BINANCE ACADEMY

The Binance Academy

Cryptocurrency Trading eBook



Preface

Hi! We're Binance Academy. We're on a mission to build the best platform for cryptocurrency education. Whether you want to understand the basic mechanics of Bitcoin or brush up on the strongest technical analysis metrics, we've got you covered.

The purpose of this eBook is to gently introduce you to a range of trading topics. If you're a total novice, this is the guide for you. But even if you know what you're doing already, think of this eBook as a reliable handbook for sharpening your skills.

We’re going to cover a lot of content in the coming chapters. Where relevant, we’ve provided some handy links to additional material on the Binance Academy website (academy.binance.com). If you want to discuss crypto with our community, head over to the Binance Academy Chat on Telegram (t.me/BinanceAcademyChat).

Alright, enough of the pleasantries. Let's get right into it.

Table of Contents

Preface 2

I. Trading Basics 5

What is trading? 5

What is investing? 5

Fundamental analysis (FA) 6

Technical analysis (TA) 7

Which one is better? 9

What drives financial markets? 9

What is a market trend? 10

What is a market cycle? 11

II. Financial Instruments 14

What are financial instruments? 14

Spot and derivatives markets 15

III. Trading and Investing Strategies 19

Portfolio and risk management 19

Day trading 21

Swing trading 22

Trend trading 23

Scalping 24

Asset allocation and diversification 25

The Dow Theory 26

The Elliott Wave Theory 27

The Wyckoff Method 29

Buy and hold 30

Paper trading 31

IV. Getting Practical 33

Long position 33

Short position 34

Order book 35

Order book depth 35
Market order 36
Slippage 36
Limit order 37
Stop-loss order 38
Makers and takers 39
Bid-ask spread 40

V. Technical Analysis Basics 43
Candlestick charts 43
Candlestick chart patterns 45
Trend lines 46
Support and resistance 47

VI. Technical Analysis Indicators 50
Leading and lagging indicators 51
Momentum indicators 52
Trading volume 52
Relative Strength Index (RSI) 53
Moving Average (MA) 55
Moving Average Convergence Divergence (MACD) 56
Fibonacci Retracement 57
Stochastic RSI (StochRSI) 59
Bollinger Bands (BB) 60
Volume-Weighted Average Price (VWAP) 62
Parabolic SAR 63
Ichimoku Cloud 65
Final thoughts 67

I. Trading Basics

What is trading?



It's probably wise to kick things off with a definition of the topic we'll be discussing. A staple of economics, trading simply refers to the buying and selling of assets. When you buy your groceries at the local shop, that's a trade. When you exchange your old PC for a new game console, that's a trade. We could go on forever here. To cut a long story short, any activity where you give something to someone in return for something else is a trade.

This principle really extends to the financial markets. You trade *financial assets* like stocks, bonds, Forex pairs, options, cryptocurrencies, etc. Don't worry if you don't know what any of those are yet. By the end of this book, you'll be an expert!

What is investing?

You might hear people talking about trading financial instruments, but you might also hear them talking about *investing* in them. The aim in both of these activities is similar (*let's make some monaaay!*), but they're somewhat different in their methodologies.

When you invest in something, you're hoping to get a return on that investment – the goal is to get back the money you put in, plus some more. For example, you could buy a run-down fast food restaurant for $100,000, fix it up, and try to resell it for $500,000 in a few years. You

could also buy a stake in a small startup, believing that the stake will be worth a lot more when the business grows.

But wait, we hear you ask, *isn't that what traders do?* Not quite. Yes, a trader might buy shares in a business, but they're playing on a shorter time frame. Traders frequently enter and exit positions to generate smaller returns over a number of trades. Investors, on the other hand, generally take a more passive approach – they invest capital into ventures or assets that are likely to generate a larger profit on a longer time frame.

But how do you decide what to buy and sell? You might get lucky randomly picking stocks and flipping a coin to decide whether to buy or sell them, but it won't net you consistent returns. Most traders instead conduct some form of analysis to decide what moves to make next. Broadly, the types of frameworks used can be broken down into two categories – **fundamental analysis** and **technical analysis**. Let's talk about those.

Fundamental analysis (FA)



Fundamental analysis is a framework that aims to identify the "true" value of an asset. Fundamental analysts study economic and financial factors to figure out if the market's valuation of an asset is fair. Those factors could be macroeconomic factors like the state of the global economy, the overall industry condition, or businesses connected to the asset (if there are any).

Again, the goal here is to establish whether an asset is **undervalued** or **overvalued**. Suppose that Alice rigorously studies a cryptocurrency –

Bobcoin – which trades for $10. But Alice's findings indicate that the asset should actually be worth $20. In this case, she might decide to buy lots of Bobcoins as she believes that the market will eventually value them at $20.

On the topic of cryptocurrency-specific fundamental analysis, it's worth noting that some consider **on-chain metrics** when conducting their research. On-chain metrics is an emerging field of data science. It is concerned with data that can be read from public blockchains: network hash rate, distribution of funds, the number of active addresses, etc. By taking this abundance of public information, analysts can create sophisticated indicators that measure the network's health.

Fundamental analysis is popular in the stock markets, but it's perhaps not very suitable for cryptocurrencies in their current state. The asset class is so new that there simply isn't a standardized, comprehensive framework for determining market valuations.

What's more, much of the market is driven by speculation and narratives. As such, fundamental factors will typically have negligible effects on the price of a cryptocurrency. However, more accurate ways to think about crypto asset valuation may be developed as the market matures.

> Want the **low-down on fundamental analysis?**
> Check out the Binance Academy article:
> ◇ *What is Fundamental Analysis (FA)?* ➤ bit.ly/AcademyEBook1

Technical analysis (TA)

To put it simply, technical analysts believe that **past price movement can dictate future price movement**.



Technical analysts don't try to find out the intrinsic value of an asset as fundamental analysts do. Instead, they look at the historical trading activity and try to identify opportunities based on that.

This can include analysis of price action and volume, chart patterns, the use of technical indicators, and many other charting tools. The goal of this analysis is to evaluate a given market's strength or weakness.

With that said, technical analysis isn't *only* a tool for predicting the probabilities of future price movements. It can also be a useful framework for risk management. Since technical analysis provides a model for analyzing market structure, it makes managing trades more defined and measurable.

In this context, measuring risk is the first step to managing it. This is why some technical analysts may not be considered strictly traders. They may use technical analysis purely as a framework for risk management.

The practice of technical analysis can be applied to any financial market, and it's widely used among cryptocurrency traders. But does technical analysis work?

Well, as we've mentioned earlier, the valuation of the cryptocurrency markets is largely driven by speculation. This makes them an ideal playing field for technical analysts, as they can thrive by only considering technical factors.

> Interested in reading more? Check out:
> ◇ *What is Technical Analysis?* ➤ bit.ly/AcademyEBook2

Which one is better?

We see your question and raise you a better one: *why not use both?* It's clear that each methodology takes a different approach, so a combination of both can give you better insights than a single one can in isolation. Additionally, this has the benefit of minimizing any bias in your decision-making process.

This principle is sometimes referred to as *confluence*. Confluence traders combine multiple strategies into one that harnesses benefits from all of them. The idea is that the trading opportunities presented by the combined strategies may be stronger than the ones provided by only one strategy.

Ultimately, how much you lean on one or the other is entirely down to your own trading style.

What drives financial markets?

The price of an asset is simply determined by the balance of supply and demand. In other words, it's decided by the buyers and sellers. Where supply meets demand, there's a market. But what else can drive the value of a financial asset?

As we've discussed earlier, there can be fundamental factors, such as market sentiment, the industry's health or the overall state of the economy. There can also be technical factors like the market capitalization of a cryptocurrency or its circulating supply.

However, these are just that – factors to consider. What really determines the price of an asset in a given moment is simply the balance of supply and demand.

What is a market trend?



A market trend is the overall direction where the price of an asset is going. In technical analysis, market trends are typically identified using price action, trend lines, or even key moving averages.

There are two main types of market trends: bull and bear market. A bull market consists of a sustained uptrend, where prices are continually going up. A bear market consists of a sustained downtrend, where prices are continually going down. In addition, you could identify consolidating (or *sideways*) markets where there isn't a clear directional trend.

> 💡 **Did you know?**
>
> The market trends' animal names echo the methods used by each creature to attack. Bulls typically charge and thrust their horns upwards, while bears tend to swipe their paws downwards.

It's worth noting that a market trend doesn't mean that the price is *always* going in the direction of the trend. A prolonged bull market will have smaller bear trends contained with it, and vice versa. This is just the nature of market trends. It's a matter of perspective, as it all depends on the time frame you're looking at. Market trends on higher time frames will always be more significant than market trends on lower time frames.

A peculiar thing about trends is that they can only be determined with absolute certainty in hindsight. You may have heard about the concept of hindsight bias, which refers to people's tendency to convince themselves that they accurately predicted an event *before it happened*. As you can imagine, hindsight bias can have a significant impact on the process of identifying market trends and making trading decisions.

What is a market cycle?

You may have heard that "the market moves in cycles." A cycle is a pattern or trend that repeats itself over time.



Typically, long-term market cycles are more reliable than short-term market cycles. Even so, you can observe market cycles on an hourly chart just as you can when you zoom out to look at decades of data.

Markets are cyclical in nature. Cycles can result in certain asset classes outperforming others. In other segments of the same market cycle, those same asset classes may underperform against other types of assets due to the different market conditions.

It's worth noting that it's very difficult to precisely determine where we currently are in a market cycle. This analysis can be done with high accuracy only after that part of the cycle has concluded.

Also, market cycles rarely have concrete start and end points. As it turns out, being in the present moment is an exceptionally biased viewpoint in the financial markets.

> If you'd like to read more about market cycles, check out:
> ◇ *The Psychology of Market Cycles* ➤ bit.ly/AcademyEBook3

A QUICK RECAP!

Hopefully, by now, you've got a decent grasp on the basics of markets and trading:

- Markets exist where supply meets demand – people want to buy an asset, while others want to sell it.
- The markets move in cycles, in which upwards, downwards, or sideways trends can be identified.
- Technical analysis and fundamental analysis are used to try and predict the future price of an asset.
- Traders try to anticipate market movements to try and make a profit.



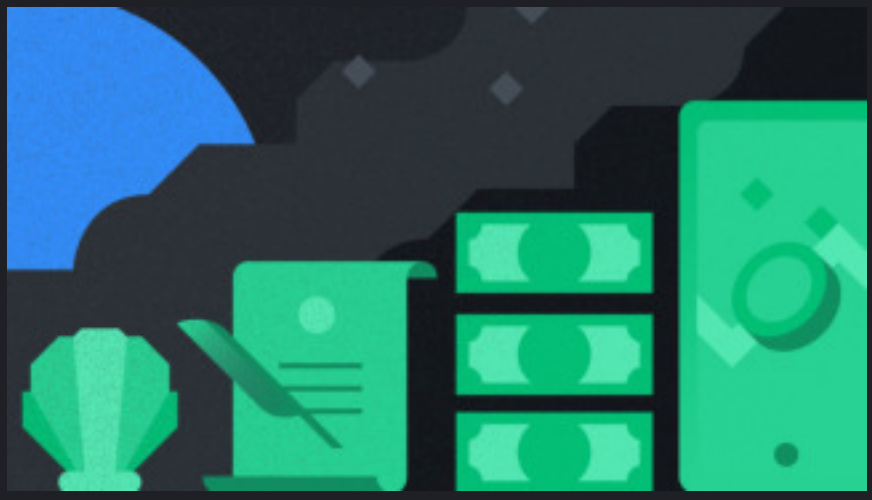
II. Financial Instruments

There is a *lot* that you can trade. If you have something that someone else wants to buy, then there's a market for that thing. We could call any tradeable asset a *financial instrument*.

Practically, though, we're not going to place tennis balls in the same category as stocks.

What are financial instruments?

Generally, financial instruments refer to things like cash, precious metals (gold, silver, etc.), documents that confirm ownership over something (e.g., businesses or resources), or rights to deliver or receive cash.



Financial instruments can be really complex, but the basic idea is that whatever they are or whatever they represent, they can be traded.

They can be classified depending on their type. One of the classifications is based on whether they are **cash instruments** or **derivative instruments**. As the name would suggest, derivative instruments *derive* their value from something else (like a barrel of oil). Financial instruments may also be classified as **debt-based** or **equity-based**.

But where do cryptocurrencies fall? We could think of them in multiple ways, and they could fit into more than one category. The simplest

classification is that they are **digital assets**. However, the potential of cryptocurrencies lies in building an entirely new financial and economic system.

In this sense, cryptocurrencies form a completely new category of digital assets. What's more, as the ecosystem evolves, many new categories may be established that wouldn't otherwise be possible. Early examples of this can already be seen in the Decentralized Finance (DeFi) space.

Spot and derivatives markets

Spot markets



In spot markets, financial instruments are traded for "immediate delivery." In this context, "delivery" simply refers to the exchange of cash for the instrument. It might seem like a trivial distinction, but some markets aren't settled in cash instantly. For example, when we're talking about the futures markets, the assets are delivered at a later date (when the futures contract expires).

In simple terms, you could think of a spot market as the place where trades are made "on the spot." Since the trades are settled immediately, the current market price of an asset is often referred to as the spot price.

In cryptocurrency, you can observe this market on most exchanges. Suppose that you wanted to buy BTC using BUSD. You'd log into your account, navigate to the BUSD/BTC pair, and place an order. Et voila! As soon as it's filled, you'll receive the BTC instantly.

A note on margin trading

Margin trading is a method of trading using borrowed funds from a third party. In effect, trading on margin amplifies results – both to the upside and the downside. A margin account gives you more access to capital (you can trade with more funds than you have). A margin account can also eliminate some counterparty risk. How so? Well, you can trade the same position size but keep less capital on the cryptocurrency exchange.

Suppose that Alice has $1,000, but she's confident that BTC will increase by 10%. With such a small amount of capital, she's unlikely to make any significant gains. Instead, she might opt to increase her position with **leverage**.

She puts up her own $1,000 (referred to as **margin**) and borrows money from the exchange. If Alice had *2x leverage,* she would be trading with double her margin (i.e., $2,000). What if Alice had *5x leverage*? She'd be trading with $5,000.

What could go wrong? If Bitcoin price goes up and Alice has 5x leverage, she'll make five times the profit. However, if it goes down, she'll incur five times the losses. Indeed, the higher the leverage used, the closer the **liquidation** price is to your entry. This is the point when the exchange closes your position and takes all of your margin.

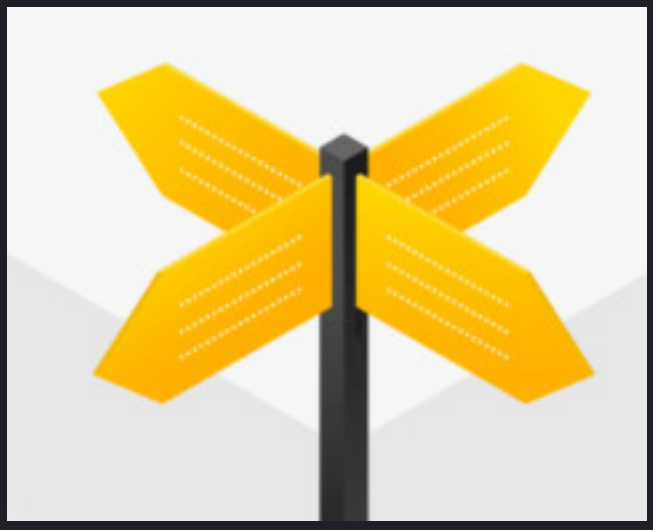
> Want to learn more about **margin trading**? We've got you:
> - *What is Margin Trading?* ➤ bit.ly/AcademyEBook4
> - *The Binance Margin Trading Guide* ➤ bit.ly/AcademyEBook5

Derivatives markets

Remember how we made the distinction that assets are getting "instantly delivered" in spot markets? That will hopefully start to make more sense as we talk about derivatives. These instruments can have a plethora of different forms, delivery methods, settlement assets, and probably more complexity than us mere mortals can even imagine.

So, what are they? Derivatives are financial assets that base their value on something else. This can be an underlying asset or basket of assets. The most common types are stocks, bonds, commodities, market indexes, or cryptocurrencies.

The derivative product itself is essentially a contract between multiple parties. It gets its price from the underlying asset that's used as the benchmark. Whatever asset is used as this reference point, the core concept is that the derivative product derives its value from it. Some common examples of derivatives products are futures contracts, options contracts, and swaps.



According to some estimates, the derivatives market is one of the biggest markets out there. Derivatives can exist for virtually any financial product – even derivatives themselves. Yes, derivatives can be created from derivatives. And then, derivatives can be created from those derivatives, and so on.

Does this sound like a shaky house of cards ready to come crashing down? Well, this may not be so far from the truth. Some argue that the derivatives market played a major part in the 2008 Financial Crisis.

Derivatives play a significant role in the cryptocurrency markets as well, but they can be tricky to navigate. Good thing we've prepared some further reading for you then!

- *What Are Forward and Futures Contracts?* ➤ bit.ly/AcademyEBook6
- *What Are Perpetual Futures Contracts?* ➤ bit.ly/AcademyEBook7
- *What Are Options Contracts?* ➤ bit.ly/AcademyEBook8

III. Trading and Investing Strategies

There's no single playbook that everyone turns to transform $10 into $10,000. If everyone used the same strategy, nobody would have much success. Participants in the markets range from teenagers with six screens watching things unfold minute-by-minute to elderly investors that bought a stock ten years ago and don't plan on checking in on it for another ten.

In this chapter, we'll talk about a wide range of trading and investment strategies. As with technical and fundamental analysis, many choose to mix and match their approach for the best results.

But first, we'd better define what we're talking about! A trading strategy is simply a plan you follow when executing trades. Regardless of your approach, establishing a plan is crucial – it outlines clear goals and can prevent you from going off course due to emotion. Typically, you'll want to decide *what* you're trading, how you're going to trade it, and the points at which you'll enter and exit.

Portfolio and risk management

With any investing or trading strategy, portfolio and risk management are a must. Not sure what these are? Let's find out!



Portfolio management

Portfolio management concerns itself with the creation and handling of a collection of investments. The portfolio itself is a grouping of assets – it could contain anything from Beanie Babies to real estate. If you're exclusively trading cryptocurrencies, then it will probably be made up of some combination of Bitcoin and other digital coins and tokens.

Your first step is to consider your expectations for the portfolio. Are you looking for a basket of investments that will remain relatively protected from volatility, or something riskier that might bring higher returns in the short term?

Putting some thought into how you want to manage your portfolio is highly beneficial. Some might prefer a *passive* strategy – one where you leave your investments alone after you set them up. Others could take an *active* approach, where they continuously buy and sell assets to make profits.

Risk management

Managing risk is vital to success in trading. This begins with the identification of the types of risk you may encounter:

- **Market risk:** the potential losses you could experience if the asset loses value.
- **Liquidity risk:** the potential losses arising from illiquid markets, where you cannot easily find buyers for your assets.
- **Operational risk:** the potential losses that stem from operational failures. These may be due to human error, hardware/software failure, or intentional fraudulent conduct by employees.
- **Systemic risk:** the potential losses caused by the failure of players in the industry you operate in, which impacts all businesses in that sector. As

was the case in 2008, the collapse of the Lehman Brothers had a cascading effect on worldwide financial systems.

As you can see, risk identification begins with the assets in your portfolio, but it should take into account both internal and external factors to be effective. Next, you'll want to assess these risks. How often are you likely to encounter them? How severe are they?

By weighing up the risks and figuring out their possible impact on your portfolio, you can rank them and develop appropriate strategies and responses.

Systemic risk, for example, can be mitigated with diversification into different investments, and market risk can be lessened with the use of stop-losses.

> Be sure to check out:
> ◇*Financial Risk Explained* ➤ bit.ly/AcademyEBook9
> ◇*A Beginner's Guide to Understanding Risk Management* ➤ bit.ly/AcademyEBook10

Day trading



Day trading is what you see in pretty much every movie involving Wall Street.

Nowadays, though, fervently shouting over other traders as you furiously swap bits of paper on the trading floor isn't the only way to day trade.

The day trading strategy involves entering and exiting positions within – you guessed it! – the same day. As you may know, in legacy markets, trading takes place inside of a fixed window. Outside of these hours, day traders are not expected to keep their positions open.

Cryptocurrency markets, as you probably noticed, are not subject to opening or closing times. You can trade around the clock every day of the year. Still, *day trading* in the context of cryptocurrency tends to refer to a trading style where the trader enters and exits positions within 24 hours.

In day trading, you'll often rely on technical analysis to determine which assets to trade. Because profits in such a short period can be minimal, you may opt to trade across a wide range of assets to try and maximize your returns. That said, some might exclusively trade the same pair for years.

This style is obviously a very active trading strategy. It can be highly profitable, but it carries with it a significant amount of risk. As such, day trading is generally better suited to experienced traders.

Swing trading

Swing traders work with larger time horizons – positions are usually held anywhere from a couple of days to a couple of months. Fittingly, the goal is to profit from larger "swings" in price.



Often, your goal as a swing trader is to identify an asset that looks undervalued and is likely to increase in value. You would purchase this asset, then sell it when the price rises to generate a profit. Or, you can also try finding overvalued assets that are likely to decrease in value. Then, you

could sell some of them at a high price, to buy them back later for a lower price.

Similarly to how it is with day trading, many swing traders will use technical analysis. However, as their strategy plays out across a longer period, fundamental analysis can also be a valuable tool for swing traders.

As it doesn't come with the stress and adrenaline of fast-paced day trading, swing trading can be an ideal strategy for beginners. Where the former is characterized by rapid decision-making and a lot of screen time, swing trading allows you to take your time with your trades.

Trend trading



Trend (or position) trading is a long-term strategy. Trend traders buy assets to hold for extended periods (generally measured in months) and then make a profit by selling at a higher price in the future.

So what's the difference between a trend trader and a swing trader then? Well, what distinguishes position trades from long-term swing trades is the rationale behind placing the trade. Position traders are concerned with trends that can be observed over extended periods – they'll try to profit from the overall market direction. Swing traders, on the other hand, typically seek to predict swings in the market that don't necessarily correlate with the broader trend.

It's not uncommon to see position traders favor fundamental analysis, purely because their time preference allows them to watch fundamental events materialize. That's not to say technical analysis isn't used. While position traders work on the assumption that the trend will continue, the

use of technical indicators can alert them to the possibility of a trend reversal.

Like swing trading, position trading is an ideal strategy for beginners. Once again, the long time horizon gives them ample opportunity to deliberate on their decisions.

Scalping



Of all of the strategies discussed, scalping takes place across the smallest time frames.

Scalpers attempt to game small fluctuations in price, often entering and exiting positions within minutes (or even seconds).

In most cases, they'll use technical analysis to try and predict price movements and exploit the bid-ask spread and other inefficiencies to make a profit.

Due to the short time frames, scalp trades often target only a small percentage of profit – usually less than 1%. But scalping is a numbers game, so repeated small profits can add up over time.

Scalping is by no means a beginner's strategy. An in-depth understanding of the markets, the platforms you're trading on, and technical analysis are vital to success.

That said, for traders that know what they're doing, identifying the right patterns and taking advantage of short-term fluctuations can be highly profitable.

Asset allocation and diversification



Asset allocation and diversification are terms that tend to be used interchangeably.

You might know the principles as *don't keep all your eggs in one basket*. Keeping all of your eggs in one basket creates a central point of failure – drop the basket, and all of them break.

The same holds true for your wealth. Investing your life savings into one asset exposes you to the same kind of risk. If the asset in question was the stock of a particular company and that company then imploded, you'd lose all of your money in one swift movement.

This isn't just true of single assets but of asset classes. In the case of a financial crisis, you'd expect all of the stock you hold to lose value. This is because they're heavily correlated, meaning that all tend to follow the same trend.

Good diversification isn't simply filling your portfolio with hundreds of different digital currencies. Consider an event where the world governments ban cryptocurrencies, or quantum computers break the public-key cryptography schemes we use in them. Either of these occurrences would have a profound impact on *all* digital assets. Like stocks, they make up a single asset class.

Ideally, you want to spread your wealth across multiple classes. That way, if one is performing poorly, it has no knock-on effect on the rest of your portfolio.

Nobel Prize winner Harry Markowitz introduced this idea with the Modern Portfolio Theory (MPT). In essence, the theory makes a case for reducing

the volatility and risk associated with investments in a portfolio by combining uncorrelated assets.

> For more on the topic, check out:
> - *Asset Allocation and Diversification* ➤ bit.ly/AcademyEBook11
> - *Exploring the Diversification Benefits with Bitcoin* ➤ bit.ly/AcademyEBook12

The Dow Theory



The Dow Theory is a financial framework modeled on the ideas of Charles Dow. Dow founded the Wall Street Journal and helped create the first US stock indices, known as the Dow Jones Transportation Average (DJTA) and Dow Jones Industrial Average (DJIA).

Though the Dow Theory was never formalized by Dow himself, it can be seen as an aggregation of the market principles presented in his writings. Here are some of the key takeaways:

- ➔ **Everything is priced in** – Dow was a proponent of the efficient market hypothesis (EMH), the idea that markets reflect all of the available information on the price of their assets.
- ➔ **Market trends** – Dow is often credited with the very notion of market trends as we know them today, distinguishing between **primary**, **secondary,** and **tertiary** trends.

- ➔ **The phases of a primary trend** – in primary trends, Dow identifies three phases: **accumulation**, **public participation,** and **excess & distribution**.
- ➔ **Cross-index correlation** – Dow believed that a trend in one index couldn't be confirmed unless it was observable in another index.
- ➔ **The importance of volume** – a trend must also be confirmed by high trading volume.
- ➔ **Trends are valid until reversal** – if a trend is confirmed, it continues until a definite reversal occurs.

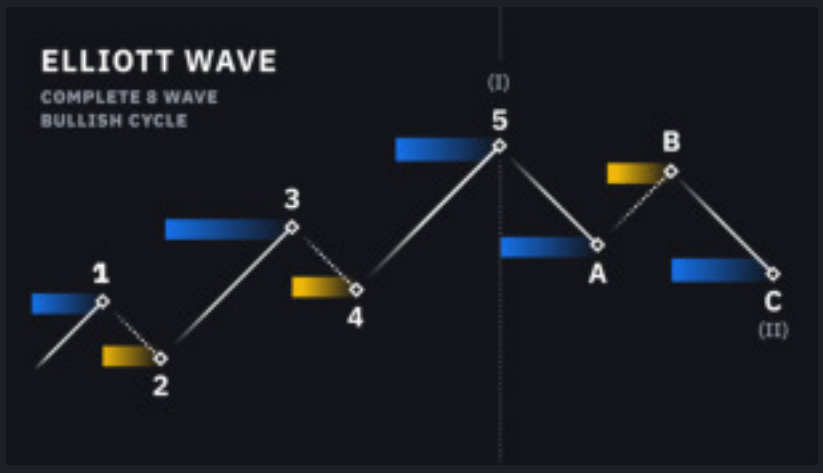
It's worth remembering that this isn't an exact science – it's a theory, and it might not hold true. Still, it's a theory that remains hugely influential, and many traders and investors consider it an integral part of their methodology.

> For more information, check out:
> ◇ *An Introduction to The Dow Theory* ➤ bit.ly/AcademyEBook13

The Elliott Wave Theory

Elliott Wave Theory (EWT) is a principle positing that market movements follow the psychology of market participants. While it's used in many technical analysis strategies, it isn't an indicator or specific trading technique. Rather, it's a way to analyze the market structure.

The Elliott Wave pattern can typically be identified in a series of eight waves, each of which is either a **Motive Wave** or a **Corrective Wave**. You would have five Motive Waves that follow the general trend, and three Corrective Waves that move against it.



An Elliot Wave Cycle with Motive Waves and Corrective Waves.

The patterns also have a fractal property, meaning that you could zoom into a single wave to see another Elliot Wave pattern. Alternatively, you could zoom out to find that the pattern you've been examining is also a single wave of a bigger Elliot Wave cycle.

Elliott Wave Theory has been a topic of controversy over the years amongst traders. Some argue that the methodology is too subjective because traders can identify waves in various ways without violating the rules.

Like the Dow Theory, the Elliott Wave Theory isn't foolproof, so it should not be viewed as an exact science. That said, many traders have had great success by combining EWT with other technical analysis tools.

> A more comprehensive introduction to the topic can be read at Binance Academy:
> ◇ *An Introduction to the Elliott Wave Theory* ➤ bit.ly/AcademyEBook14

The Wyckoff Method



The Wyckoff Method is an extensive trading and investing strategy that was developed by Charles Wyckoff in the 1930s. His work is widely regarded as a cornerstone of modern technical analysis techniques across numerous financial markets.

Wyckoff proposed three fundamental laws – the law of supply and demand, the Law of Cause and Effect, and the Law of Effort vs. Result. He also formulated the Composite Man theory, which has significant overlap with Charles Dow's breakdown of primary trends. His work in this area is particularly valuable to cryptocurrency traders.

On the practical side of things, the Wyckoff Method itself is a five-step approach to trading. It can be broken down as follows:

- **Determine the trend:** what's it like now, and where is it headed?
- **Identify strong assets:** are they moving with the market or in the opposite direction?
- **Find assets with sufficient Cause:** is there enough reason to enter the position? Do the risks make the potential reward worth it?
- **Assess the likelihood of the movement:** do things like Wyckoff's Buying and Selling Tests point to a possible movement? What do the price and volume suggest? Is this asset ready to move?
- **Time your entry:** how are the assets looking in relation to the general market? When is the best time to enter a position?

The Wyckoff Method was introduced almost a century ago, but it remains highly relevant to this day. The scope of Wyckoff's research was vast, and therefore the above should only be seen as a very condensed overview. It's recommended that you explore his work in more depth, as it provides indispensable technical analysis knowledge.

> More on the topic here:
> ◇ *The Wyckoff Method Explained* ➤ bit.ly/AcademyEBook15

Buy and hold



The "buy and hold" strategy, perhaps unsurprisingly, involves buying and holding an asset. It's a long-term passive play where investors purchase an asset and then leave it alone, regardless of market conditions.

A good example of this in the crypto space is "HODLing," which typically refers to investors that prefer to buy and hold for years instead of actively trading.

This can be an advantageous approach for those that prefer "hands-off" investing as they don't need to worry about short-term fluctuations or capital gains taxes.

On the other hand, it requires patience on the investor's part and assumes that the asset won't end up totally worthless.

> If you'd like an easy way to apply this strategy to Bitcoin and other cryptoassets, check out:
> ◇ *Dollar-Cost Averaging (DCA) Explained* ➤ bit.ly/AcademyEBook16

Paper trading

Do all these different strategies seem daunting? We hear you. Instead of risking real money, you could first try paper trading – trading with fake money. This is something you might consider as a beginner (or even as an experienced trader) to test your skills and strategies without putting your money at stake.

You may think, for instance, that you've discovered a good strategy for timing Bitcoin dips, and want to try profiting from those drops before they occur. But before you risk all of your funds, you might opt to paper trade. This can be as simple as writing down the price at the time you "open" your short, and again when you close it. You could equally use some kind of simulator that mimics popular trading interfaces.

The main benefit of paper trading is that you can test out strategies without losing your money if things go wrong. You can get an idea of how your moves would have performed with zero risk.

Of course, you need to be aware that paper trading only gives you a limited understanding of a real environment. It's hard to replicate the real emotions you experience when your money is involved.

Paper trading without a real-life simulator may also give you a false sense of associated costs and fees, unless you factor them in for specific platforms.

Binance offers a couple of options for paper trading. For instance, the Binance Futures Testnet provides a full-fledged interface. If you're building trading bots or programs yourself, then the spot exchange testnet can be accessed via API.

Which one's for me?

Whew! That's quite a variety of strategies, isn't it?

The best advice we can offer here is to study each method rigorously. Check out the articles we've linked, take a dive into the theory, and experiment to figure out which styles work best for you. Developing a strategy that consistently delivers profit is no easy task, so patience is a must.

IV. Getting Practical

We've discussed a lot so far. We now know the basics of financial markets, what types of instruments exist, and what strategies investors and traders use to make money. But what do you need to know if you just want to dive in?

You'll need to know how to navigate a trading interface, choose between different order types, and what to look out for when doing all that. Good news, this is exactly what we explain in this chapter for you! Here we'll discuss some of the practical aspects of getting into the world of cryptocurrency.

Long position

A long position (or simply long) means buying an asset with the expectation that its value will rise. Long positions are often used in the context of derivatives products, but they apply to basically any asset class or market type. Buying an asset on the spot market in the hopes that its price will increase also constitutes a long position.

Going long on a financial product is the most common way of investing, especially for those just starting out. Long-term trading strategies like buy and hold are based on the assumption that the underlying asset will increase in value. In this sense, buy and hold is simply going long for an extended period of time.

However, being long doesn't necessarily mean that the trader expects to gain from an upward movement in price. There are derivatives products that are inversely correlated with the price of the underlying asset.

For example, a token called iBTC is inversely correlated with the price of BTC. If the price of BTC goes down, the price of iBTC goes up, and vice

versa. So, if you're in an iBTC long position, that effectively means that you expect the price of BTC to go down.

Short position

Now this is a term you've probably heard when hanging out with friends who've dabbled with trading! A short position (or short) means selling an asset with the intention of rebuying it later at a lower price. Shorting is closely related to margin trading, as it may happen with borrowed assets. However, it's also widely used in the derivatives market and can be done with a simple spot position. How does it work, you ask? Let's see, shall we?

When it comes to shorting on the spot markets, it's quite simple. Let's say you already have Bitcoin and you expect the price to go down. You sell your BTC for USD, as you plan to rebuy it later at a lower price. In this case, you're essentially entering a short position on Bitcoin since you're selling high to rebuy lower. Easy enough. But what about shorting with borrowed funds?

This is a bit more complicated. You borrow an asset that you think will decrease in value. You immediately sell it. If the trade goes your way and the asset price decreases, you buy back the same amount of the asset that you've borrowed. You repay the assets that you've borrowed (along with interest) and profit from the difference between the price you initially sold and the price you rebought.

Still a bit confused? Let's see a practical example. We put up the required collateral to borrow 1 BTC, then immediately sell it for $10,000. Now we've got $10,000. Let's say the price goes down to $8,000. We buy 1 BTC and repay our debt of 1 BTC along with interest. Since we initially sold Bitcoin for $10,000 and now rebought at $8,000, our profit is $2,000

(minus the interest payment and trading fees). Boom, that's how you profit from the price going down!

Order book

If you go to an exchange like Binance, you'll see a lot of numbers flashing on the screen in what seems like an intriguing digital dance. Those are other traders' orders. The order book is a collection of the currently open orders for an asset, organized by price. When you post an order that isn't filled immediately, it gets added to the order book. It will sit there until it gets filled by another order or canceled.

Order books will differ with each platform, but generally, they'll contain roughly the same information. You'll see the number of orders at specific price levels.

When it comes to crypto exchanges and online trading, orders in the order book are matched by a system called the matching engine. This system is what ensures that trades are executed – you could think of it as the brain of the exchange. This system, along with the order book, is core to the concept of electronic exchange.

Order book depth

The order book depth (or market depth) is a visualization of the currently open orders in the order book. It usually puts buy orders on one side, and sell orders on the other and displays them cumulatively on a chart.

In more general terms, the depth of the order book may also refer to the amount of liquidity that the order book can absorb. The "deeper" the market is, the more liquidity there is in the order book. In other words, a market with more liquidity can absorb larger orders without a considerable

effect on the price. However, if the market is illiquid, large orders may have a significant impact on the price.

Market order

A market order is an order to buy or sell at the best currently available market price. It's basically the fastest way to get in or out of a market.

When you're setting a market order, you're basically saying: "*I'd like to execute this order right now at the best price I can get.*"

Your market order will keep filling orders from the order book until the entire order is fully filled. This is why large traders (or whales) can have a significant impact on the price when they use market orders. A large market order can effectively siphon liquidity from the order book. How so? Let's go through it when discussing slippage.

> A more comprehensive overview of this subject can be found here:
> ◇ *What Is a Market Order?* ➤ bit.ly/AcademyEBook17

Slippage

There is something you need to be aware of when it comes to market orders – **slippage**. When we say that market orders fill at the best available price, that means that they keep filling orders from the order book until the entire order is executed.

However, what if there isn't enough liquidity around the desired price to fill a large market order? There could be a big difference between the price

that you expect your order to fill and the price that it fills at. This difference is called slippage.

Let's say you'd like to open a long position worth 10 BTC in an altcoin. However, this altcoin has a relatively small market cap and is being traded on a low-liquidity market. If you use a market order, it will keep filling orders from the order book until the entire 10 BTC order is filled. On a liquid market, you would be able to fill your 10 BTC order without impacting the price significantly. But, in this case, the lack of liquidity means that there may not be enough sell orders in the order book for the current price range.

So, by the time the entire 10 BTC order is filled, you may find out that the average price paid was much higher than expected. In other words, the lack of sell orders caused your market order to move up the order book, matching orders that were significantly more expensive than the initial price.

Be aware of slippage when trading altcoins, as some trading pairs may not have enough liquidity to fill your market orders.

Limit order

A limit order is an order to buy or sell an asset at a specific price or better. This price is called the **limit price**. Limit buy orders will execute at the limit price or lower, while limit sell orders will execute at the limit price or higher.

When you're setting a limit order, you're basically saying: "*I'd like to execute this order at this specific price or better, but never worse.*"

Using a limit order allows you to have more control over your entry or exit for a given market. In fact, it guarantees that your order will never fill at a worse price than your desired price. However, that also comes with a downside. The market may never reach your price, leaving your order

unfilled. In many cases, this can mean losing out on a potential trade opportunity.

Deciding when to use a limit order or market order can vary with each trader. Some traders may use only one or the other, while other traders will use both – depending on the circumstances. The important thing is to understand how they work so you can decide for yourself.

> Eager to learn more? Check out:
> ◇ *What Is a Limit Order?* ➤ bit.ly/AcademyEBook18

Stop-loss order

Now that we know what market and limit orders are, let's talk about stop-loss orders. A stop-loss order is a type of limit or market order that's only activated when a certain price is reached. This price is called the **stop price**.

The purpose of a stop-loss order is mainly to limit losses. Every trade needs to have an invalidation point, which is a price level that you should define in advance. This is the level where you say that your initial idea was wrong, meaning that you should exit the market to prevent further losses. So, the invalidation point is where you would typically put your stop-loss order.

How does a stop-loss order work? As we've mentioned, the stop-loss can be both a limit or a market order. This is why these variants may also be referred to as stop-limit and stop-market orders.

The key thing to understand is that the stop-loss only activates when a certain price is reached (the stop price). When the stop price is reached, it

activates either a market or a limit order. You basically set the stop price as the trigger for your market or limit order.

However, there is one thing you should keep in mind. We know that limit orders only fill at the limit price or better, but never worse. If you're using a stop-limit order as your stop-loss and the market crashes violently, it may instantly move away from your limit price, leaving your order unfilled.

In other words, the stop price would trigger your stop-limit order, but the limit order would remain unfilled due to the sharp price drop. This is why stop-market orders are considered safer than stop-limit orders. They ensure that even under extreme market conditions, you'll be guaranteed to exit the market once your invalidation point is reached.

> Want to know more?
> ◇ *What Is a Stop-Limit Order?* ➤ bit.ly/AcademyEBook19

Makers and takers

You become a **maker** when you place an order that doesn't immediately get filled but gets added to the order book. Since your order is adding liquidity to the order book, you're a "maker" of liquidity.

Limit orders will typically execute as maker orders, but not in all cases. For example, let's say you place a limit buy order with a limit price that's considerably higher than the current market price. Since you're saying your order can execute at the limit price or better, your order will execute against the market price (as it's lower than your limit price).

You become a **taker** when you place an order that gets immediately filled. Your order doesn't get added to the order book, but is immediately matched with an existing order in the order book. Since you're taking

liquidity from the order book, you're a taker. Market orders will always be taker orders, as you're executing your order at the best currently available market price.

Some exchanges adopt a multi-tier fee model to incentivize traders to provide liquidity. After all, it's in their interest to attract high volume traders to their exchange – liquidity attracts more liquidity.

In such systems, makers tend to pay lower fees than takers, since they're the ones adding liquidity to the exchange. In some cases, they may even offer fee rebates to makers.

> If you'd like to read more, check out:
> ◇ *Market Makers and Market Takers Explained* ➤ bit.ly/AcademyEBook20

Bid-ask spread

The bid-ask spread is the difference between the highest buy order (bid) and the lowest sell order (ask) for a given market.

It's essentially the gap between the highest price where a seller is willing to sell and the lowest price where a buyer is willing to buy.

The bid-ask spread is a way to measure a market's liquidity. The smaller the bid-ask spread is, the more liquid the market is.



A depth chart of BNB/USDC, with a bid-ask spread of 0.2%.

The bid-ask spread can also be considered as a measure of supply and demand for a given asset. In this sense, the supply is represented by the ask side while the demand by the bid side.

When you're placing a market buy order, it will fill at the lowest available ask price. Conversely, when you place a market sell order, it will fill at the highest available bid.

NOW YOU KNOW!

Hopefully by now you've got a decent grasp on the basics of trading:

- What positions you can take based on the direction of your bet (long vs. short).
- What order types exist and which scenarios they are at their best.
- What you should keep in mind when setting your orders.
- The bid-ask spread is the difference between the highest bid and the lowest ask.



V. Technical Analysis Basics

Technical analysis is a holistic framework for trading. It's not an exact science by any means, but many people find it useful to evaluate the markets, manage their trading activities, and monitor their performance.



While some cryptocurrencies like Bitcoin undoubtedly have a strong fundamental thesis behind them, fundamentals play a lesser part in pricing the crypto markets.

In all honesty, much of the action is driven by speculation. Technical analysis can help you keep up with that action in a way that's dictated by market data.

In this chapter, we'll cover some of the key concepts and terms related to the art (and not science) of TA. Even if you don't plan to use TA in your trading, this can help you with keeping up with what's happening in the markets.

Candlestick charts

A candlestick chart is a graphical representation of the price of an asset for a given timeframe. It's made up of candlesticks, each representing the same amount of time.

For example, a 1-hour chart shows candlesticks that each represent a period of one hour. A 1-day chart shows candlesticks that each represent a period of one day, and so on.



Daily chart of Bitcoin. Each candlestick represents one day of trading.

A candlestick is made up of four data points: the Open, High, Low, and Close (also referred to as the OHLC values). The Open and Close are the first and last recorded price for the given timeframe, while the Low and High are the lowest and highest recorded price, respectively.

Candlestick charts are one of the most important tools for analyzing financial data. Candlesticks date back to the 17th century Japan but have been refined in the early 20th century by trading pioneers such as Charles Dow.

Candlestick chart analysis is one of the most common ways to look at the Bitcoin market using technical analysis.

> Want to learn how to read candlestick charts? Check out:
> ◇ *A Beginner's Guide to Candlestick Charts* ➤ bit.ly/AcademyEBook21

Candlestick chart patterns

Technical analysis is largely based on the assumption that previous price movements may indicate future price action.

So, how can candlesticks be useful in this context? The idea is to identify candlestick chart patterns and create trade ideas based on them.

Candlestick charts help traders analyze market structure and determine whether we're in a bullish or bearish market environment.

They may also be used to identify areas of interest on a chart, like support or resistance levels or potential points of reversal. These are the places on the chart that usually have increased trading activity.

Candlestick patterns are also a great way to manage risk, as they can present trade setups that are defined and exact. How so?

Well, candlestick patterns can define clear price targets and invalidation points. This allows traders to come up with very precise and controlled trade setups.

As such, candlestick patterns are widely used by Forex and cryptocurrency traders alike. Some of the most common candlestick patterns include flags, triangles, wedges, hammers, stars, and Doji formations.

> If you'd like to learn how to read candlestick patterns, check out:
> ◇ *12 Popular Candlestick Patterns used in Technical Analysis* ➤ bit.ly/AcademyEBook22
> ◇ *A Beginner's Guide to Classical Chart Patterns* ➤ bit.ly/AcademyEBook23

Trend lines

Trend lines are a widely used tool by both traders and technical analysts. They are lines that connect certain data points on a chart. Typically, this data is the price, but not in all cases. Some traders may also draw trend lines on technical indicators and oscillators.

The main idea behind drawing trend lines is to visualize certain aspects of the price action. This way, traders can identify the overall trend and market structure.



Bitcoin touching a trend line multiple times, indicating an uptrend.

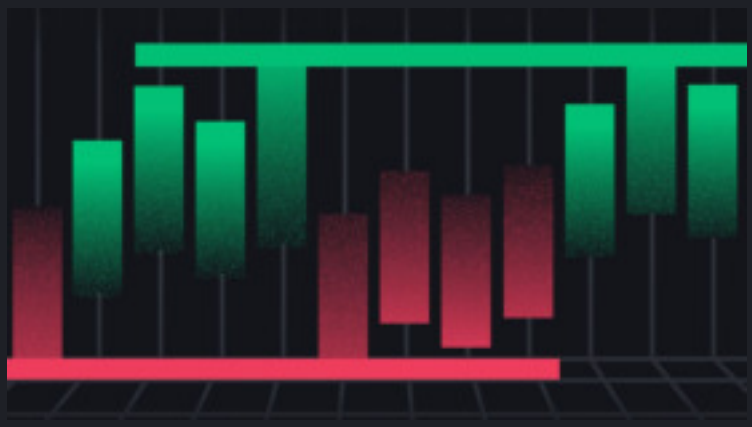
Some traders may only use trend lines to get a better understanding of the market structure. Others may use them to create actionable trade ideas based on how the trend lines interact with the price.

Trend lines can be applied to a chart showing virtually any time frame. However, as with any other market analysis tool, trend lines on higher time frames tend to be more reliable than trend lines on lower time frames.

Another aspect to consider here is the strength of a trend line. The conventional definition of a trend line defines that it has to touch the price at least two or three times to become valid. Typically, the more times the price has touched (*tested*) a trend line, the more reliable it may be considered.

> If you'd like to read more about how to draw trend lines, check out:
> ◇ *Trend Lines Explained* ➤ bit.ly/AcademyEBook24

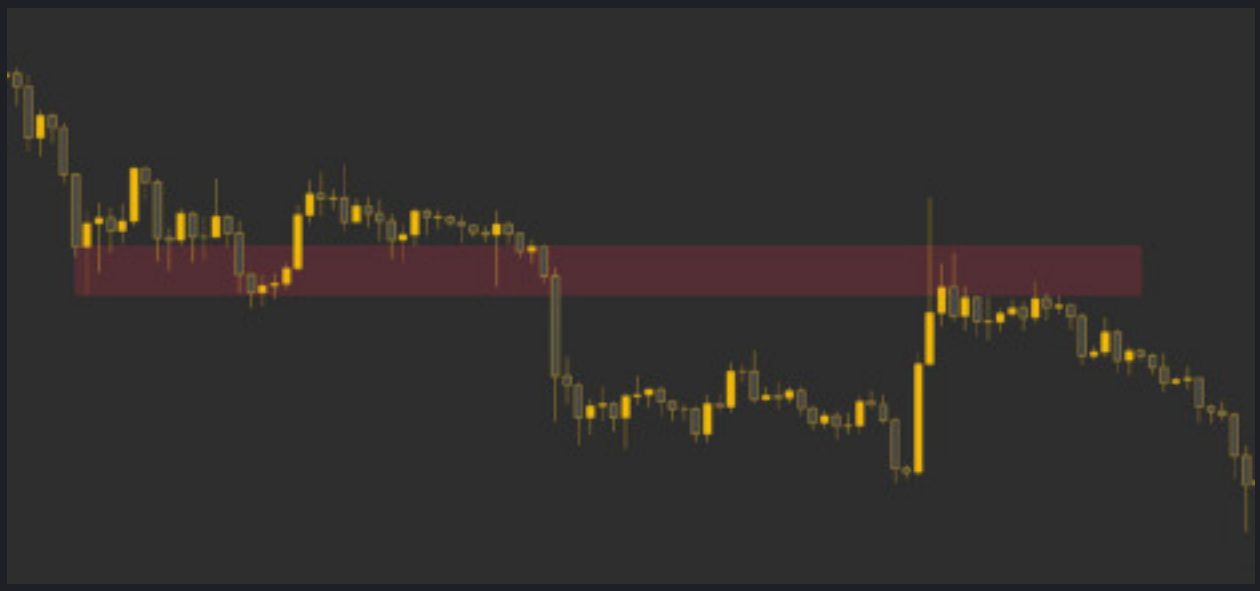
Support and resistance



Support and resistance are some of the most basic concepts related to trading and technical analysis.

Support means a level where the price finds a "floor." In other words, a support level is an area of significant demand, where buyers step in and push the price up.

Resistance means a level where the price finds a "ceiling." A resistance level is an area of significant supply, where sellers step in and push the price down.



Support level (red) is tested and broken, turning into resistance.

Now you know that support and resistance are levels of increased demand and supply, respectively. However, many other factors can be at play when thinking about support and resistance.

Technical indicators can also suggest potential support and resistance levels. In fact, even aspects of human psychology are used. This is why traders and investors may incorporate support and resistance very differently in their individual trading strategy.

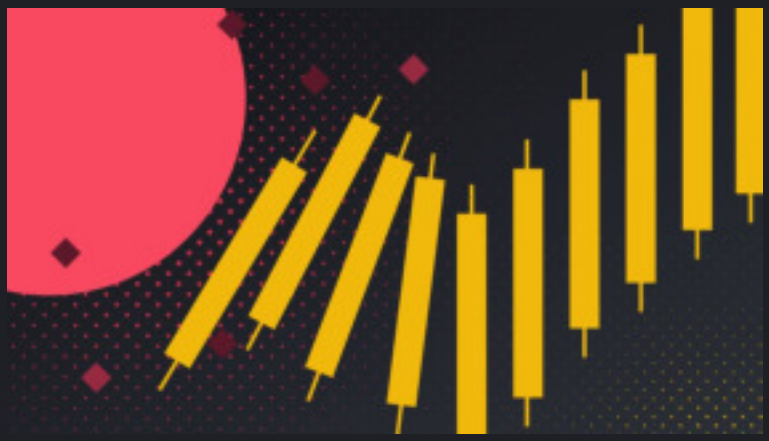
> Want to learn how to draw support and resistance levels on a chart? Check out:
> ◇*The Basics of Support and Resistance Explained* ➤ bit.ly/AcademyEBook25

What have we learned here again?

- How to read candlestick charts and patterns.
- How drawing lines on them can help us get a more accurate picture of the market.
- How price may find a floor or a ceiling (support and resistance).



VI. Technical Analysis Indicators



We're getting there. You know all the jargon now, so we can move into the fancy metrics that traders use to feel the markets' pulse.

Technical indicators calculate metrics related to a financial instrument. This calculation can be based on price, volume, on-chain data, open interest, social metrics, or even another indicator.

As we discussed earlier, technical analysts base their methods on the assumption that historical price patterns may dictate future price movements. As such, traders who use technical analysis may use an array of technical indicators to identify potential entry and exit points on a chart.

Technical indicators may be categorized in numerous ways. For instance, they could point towards future trends (**leading indicators**), confirm a pattern that's already underway (**lagging indicators**), or clarify real-time events (**coincident indicators**).

Some other categorization may concern itself with how these indicators present the information. In this sense, there are **overlay** indicators that overlay data over price, and there are **oscillators** that oscillate between a minimum and a maximum value.

There are also types of indicators that aim to measure a specific aspect of the market, such as **momentum** indicators. As the name would suggest, they aim to measure and display market momentum.

So, which is the best technical analysis indicator out there? There isn't a simple answer to this question. Traders may use many different types of

technical indicators, and their choice is largely based on their individual trading strategy.

However, to be able to make that choice, they needed to learn about them first – and that's what we're going to do in this chapter.

Leading and lagging indicators

As mentioned previously, different indicators will have distinct qualities and should be used for specific purposes. Leading indicators point towards future events. Lagging indicators are used to confirm something that has already happened. So, when should you use each?

Leading indicators are typically useful for short- and mid-term analysis. They are used when analysts anticipate a trend and are looking for statistical tools to back up their hypothesis. In economics, leading indicators can be particularly useful to predict periods of recession.

When it comes to trading and technical analysis, leading indicators can also be used for their predictive qualities. However, no special indicator can predict the future, so these forecasts should always be taken with a grain of salt.

Lagging indicators are used to confirm events and trends that have already happened, or are already underway. This may seem redundant, but it can be very useful. They can bring certain aspects of the market to the spotlight that otherwise would remain hidden. As such, lagging indicators are typically used for longer-term chart analysis.

> Still eager to learn more? Check out:
> ◇ *Leading and Lagging Indicators Explained* ➤ bit.ly/AcademyEBook26

Momentum indicators

Momentum indicators aim to measure and show market momentum. But what does market momentum actually mean? In simple terms, it's the measure of the speed of price changes. Momentum indicators aim to measure the rate at which prices rise or fall. They're typically used for short-term analysis by traders who are looking to profit from bursts of high volatility.

The goal of a momentum trader is to enter trades when momentum is high, and exit when market momentum starts to fade. Typically, if volatility is low, the price tends to squeeze into a small range. As the tension builds up, the price often makes a big impulse move as it eventually breaks out of the range. This is when momentum traders thrive.

After the move has concluded and traders have exited their position, they move on to another asset with high momentum and try to repeat the same game plan. This is why momentum indicators are widely used by day traders, scalpers, and short-term traders who are looking for quick trading opportunities.

Alright, so we've covered the main types of indicators. Now let's go through some of the most popular ones one-by-one.

Trading volume

Trading volume may be considered the quintessential indicator. It shows the number of individual units traded for an asset in a given time. It basically shows how much of that asset changed hands during the measured time.

Some consider the trading volume to be the most important indicator out there. "Volume precedes price" is a famous saying in the trading world. It

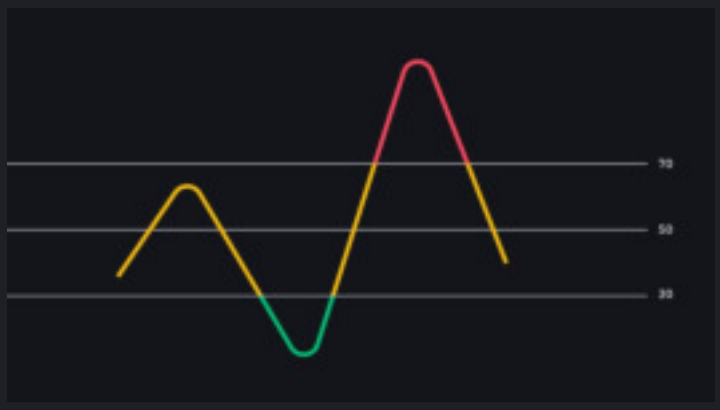
suggests that large trading volume can be a leading indicator before a big price move (regardless of the direction).

Traders can measure the strength of the underlying trend with volume. If high volatility is accompanied by high trading volume, that may be considered a validation of the move. This makes sense because high trading activity should equal a significant volume since many traders and investors are active at that particular price level. However, if volatility isn't accompanied by high volume, the underlying trend may be considered weak.

Price levels with historically high volume may also give a good potential trade entry or exit points. Since history tends to repeat itself, these levels may be where increased trading activity is more likely to happen. Ideally, support and resistance levels should also be accompanied by an uptick in volume, confirming the strength of the level.

Relative Strength Index (RSI)

The Relative Strength Index (RSI) is an indicator that illustrates whether an asset is overbought or oversold. It's a momentum oscillator that shows the rate at which price changes happen. This oscillator varies between 0 and 100, and the data is usually displayed on a line chart.





The RSI applied to a Bitcoin chart.

What's the idea behind measuring market momentum? Well, if momentum is increasing while the price is going up, the uptrend may be considered strong. Conversely, if momentum is diminishing in an uptrend, the uptrend may be considered weak. In this case, a reversal may be coming.

Let's see how the traditional interpretation of the RSI works. When the RSI value is under 30, the asset may be considered oversold. In contrast, it may be considered overbought when it's above 70.

Still, RSI readings should be taken with a degree of skepticism. The RSI can reach extreme values during extraordinary market conditions – and even then, the market trend may still continue for a while.

> The RSI is one of the easiest indicators to understand. Eager to learn more? Check out:
> - *What is the RSI Indicator?* ➤ bit.ly/AcademyEBook27

Moving Average (MA)



Moving averages smooth out price action and make it easier to spot market trends. As they're based on previous price data, they lack predictive qualities. In other words, they are lagging indicators.

Moving averages have various types – the two most common one is the **simple moving average** (SMA or MA) and the **exponential moving average** (EMA). What's the difference between them?

The simple moving average is calculated by taking price data from the previous *n* periods and producing an average. For example, the 10-day SMA takes the average price of the last 10 days and plots the results on a graph. The 200-week SMA takes the average price of the last 200 weeks, and so on.



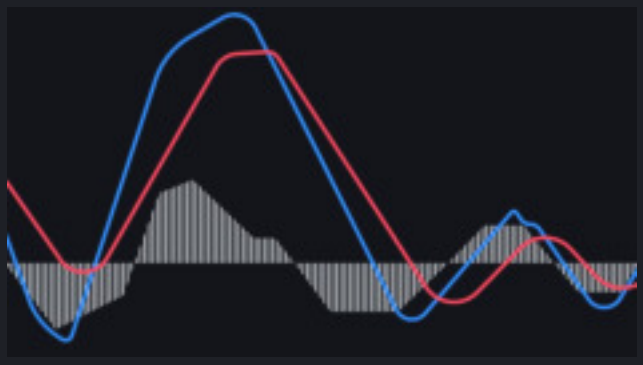
200-week moving average based on the price of Bitcoin.

The exponential moving average is a bit trickier. It uses a different formula that puts a bigger emphasis on more recent price data. As a result, the EMA reacts more quickly to recent events in price action, while the SMA may take more time to catch up.

As we've mentioned, moving averages are lagging indicators. The longer the period they plot, the greater the lag. As such, a 200-day moving average will react slower to unfolding price action than a 100-day moving average.

> Moving averages can help you easily identify market trends. Eager to learn more about them? Check out:
> - *Moving Averages Explained* ➤ bit.ly/AcademyE-Book28

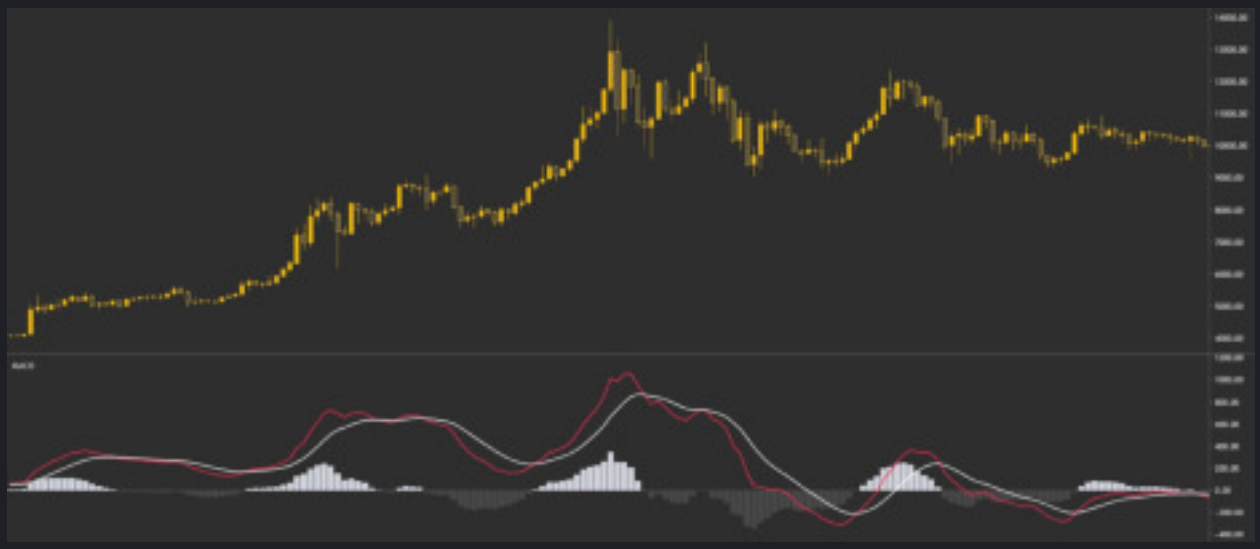
Moving Average Convergence Divergence (MACD)



The MACD is an oscillator that uses two moving averages to show the momentum of a market. As it tracks price action that has already occurred, it's a lagging indicator.

The MACD is made up of two lines – the MACD line and the signal line. How do you calculate them? Well, you get the MACD line by subtracting the 26 EMA from the 12 EMA. Simple enough. Then, you plot this over the MACD line's 9 EMA – the signal line.

In addition, many charting tools will also show a histogram that illustrates the distance between the MACD line and the signal line.



The MACD applied to a Bitcoin chart.

Traders may use the MACD by observing the relationship between the MACD line and the signal line. For example, a crossover between the two lines is usually a notable event. If the MACD line crosses above the signal line, that may be interpreted as a bullish signal. In contrast, if the MACD line crosses below the signal, that may be interpreted as a bearish signal.

> Want to learn more? Check out:
> ◇ *MACD Indicator Explained* ➤ bit.ly/AcademyE-Book29

Fibonacci Retracement

The Fibonacci Retracement (or Fib Retracement) tool is a popular indicator based on a string of numbers called the Fibonacci sequence. These numbers were identified in the 13th century by an Italian mathematician called Leonardo Fibonacci.

These numbers are now part of many technical analysis indicators, and the Fib Retracement is among the most popular ones. It uses ratios derived from the Fibonacci numbers as percentages. These percentages are then plotted over a chart, and traders can use them to identify potential support and resistance levels.

These Fibonacci ratios are:

- 0%
- 23.6%
- 38.2%
- 61.8%
- 78.6%
- 100%

While 50% is technically not a Fibonacci ratio, many traders also consider it when using the tool. In addition, Fibonacci ratios outside of the 0-100% range may also be used. Some of the most common ones are 161.8%, 261.8%, and 423.6%.



Fibonacci levels on a Bitcoin chart.

So, how can traders use these levels in their strategy? The main idea behind plotting percentage ratios on a chart is to find areas of interest. Typically, traders will pick two significant price points on a chart, and pin the 0 and 100 values of the Fib Retracement tool to those points. The range outlined between these points may highlight potential entry and exit points, and help determine stop-loss placement.

The Fibonacci Retracement tool is a versatile indicator that can be used in a wide range of trading strategies.

> If you'd like to read more, check out:
> ◇ *A Guide to Mastering Fibonacci Retracement* ➤ bit.ly/AcademyEBook30

Stochastic RSI (StochRSI)



The Stochastic RSI (or StochRSI) is a derivative of the RSI.

Similarly to the RSI, it's main goal is to determine whether an asset is overbought or oversold.

In contrast to the RSI, however, the StochRSI isn't generated from price data, but RSI values. On most charting tools, the values of the StochRSI will range between 0 and 1 (or 0 and 100).

The StochRSI tends to be the most useful when it's near the upper or lower extremes of its range. Nevertheless, it's worth keeping in mind that

due to its greater speed and higher sensitivity, it may produce a lot of false signals that can be challenging to interpret.

The traditional interpretation of the StochRSI is somewhat similar to that of the RSI. When it's over 0.8, the asset may be considered overbought. When it's below 0.2, the asset may be considered oversold.

With that said, these shouldn't be viewed as direct signals to enter or exit trades. While this information is certainly telling a story, there may be other sides to the story as well. This is why most technical analysis tools are best used in combination with other market analysis techniques. If multiple tools are giving you the same conclusions, the signals produced tend to be more reliable.

> Eager to learn more about the StochRSI? Check out:
> ◇ *Stochastic RSI Explained* ➤ bit.ly/AcademyEBook31

Bollinger Bands (BB)

Named after John Bollinger, Bollinger Bands measure market volatility, and are often used to spot overbought and oversold conditions.



This indicator is made up of three lines, or "bands" – an SMA (the middle band), and an upper and lower band. These bands are then overlaid on a

chart, along with the price action. The idea is that as volatility increases or decreases, the distance between these bands changes (they expand or contract).



Bollinger Bands on a Bitcoin chart.

So what can you read from Bollinger Bands? The closer the price is to the upper band, the closer the asset may be to overbought conditions. Similarly, the closer it is to the lower band, the closer it may be to oversold conditions.

One thing to note is that the price will generally be contained within the range of the bands, but it may break above or below them at times. Does this mean that it's an immediate signal to buy or sell? No. It just tells us that the market is moving away from the middle band SMA, reaching extreme conditions.

Traders may also use Bollinger Bands to try and predict a market squeeze, also known as the Bollinger Bands Squeeze. This refers to a period of low volatility when the bands come really close to each other and "squeeze" the price into a small range. As the "pressure" builds up in that small

range, the market eventually pops out of it, leading to a period of increased volatility. Since the market can move up or down, the squeeze strategy is considered neutral (neither bearish or bullish).

> Would you like to master your understanding of Bollinger Bands? Check out:
> ◇ *Bollinger Bands Explained* ➤ bit.ly/AcademyEBook32

Volume-Weighted Average Price (VWAP)

As we've discussed earlier, many traders consider the trading volume to be the most important indicator out there. So, are there any indicators based on volume?

The volume-weighted average price, or VWAP, combines the power of volume with price action. In more practical terms, it's the average price of an asset for a given period weighted by volume. This makes it more useful than simply calculating the average price, as the VWAP also takes into account which price levels had the most trading volume.

The VWAP is typically used as a benchmark for the current outlook on the market. In this sense, when the market is above the VWAP line, it may be considered bullish. At the same time, if the market is below the VWAP line, it may be considered bearish.

Have you noticed how this is similar to the interpretation of moving averages? The VWAP may indeed be compared to moving averages, at least in the way it's used. As we've seen, the main difference is that the VWAP considers the trading volume as well.

The VWAP can also be used to identify areas of higher liquidity. Many traders will use the price breaking above or below the VWAP line as a

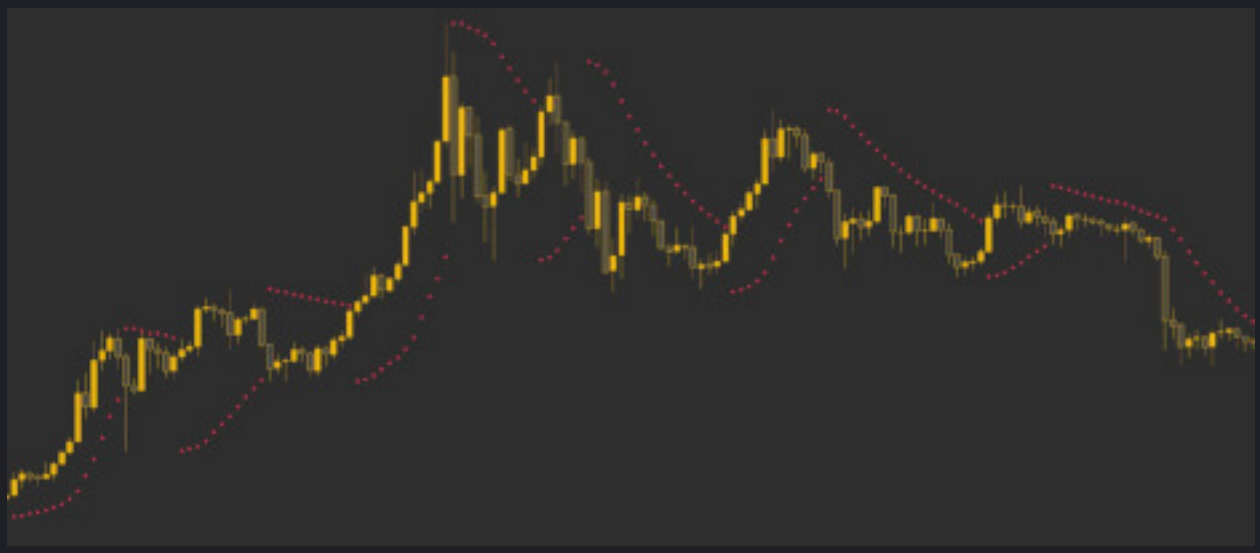
trade signal. At the same time, they'll typically also incorporate other metrics into their strategy to reduce risks.

> Would you like to learn more about how you can use the VWAP? Check out
> ◇ *Volume-Weighted Average Price (VWAP) Explained* ➤ bit.ly/AcademyEBook33

Parabolic SAR

The Parabolic SAR is used to determine the direction of the trend and potential reversals. "SAR" stands for *Stop and Reverse*. This refers to the point where a long position should be closed and a short position opened, or vice versa.

The Parabolic SAR appears as a series of dots on a chart, either above or below the price. Generally, if the dots are below the price, it means the price is in an uptrend. In contrast, if the dots are above the price, it means the price is in a downtrend. A reversal occurs when the dots flip to the "other side" of the price.



The Parabolic SAR on a Bitcoin chart.

The Parabolic SAR can provide insights into the direction of the underlying market trend. It's also handy for identifying points of a potential reversal. Some traders may also use it as a basis for their trailing stop-loss. This special order type moves along with the market and makes sure that investors can protect their profits during a strong uptrend.

The Parabolic SAR is at its best during strong market trends. During periods of consolidation, it may provide a lot of false signals for potential reversals.

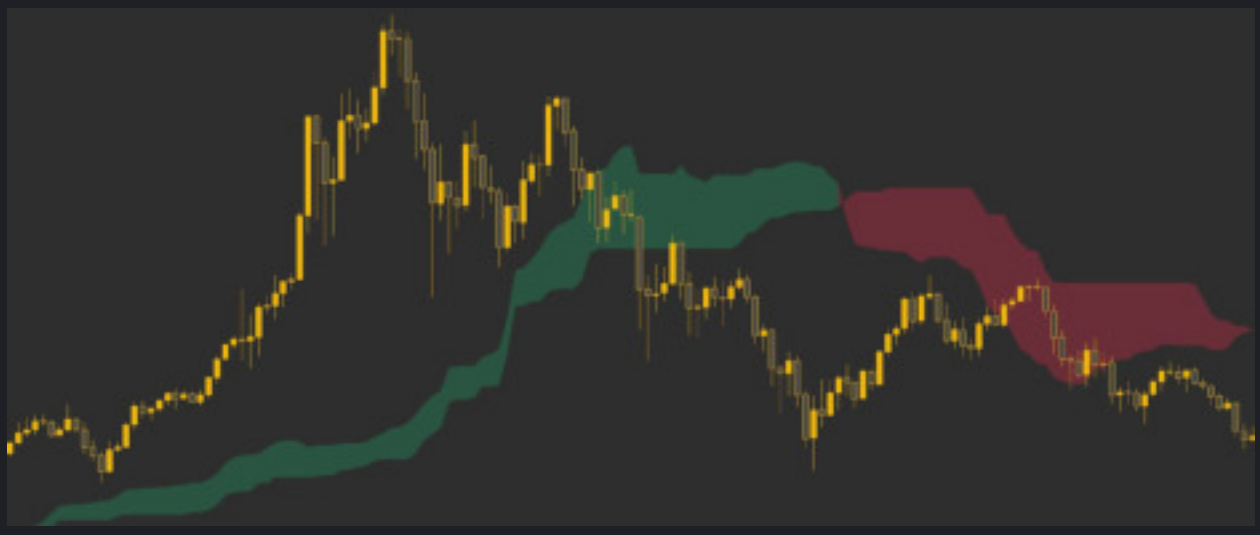
> Eager to learn more about it? Check out:
> ◇ *A Brief Guide to the Parabolic SAR Indicator* ➤ bit.ly/AcademyEBook34

Ichimoku Cloud

The Ichimoku Cloud combines many indicators in a single chart. Among the TA tools we're discussing here, the Ichimoku is certainly one of the most complicated.

At first glance, it may be hard to understand its formulas and working mechanisms. But in practice, the Ichimoku Cloud is not as hard to use as it seems, and many traders use it because it can produce very distinct, well-defined trading signals.

As mentioned, the Ichimoku Cloud isn't just an indicator. It's a collection of indicators. They provide insights into market momentum, support and resistance levels, and the direction of the trend. The indicator achieves this by calculating five averages and plotting them on a chart. It also produces a "cloud" from these averages, which may forecast potential support and resistance areas.



The Ichimoku Cloud on a Bitcoin chart, acting as support, then resistance.

While the averages play an important role, the cloud itself is a key part of the indicator. Generally, if the price is above the cloud, the market may be

considered to be in an uptrend. Conversely, if the price is below the cloud, it may be considered to be in a downtrend.

The Ichimoku Cloud is difficult to master, but once you get your head around how it works, it can produce great results.

- Check out *Ichimoku Clouds Explained* ➤ bit.ly/AcademyEBook35

Which indicator is the best for me?

Well, we can't just tell you that. You need to decide for yourself!

The best advice we can offer is to try them all out and see which produces the best results for you.

Each trader will have their own toolkit, and they may even keep changing it based on what the market is telling them. You'll need to develop your own strategies and carefully choose your own trading tools.

Final thoughts

Phew, we've covered a lot here! In all honesty, we're still barely scratching the surface. As you can probably see by now, cryptocurrency trading takes a lot of time and practice to master – like any skill or craft. But what it promises at the end of the tunnel can also be enticing for many. Never have we seen such an open financial system that anyone can participate in.

The real barrier to entry may just be knowledge and time. Thankfully, we've got an abundance of topics covered at Binance Academy!

If you're interested in trading, the technology behind cryptocurrencies, cybersecurity, economics, and all the other fields that this exciting space touches on, visit our website for more: https://academy.binance.com. If you have any questions, you can reach us directly in our Telegram group, or give us a shout on Twitter (@BinanceAcademy).

Thank you for reading!

Follow **Binance Academy** on

https://www.facebook.com/BinanceAcademy/
https://twitter.com/binanceacademy
https://t.me/binanceacademy