very important. That's why it's essential for pretty much everybody that has anything to do with this market. Needs at least a basic bare minimum of a dozen hours of Education to be able to look at a chart and know if your crypto in long-term picture an uptrend or they're in a downtrend. Then you should know if you should get out of these positions and find other cryptos that are in a bullish long-term uptrend. Next, we'll look at indicators and these are tools that traders have in their tool belt. The RSI and some other things that make trading a little bit easier in terms of giving us other information overbought and oversold conditions. Then we'll look at Candlestick psychology because that's what charting is. It is plotting human emotion and psychology in a pictorial form on a chart and being able to utilize that information to stay one step ahead of the herd. I refer to be heard as basic retail traders who are behind the curve without using technical analysis. So let's get right into it and look at basic chart elements. Before we get into the basic candlestick representation of what we're looking at on a chart, I want to get into what I find very interesting and it's the history of Japanese technical analysis candlestick trading. It originated back in japan in the 1600 and the fact that we are using this information in this trading style, 400 + years later I find that extremely fascinated. The reason that that does work is due to the consistency of human emotion. That's what's depicted on these charts and being able to capitalize on exuberance and traders over-exuberance, we're going to the upside and greed and being able to capitalize on fear and panic, is definitely what these charts are trying to represent to us. That human emotion does not change through time and certainly hasn't in the past 400 years that worked back then and it certainly worked now as you will see if you keep diving into technical analysis and sticking with it with motivated educational game plans, you will first certainly find for yourself that it is more useful to utilize this information that it would be to completely ignore it. The birth of technical analysis back at this time period you'll find a lot of the terminology in these technical analysis candlesticks, the names of the candlesticks and it's a lot related to war due to the culture at the time. It was a samurai based culture and there's a lot of war strategy and its really looked at trading as a battle plan. It was utilized most in the rice market. There was a man named Homna and he was known as the God of the market. He dominated the trading industry because he was one of the developers of technical analysis. Being able to see the chart and the trading action visually certainly gave him a step up on the competition and it showed by the amount of wealth that he was able to amass. We used in Japan for hundreds of years. It didn't make its way to the US market until about the 1970, so all in all it's fairly new to the US markets. 40 years certainly seems like a long time but when you're talking 400 years back in Japan, you can see that we're a bit behind the game you're in the US. But you can see that it is certainly catching on a lot of traders are utilizing it and it's becoming more and more popular as more and more people see the benefits of this trading style. So let's look now at what a basic chart is and what these candlesticks represent.

This is known as the real body of a candlestick and it's the solid part and then you have the wick parts at the top and the bottom called the upper wick and then the lower wick. The lower wick is sometimes referred to as a tail. The color of these candlesticks is important. When it's green, we have the open of the day if you're looking at the daily chart. The candlesticks represent whatever time frame you're looking at. So if you're on a daily chart, this is one trading day worth of action. If you're on a weekly chart, it’s one week worth of action. And if you zoomed all the way into a one-minute chart, a candlestick can represent one minute of trading. If it’s a green candlestick, you have the open at the low of the real body and the close at the high and then the range of that trading period is shown in the wicks. You have the low of the day if it's a daily chart and the high of the day. Why the color is important because you can see these two candlesticks look exactly alike but depending on the color that's going to tell you where the open and the close are. The high and the low going to be the same; regardless it's always the top and the bottom of the wicks. But depending on the color of the candlestick, it's going to determine where the open and where the close are of whatever time period you're looking at. So if we close lower, it's a red candlestick because the price went down on the day so the wicks are the high and the low, the real bodies show you the open and the clothes the color indicates that and the timeframes (infinite time frames you can be looking at the one minute to minute 5 minutes 10 minutes hourly all the way up to daily, weekly, monthly, yearly so on and so forth). Let's now look at a chart and see some examples of what these candlesticks shapes can tell us. So here we have a daily chart of SPX which is the SMP 500 and because it's the daily chart, I know that each candlestick represents one full trading day of action.

If this was the weekly chart, I would know that each candlestick is one week but we're looking at the daily chart. So what we can see from these candlesticks is that there are dozens and dozens of shapes and the shapes indicate different things. Whether they be bullish or bearish candle sticks and we also need to look at where they occur in the trend that gives us some clues as to what to expect as well. You can have the same exact candlestick shape at the top of an uptrend or the bottom of a downtrend and it means the exact opposite thing. So it's important to look at the whole picture here and just for going into some of the details right now, we can see what we have here.

This is a Doji candlestick. The high is the top of the wick, the low is the bottom of the wick and you can see the open and the close at the same price, so there's no real body of the candlestick because there's no trading range in between that open and the close. Then you can see some other candlesticks here, for example we've got this green candlestick;

We know the open was the real body of the candlestick. To close, was the top of the real body and you can see the lack of an upper week so that shows us that we are fairly close to the high of the day. That's also a strong close because there wasn't much profit taking off of the high.
You can see here the candlesticks that have a longer upper week that does show profit-taking because you have the price hitting the high of the day and then by the time we close, it's a little bit lower so that can tell you when there's profit taking. It can also tell you when bulls are buying the dip. Look at this candlestick back here:

You see the long lower wick and the small real body so we can see the price took a big drop at some point during the day. We hit the low which is the low of the wick and then the Bulls bought that dip and closed it up towards the real body and that shows you that Bulls are buying that dip which would be interpreted as bullish. The bigger the lower wick, you know the more buying off of the low of the day. The bigger the upper wick, you know the more profit taking from the high of the day. These are just some basic fundamentals. It's very important to look at the candlestick shapes and learn what they mean. There's dozens of Candlestick names. The names are not as important to remember as long as you know what the shape of the candlestick is telling you in terms of profit-taking or both buying the dip. Whether it's a strong or weak candlestick.
We can see here this is almost a red marker Bear candlestick which is when the open is pretty much the high of the day and the close in the low of the day. That shows you that the Bears controlled the vast majority of the trading day and it's a very bearish candlestick.

That supposed to a green candlestick where the open is the low of the day, the close of the high of the day and it shows the Bulls were in full control.

We also have other indicators that we're going to go into a little bit more in depth here later on. These bars in the middle of the screen indicate the volume and you can see when you put your cursor over a candlestick; it tells you the volume, it tells you the open, the close, the high and the low. So if you're not seeing any of the trading going on in a particular day, you can pretty much get the most important information that you need as a bit of a recap as to what went on that day just by the candlestick shape and looking at the wicks and the real bodies and the volume.

Chapter 13 How to Read Volume

We're now going to be looking at volume along with moving averages and both of these are tools that traders want to have in their tool belt. I refer to them as pieces of the puzzle that give us a bigger picture of what is going on. The volume is the amount of shares traded in a given time period.

If you're on the daily chart, we know these candlesticks volume represents one total days' worth of shares traded, and if it's the weekly chart it's one total week so on and so forth. It's important to distinguish between dollar volume and just volume in general. Volume is the amount of shares; the number. But if we take a stock for example a one-dollar stock and we see a million shares traded, we know that's a million dollars of volume. If we compare it to a twenty-dollar stock that sees 500,000 shares traded, on the surface you would say well there's more volume in the dollar stock but if you multiply the share price by the amount of shares traded; the volume, you get the dollar volume. So it would be 1 million shares on one dollar stock would give you 1 million dollars of volume and 500,000 shares on a twenty-dollar stock would give you 10 million dollars of volume. So it's important to have that metric for comparing different stocks that might be priced at different levels, because the share number alone does not give us that dollar volume. That is very important. The volume also indicates liquidity and many other clues about trading action. It is very essential that we have liquidity because with liquidity becomes volatility and trading opportunity. So liquidity is the amount of volume that we see and if you see a stock that has very low liquidity, it jumps around it makes charting harder and it makes trading opportunity harder as well. So consistent volume and liquidity is absolutely important when you're making trading or investing decisions. There's rules of thumb with volume; one of those for the Bulls is the Bulls always want to see increasing bullish volume on an uptrend that shows strength. I refer to volume as is almost like a proof indicator where you can see a bullish move occur and if you see decreasing bullish volume on that move to the upside, that would have me questioning the strength behind that move and wondering if it's going to be a bit of a fake out or if the Bulls are going to be able to keep up that momentum. But if you see increasing bullish volume on an uptrend, you know the volume is backing up the price action and the Bulls are strong. There's also indications that you can get from volume on a break out. When you see a stock range tighten and the trading range get tighter and tighter, it's very often accompanied by decreasing volume. Then once that break occurs from the tightening range, it's accompanied by a spike in volume and that spike in volume can give you a bit of a heads up that the trading range is about to break volatility and price action movement is about to pick up. Those other things we can tell; if we're in an uptrend and we see a couple red days start to form and it's on increasing bearish volume, that's a heads up to the bulls that the trends might be changing to favor the Bears. Conversely if we're in an uptrend and we see decreasing bearish volume on a pullback that's exactly what the Bulls want to see. That's normal healthy consolidation. We know that there is no crypto is just going to go straight up so in uptrends we have higher lows and higher highs and it's important that we see decreasing bearish volume on those pullbacks of consolidation that gives confidence to the bulls that they are still in control of the trend and the price is still going to go up. There is also some other information; volume climax is often occur at the top of an uptrend or the bottom of a Down trend and that signals a trend reversal if you see a big spike in volume and a lot of price action around the top of an uptrend or the bottom of the downtown, we can know to start looking in the other direction. So volume is absolutely an essential indicator to be utilizing if I were limited on the amount of indicators I could use, volume would absolutely be at the top of the list for those that I would choose to keep on my charts.

Chapter 14 How to Read Moving Averages

Moving averages or another essential piece of the puzzle because they tell us what the average price was over a certain period of time and they also act as support and resistance. There's two different kinds of moving averages. There are simple moving averages and then there are exponential moving averages. The simple moving average is just the calculation of the average price on whatever time frame you're looking at. Let's say we're looking at the daily chart. The 20-day moving average would be the average closing price of the previous 20 days of action. If we're on the hourly chart, the 20 period moving average is the average of the last closes of the 20 candlesticks on the hourly chart. So it's the close of the candlesticks that gets factored into the moving averages and the time period let us know how far back that goes. Exponential moving averages are calculated a bit differently. It's a little bit more complex of an equation. Exponential moving averages react quicker to the price so the 20 PMA would act quicker to the changes in prices and an SMA would. This is how they are written; MA20 or EMA20 that's a simple moving average for 20 days period. If it were MA200, it indicates the 200 days period moving average and whenever your timeframe is, is going to determine whether that's the 20-day moving average, 20 week moving average so on and so forth. They act as support and resistance when the price is trading above moving average, that moving averages support and when the price is below the moving average that moving average is resistance. In terms of the length of time factored in, the longer it is, generally it's stronger. So the 200-day moving average is a more significant price level then be 20 day moving average would be. So if we're above the 20-day and the 200-day moving averages, I would say that the 200-day moving average is a stronger support level than the 20-day moving averages. That's because there's more time and more price action factored into that calculation. It's a bit of a self-fulfilling prophecy. What that means is the more people that are utilizing technical analysis and looking at these moving averages on a chart, the more it's going to come into play. If we have thousands of traders looking at the 200-day moving average support, we can anticipate it's going to be more likely than not that when the price hits that level it's going to act as support because traders are anticipating it to act as support and they're going to be placing their buys at that level. So the more people that utilize technical analysis, the more this self-fulfilling prophecy is going to play out. As we've seen over the past decade, the trend is very clear. Technical analysis is going nowhere and it's only going to be growing in popularity over the next decade. Now we're going to look at an example of what the volume and moving averages are telling us. Back to our SMP 500 daily chart, we can see a bunch of different colored lines.

The key up here tells us what time frame we looking at. I suggest when you are creating your chart to always use the same color so you get familiar with them, depending on whatever time frame you're on. So for example I always know that the red line is my 200-day moving average. If I'm on the weekly, it's the 200-week moving average and getting familiar so you can look at your chart and know what each colors represent without having to keep reading the key. The more you look at these charts, the more you use them. That's going to become ingrained in your memory. As of right now we can see I do have a couple exponential moving averages on this chart and you can see they are a lot tighter to the price action. If you look at this 20-day moving average support, this level held as support for almost two months. The longer the moving average hold of support, the more significant is once that level is lost. So you can see it acted as support with the price bounced off that moving average support and although we dipped below it, it's the close of the candlesticks that's important, letting us know if the moving averages holding as support or if it is lost and then flips to resistance.

Thus although we dipped below that moving average, we closed above it, maintaining that level as support. The next day we dipped below it again and closed below it. So this moving average which has been support for two months because the price is trading above it, is now resistance, heading into next week because we closed the day below that moving average and it is now resistance. Former support, now resistance.

Another clue that we can gain at the volume is an increase in volume, favoring the bears because it's a another lower high and lower low compared to the previous day of action. It's a red day, it's a loss of support and it's an increase in bearish volume. If we look back to the reaction to the election, the increasing volume on that breakout and that's how we knew that move was for real. It wasn't just a knee-jerk reaction to the election.

The volume told us that the move by the bulls strong and it's proof that the price action is going in the right direction because the volume is backing that up. In terms of a pullback, the Bulls always want to see a decrease in bearish volume on consolidation.

But we don't have that right now, instead we've got an increase in various volume so we're going to be looking to the downside in the short term because the Bears have assumed a bit of control now that this moving average has become resistant. In terms of other moving averages on the blue line of the 50-day moving average, the price is still above that level.

Therefore that moving average is still support. So I know that as the price approaches the blue line, we can anticipate it to act as support. If you look back here, the price was below it, and this blue line, the 50-day moving average resistance was acting as resistant.

We can see the price get above it but unable to close above it we attempt it again we got above it, unable to close the day above it so it stays resistance. It's the close of the candlestick that is important and then we saw some bearish action and downside over the next three weeks due to the inability to get over moving average resistance.

Chapter 15 How to Read Trends

Even if you are a long-term investor with no interest in short-term trading, knowing overall trends is essential. If you have enough practice you can look at a chart and in 10 seconds you can know what the charges in an uptrend or a downtrend. So how do we distinguish the prevailing direction of a stock, crypto or a commodity? Well, the components of a trend are the higher lows and higher highs. We all know the familiar stair step pattern, which shows higher lows and higher highs in an uptrend and nothing goes straight up or straight down so it's important to distinguish that even though the stock does go down for certain periods as long as it's progressing with higher lows and higher highs. That is the definition of an uptrend. Inversely a downtrend is lower highs and lower lows. It's important to distinguish that the timeframe that you are looking at can determine whether you're seeing enough to render a downtrend. So a stock can be in a long-term uptrend on the weekly time frame over multiple years but if you're just looking at a three-month daily chart and that means it's a daily chart over a three-month period of time, that can be in a clear downtrend. But then you need to zoom out to the weekly chart and see that the long-term trend is still very clearly bullish. That can happen many times so it's important to gather a lot of information by looking at different time frames and depending on what your game plan is, that's going to depend on how much weight you put in certain time frame. If you are a long-term investor you will going to be interested in the monthly and the weekly chart. You might be interested looking at the daily chart too but is not as important as the weekly and longer-term charts if you're looking years out. If you're a day trader, the weekly chart is not nearly as important as the hourly chart because that is much shorter time frame and you're interested with what's going on right now not what's going on in the year-long outlook of your instrument. So it's important to know what the overall trend is because when you're trading, your game plan is going to be a little bit different depending on whether you're trading with the trend or against it. We know the saying that “the trend is your friend” and you want to be trading with the trend that is absolutely the truth and it's a lot easier to trade with the trend. But they're certainly opportunities trading against the trend. But whenever you're trading against the trend, the duration of the train is going to be shorter so we have scenarios where we see an overreaction in the market we see fear and panic and the crypto completely dropped. We know it's clearly in a

downtrend. The Bears are in control but if we get some indications from the indicators like the RSI and volume and we have moving average support being approached, we know that we can look for a short-term oversold bounce and we know that it's going to be a short-term trade because we're going against the trend. So if you're going against the trend duration of the trades or shorter, if you're trading with the trend the trade can play out over a lot longer period of time because you know you have price history in your favour. So let's give an example of each of these trading with the trend and trading against the trend.
Back to the S&P 500 daily chart where each candlestick represents one trading day worth of action, and this is a three-month chart and you can see we are clearly in an uptrend.

We had to pull back to start, but we bounce right off the 200-day moving average support so that moving average acting as support and we had a big bold move by the bulls right after that.

There are higher highs, we consolidated, normal healthy consolidation for short-term periods, we formed a higher low, continuation with a higher high and now we're consolidating again. So on the daily chart we're going to remain in an uptrend as long as we form a higher low on this pullback that is higher compared to this low.
So this low was a 2187, rounding here to 2187 and we could pull all the way back to 2188 and it's still a higher low and the uptrend would still be intact.

Looking at a weekly timeframe where each candlestick is one week of action and this is going over one year and three months, we can see we are also very clearly in an uptrend here where we have our lows, we have our higher lows and higher highs as the Bulls progress here and we can see that pretty much every time there is panic, the Bulls by the debt.

We've got a higher high here again so the uptrend is very clear and we are going to remain in an uptrend as long as we consolidate and form a higher low, compared to the low of the most recent pullback here 2083 which was right before the election.

So trading with the trend, we can see that on consolidation, we should be looking bullish because historically every pullback has been bought by the bulls and led to higher highs. So trading with the trend of the SMP 500 would mean looking for bullish entries when we have a pullback. Conversely if you were trading against the trend you would be looking for short-term pullbacks.

You can see here these red weeks; we have three red weeks before the bulls show back up, three red week so you can see that the periods of pullbacks are shorter term compared to the period of bullish activity which is going with the overall trend. So if I were playing anything bearish in the SMP 500, I would know to keep my trading timeframe short because I'm going against the grain in terms of the overall trend. Let's now look at some downtrends. Here is an example of a downtrend.

It's GWPH on the daily timeframe and we can see our high back here and early October we pull back significantly, we established our low about attempt, then it's still a lower high and the price action is 137,88 and the high we hit here was 134,51 so still a lower high, we pulled back and we had a lower low.

Below this consolidation was 110,65 and we broke that level hitting down to 107,10. So there's a clear lower high and a lower low. Another lower high and a tight trading range so you look at this daily chart and you say ok GWPH is in a downtrend and that is true on this daily chart but it's important to get all the information look at lots of different time frames to put the pieces of the puzzle together. So when you look at the weekly chart you will see that GWPH is actually in a long-term bullish uptrend.

Very clear higher lows and higher highs progressing up for the bulls and we actually hit an all-time high in October. So we're seeing be pull back from that time high it might be a little bit deceiving as we zoomed in and only focused here. And if this is the only time frame we use the daily three months chart it would be essentially having blinders on and missing the overall bigger picture that we can see by zooming out. So we know that the bulls are in control of the longer-term timeframe, so while we may be looking bearish on the daily chart we can anticipate that it is more likely than not that the Bulls will show up to keep this day this weekly uptrend intact over the long term. So we might be looking for shorter term trade if we are looking bearish on the daily timeframe and that being said we can also be looking for longer-term bullish entries, anticipating that the Bulls are going to show up again as they have been doing all year after period of consolidation.

Chapter 16 How to Read Indicators

By now you you've probably come across some charts with lines you might not yet understand and those are very likely just going to be different forms of chart indicators. So right off the start, indicators are just a complex way of representing market data. They take price information, they rework it, manipulate it, change it and they find new and interesting ways to visualize it. These changes are all do the mathematical calculations that have different goals but the end of the day they're all using the same price information that we see in our candlestick terms. There's a few very important items that I want to express regarding indicators. First of all, indicators are descriptive. They are not predictive. They take old data over different periods of time, they average it, they calculate it, they change it and they use that data and represent in new forms. Because of that indicators tell us what has already happened not what is going to happen. Secondly, indicators are always lagging. They use previous market data; sometimes up to two weeks old or 14 periods and they take information about what happened and they use that to attempt to forecast what's going to happen in the market. So in that respect it's a lot like trying to predict the weather. We take the current set of conditions, we compare that to the historical set of experiences that we have in similar conditions and we attempt to predict what is going to happen based off what has happened previously. Indicators themselves have a very wide range of complexity. You can have a single line indicator that simply it's a three-day average so for example if we have three days of price action or the closing prices are five dollars, ten dollars and fifteen dollars, if we have a three day moving average of that price or the 3MA it's going to be ten dollar. There are simply countless indicators that are available; literally hundreds of them. New indicators are being developed all the time. We have MAC D, we've got RSI, we've got the stochastic, slow stochastic, balance of power, average directional index, average true range and so on. There's literally hundreds of these indicators that people have developed that all used price action, price history and they try and change in a new way to give them the edge and give them a competitive aspect in the market. The take-home lesson that I want to express is that indicators are just a really complicated way of showing you things that you can already see. The same data is being used and it's being calculated and presented for you. It's critically important to understand how indicators are derived, how the information is collected, manipulated and presented. Really having a solid grasp on what is happening behind the scenes before we start utilizing indicators in our daily trading it’s very important. You'll encounter a lot of people who use the MAC D, who really have no clue how it functions or what it does. For someone looking for lines crossing lines without understanding the math that's going on it’s worthless. So with that in mind what I'd like to do is pick a look at the RSI indicator, bring to investigate what it is, what it means and then we're going to get into the real meat and potatoes of it and take a look at the calculation that's happening that drives our RSI value. But what is the RSI? Well, the RSI is termed the relative strength index and it is an indicator that measures relative velocity of price movement to proceeding. So it's an indicator that tells you essentially a particular stock is overbought or oversold. And it does this by presenting a value that is based on a 0 to 100 scale where 100 is an over block condition and 0 is an oversold condition. It takes 14 periods of price information so if you're looking at a daily chart you can use the last 14 days of information. If you're looking at a five-minute chart, it's going to be using the last 14 five-minute period in its calculation. So this value represented as anything between 0 and 100, supposed to tell us something is overbought or oversold. How can we use something if we don't really understand what is happening? Well, that's why we're going to look at the map so that you can get a foundational understanding of what's happening in all indicators, not just the RSI. We're taking price information and we're changing it and now we're going to learn how it's changed for the RSI in particular. So now we're going to look at the actual RSI calculation; what's happening behind the scenes, gives us our value on the 0 to 100 scale. So we're looking at the RSI, there is one major calculation, a sub calculation that has two components with two different calculations that contribute data to the overall data set. So we will serve the very top and look at our major calculation and that is relative strength index equals 100, minus 100 over 1 plus the RS. RS is your relative strength. To complete this calculation we need to understand what relative strength is and that is the average gain over average loss. The RSI is a 14 period momentum indicator, meaning we use 14 days worth of data if we're looking at a daily chart.

So we can see that we have 33 days where the data that we're using our calculations and because we are using the 14 periods, we need to have at least 14 days to start our calculation. So RSI is actually two different components to its calculation. The very first one is the sum of gains over the last 14 period, divided by 14 to get an average. Or, in the case of losses over the past 14 periods and divided by 14 to give your average. Our average gain column our first value for average gains we can see that it is a collection of all of the gains and a lot previous 14 periods that are summed an average 224. Likewise, losses in red are collected, averaged and represented. Then RS is simply our average gains divided by our averaged losses resulting in 2.39. That supports the very first set of data for the first representative value of RS. After that when we still incorporate the 14-day average, we don't need to 14 periods of data because it's already been incorporated to our first average gain / average lost value. So what happens now is the calculation changes from the sum of the gains of the last 14 days divided by 14 to a new calculation which takes our previous average gain, times 13, plus the current gain over 14. That probably sounds confusing and it is. We can actually see that is we take that 0.2 value which we know incorporates that 14-day dataset and the newest gain which in this case is nothing, and because it's nothing our value decreases. Because we could take a loss on that day we can see that our average loss increases and RS changes because of that. So we've sort of established would be RS is a basic value and we can see that as our average gains increase and decrease our RS changes and moves up and down. Our RSI, the major component of this calculation takes that information and use it for its calculation. So if we look at this value of 70.53 and if we ignore the excel magic we can see the RSI it's 100, minus 100, divided by 1, plus J17 which in this case represents that days RS values. If you are not strong in math a lot of this can be really confusing and these values that we see for RSI constantly change because we new data comes in all the time. Every day and every period we see new changes, new prices and RS and because of that, it changes the RSI. In our RSI values we can see in this chart, it changes in correspondence to our RS value. The goal I was trying to show you is that even a basic indicator, a single line in the case of the RSI has a very complex mathematical scheming behind it. So in order to understand how an indicator works, you need to investigate what's happening behind the scenes, you need to have a grasp on the fundamentals of that indicator and you need to know what that value actually represents. So if you're going to be using indicators I really encourage you to at least spend a little bit of time in your foundational studies to go into the math, look at what's happening with an indicator, where is the value coming from, what components are being combined; manipulated and represented and when you actually looking at your screen when you see a red line cross a black line. What does it mean, where does the data come from and how can you use it. Once you have at least even a foundational understanding of the mathematics behind your indicators, you're going to be so far ahead of your peers who having some of the time who haven't put the effort in the study and who ultimately will be coming to you for knowledge because you have a grasp on what your indicator means and what is telling you about the price action. In terms of the psychology aspect and how human emotion works is shown on this chart. It's the shape of the candlesticks combined with these other indicators like the RSI that can give us overbought and oversold conditions and you're going to be seeing dozens and dozens of indicators out there. It's certainly worth exploring and finding out which ones you like best but it's important to not get overwhelmed as to its important to focus on one at a time and look a little bit more in depth. Also take it slow and make sure that you're absorbing the information. The last thing you want to do is read multiple books in a day because a lot of that information is not going to be retained. But looking at these charts and giving the chart of voice. For example what are these candlesticks telling us if we see a long upper wick at the top of an uptrend with some high volume? Well, we know there's a lot of profit-taking and we can anticipate that the bears are going to start to show up and we're going to see normal healthy consolidation after a strong move to the upside. The volume and the wicks are really nice indications together to tell us what is going on as is the positioning on the trend. That's important. The same candlesticks shape depending on where it occurs on the trend, can tell you completely different things. So for example if a Doji candlestick that's looks like a cross where you have the high and the low but the open and the close are at the same level. So what that basically tells you is; indecision. It shows the Bulls controlling part of the day, the Bears controlling part of the day but the opening the close was about the same so it's a pretty much going back to the samurai terminology. It's an even battle; both sides battled evenly and we close at the same price that we opened. If that price for the same Doji candlestick occurs at the top of an uptrend that is a bearish reversal candlestick because it shows indecision. It shows that the Bulls unable to continue to push higher and it’s starting to look for some pull back. If it occurs at the bottom of a downtrend, that indecision Doji tells us the Bears are tiring, the Bulls are beginning to show up and looking for some upside. If it occurs in the middle where its not really at the clear point of an uptrend or downtrend, it just shows a straight-up indecision with neither the bulls or the Bears knowing which direction we're heading next and it shows and even battle. That's just one example again but there are dozens of these candlesticks shapes. It's worth getting to know them and getting to know what they are telling you by where they are positioned on the chart. It's important to stay focused and motivated to work towards your success and be able to utilize this information for the next few decades for your entire life. It's a very comforting feeling to know that retirement is not the end of income if you can utilize charts to make good trading or investing long-term decisions.

Chapter 17 Best Crypto TAX Software

There is a major problem. Crypto taxes are complicated and most accountants run for the hills if you even whisper the word Bitcoin. It's all too tempting to stick your head in the sand and pretend those sick games never happened. But eventually those gains need to be accounted for. In the following chapters I'll go over a few crypto tax software solutions. I'll explore the pros and cons of using them and tell you about all of their features. First, I'm just going to give you a brief overview on why you might consider using crypto tax software. If you finally managed to pick that hot altcoin and land it on the moon, you have two choices. The first is to try and cash out those crypto riches and hope those annoying tax men don't notice. The second option is to get those taxes calculated and work out how much to hand over to the government. Many people think that taxation is legalized theft and they have to keep a low profile to avoid paying them. But if you enjoy getting a good night's sleep you might be wondering why you need to use crypto tax software. Well, you don't. You could go through all your trades manually look up and apply the tax guidance for the country where you're based. It's all very possible to do yourself. The problem of course is that recording and ending up every single trade to work out your gains and losses is phenomenally time-consuming. Things get even slower if you're not a professional counter. I imagine that you value your time and don't want to spend weeks working out how much tax you need to pay. That's where crypto tax software tools come in to do the heavy lifting for you. Put simply, all these tools really do is save you time and stress when it comes to reporting that tanks. Nothing more and nothing less. With all that said, let’s take a look at what options you have in terms of crypto tax software. There is a software called CryptoTrader.Tax. What it does is provide crypto traders and investors with a lightning-fast way of calculating their capital gains, losses and tax owed. This option is mainly geared to the US market but there is international support to and taxes can be calculated for any country that accepts the FIFO and LIFO standards. All those calculations are available in almost any fiat currency too. What does crypto trader tax have in terms of features? Well it comes with a simple to use tax file. This is how it works. You need to create an account import those crypto transactions from your exchange accounts using the API import tool or you can alternatively just upload the trade history CSV file. So which exchanges are actually supported? Well, there are several really but to get a complete up to date list please visit their website at https://cryptotrader.tax/ Once you've imported all your trades you will then have to add the source of that crypto income over at the current tax year. The good news is that this tax platform can work out gains made by a ton of different crypto specific sources. Things like mining, forks, air drops, staking and even gifts. Finally, you'll be asked to select your chosen tax calculation method and the tax form you want to be generated. Basically CryptoTrader.Tax will then spit out a tax report that includes a bunch of documents including things like an income report, the 8949 IRS form, an audit trail report and a short and long term sales report. You will also get an end-of-year positions report and a TurboTax online direct import file. What that means is that you can then import that report into other conventional tax tools like Turbo tax or Tax act. Another cool thing about CryptoTrader.Tax is their tax loss harvesting feature. That means you'll be notified about cryptocurrencies that offer a solid tax saving opportunity and this leads to better long-term tax planning. For those wanting their report looked over by a qualified accountant before submitting it to the government, the tax platform also allows for accountants to import review and far tax reports on your behalf. Pretty useful if you want things double-checked for you. So what will this tax software solution cost you? Well the hobbyist plan is priced at $49 per tax season. That includes imports of up to 100 trades, free report previews, live chat support, unlimited revisions, IRS forms, cross-platform integration with tax filing software like TurboTax, tax loss harvesting, FIFO and LIFO computing. The day trader plan gives you all that and support for up to 1,500 transactions for $99 a year. The high-volume trader plan supports up to 5,000 trades, unlocked premium customer support. For $199 you can get unlimited transactions supported for $299 per tax season. If you wanted to try it out for free with limited features, then you can do that too. If you're in the market for a crypto tax software tool, I'd highly recommend it. But what are the pros and cons of CryptoTrader.Tax? Well you should certainly have this crypto tax tool on your shortlist if we are looking for a tech solution that has an intuitive interface, is easy to use and offers a free trial. I'd also recommend this option if you're based in the US given their focus on that market. For the cons I'd like to see more exchanges support it and you should be aware that the platform focuses heavily on the US and IRS forms. That means that there are better options for those based elsewhere in the world. Finally who is CryptoTrader.Tax for? In my opinion this tax solution is ideal for anyone filing crypto taxes in the US but there is limited leverage trading platform support. So if you're into that then you'll probably need to look at other options. All that being said, it's quite straightforward and beginner friendly. So if you're new to the world of crypto tax calculations then this is a great place to start.

The next Tax Tool I recommend you to check out is called Bear.Tax. This tax software solution offers users a quick and easy way to compute and file those tax reports. Like CryptoTrader.Tax, it's designed primarily with the US market in mind and is usable in other countries too. Bear.Tax was built for average consumers in mind as well as for financial advisors so you'll have no problems when it comes to sharing those reports with your accountant. How does it work? Well Bear.Tax takes a similar approach to other competitors. This basically involves importing your trades either by API integration or uploading a CSV file of your trades. Yet you can then select if you want to process your report using the FIFO or LIFO rules. Finally the software will also generate those tax documents for you. When it comes to income classification, Bear.Tax offers a little more choice than CryptoTrader.Tax with support for income sources like gifts, staking rewards, airdrops, hard forks, referrals, mining voting rewards, community rewards, inheritances crypto payments and earning programs. So if you've got involved with an income source that's not supported by CryptoTrader.Tax then you'll probably want to look at Bear.Tax instead. Another great thing is that the platform smart matching algorithm helps ensure that transactions are recorded and processed without taking fees and block time delays into account. That helps ensure compliance with IRS guidelines through recording taxable events whilst also ensuring that you do not over report tax. Pretty efficient. For those that HODL-d and didn't really think about all this tax when they started, Bear.Tax has you covered with a transaction review function. This allows you to search specific transactions and make modifications. That means you can ensure that you input the correct cost basis for a specific time or date. If you initially refused to pay for a crypto tax software tool then you'll know all about the pain of scrolling through Coinmarketcap graphs to look up the price of a coin in the past. That is now a thing of the past with Bear.Tax which offers historical pricing data for every supported cryptocurrency. Another thing to know is that this software tool also supports high-frequency traders and BOTS. So if you've used a BOT like three commas to help automate your trading then Bear.Tax is going to be one of those tax tools you want to look at. Bear.Tax supports many exchanges but to get a full view, please visit their website at https://bear.tax/exchanges.html

If you're only place a few trades per year then the basic plan will have you covered. Price is just ten dollars per tax year this option supports up to 20 transactions and unlimited exchanges. The intermediate plan will set you back forty five dollars and is good for 200 transactions. Plus you'll get access to email custom support too. The expert plan is for those that hold multiple exchange accounts with up to one thousand transactions supported and you'll get chat support as well. Finally the professional plan is two hundred dollars per tax year. For that money, you get unlimited transactions, unlimited exchanges, priority support, custom file imports and the ability to connect with a qualified accountant. When it comes to pros and cons, and massive Pro is how keenly priced Bear.Tax is. The pro plan is a great value and is ideal for those that wants an accountant to look over those tax computations and ensure everything is well. I also like how the basic plan is only ten dollars and how that should cover most HODL-ers who only do a few trades a year. That 10 bucks seems like peanuts when it comes to making your life easier. All that being said a lot of people do trade on the likes of BuyBit and Bear.Tax doesn't support that exchange. So if that's you then I'm afraid you're going to have to look at other options. Who is Bear.Tax for? Well, it's for anyone who wants a cost efficient tax automation tool.

The CoinTracking software is packed with top tax reporting tools to help make filing those taxes a breeze. There's a huge amount of data available on CoinTracking and that includes things like a personal portfolio analysis, trade imports, tax declarations, coin charts and coin trends. CoinTracking is very popular. It has over six hundred and ten thousand active users and over 750 CPAs and corporate clients. This tax software solution is responsible for generating tax reports for portfolio holdings worth 4.3 billion dollars. If you're a crypto OG then CoinTracking has you covered with 11 years of historical price data. Also altcoin dumpster divers out there will be covered seeing that CoinTracking supports over 7500 coins. The cool thing about CoinTracking is that it's suitable for both crypto traders and businesses. So if there are any budding crypto entrepreneurs out there, you will probably want to take a closer look at this option. Here's how it works. CoinTracking

basically crunches the numbers for you once you import your trades and spits out a plethora of data like real-time profits, losses, coin value, gain, taxes owed and more. The personal portfolio analysis feature includes a series of interactive charts for trades and coins audit reports for profits and losses as well as an overview for realized and unrealized gains. Overall, 70 exchanges are supported by CoinTracking and a full list can be found at their website:
https://cointracking.info/
Another cool thing is that you can import wallet data from the likes of Leger and Trezor and there's also support for a host of legacy exchanges. Even MTGox. Like every crypto tax software tool on this list you can connect two exchanges using API integration to import those crypto transactions. However direct blockchain network sync is also available. Unlike Bear.Tax and CryptoTrader.Tax, CoinTracking has a load more tax computation methods. Well, 12 of them. That does include the standard FIFO and LIFO methods as well as the average cost method and many more. What all that means is that CoinTracking is compatible with more tax jurisdictions than any other solutions I mentioned before. If you've ever done your own taxes before you'll only know too well the problems you get into when there are missing or duplicate transactions. Basically things don't balance and that means you need to go through every transaction which is time-consuming. That should be a thing of the past with coin tracking as the software has several methods for verifying transactions designed to discover those missing or duplicate transactions. When it comes to cost coin tracking it has a pretty good free option that supports up to 200 transactions, limited reporting for tax and capital gains, coin tracking and CSV imports. You should definitely try before you buy this tax software to make sure you're happy with it before committing. Here's the thing you need to know about paid for plans. They are charged monthly and not per tax season. The pro plan supports three and a half thousand transactions, prioritized transactions and gives you access to customer support for 10 dollars a month. Level up to the expert plan and you get everything in the pro plan and support for up to 20,000 transactions. For $50 a month you get support for unlimited transactions and prioritized customer support. I want to move on to the pros of CoinTracking. It supports 12 different computation methods to calculate crypto tax and that means it's built to directly serve a wider range of countries. So if you're living outside of the US then you

probably to look at this option. A ton of coins and exchanges are also supported so that means that this solution is ideal for both pros altcoiners and leverage traders. When it comes to the cons, the paid plans could be pretty expensive. If you've only made a few trades over the year I'd recommend you look at a cheaper option like Bear.Tax. So who is CoinTracking for? Well, it's one of my top choices for anyone living outside of the US, who has a bunch of transactions over the tax year. If you are a leveraged trader using buy bit or a low cap altcoin then this is the tax solution you should definitely be looking at.

My top crypto tax software pick is called Koinly. Why does it deserve the number one spot? Well unlike so many tax software solutions this one actually doesn't focus on the US alone and boasts full support for over 20 different countries. That includes support for the US, Canada and the countries in Europe. Asia has some support for Japan, South Korea and Singapore then you also have support for Australia and New Zealand too. I personally found Koinly portfolio analysis tool extremely useful when it came to truly understanding my portfolio. It has handy tools that allow you to view the ROI on each crypto investment invested, Fiat income, profit loss and capital gains. This means that there's no hiding from your losses whilst making it very clear you actually made some pretty smart moves. Another awesome feature is that unlike the other tools mentioned, in Koinly these data import function doesn't require you to bounce back and forth between multiple exchange accounts. That automated data import can be through a standard API exchange connection or by simply adding a cryptocurrency wallet address. What Koinly does with that wallet address is use a smart transfer matching system which leverages artificial intelligence to detect transactions made between your personal wallets. That's handy because no one wants to pay taxes on transactions sent to themselves. What's even better is that data on margin trading, futures trading, staking, lending and defy can also be imported. So once that transaction data is imported in Koinly what's next? Well generating your tax report of course. The great thing in Koinly is that you can preview those reports for free and those annoying tax forms are auto generated by Koinly for you. That includes things like IRS tax forms for those based in the US. International tax reports are also available for those based in countries like the UK, Canada, Germany, Sweden and more. For those that use TurboTax, then you're all good here as Koinly has data export functionality that's compatible. If you don’t like going through a ton of transactions to find missing or duplicate transactions, the good news is that Koinly has several tools designed for just that job. That even gets better when it comes to compatibility. Koinly supports over 350 crypto exchanges, 50 wallets, 6000 different cryptocurrencies and even supports crypto services like Lending block, Block by token, Set Blockfolio and more. In short, Koinly has the best support of any tax software tool I found. What's the cost of all this? Well unlike many of its competitors Koinly offers a very functional free plan. This includes support for 10,000 transactions and 50 exchanges. The thing to be aware of is that it won't generate 8949 or Schedule D forms if you're in the US or any of those international tax reports and audit reports. You also won't be able to export to TurboTax. Realistically this package is for anyone that wants to try Koinly out. You'll probably have to opt for a paid plan if you want to automate that paperwork to file those taxes. There are three different pricing plans. First, you have the Hodler. That will set you back $49 and supports up to 100 transactions, unlimited wallets and exchanges. It also offers access to all Koinly’s features except for priority support, custom reports and report or import assistance. Next up is the trader pack for $99 per year. Get that and you're good for up to 1000 transactions everything in the Hodler pack and priority support. Finally the top tier Oracle package gives you access to everything Koinly has to offer and support for up to 300 transactions. If you need extra transactions then you can do that by upgrading that plan further to get support for over 10,000 transactions. That upgrade will cost you $279 in total. What are the pros of Koinly? Well, if you're looking for full crypto tax support in over 20 countries then this is the solution for you. It's also got the widest exchange and wallet support of any crypto tax solution I've seen. Also it has some unique and really useful features like the smart transfer matching system to make sure you don't make that tax overpayment. On to the cons, it's certainly not the cheapest solution on the market. If you only have a few transactions this tax year, I suggest you look at the $10 plan at Bear.Tax. Also would be nice to see even more country support rolled out too. So, who is Koinly is for? Well, if your country is fully supported and you have more than a few dozen transactions over the current tax year, then I think you need look no further than Koinly. That completes the best crypto tax solutions on the market right now. To find out more about Koinly, please visit their website at https://koinly.io/

The truth is that tax is a hassle at the best of times and let's face it no one really wants to spend days hunched over a calculator and an excel sheet. You might have to fork out a few dollars to get one of those crypto tax solutions however I imagine most people will say countless hours or days by getting their hands on one.

About the Author

Mark Zuckerman is a recognized industry expert in futures and hedge funds and the author of a number of investing and trading books revolving around Options, Futures and Cryptocurrency.

Conclusion

Thank you for purchasing this book. I hope this title has provided some insights on Bitcoin and Cryptocurrency trading fundamentals. Lastly, if you enjoyed the book, please take some time to share your thoughts and post a review. It would be highly appreciated!