

# Trading Glossary

01.10.2024







#### **Accumulation fund**

Basic

An accumulation fund is an investment vehicle that automatically reinvests any income or dividends generated by its holdings back into the fund, rather than distributing them to shareholders. This approach aims to increase the overall value of the fund over time through compound growth. Accumulation funds are particularly attractive to investors seeking long-term capital growth rather than regular income. For instance, an investor holding shares in an accumulation fund tracking the S&P 500 would see their number of shares remain constant, but the value of each share would increase as dividends are reinvested.

Basic

Address whitelisting is a security feature that restricts cryptocurrency withdrawals to a pre-approved list of addresses. While it doesn't prevent unauthorized transfers if an attacker gains access to private keys, it helps prevent fat finger mistakes and can reduce fraud risk when combined with multi-signature procedures. For a trading firm, implementing address whitelisting can be part of a broader security strategy.

#### Aggregate demand

**Address Whitelisting** 

Expert

Aggregate demand represents the total demand for goods and services within an economy at a given time and price level. It includes all consumer spending, business investment, government spending, and net exports. Changes in aggregate demand can significantly impact economic growth, inflation, and employment levels. For example, during an economic recession, a government might increase its spending to boost aggregate demand and stimulate economic growth.

#### Alerts

Basic

In trading, alerts are notifications set up by investors or traders to inform them when specific market conditions or price levels are met. These can be based on various criteria such as price movements, technical indicators, or news events. Alerts help traders stay informed about market developments without constantly monitoring their screens. For example, a trader might set an alert for when a stock reaches a certain price, allowing them to make timely decisions about buying or selling.

#### Amortisation

Basic

Amortisation is the process of gradually writing off the initial cost of an asset over its useful life. In finance, it often refers to the repayment of a loan through regular payments that cover both principal and interest. For intangible assets, amortisation is similar to depreciation for tangible assets. For example, if a company purchases a patent for \$100,000 with a 10-year useful life, it might amortise \$10,000 per year over the patent's lifespan.

#### Arbitrage

Expert

Arbitrage is the practice of simultaneously buying and selling an asset in different markets to profit from tiny differences in the asset's listed price. It exploits short-lived variations in the price of identical or similar financial instruments in different markets. Arbitrage plays an important role in market efficiency by ensuring that prices don't diverge substantially across different markets. For instance, if a stock is trading at \$50 on one exchange and \$50.05 on another, an arbitrageur might buy on the first exchange and immediately sell on the second for a small profit.

#### Active managers

Basic

Active managers are investment professionals who attempt to outperform a specific benchmark or market index by making tactical decisions about which securities to buy, hold, or sell. They rely on research, market forecasts, and their own judgment to make investment decisions. Active managers typically charge higher fees than passive managers due to the increased effort and expertise required. For instance, a mutual fund manager who actively selects stocks to beat the S&P 500 index would be considered an active manager.

#### **Adverse Selection Risk**

Expert

Adverse selection risk is the risk that a designated market maker will be on the wrong side of a trade, buying from or selling to traders with superior information. This can happen when DMMs provide liquidity to large institutional traders or algorithmic bots. Mitigating adverse selection risk is a key challenge for DMMs, who must balance the need to provide liquidity with protecting their own trading positions.

### Aggregate supply

Expert

Aggregate supply refers to the total volume of goods and services produced by an economy at a given price level. It represents the economy's productive capacity and is influenced by factors such as labor force, capital, technology, and productivity. The relationship between aggregate supply and aggregate demand determines the overall price level and real GDP of an economy. For instance, a technological breakthrough that increases productivity would shift the aggregate supply curve to the right, potentially leading to economic growth.

#### Alpha

Expert

Alpha is a measure of an investment's performance compared to a benchmark index, such as the S&P 500. It represents the excess return of an investment relative to the return of the benchmark index. A positive alpha indicates that the investment has outperformed its benchmark, while a negative alpha suggests underperformance. For instance, if a mutual fund has an alpha of 2.0, it means it has outperformed its benchmark index by 2%.

#### Annualised return

Basic

Annualised return is the average amount of money earned by an investment each year over a given time period, typically expressed as a percentage. It allows for the comparison of investments held for different lengths of time, whether longer or shorter than a year. To calculate the annualised return, you would take the total return over the entire period and convert it to an annual rate. For example, if an investment earned a total return of 30% over three years, its annualised return would be approximately 9.14%.

#### **Asset classes**

Basic

Asset classes are categories of investments that exhibit similar characteristics, behave similarly in the market, and are subject to the same laws and regulations. The main asset classes are equities (stocks), fixed income (bonds), cash and cash equivalents, real estate, and commodities. Investors often diversify their portfolios across different asset classes to manage risk. For example, a balanced portfolio might include a mix of stocks for growth, bonds for stability, and real estate for inflation protection.

#### Assets

Assets are resources with economic value that an individual, corporation, or country owns or controls with the expectation that it will provide future benefit. Assets can be tangible (physical) like property and equipment, or intangible like patents and trademarks. In financial accounting, assets are listed on a company's balance sheet and can include cash, inventory, and accounts receivable. For instance, a manufacturing company's assets might include its factories, machinery, and the products it has in stock.

#### At the money

Expert

An option is considered "at the money" when its strike price is identical to the current market price of the underlying asset. This term is commonly used in options trading and represents a middle ground between "in the money" and "out of the money" options. At-the-money options have no intrinsic value but do have time value. For example, if a stock is trading at \$50, a call option with a strike price of \$50 would be considered at the money.

#### **Auction market**

Basic

An auction market is a market in which buyers enter competitive bids and sellers enter competitive offers simultaneously. The price of an item is set at the point where supply and demand meet, ensuring that the maximum number of trades can occur. Stock exchanges often use auction markets to open and close trading sessions. For instance, the New York Stock Exchange uses an opening auction to determine the opening price for each stock, based on overnight orders and morning bids.

#### Authorised participant

Basic

An Authorised Participant (AP) is a financial institution, typically a large bank or investment company, that is authorized to create and redeem shares of an exchange-traded fund (ETF). APs play a crucial role in keeping the market price of an ETF aligned with its net asset value (NAV). They do this by creating new ETF shares when demand is high and redeeming shares when demand is low. For example, if an ETF is trading at a premium to its NAV, an AP might buy the underlying assets, exchange them for new ETF shares, and sell those shares on the open market, profiting from the price difference and bringing the ETF's price back in line with its NAV.

#### Automated Market Making (AMM)

Expert

Automated Market Making refers to smart contracts that create liquidity pools of tokens, allowing digital assets to be traded automatically and without permission. Unlike traditional order book models, AMMs use mathematical formulas to determine asset prices. The most common model is the constant product formula (x \* y = k), where x and y represent the quantities of two tokens, and k is a constant. For example, Uniswap, a popular decentralized exchange, uses an AMM model where users trade against a liquidity pool rather than directly with other traders.

#### **Automated trading**

Expert

Automated trading, also known as algorithmic trading or algo-trading, refers to the use of computer programs and algorithms to automatically execute trades based on pre-set rules or conditions. These systems can analyze market data, place trades, and monitor positions much faster than human traders. Automated trading is widely used by institutional investors, hedge funds, and high-frequency trading firms. For instance, an automated trading system might be programmed to buy a stock when its 50-day moving average crosses above its 200-day moving average, a common technical analysis signal.

### Averaging down

Basic

Averaging down is an investment strategy where an investor buys additional shares of a previously initiated investment after the price has dropped, resulting in a decrease of the average price paid for all the shares. This strategy can be effective if the stock eventually rebounds, as it magnifies gains. However, it's risky if the stock continues to decline, as losses are also magnified. Investors should consider carefully whether to average down or exit a declining position.

#### Base currency

Basic

Base currency is the first currency quoted in a currency pair in forex trading. It's the currency against which exchange rates are generally quoted in a country or economic zone. For most currency pairs, the U.S. dollar is the base currency. In a currency pair like EUR/USD, the euro (EUR) is the base currency. If the EUR/USD exchange rate is 1.2000, it means 1 euro can buy 1.2 U.S. dollars.

#### Base rate

Basic

The base rate, also known as the bank rate or bank base rate, is the interest rate set by a central bank. It's the rate at which the central bank lends to other banks and influences the overall level of interest rates in the economy. Changes in the base rate can affect mortgage rates, savings rates, and the general cost of borrowing. For instance, if the Bank of England raises its base rate from 0.5% to 0.75%, commercial banks are likely to increase their own interest rates on loans and savings accounts.

#### Basis point

A basis point is a unit of measurement used to describe percentage changes or differences in financial instruments. One basis point is equal to 0.01% or 1/100th of a percent. Basis points are commonly used to express changes in interest rates, bond yields, and financial indexes. For example, if a bond yield increases from 5.00% to 5.25%, it has risen by 25 basis points. 10 basis points equal 0.0010 in decimal form.

#### Bear market

Basic

A bear market refers to a prolonged period in which investment prices fall, accompanied by widespread pessimism and negative investor sentiment. Typically, a bear market is defined as a price decline of 20% or more from recent highs. Bear markets can occur in any asset class, including stocks, bonds, and commodities. For instance, the stock market crash of 2008-2009 during the global financial crisis is a well-known example of a bear market.

#### Bearish

Basic

Bearish is a term used to describe an investor's belief that a particular security, sector, or market is likely to decline in value. A bearish outlook is the opposite of a bullish one. Bearish investors, often called "bears," may take actions such as selling stocks, shorting securities, or buying put options. For example, an investor might become bearish on tech stocks if they believe the sector is overvalued and due for a correction.

#### Bid

Basic

In financial markets, a bid is the highest price a buyer is willing to pay for a security or asset. It's typically quoted alongside the ask price, which is the lowest price a seller is willing to accept. The difference between the bid and ask prices is known as the spread. For instance, if a stock has a bid price of \$50 and an ask price of \$50.05, an investor looking to sell would receive \$50 per share, while a buyer would need to pay \$50.05 per share.

#### Bid-Ask Spread in Crypto

Basic

In cryptocurrency markets, the bid-ask spread is the difference between the highest price a buyer is willing to pay (bid) and the lowest price a seller is willing to accept (ask). Market makers profit from this spread. Due to the high volatility in crypto markets, these spreads can be wider than in traditional markets. For example, if the highest bid for Bitcoin is \$29,990 and the lowest ask is \$30,010, the bid-ask spread is \$20.

#### **Blockchain Analytics for AML**

Expert

Blockchain analytics tools are used for Anti-Money Laundering (AML) compliance in cryptocurrency operations. These tools analyze blockchain transactions to identify patterns associated with illicit activities. They provide an in-depth view of entities involved in transactions, helping to build thorough profiles, discover true identities, assess activities, and gauge risk exposure to illicit dealings. For trading firms, using blockchain analytics is crucial for risk management and regulatory compliance.

#### Blue-chip stocks

Basic

Blue-chip stocks are shares of large, well-established, and financially sound companies that have operated for many years. These companies typically have a history of paying stable or rising dividends and are known for reliable growth and stable earnings. Blue-chip stocks are considered relatively low-risk investments and are often used as benchmarks for the overall market. Examples of blue-chip stocks include companies like Apple, Microsoft, and Johnson & Johnson.

#### **Bollinger bands**

Expert

Bollinger Bands are a technical analysis tool invented by John Bollinger. They consist of a middle band (typically a simple moving average) and an upper and lower band. The upper and lower bands are usually set two standard deviations away from the middle band. Bollinger Bands help traders identify overbought or oversold conditions and potential trend reversals. For example, if a stock price touches the upper band, it might be considered overbought and due for a pullback.

#### **Bond trading**

Basic

Bond trading refers to the buying and selling of debt securities in the financial markets. Bonds are issued by governments, municipalities, and corporations to raise capital. Traders buy and sell bonds based on factors such as interest rates, credit quality, and macroeconomic conditions. Bond trading can be done on exchanges or over-the-counter (OTC). For instance, a trader might sell U.S. Treasury bonds if they expect interest rates to rise, which would cause bond prices to fall.

#### Bonds

Basic

Bonds are fixed-income securities that represent a loan made by an investor to a borrower, typically a corporation or government entity. The bond issuer agrees to pay interest (coupon) at predetermined intervals and repay the principal at maturity. Bonds are used by companies and governments to finance projects and operations. For example, a corporation might issue a 10-year bond with a 5% coupon rate, meaning it will pay investors 5% of the bond's face value annually for 10 years, after which it will repay the principal.

#### **Book value**

Basic

Book value is the net asset value of a company as recorded on its balance sheet. It's calculated by subtracting total liabilities from total assets. Book value is often used by value investors to identify potentially undervalued stocks. The book value per share is calculated by dividing the book value by the number of outstanding shares. For instance, if a company has a book value of \$100 million and 10 million outstanding shares, its book value per share would be \$10.

#### Book-to-market ratio

Basic

The book-to-market ratio is a financial valuation metric that compares a company's book value to its market value. It's calculated by dividing the book value per share by the current market price per share. A high book-to-market ratio might indicate that a stock is undervalued, while a low ratio might suggest overvaluation. For example, if a stock has a book value per share of \$10 and is trading at \$20, its book-to-market ratio would be 0.5.

#### **Bottom line**

Basic

The bottom line refers to a company's net income or net earnings, which is the final line on a company's income statement (hence the name). It represents the amount of profit a company has made after all expenses, including taxes and interest, have been deducted from revenues. The bottom line is a key indicator of a company's profitability and financial health. For instance, if a company reports a bottom line of \$1 million, it means it made \$1 million in profit after accounting for all expenses.

#### **Broker**

Basic

A broker is a licensed person or firm that acts as an intermediary between buyers and sellers in financial markets. Brokers execute trades on behalf of clients and may provide additional services such as research, advice, and market analysis. They typically earn money through commissions or fees charged for their services.

#### Bull

Basic

In financial markets, a bull is an investor who believes that a particular security, sector, or the overall market is poised to rise in value. Bulls are optimistic about future price movements and typically take long positions, expecting to profit from price increases. The term can also describe market conditions characterized by rising prices and positive sentiment. For instance, an investor who is bullish on technology stocks might increase their holdings in companies like Apple or Google, anticipating future growth.

#### **Bull market**

Basic

A bull market refers to a prolonged period in which investment prices are rising or expected to rise. It's typically defined as a time when stock prices increase by 20% or more from recent lows. Bull markets are characterized by optimism, investor confidence, and expectations that strong results will continue for an extended period. For example, the U.S. stock market experienced a notable bull market from 2009 to 2020, following the global financial crisis, with major indices reaching record highs.



#### Buy

In trading, a buy order is an instruction to purchase a specific quantity of a security or asset at a specified price or better. When an investor buys a security, they're taking a long position, expecting the price to rise. Buy orders can be market orders (executed at the current market price) or limit orders (executed only at a specified price or better). For example, an investor might place a buy order for 100 shares of a company at \$50 per share, believing the stock will appreciate in value.

#### Cable

Expert

Cable is a forex market term used to describe the exchange rate between the U.S. dollar (USD) and the British pound sterling (GBP). The term originated from the transatlantic cable used to transmit currency prices between London and New York. When traders refer to the "cable," they are discussing the GBP/USD currency pair. For instance, if someone says "the cable is trading at 1.3500," it means one British pound is worth 1.35 U.S. dollars.

#### Capital expenditure

Basic

Capital expenditure, often abbreviated as CAPEX, refers to funds used by a company to acquire, upgrade, or maintain physical assets such as property, buildings, or equipment. These are typically long-term investments aimed at improving the company's future performance. For instance, a manufacturing company might have a capital expenditure of \$10 million to buy new machinery that will increase production efficiency and capacity.

#### Capital Requirements

Expert

Some jurisdictions impose capital requirements on firms engaging in crypto market making or other trading activities. These requirements ensure that firms have sufficient capital to cover potential losses and maintain market stability. The specific requirements can vary based on the scale of operations and the types of activities undertaken.

#### Cash flow

Basic

Cash flow represents the net amount of cash and cash equivalents moving into and out of a business. Positive cash flow indicates that a company's liquid assets are increasing, enabling it to settle debts, reinvest in its business, return money to shareholders, pay expenses, and provide a buffer against future financial challenges. For example, a company might report quarterly cash flow from operations of \$100 million, indicating strong liquidity from its core business activities.

#### Chartist

Expert

A chartist is a trader or analyst who uses charts and graphs of an asset's historical price and volume data to predict future price movements. Chartists believe that historical price patterns tend to repeat themselves and that these patterns can be identified and used for making trading decisions. For example, a chartist might identify a "head and shoulders" pattern in a stock chart and predict a potential price reversal based on this technical formation.

#### Call option

Basic

A call option is a financial contract that gives the buyer the right, but not the obligation, to buy a specific asset (like a stock) at a predetermined price (strike price) within a set time period. Call options are often used for speculation or to hedge against potential price increases. For example, an investor might buy a call option on a stock trading at \$50 with a strike price of \$55, believing the stock will rise above \$55 before the option expires.

#### Capital gains tax

Basic

Capital gains tax is a levy on the profit realized from the sale of a non-inventory asset. The most common capital gains are realized from the sale of stocks, bonds, precious metals, real estate, and property. The tax rate can vary depending on how long the asset was held and the taxpayer's income level. For example, in the U.S., long-term capital gains (assets held for more than a year) are typically taxed at a lower rate than short-term gains.

#### Cash drag

Expert

Cash drag refers to the negative effect on investment returns caused by holding a portion of a portfolio in cash or cash equivalents. While cash provides liquidity and can act as a buffer during market downturns, it typically earns little to no return, especially in low-interest-rate environments. This can drag down the overall performance of a portfolio. For instance, if a mutual fund keeps 10% of its assets in cash earning 0.5% interest while the stock market returns 10%, that cash position would reduce the fund's overall return.

#### Chargeable gain

Basic

A chargeable gain is a profit made on the disposal of an asset that is subject to capital gains tax. This term is commonly used in the UK tax system. Not all gains are chargeable; some may be exempt or fall within an annual tax-free allowance. For instance, if an investor buys shares for £10,000 and sells them for £15,000, the £5,000 profit would be a chargeable gain, subject to any applicable exemptions or allowances.

### Clearing Services

"Clearing services are a crucial part of the post-trade process in financial markets." Clearing involves confirming the details of a trade, ensuring that both parties can fulfill their obligations, and facilitating the transfer of assets and funds. A clearing house acts as an intermediary between buyers and sellers, reducing counterparty risk by becoming the buyer to every seller and the seller to every buyer. This process includes:

- Trade matching and confirmation
- Position management (netting of trades)
- Collateral management
- Risk management
- Settlement instruction

In the context of prime brokerage, clearing services allow large traders and funds to consolidate their trading activities across multiple exchanges and markets, providing operational efficiency and potentially reducing overall trading costs. These additional definitions provide important context for understanding currency risk management and the post-trade processes in financial markets, which are relevant to both traditional finance and the cryptocurrency space."

#### Closing price

The closing price is the final price at which a security trades during a regular trading session. For most stock exchanges, this is typically 4:00 PM local time. The closing price is widely used as a reference point for investors and is often used to calculate various financial metrics. For instance, if a stock's closing price on Monday was \$50 and on Tuesday it closed at \$52, it would be reported as having gained \$2 or 4% for the day.

#### Co-Location in HFT

Expert

Co-location involves placing trading servers in the same data center as the exchange's matching engines. This proximity can reduce latency by several milliseconds, which can be crucial in high-frequency trading (HFT). This practice exists in all markets, not just crypto, and can be the difference between a profitable and unprofitable trade in HFT.

#### Cold Storage

Basic

Cold storage refers to keeping cryptocurrency offline in wallets not connected to the internet. This method significantly reduces the risk of hacking and unauthorized access. Cold storage solutions can range from hardware wallets to paper wallets, or even specialized computer systems that are never connected to the internet. Large crypto trading firms often keep the majority of their assets in cold storage, only moving funds to "hot" wallets when necessary for trading.

#### Colocation

Expert

Colocation in crypto trading refers to the practice of placing trading servers in the same data center as the exchange's matching engines. This reduces latency, allowing for faster order execution and cancellation, which is crucial for highfrequency trading and market making. Some exchanges, like Binance, offer colocation services to institutional clients for a fee.

#### Commission

Basic

A commission is a fee charged by a broker or investment advisor for executing trades or providing investment advice. It's typically calculated as a percentage of the transaction value or as a flat fee per trade. Commissions are a primary source of revenue for many financial services firms. For example, a broker might charge a \$10 commission for each stock trade, regardless of the number of shares traded.

#### Commodity

Basic

A commodity is a basic good used in commerce that is interchangeable with other goods of the same type. Commodities are most often used as inputs in the production of other goods or services. Examples of commodities include crude oil, natural gas, gold, copper, wheat, and coffee. Commodities can be traded on specialized exchanges, such as the Chicago Mercantile Exchange (CME). For instance, an airline might buy oil futures contracts to hedge against potential increases in fuel prices.

#### Compound interest

Basic

Compound interest is the interest calculated on the initial principal and the accumulated interest from previous periods. It allows an investment to grow faster over time because each interest payment is reinvested to earn additional interest in future periods. This concept is often described as "interest on interest." For example, if you invest \$1,000 at a 5% annual compound interest rate, after one year you'd have \$1,050, and after two years you'd have \$1,102.50, with the extra \$2.50 coming from interest earned on the first year's interest.

#### **Concentration Risk**

Basic

Concentration risk refers to the potential for loss when a large portion of one's portfolio is allocated to a single asset, strategy, or counterparty. This risk is more accurately categorized under counterparty or credit risk, especially when dealing with exchanges. Managing this risk involves diversifying across multiple exchanges, trading pairs, and strategies, and may include setting exposure limits for individual assets or counterparties.

### Contango and backwardation

Expert

Contango and backwardation are terms used in futures markets to describe the relationship between current spot prices and future contract prices. In contango, future prices are higher than the expected future spot price, typically due to costs associated with storing and insuring the underlying asset. Backwardation is the opposite situation, where future prices are lower than the expected future spot price. For instance, if the current spot price for oil is \$50 per barrel, but the onemonth futures contract is trading at \$52, the market is in contango.

#### Contracts for difference

Basic

Contracts for Difference (CFDs) are derivative products that allow traders to speculate on the price movements of various financial instruments without owning the underlying asset. CFDs enable traders to profit from both rising and falling markets. Unlike regular securities and FX, CFDs do not have a physical settlement at T+2. The profit or loss is determined by the difference between the buy and sell prices."

#### Convexity

Expert

Convexity is a measure of the curvature in the relationship between bond prices and bond yields. It's used as a risk-management tool, particularly for portfolios with a large number of bonds. Convexity helps to more accurately predict the change in a bond's price given a change in interest rates, beyond what can be calculated by duration alone. For instance, a bond with high convexity will see its price rise more when yields fall and drop less when yields rise compared to a bond with lower convexity.

#### Cost of carry

Basic

Cost of carry refers to the expenses incurred as a result of an investment position. These costs can include financial costs, such as interest on margin accounts, as well as physical costs like storage or insurance for commodities. In futures trading, the cost of carry is an important factor in determining the fair value of a futures contract. For example, the cost of carry for gold might include storage fees and insurance, which would be reflected in the futures price being higher than the spot price.

#### Covered call

Expert

A covered call is an options strategy where an investor holds a long position in an asset and sells call options on that same asset. This strategy generates additional income through the option premium and provides limited downside protection. However, it caps potential upside gains. For instance, if an investor owns 100 shares of a stock trading at \$50 and sells a call option with a strike price of \$55, they collect the option premium but limit their potential profit if the stock price rises above \$55.

#### CPI

CPI stands for Consumer Price Index, which is a measure of the average change over time in the prices paid by urban consumers for a market basket of consumer goods and services. It's one of the most widely used indicators of inflation and is often used to adjust wages, pensions, and other payments for inflation. For example, if the CPI increases by 2% over a year, it suggests that on average, consumers need to spend 2% more to buy the same goods and services they purchased a year ago.

#### Credit default swap

Expert

A Credit Default Swap (CDS) is a financial derivative contract that allows an investor to "swap" or offset their credit risk with that of another investor. In a CDS, one party (the protection buyer) pays a series of premiums to another party (the protection seller) in exchange for a payoff if a credit event, such as a default, occurs on a reference entity. For instance, a bank might buy a CDS on a corporate bond it owns to protect against the risk of the company defaulting on its debt.

#### Credit rating

Basic

In traditional finance, a credit rating is an evaluation of the credit risk of a prospective debtor, predicting their ability to pay back the debt. However, in crypto, formal credit ratings are generally not available. Participants need to develop internal credit and risk ratings for their counterparties, such as OTC dealers or exchanges. These ratings should consider not just balance sheets, but also governance, licensing, founders, potential past hacks, and other relevant factors.

#### Credit spread

Expert

"In finance, a credit spread can refer to two different concepts: In bond markets, it's the difference in yield between two bonds of different credit quality but similar maturity. For example, if a 10-year Treasury bond yields 2% and a 10-year corporate bond yields 4%, the credit spread is 2 percentage points. In derivatives, it's an options strategy consisting of buying one option and selling another of the same type (put or call) and expiry, but with a different strike price. For instance, a bull call spread involves buying a call option at one strike price and selling another at a higher strike price."

#### **Cross-Border Considerations**

Expert

Crypto trading often involves cross-border transactions, which can introduce complex regulatory issues. Traders may need to comply with regulations in multiple jurisdictions. This might involve restrictions on serving clients from certain countries, or different reporting requirements for international versus domestic trading activity.

#### Cross-Exchange Arbitrage

Expert

Cross-exchange arbitrage is the practice of taking advantage of price discrepancies of the same asset across different exchanges. Market makers often engage in this to profit from price inefficiencies while also helping to align prices across the market. For example, if Bitcoin is trading at \$30,000 on Exchange A and \$30,100 on Exchange B, a market maker might buy on Exchange A and simultaneously sell on Exchange B, pocketing the difference minus transaction fees.

#### Cross-Margining

Expert

Cross-margining is a practice where an exchange allows a trader to use their entire account balance as collateral for all open positions, rather than isolating margin for each position. This can be more capital efficient for market makers and arbitrageurs who run multiple strategies simultaneously. However, the collateral value might not be the same for all assets. For example, BTC and ETH might be calculated at 100% of their value, while less liquid coins might only count for 50% or less towards the total account balance.

#### Crypto-Asset Accounting

Expert

Crypto-asset accounting refers to the practice of recording, classifying, and reporting cryptocurrency transactions for financial and tax purposes. This can be complex due to the volatility of crypto assets, the frequency of transactions in trading operations, and varying regulatory treatments. Professional trading firms need robust systems to track cost basis, realize gains/losses, and handle complex scenarios like forks or airdrops. They may use specialized software that integrates with their trading systems and follows relevant accounting standards.

#### Cryptocurrency

Basic

A cryptocurrency is a digital or virtual currency that uses cryptography for security, making it difficult to counterfeit. Most cryptocurrencies are decentralized systems based on blockchain technology. They are not issued by any central authority, making them theoretically immune to government interference or manipulation. Bitcoin, launched in 2009, was the first cryptocurrency, but there are now thousands of alternatives, often called "altcoins". Examples include Ethereum, Ripple, and Litecoin.

#### Crystallisation

Expert

In finance, crystallisation refers to the point at which an asset's value is realized, typically through a sale. This is particularly relevant for capital gains tax purposes, as tax is generally due when a gain is crystallised, not when it's just a paper gain. For example, if an investor buys shares for £1,000 and their value rises to £1,500, no capital gains tax is due until the shares are sold (crystallising the £500 gain).

#### Currency appreciation

Basic

Currency appreciation occurs when a currency increases in value relative to another currency in the foreign exchange market. This can be due to various factors such as economic growth, higher interest rates, or increased demand for that currency. An appreciating currency makes imports cheaper but can hurt exporters by making their goods more expensive in foreign markets. For instance, if the US dollar appreciates against the euro from \$1.20 per euro to \$1.10 per euro, it has appreciated by about 8.3%.

#### Currency depreciation

Basic

Currency depreciation is the loss of value of a country's currency with respect to one or more foreign reference currencies. It's the opposite of currency appreciation and can occur due to various economic and political factors. A depreciating currency makes imports more expensive but can benefit exporters by making their goods cheaper in foreign markets. For example, if the British pound depreciates from \$1.30 to \$1.20 against the US dollar, it has depreciated by about 7.7%.

#### Currency forwards

Basic

A currency forward is a contractual agreement between two parties to exchange a specific amount of a currency for another currency at a predetermined exchange rate on a future date. Unlike spot transactions, which settle within a few days, forwards can be set for months or even years in the future. They're commonly used by businesses to hedge against future exchange rate fluctuations. For instance, an importer who knows they'll need to pay €1 million in six months might enter into a forward contract to buy euros at a set rate, protecting against potential currency appreciation.

#### **Currency options**

Basic

Currency options are contracts that give the buyer the right, but not the obligation, to exchange a specific amount of one currency for another at a predetermined exchange rate (strike price) on or before a specified date. They provide flexibility in managing currency risk and can be used for both hedging and speculation. For example, an importer might buy a call option on euros to protect against a potential rise in the EUR/USD exchange rate.

#### Currency peg

**Expert** 

A currency peg is a policy in which a national government or central bank sets a fixed exchange rate for its currency with a foreign currency or a basket of currencies. The purpose is often to maintain stability in the value of a country's currency. For instance, the Hong Kong dollar has been pegged to the US dollar at a rate of about 7.8 HKD to 1 USD since 1983. Maintaining a peg often requires significant foreign exchange reserves and can limit a country's monetary policy options.

#### **Current ratio**

Expert

The current ratio is a liquidity ratio that measures a company's ability to pay short-term obligations or those due within one year. It's calculated by dividing current assets by current liabilities. A ratio above 1 indicates that the company has more current assets than current liabilities, suggesting good short-term liquidity. For example, if a company has \$100,000 in current assets and \$75,000 in current liabilities, its current ratio would be 1.33, indicating a relatively strong liquidity position.

#### **Currency swaps**

Basic

A currency swap is an agreement between two parties to exchange a series of cash flows in one currency for a series of cash flows in another currency, over a set period of time. These swaps are often used to hedge against exchange rate risk or to borrow in foreign currencies at more favorable interest rates. For example, a U.S. company might swap dollar-denominated debt for euro-denominated debt to better match its revenue streams in Europe.

#### Custodial vs. Non-Custodial Solutions

Basic

Custodial solutions involve third-party services that manage and store cryptocurrency on behalf of their clients. These can include exchanges or specialized custody providers. Non-custodial solutions, on the other hand, allow users to maintain full control of their private keys. Professional trading firms often use a combination of both, leveraging custodial services for enhanced security and insurance coverage, while maintaining some assets in non-custodial solutions for direct control and rapid access.

#### Day order

Basic

A day order is a type of order to buy or sell a security that automatically expires if not executed by the end of the regular trading day. This is the default order type on many trading platforms. If an investor places a day order to buy a stock at \$50 per share, but the stock never reaches that price during the trading day, the order is cancelled at market close.

### Day Trading

Basic

Day trading refers to the practice of buying and selling financial instruments within the same trading day. Traders who engage in this style aim to profit from short-term price movements, often entering and exiting positions multiple times during market hours. For example, a day trader might buy 100 shares of a tech company in the morning when the price dips and sell them in the afternoon when the price rises, all within the same trading session.

#### Dealer

Basic

A dealer is a market participant who acts as a principal in a transaction, buying or selling securities for their own account. Unlike brokers who facilitate trades between buyers and sellers, dealers take on inventory risk by holding positions. For instance, a bond dealer might purchase a large quantity of corporate bonds from an institutional investor and then sell them to various clients over time, profiting from the spread between buy and sell prices.

#### Debt

Basic

Debt represents money borrowed by one party from another, typically with the promise to repay the principal amount plus interest. In financial markets, debt instruments such as bonds are widely traded. For example, a corporation might issue a 10-year bond with a face value of \$1000 and a 5% annual interest rate, which investors can buy and sell on the secondary market.

#### **Debt Security**

Basic

A debt security is a financial instrument that represents a loan made by an investor to a borrower, typically a corporation or government entity. These securities come with the promise of repayment of the principal along with interest payments. Common examples include corporate bonds, government bonds, and certificates of deposit (CDs). For instance, a U.S. Treasury bond is a debt security issued by the federal government to finance its operations.

#### Decimal

Basic

In financial markets, a decimal refers to the smallest price increment by which a security can trade. The use of decimals in pricing has increased market efficiency and tightened spreads. For example, stock prices in the U.S. are typically quoted to two decimal places, so a stock might be priced at \$45.67 per share.

#### DeFi (Decentralized Finance)

Basic

DeFi refers to financial services built on public blockchains, primarily Ethereum. These are open, permissionless networks that operate without centralized intermediaries like banks. DeFi applications, often called "dapps," include decentralized exchanges, lending platforms, and stablecoins. For example, a user might use a DeFi platform like Aave to lend out their cryptocurrency and earn interest, or use Uniswap to trade one cryptocurrency for another without going through a centralized exchange.

#### Delivery

Expert

In trading, delivery refers to the transfer of the underlying asset from the seller to the buyer upon the settlement of a contract. This process varies depending on the type of asset and market. For instance, in the stock market, delivery usually involves the electronic transfer of shares to the buyer's brokerage account within a few days of the trade execution.

#### Derivative

Basic

A derivative is a financial contract whose value is derived from the performance of an underlying entity, such as an asset, index, or interest rate. These instruments are used for hedging, speculation, and arbitrage. Common types of derivatives include futures, options, and swaps. For example, a corn futures contract derives its value from the price movements of corn in the commodities market.

#### Designated Market Maker (DMM)

Expert

A Designated Market Maker (DMM) is a trader or firm that has been officially appointed by a cryptocurrency exchange to provide liquidity and maintain orderly markets for specific trading pairs. In exchange for this responsibility, DMMs are often granted benefits such as reduced trading fees, rebates, or other incentives. The goal of a DMM is to ensure there is always an active buy and sell order book, even during periods of low trading activity.

#### Dividend Yield

Basic

Dividend yield is a financial ratio that shows how much a company pays out in dividends each year relative to its stock price. It's expressed as a percentage and calculated by dividing the annual dividend per share by the current stock price. For example, if a stock is trading at \$50 and pays annual dividends of \$2 per share, its dividend yield would be 4% (\$2 / \$50 = 0.04 or 4%).

#### Downside Risk

Basic

Downside risk refers to the potential loss an investor might face if a security's price declines. It's a measure of the worst-case scenario for an investment and is often used in risk management strategies. For instance, an investor might calculate that a stock has a downside risk of 15%, meaning they could potentially lose up to 15% of their investment if market conditions deteriorate.

#### Earnings

Basic

Earnings represent a company's profits or net income over a specific period, typically a quarter or a year. They are a crucial metric for investors to assess a company's financial health and profitability. For example, a tech company might report quarterly earnings of \$500 million, which investors would compare to previous quarters and analyst expectations to gauge the company's performance.

#### Earnings Per Share (EPS)

Basic

Earnings Per Share is a financial metric that measures a company's profit allocated to each outstanding share of common stock. It's calculated by dividing the company's net income by its number of outstanding shares. For instance, if a company has a net income of \$10 million and 5 million outstanding shares, its EPS would be \$2 (\$10 million / 5 million shares).

#### **Economic Indicator**

Basic

An economic indicator is a statistic that provides information about economic activity and the state of the economy. These indicators help investors, analysts, and policymakers make informed decisions. Common examples include Gross Domestic Product (GDP), unemployment rate, and inflation rate. For instance, a rising GDP growth rate might indicate a strengthening economy, potentially influencing investment decisions.

#### **Emerging Markets**

Basic

Emerging markets refer to countries that are in the process of rapid growth and industrialization, often characterized by increasing economic freedom and integration into global markets. These markets typically offer higher potential returns but also come with higher risks. Examples of emerging markets include Brazil, Russia, India, and China (often referred to as the BRIC countries).

#### **Equity**

Basic

Equity represents ownership interest in a company, typically in the form of stock. It's the residual value of a company's assets after all liabilities have been paid off. For investors, equity investments offer the potential for capital appreciation and dividend income. For example, owning 100 shares of a publicly traded company represents an equity stake in that business.

#### Exchange

Basic

An exchange is a marketplace where financial instruments such as stocks, bonds, commodities, and derivatives are traded. It provides a centralized location (physical or electronic) for buyers and sellers to meet and conduct transactions. Well-known exchanges include the New York Stock Exchange (NYSE) and the London Stock Exchange (LSE). For instance, a trader might place an order to buy shares of Apple Inc. on the NASDAQ exchange.

#### **Exchange Licensing**

Expert

Many jurisdictions require cryptocurrency exchanges to obtain specific licenses to operate. Market makers and liquidity providers should be aware of the regulatory status of the exchanges they work with. Trading on unlicensed exchanges could potentially expose firms to regulatory risk.

#### **Exchange Rate**

Basic

An exchange rate is the price of one currency in terms of another currency. It reflects the relative value between two currencies and is crucial for international trade and investment. Exchange rates can be fixed or floating. For example, if the EUR/USD exchange rate is 1.20, it means 1 Euro can be exchanged for 1.20 U.S. Dollars.

#### Execution

Basic

Execution refers to the process of completing a buy or sell order in the market. It involves finding a counterparty willing to trade at the specified price and quantity, and then finalizing the transaction. The speed and quality of execution can significantly impact trading outcomes. For instance, a large institutional order might be executed in smaller chunks over time to minimize market impact.

#### **Exercise Price**

Expert

The exercise price, also known as the strike price, is the price at which the holder of an option can buy (for a call option) or sell (for a put option) the underlying asset. It's a key component in determining an option's value. For example, a call option on a stock with an exercise price of \$50 gives the holder the right to buy the stock at \$50, regardless of its current market price.

#### **Expiration Date**

Basic

The expiration date is the last day on which an options or futures contract is valid. After this date, the contract becomes void and can no longer be traded or exercised. For instance, a September 30th call option on a stock would expire at the close of trading on September 30th, after which it would be worthless if not exercised (assuming it's in-the-money).

## F

#### Face Value

Basic

Face value, also known as par value or nominal value, is the amount printed on the face of a financial instrument, such as a bond or stock certificate. For bonds, it represents the principal amount to be repaid at maturity. For example, a corporate bond might have a face value of \$1,000, meaning the issuer promises to repay \$1,000 to the bondholder at maturity, regardless of the bond's current market price.

#### Fibonacci Retracements

Expert

Fibonacci retracements are a technical analysis tool used to identify potential support and resistance levels in price charts. They are based on the Fibonacci sequence and typically use the levels 23.6%, 38.2%, 61.8%, and 100%. Traders might use these levels to predict where a price might reverse after a significant move. For instance, after a stock rises from \$50 to \$100, a trader might look for potential support at the 38.2% retracement level of \$80.90.

#### **Fiscal Policy**

Basic

Fiscal policy refers to the use of government spending and taxation to influence the economy. It's a key tool used by governments to achieve economic objectives such as growth, full employment, and price stability. For example, during a recession, a government might implement an expansionary fiscal policy by increasing spending on infrastructure projects or cutting taxes to stimulate economic activity.

#### Fixed Income

Basic

Fixed income refers to investment securities that pay a fixed rate of return in the form of interest or dividends. These instruments provide a steady stream of income and are generally considered less risky than stocks. Common examples include government bonds, corporate bonds, and certificates of deposit (CDs). For instance, a 10-year Treasury bond paying 2% annual interest would provide a fixed income stream to its holder.

#### Flash Crashes and HFT

Basic

Flash crashes are sudden, deep, and often brief drops in asset prices. In crypto markets, which can be more volatile and less liquid than traditional markets, flash crashes can be particularly severe. HFT systems can potentially exacerbate flash crashes by rapidly withdrawing liquidity, but they can also help mitigate them by quickly stepping in to provide liquidity. Understanding and managing the risk of flash crashes is crucial for crypto HFT traders.

#### Flash Return Rate (FRR)

Expert

The Flash Return Rate is a metric used to evaluate the profitability of flash loan arbitrage opportunities in DeFi. While not directly applicable to CEX trading, understanding FRR is crucial for traders engaged in cross-platform arbitrage between CEXs and DEXs. It's calculated as (Profit / Principal) \* (365 \* 24 \* 60 \* 60 / Loan Duration in Seconds), expressed as an annualized percentage.

#### Floating Exchange Rate

Basic

A floating exchange rate is an exchange rate regime where a currency's value is allowed to fluctuate in response to foreign exchange market mechanisms. It's determined by supply and demand in the forex market, without direct intervention from central banks. For example, the exchange rate between the U.S. Dollar and the Euro floats freely, with its value changing constantly based on various economic and political factors.

#### Foreign Exchange (Forex)

Basic

Foreign exchange, or forex, refers to the global marketplace for trading national currencies. It's the largest and most liquid financial market in the world, operating 24 hours a day, five days a week. Traders in the forex market buy, sell, exchange, and speculate on currencies. For instance, a forex trader might buy Euros with U.S. Dollars, anticipating that the Euro will strengthen against the Dollar.

#### **Forward Contract**

Basic

A forward contract is a customized agreement between two parties to buy or sell an asset at a specified price on a future date. These contracts are typically used for hedging or speculating on the future price of an asset. Unlike futures contracts, forwards are not standardized and do not trade on exchanges. For example, a manufacturer might enter into a forward contract to buy raw materials at a fixed price in six months to protect against potential price increases.

#### Funding Rate Arbitrage

Expert

Funding rate arbitrage involves profiting from the difference between perpetual swap funding rates and spot prices. In perpetual futures markets, longs pay shorts (or vice versa) periodically to keep the perpetual price close to the spot price. Traders can capitalize on extreme funding rates by taking opposing positions in the perpetual and spot markets. For example, if the funding rate for Bitcoin perpetuals is highly positive, a trader might short the perpetual and go long on spot, earning the funding payment while remaining market neutral.

#### **Futures Basis Trading**

Expert

Futures basis trading involves exploiting the price difference between the spot market and the futures market for the same cryptocurrency. Traders might go long on the spot market and short on the futures market (or vice versa) when they believe the basis (difference between futures and spot price) is mispriced. It's important to note that USD cash is needed in such trades, both to buy the spot asset and for margining on the short future contract. These cash requirements can significantly impact the profitability of the trade.

#### **Fundamental Analysis**

Basic

Fundamental analysis is a method of evaluating securities by examining related economic, financial, and other qualitative and quantitative factors. The goal is to determine a security's intrinsic value. This approach looks at everything from the overall economy and industry conditions to the financial condition and management of companies. For instance, a fundamental analyst might study a company's financial statements, management team, competitive advantages, and market position to determine if its stock is undervalued or overvalued.

#### **Futures**

Basic

Futures are standardized contracts to buy or sell a specific asset at a predetermined price on a specified future date. They are widely used for hedging and speculation in commodities, currencies, and financial instruments. Futures contracts are traded on exchanges and are marked to market daily. For example, a wheat farmer might sell wheat futures to lock in a price for their harvest, while a speculator might buy oil futures betting on rising oil prices.

## G

#### Gas Optimization

Expert

In blockchain networks like Ethereum, gas refers to the computational effort required to execute operations. For market makers operating on-chain, gas optimization is crucial to minimize transaction costs and ensure timely order execution. This might involve techniques like batching transactions, choosing optimal times to submit transactions based on network congestion, or using layer-2 solutions. For instance, a market maker might use a layer-2 solution like Optimism to reduce gas costs when providing liquidity on decentralized exchanges.

### Gilt

Expert

A gilt is a UK government bond, issued by HM Treasury and listed on the London Stock Exchange. These bonds are considered very low-risk investments as they are backed by the UK government. Gilts come in various maturities and can be either conventional (fixed interest payments) or index-linked (interest payments adjusted for inflation). For instance, an investor might purchase a 10-year conventional gilt with a 2% coupon rate, receiving interest payments twice a year and the principal at maturity.

#### Gross Domestic Product (GDP)

Basic

Gross Domestic Product is the total monetary or market value of all finished goods and services produced within a country's borders in a specific time period. It's a comprehensive measure of economic activity and is used to gauge the size of an economy and growth rate. GDP can be calculated in three ways: expenditure approach, income approach, and production approach. For instance, a country reporting an annual GDP growth of 3% indicates its economy expanded by 3% compared to the previous year.

#### Gearing

Basic

Gearing, also known as leverage, refers to the level of a company's debt in relation to its equity capital. It's a measure of a company's financial risk and indicates how much of its operations are funded by debt versus shareholders' equity. A highly geared company has more debt relative to equity. For example, a company with \$10 million in debt and \$5 million in equity would have a gearing ratio of 2:1, indicating significant leverage.

#### **Going Long**

Basic

Going long refers to buying a security with the expectation that its value will increase. It's the opposite of short selling and is the most common way investors participate in financial markets. When an investor goes long, they profit if the price rises and lose if it falls. For example, an investor who believes Apple's stock will rise might go long by buying 100 shares at \$150, hoping to sell them later at a higher price.



#### Hardware Security Module (HSM)

Expert

A Hardware Security Module is a physical computing device that safeguards and manages digital keys for strong authentication and provides crypto-processing. In cryptocurrency operations, HSMs are used to secure private keys and sign transactions in a highly secure manner. They offer protection against both physical and cyber attacks, making them crucial for professional trading firms managing large crypto assets.

#### Hedge

Basic

A hedge is an investment position intended to offset potential losses or gains that may be incurred by a companion investment. In simple terms, a hedge is a risk management strategy used to limit or offset probability of loss from fluctuations in the prices of commodities, currencies, or securities. For example, an investor who owns shares in a technology company might hedge their position by buying put options on that stock, protecting against potential downside risk.

#### High-Frequency Trading (HFT)

Expert

High-Frequency Trading refers to automated trading platforms used by financial institutions to transact a large number of orders at extremely high speeds. These systems use powerful computers to analyze multiple markets and execute orders based on market conditions. HFT can generate numerous small trades over tiny time intervals, often measured in milliseconds. For instance, an HFT algorithm might exploit price discrepancies between exchanges, buying on one and immediately selling on another for a small profit per trade.

#### High-Frequency Trading (HFT) in Crypto

Expert

High-Frequency Trading in cryptocurrency markets involves using powerful computer systems to transact a large number of orders at extremely high speeds. These systems can analyze multiple markets and execute orders based on market conditions within milliseconds. In crypto, HFT is often used for market making, arbitrage, and implementing complex trading strategies. For example, an HFT system might execute thousands of trades per second, taking advantage of minute price discrepancies across different exchanges.

#### HODL

Basic

HODL is a term in the cryptocurrency community that refers to holding onto a cryptocurrency rather than selling it. The term originated from a misspelling of "hold" in a 2013 Bitcoin forum post, but has since been backronymed to "Hold On for Dear Life." It's often used as a strategy in volatile markets, where investors hold onto their assets despite price drops, believing in long-term appreciation. For instance, a Bitcoin investor might say they're going to "HODL" through a market downturn, rather than selling their assets.

#### **Hot Wallet**

Basic

A hot wallet is a cryptocurrency wallet that is connected to the internet and can facilitate immediate transactions. While less secure than cold storage, hot wallets are necessary for active trading and liquidity provision. Professional trading firms typically maintain hot wallets with only the amount of funds needed for immediate operations, balancing the trade-off between security and liquidity.

### Iceberg Orders

Expert

Iceberg orders are large orders that are divided into smaller, visible portions to conceal the full size of the order. This technique is used by large traders and market makers to minimize market impact. For example, a trader wanting to sell 1000 BTC might use an iceberg order that only shows 10 BTC at a time in the order book, replenishing the visible portion as it gets filled.

#### Illiquid

Basic

An illiquid asset or security is one that cannot be easily and quickly sold or exchanged for cash without a substantial loss in value. Illiquid assets may take longer to sell, or may need to be sold at a discount to attract buyers. This characteristic is often associated with thinly traded securities or unique assets. For example, a large block of shares in a small company or a piece of specialized industrial equipment might be considered illiquid due to the limited number of potential buyers.

#### Impermanent Loss

Expert

Impermanent Loss is a phenomenon experienced by liquidity providers in AMM protocols. It occurs when the price ratio of deposited tokens changes compared to when they were deposited, leading to a loss relative to simply holding the assets. The loss is "impermanent" because it can be mitigated if prices return to their original ratio. For example, if a market maker provides liquidity to an ETH/USDC pool and the price of ETH doubles, they would have been better off holding their assets separately rather than in the liquidity pool.

#### **Implied Order Books**

Expert

Implied order books are synthetic order books created by combining order books of related trading pairs. They're particularly useful for trading less liquid pairs. For example, the ETH/BTC implied order book can be created by combining the ETH/USDT and BTC/USDT order books. Market makers can use implied order books to identify arbitrage opportunities and provide liquidity in less traded pairs.

#### Insider Trading Rules

Basic

While less developed than in traditional markets, some jurisdictions are beginning to apply insider trading regulations to cryptocurrency markets. Traders with access to non-public information (for example, about upcoming exchange listings) need to be cautious about how they use this information in their trading activities.

#### **Income Statement**

Basic

An income statement, also known as a profit and loss statement, is a financial document that shows a company's revenues, expenses, and profits over a specific period. It provides a snapshot of a company's ability to generate profit by increasing revenue, reducing costs, or both. The statement typically includes sections for revenue, cost of goods sold, operating expenses, and net income. For instance, a retailer's income statement might show \$1 million in revenue, \$600,000 in costs, and \$400,000 in net income for a quarter.

#### Index

Basic

An index is a statistical measure of change in a securities market. It typically consists of a hypothetical portfolio of securities representing a particular market or a segment of it. Indices are used as benchmarks for portfolio performance and as a basis for index-tracking investment products. Well-known examples include the S&P 500, which tracks 500 large U.S. companies, and the FTSE 100, which represents the 100 largest companies listed on the London Stock Exchange.

#### Inflation

Basic

Inflation is the rate at which the general level of prices for goods and services is rising, consequently eroding purchasing power. It's typically measured as an annual percentage increase. Central banks attempt to limit inflation, and avoid deflation, to keep the economy running smoothly. For example, if the inflation rate is 2%, then a loaf of bread that cost \$1 in one year will cost \$1.02 the next year.

#### Initial Public Offering (IPO)

Basic

An Initial Public Offering is the process by which a private company offers shares to the public for the first time. It's a way for companies to raise capital by selling ownership stakes to public investors. The IPO process involves working with investment banks to determine the initial share price and number of shares to be offered. For instance, when a tech startup decides to go public, it might offer 10 million shares at \$20 each in its IPO, raising \$200 million in capital.

#### Intrinsic Value

Expert

Intrinsic value is the perceived or calculated value of an asset, investment, or company. It's based on fundamental analysis and represents what an asset is truly worth, which may differ from its current market price. Investors often use intrinsic value to determine if a security is overvalued or undervalued. For example, a value investor might calculate that a stock trading at \$50 has an intrinsic value of \$75 based on the company's assets, earnings potential, and growth prospects.

#### Interest Rate

Basic

An interest rate is the amount charged, expressed as a percentage of the principal, by a lender to a borrower for the use of assets. Interest rates are typically expressed on an annual basis, known as the annual percentage rate (APR). They play a crucial role in the economy, influencing borrowing, saving, and investment decisions. For example, a bank might offer a savings account with a 1% interest rate, meaning a \$1000 deposit would earn \$10 in interest over a year.

#### Inventory Risk Management

Expert

Designated market makers must carefully manage their inventory positions to mitigate the risks associated with providing continuous liquidity. This includes techniques like hedging, diversification, and dynamic position sizing. DMMs aim to avoid large, unbalanced positions that could expose them to significant losses during periods of high volatility or one-sided order flow.

#### Inventory Management

Expert

For crypto market makers, inventory management involves maintaining an optimal balance of assets to facilitate trading while minimizing exposure to price fluctuations. This includes rebalancing positions across different exchanges and managing overall portfolio risk. Effective inventory management might involve using derivatives like futures or options to hedge positions. For instance, a market maker might use Bitcoin futures to offset the risk of holding a large spot Bitcoin position.

#### Investment Bank

Basic

An investment bank is a financial institution that specializes in complex financial transactions, such as underwriting, mergers and acquisitions, and initial public offerings (IPOs). Unlike commercial banks, investment banks don't take deposits. They serve as intermediaries between securities issuers and investors and provide advisory services to corporations. For example, when a company decides to go public, it might hire an investment bank like Goldman Sachs to manage its IPO process.

#### Investment

Basic

An investment is an asset or item acquired with the goal of generating income or appreciation over time. Investments can take many forms, including stocks, bonds, real estate, or businesses. The expectation is that the future return from the investment will exceed its current cost. For instance, purchasing shares of a company's stock is an investment, with the investor hoping the stock's value will increase and potentially provide dividend income.

## K

#### **Key Ceremony**

Expert

A key ceremony is a secure and often elaborate process for generating and distributing cryptographic keys. In the context of cryptocurrency operations, it might involve generating private keys for multisig wallets or HSMs. The ceremony typically takes place in a secure, isolated environment and follows strict protocols to ensure the integrity and secrecy of the generated keys. For a professional trading firm, properly conducted key ceremonies are essential for establishing a secure custody solution.

#### **KYC (Know Your Customer)**

Basic

KYC is a process used by financial institutions and exchanges to verify the identity of their clients and assess potential risks of illegal activities. This process typically involves collecting personal information such as identification documents, proof of address, and source of funds.

#### Latency Arbitrage

Expert

Latency arbitrage takes advantage of the time delay in price updates between different exchanges or even different trading pairs on the same exchange. Traders with faster systems can potentially profit from these brief price misalignments. For example, if a large Bitcoin trade on one exchange causes a price movement, a low-latency system might be able to profit by trading on another exchange before its price updates.

#### Layer 2 Solutions

Expert

Layer 2 solutions are secondary frameworks or protocols built on top of a blockchain to improve its scalability and efficiency. These solutions handle transactions off the main blockchain (Layer 1), reducing congestion and fees. Examples include the Lightning Network for Bitcoin and Optimistic Rollups for Ethereum. For market makers, using Layer 2 solutions can reduce transaction costs and improve trading speeds on decentralized exchanges.

#### Leverage

Basic

Leverage refers to the use of borrowed capital to increase the potential return of an investment. While it can multiply gains, it also increases the risk of losses. In trading, leverage allows investors to control a larger position with a smaller amount of capital. For instance, a forex broker might offer 100:1 leverage, meaning a trader could control a \$100,000 position with just \$1,000 of their own capital.

#### Liability

Basic

A liability is a company's financial debt or obligations that arise during the course of its business operations. Liabilities can be current (short-term) or non-current (long-term) and are reported on a company's balance sheet. They represent claims on a company's assets by other parties. For example, accounts payable, loans, and bonds issued are all types of liabilities a company might have.

#### Limit Order

Basic

A limit order is a type of order to buy or sell a cryptocurrency at a specific price or better. It guarantees the price but not the execution. For example, if a trader places a limit order to buy Bitcoin at \$29,500, the order will only be executed if the market price drops to \$29,500 or lower. Limit orders are essential tools for market makers to provide liquidity and manage their inventory.

#### Liquidity

Basic

Liquidity refers to the ease with which an asset can be converted into cash without affecting its market price. High liquidity means an asset can be quickly bought or sold in the market without causing a drastic change in the asset's price. Currencies (FX) are among the most liquid assets, with the highest trading volumes of all markets.

#### **Liquidity Mining**

Expert

Liquidity mining, in the context of centralized exchanges, refers to programs where traders are incentivized to provide liquidity to the exchange's order books. Participants are typically rewarded with the exchange's native tokens or reduced trading fees. For example, Binance's Liquidity Provider Program offers reduced trading fees and other benefits to traders who maintain significant order book presence in specific trading pairs.

#### **Liquidity Pool**

Expert

A liquidity pool is a collection of funds locked in a smart contract that provides liquidity for trading on decentralized exchanges (DEXs). These pools are essential for AMM models, allowing users to trade directly against the pool. Liquidity providers earn fees from trades that occur in the pool. For example, the ETH/DAI pool on Uniswap allows users to trade between ETH and DAI without needing a direct counterparty.

#### **Liquidity Provisioning**

Expert

Liquidity provisioning is the core responsibility of a designated market maker. DMMs are required to provide both bid and ask orders in the order book, ensuring there are always buyers and sellers available to facilitate trades. This involves actively managing inventory, adjusting quotes, and replenishing orders as they are filled. Effective liquidity provisioning helps reduce price volatility and slippage for traders on the exchange.

#### **Long Position**

Basic

A long position is the buying of a security with the expectation that its value will rise. When an investor is "long" on a stock, they own the stock and will profit if its price increases. This is the most common and straightforward form of investing. For example, if an investor buys 100 shares of a company at \$50 per share, they have a long position in that stock and will benefit if the price rises above \$50.

#### **Low-Latency Networks**

Expert

In HFT, low-latency networks are specialized computer networks designed to process a very high volume of data with minimal delay. For crypto traders, this often involves setting up dedicated connections to exchanges, sometimes through colocation. The goal is to reduce the time between receiving market data, making a decision, and executing a trade. For instance, a low-latency setup might reduce trade execution time from milliseconds to microseconds, providing a significant advantage in fast-moving markets.

#### Maker Volume Ratio

**Expert** 

The maker volume ratio is the proportion of a trader's volume that adds liquidity to the order book (maker orders) versus taking liquidity (taker orders). Many exchange fee structures incentivize higher maker volume ratios. For example, an exchange might offer rebates to traders who maintain a maker volume ratio above 70%.

#### Margin

Basic

Margin is the amount of money an investor must deposit with their broker or exchange to cover the credit risk of their trades. When trading on margin, investors borrow money to purchase securities, effectively creating leverage. The margin requirement varies depending on the asset and broker. For instance, a stock broker might require a 50% margin, meaning an investor must deposit \$5,000 to purchase \$10,000 worth of stocks.

#### **Market Depth**

Expert

Market depth refers to the market's ability to sustain relatively large orders without significant impact on the price. It is represented by the order book, showing the quantity of buy and sell orders at different price levels. High market depth indicates a more liquid market, where large trades can occur with minimal price movement. For example, a deep market for Bitcoin would have many buy and sell orders close to the current market price, ensuring smooth and stable trading.

#### Market Maker

Expert

A market maker is a firm or individual who actively quotes two-sided markets in a security, providing bids and offers (known as asks) along with the market size of each. Market makers provide liquidity and depth to markets and profit from the difference between the bid and ask prices. For instance, a market maker might offer to buy a stock at \$10.00 (the bid price) and sell it at \$10.05 (the ask price), making a \$0.05 profit per share on the spread.

#### **Market Making**

Expert

Market making involves providing liquidity to a market by continuously quoting buy and sell prices. Market makers profit from the bid-ask spread and help reduce volatility by smoothing out price fluctuations. For example, a market maker on a cryptocurrency exchange might constantly offer to buy Bitcoin at \$30,000 and sell at \$30,020, earning the spread while facilitating trades for other market participants.

#### **Market Order**

Basic

A market order is an instruction to buy or sell a security immediately at the best available current price. It prioritizes speed of execution over price. Market orders are typically used when certainty of execution is more important than the price of execution. For example, if a stock is trading at \$50, placing a market order to buy will execute the trade at or near \$50, depending on current market conditions.

#### Maker-Taker Model

Expert

The maker-taker model is a fee structure used by many cryptocurrency exchanges to encourage liquidity provision. "Makers," who place limit orders that add liquidity to the order book, typically pay lower fees or even receive rebates. "Takers," who place market orders that remove liquidity, pay higher fees. For instance, an exchange might charge -0.01% (a rebate) for maker orders and 0.05% for taker orders.

#### **Market Capitalization**

Basic

Market capitalization, often referred to as market cap, is the total value of a company's outstanding shares or a cryptocurrency's circulating supply. It's calculated by multiplying the total number of outstanding shares or circulating supply by the current market price per unit.

#### Market Impact

**Expert** 

Market impact is the effect that a trader's order has on the price of the asset being traded. Large orders can move the market price, making it more expensive to execute the full order. Market makers aim to minimize market impact by using techniques like iceberg orders. For example, executing a large sell order for Bitcoin all at once might drive the price down, whereas breaking it into smaller parts can reduce this impact.

#### Market Making Agreement

Expert

A market making agreement is a contract between a cryptocurrency exchange and a designated market maker. It outlines the specific responsibilities, obligations, and benefits of the DMM role. Typical requirements include maintaining a maximum bid-ask spread, minimum order size and depth, and minimum trading volume. In return, the DMM may receive reduced fees, priority order execution, or other perks.

#### Market Manipulation Regulations

Expert

Various jurisdictions have regulations against market manipulation in crypto markets. These can include prohibitions on practices like wash trading, spoofing, or front-running. Professional traders need to ensure their strategies and algorithms comply with these regulations. For instance, rapid order placement and cancellation, while often legitimate, might need to be carefully documented to demonstrate it's not spoofing.

#### Maturity

Basic

Maturity refers to the date when the principal amount of a bond or other fixed-income investment becomes due and is repaid to the investor. It's the end of a bond's life, when the bond issuer is required to pay the bond holders the face value of the bond. For instance, a 10-year Treasury bond issued in 2023 would mature in 2033, at which point the U.S. government would repay the principal to bondholders.

#### Micro-Structure Trading

Expert

Micro-structure trading in crypto involves making trading decisions based on the detailed analysis of order book dynamics, trade executions, and short-term price movements. HFT systems might analyze patterns in order placements and cancellations to predict short-term price movements. For example, a micro-structure strategy might identify and trade on predictable patterns in order flow that occur over millisecond timescales.

#### Mining

Basic

In the context of cryptocurrencies, mining is the process by which new coins are created and transactions are verified and added to the blockchain. Miners use powerful computers to solve complex mathematical problems. The first miner to solve the problem gets to add a new block of transactions to the blockchain and is rewarded with a certain amount of the cryptocurrency. For example, Bitcoin miners currently receive 6.25 bitcoins for each new block they mine, which happens approximately every 10 minutes.

#### Multi-Signature Wallet

Basic

A multi-signature (multisig) wallet is a cryptocurrency wallet that requires multiple private keys to authorize a transaction. This setup enhances security by distributing control among multiple parties. For example, a company might set up a 3-of-5 multisig wallet, where any three out of five designated key holders must approve a transaction before it can be executed. This reduces the risk of unauthorized transfers and single points of failure.

#### Net Asset Value (NAV)

Expert

Net Asset Value is the value of an entity's assets minus its liabilities. In the context of investment funds, NAV is calculated by dividing the total value of all the securities in the portfolio, less any liabilities, by the number of outstanding shares. NAV is typically calculated at the end of each trading day. For example, if a mutual fund has \$100 million in assets, \$5 million in liabilities, and 10 million shares outstanding, its NAV would be \$9.50 per share.

#### NFT (Non-Fungible Token)

Basic

An NFT is a unique digital asset that represents ownership of a specific item or piece of content, such as digital art, music, or even tweets. Unlike cryptocurrencies, where each unit is interchangeable, each NFT has a distinct value and cannot be exchanged on a like-for-like basis. NFTs use blockchain technology to provide proof of ownership and authenticity. For example, an artist might sell their digital artwork as an NFT, with the buyer receiving a token that proves their ownership of the original piece.

#### **Nominal Value**

Basic

Nominal value, also known as face value or par value, is the stated value of an issued security. For bonds, it's the amount paid to the holder at maturity. For stocks, it's the arbitrary value assigned to shares in the company's books. Nominal value often differs from market value. For instance, a bond might have a nominal value of \$1,000, but trade at \$950 in the market due to changes in interest rates or the issuer's creditworthiness.

#### Offer Price

Basic

The offer price, also known as the ask price, is the lowest price at which a seller is willing to sell a security. It's one half of a two-way price quotation, with the other half being the bid price. The difference between the bid and offer prices is known as the spread. For example, if a stock has a bid price of \$10.00 and an offer price of \$10.05, a buyer would need to pay \$10.05 to purchase the stock immediately.

#### Open Interest

Expert

Open interest refers to the total number of outstanding derivative contracts, such as futures or options, that have not been settled. It provides an indication of the liquidity and activity in a particular contract. An increase in open interest suggests new money coming into the market, while a decrease indicates positions being closed. For instance, if the open interest for a particular futures contract is 5,000, it means there are 5,000 outstanding contracts yet to be settled.

#### Option

Basic

An option is a financial derivative that gives the buyer the right, but not the obligation, to buy (call option) or sell (put option) an underlying asset at a predetermined price within a specific time period. There are two main types: European options, which can only be exercised at the date and time of expiration, and American options, which can be exercised at any time on or before the expiration date.

#### Order Book

Basic

An order book is an electronic list of buy and sell orders for a specific security or financial instrument, organized by price level. It shows the number of shares being bid on or offered at each price point. Order books provide valuable information about market depth and sentiment. For instance, a stock's order book might show 1,000 shares offered at \$50.05, 1,500 at \$50.10, and so on, giving traders insight into potential support and resistance levels.

#### Order Book Depth

Expert

Order book depth refers to the volume of orders at each price level in a trading pair's order book. Deep order books generally indicate high liquidity and are crucial for market makers to assess potential slippage and to place large orders without significantly moving the market. For instance, a Bitcoin/USD order book with substantial volume within 1% of the current price in both directions would be considered to have good depth.

#### Order Book Imbalance

Expert

Order book imbalance occurs when there's a significant disparity between the buy and sell sides of the order book. Market makers often use this as a signal for potential price movements. For example, if the buy side of a Bitcoin/USDT order book has 500 BTC worth of orders within 1% of the current price, while the sell side only has 100 BTC, this imbalance might indicate upcoming buying pressure.

#### Order Book Positioning

**Expert** 

Order book positioning refers to the strategic placement of buy and sell orders by a designated market maker. DMMs need to analyze factors like existing order book depth, competition, and anticipated trading patterns to determine the optimal price levels and order sizes to quote. Effective order book positioning helps DMMs maintain their presence and competitiveness while managing risk.

#### Order Book Spoofing Detection

**Expert** 

Order book spoofing is the illegal practice of placing orders with no intention of executing them, to create a false impression of supply or demand. Professional traders and exchanges employ various algorithms to detect spoofing, looking for patterns like large orders that are cancelled shortly after placement.

Understanding these detection methods is crucial for legitimate market makers to ensure their strategies aren't mistakenly flagged as manipulative.

#### Order-to-Trade Ratio (OTR)

Expert

The Order-to-Trade Ratio is a metric used to measure the number of orders sent to an exchange relative to the number of trades actually executed. In HFT, this ratio can be very high as algorithms may send and cancel many orders in rapid succession. Some exchanges impose limits on OTR to prevent excessive system load. For example, an HFT strategy might have an OTR of 100:1, meaning it places 100 orders for every trade executed.

#### Over-the-Counter (OTC)

Basic

Trading Over-the-counter (OTC) trading refers to trading that occurs directly between parties, outside of formal exchanges. This is often used for large trades to avoid slippage and market impact. OTC desks facilitate these transactions, providing personalized services and better liquidity for large buyers and sellers. For example, an institutional investor wanting to buy \$10 million worth of Bitcoin might use an OTC desk to execute the trade discreetly and efficiently.

## P

#### **Pegged Currency**

Basic

In the context of cryptocurrencies, a pegged currency (often called a stablecoin) is a cryptocurrency whose value is tied to another asset, typically a fiat currency like the US dollar. These are designed to maintain a stable value relative to the pegged asset, providing a stable store of value in the volatile crypto market.

#### Portfolio

Basic

A portfolio is a collection of financial investments like stocks, bonds, commodities, cash, and cash equivalents. It represents the holdings of an individual or institution. Portfolios are typically constructed based on the investor's risk tolerance, time horizon, and investment goals. For example, a conservative investor nearing retirement might have a portfolio consisting of 60% bonds, 30% blue-chip stocks, and 10% cash.

#### Position

Basic

In trading, a position refers to the amount of a security, commodity, or currency which is owned (long position) or borrowed and then sold (short position) by an individual or entity. The size and direction of a position determine the investor's exposure to market movements. For instance, holding 1,000 shares of a company's stock represents a long position in that stock.

#### **Price Discovery**

Basic

Price discovery is the process of determining the price of an asset in the marketplace through interactions between buyers and sellers. This process reflects the supply and demand for the asset. Efficient price discovery is crucial for market transparency and fairness. For example, in cryptocurrency markets, price discovery occurs continuously on exchanges as traders buy and sell assets, establishing the market price at any given moment.

## Price-Earnings Ratio (P/E Ratio)

Basic

The Price-Earnings Ratio is a valuation metric used to assess the relative value of a company's shares. It's calculated by dividing a company's current share price by its earnings per share (EPS). A higher P/E ratio suggests that investors expect higher earnings growth in the future. For example, if a stock is trading at \$50 and has an EPS of \$2, its P/E ratio would be 25.

### Prime Broker

Basic

A prime broker is a bundled group of services that investment banks and securities dealers offer to hedge funds and other large investment clients. These services can include global custody, securities lending, financing, reporting, operational support, and clearing services.

#### **Private Key**

Basic

A private key is a cryptographic key that allows a user to access and manage their cryptocurrency. It's analogous to a password for an email account – while anyone can send cryptocurrency to the associated public address, only the holder of the private key can initiate transactions or send funds from that address.

#### Public Key

Basic

A public key is a cryptographic key that can be shared publicly and is used to receive cryptocurrency. It's mathematically linked to a private key, which is kept secret. A public key is analogous to an email address – anyone can use it to send cryptocurrency to the associated address.





#### V W X Y

#### **Proof of Reserves**

Expert

Proof of Reserves is a cryptographic verification system that allows cryptocurrency exchanges and custodians to prove they hold sufficient assets to cover their clients' funds. This typically involves creating a Merkle tree of all client balances and publishing the Merkle root, along with a third-party audit of the platform's actual reserves. Understanding and potentially implementing Proof of Reserves is important for trading firms to assess the solvency of their trading venues and custody providers.



#### Quote

Expert

A quote is the last price at which a security or commodity traded, meaning the most recent price to which a buyer and seller agreed and at which some amount of the asset was transacted. In financial markets, quotes are typically provided with a bid and ask price. For example, a stock quote might show a bid of \$50.00 and an ask of \$50.05, indicating that buyers are willing to pay \$50.00 and sellers are asking \$50.05.

### Quoting Obligations

Expert

Quoting obligations refer to the specific parameters that a designated market maker must adhere to when providing liquidity. This often includes requirements around the maximum bid-ask spread, minimum order size, and minimum order depth that the DMM must maintain in the order book. Exchanges use these obligations to ensure DMMs are fulfilling their role of maintaining orderly and continuous markets.

## R

#### Rally

Basic

A rally is a period of sustained increases in the prices of stocks, bonds, or indexes. It's a short-term or medium-term trend of price increases often following a period of flat or declining prices. Rallies can be caused by various factors such as economic data, corporate earnings, or changes in sentiment. For instance, a stock market might rally 5% over a week following better-than-expected GDP growth figures.

#### Rate of Return

Basic

The rate of return is the net gain or loss on an investment over a specified time period, expressed as a percentage of the investment's initial cost. It takes into account both income (such as dividends or interest) and capital gains. The rate of return helps investors compare the performance of different investments. For example, if an investor buys a stock for \$100 and sells it a year later for \$110, while also receiving \$2 in dividends, the rate of return would be 12% ((110 - 100 + 2) / 100 = 0.12 or 12%).

#### Recession

Basic

A recession is a significant decline in economic activity lasting more than a few months, typically visible in real GDP, real income, employment, industrial production, and wholesale-retail sales. It's generally defined as two consecutive quarters of negative economic growth. Recessions can have profound impacts on financial markets and investment strategies. For instance, the 2008–2009 Great Recession saw significant declines in stock markets globally and led to widespread job losses and business failures.

## Regulatory Compliance for Crypto Market Makers

Expert

Cryptocurrency market makers must adhere to various regulatory and compliance standards. This may include know-your-customer (KYC) requirements, reporting obligations, and restrictions on trading activities. Market makers must stay up-to-date with evolving regulations to ensure their practices remain compliant and do not expose themselves or their partner exchanges to legal or reputational risks.

#### Regulatory Considerations in Crypto HFT

Expert

While cryptocurrency markets are generally less regulated than traditional financial markets, HFT in crypto still faces increasing regulatory scrutiny. This includes concerns about market manipulation, operational risks, and systemic risks. Crypto HFT firms need to be aware of evolving regulations in different jurisdictions. For instance, some countries have implemented or are considering implementing minimum order resting times or maximum order-to-trade ratios specifically to address HFT-related concerns.

#### Resistance Level

Expert

In technical analysis, a resistance level is a price point on a chart where a rising price tends to pause or reverse due to a concentration of supply. It represents a price level that an asset has difficulty breaking through. Traders often use resistance levels to make decisions about entering or exiting positions. For example, if a stock has repeatedly failed to break above \$50, traders might consider \$50 as a resistance level and potentially look to sell as the price approaches this level.

#### Risk

Basic

In finance, risk refers to the chance that an investment's actual return will be different than expected. This includes the possibility of losing some or all of the original investment. Different types of risks include market risk, credit risk, liquidity risk, and operational risk. Investors typically expect higher returns for taking on greater risk. For instance, government bonds are considered low-risk investments and thus offer lower returns, while stocks are generally riskier but offer the potential for higher returns.

#### Risk Management

Basic

Risk management is the process of identifying, analyzing, and accepting or mitigating uncertainty in investment decisions. It's a crucial aspect of portfolio management and trading. Risk management techniques include diversification, hedging, and setting stop-loss orders. For example, an investor might diversify their portfolio across different asset classes and geographical regions to reduce the impact of poor performance in any single investment.

## S

#### Securities

Basic

Securities are fungible and tradable financial instruments used to raise capital in public and private markets. They represent ownership (stocks), a debt agreement (bonds), or rights to ownership (derivatives). Securities are broadly categorized into debt securities, equity securities, and derivatives. For instance, when a company issues stocks or bonds to raise capital, these are considered securities.

#### Settlement

Basic

Settlement is the process of transferring securities and funds between buyers and sellers after a trade is executed. The settlement period varies depending on the type of security and the market. For example, in the U.S. stock market, settlement typically occurs two business days after the trade date (T+2). This means if you buy a stock on Monday, the transaction settles on Wednesday.

#### **Short Selling**

Basic

Short selling is an investment strategy where an investor borrows a security and sells it on the open market, planning to buy it back later for less money. Short sellers bet on, and profit from, a drop in a security's price. This strategy comes with significant risks as potential losses are theoretically unlimited. For instance, a trader might borrow 100 shares of a stock trading at \$50 and sell them, hoping to buy them back at a lower price, say \$40, to return to the lender and pocket the \$10 per share difference.

#### Slippage

Basic

Slippage in crypto trading refers to the difference between the expected price of a trade and the price at which the trade is actually executed. It's particularly important in market making, where large orders can significantly impact the price. Slippage can be positive or negative and is often expressed as a percentage. For instance, if a market maker places a large buy order for Bitcoin at \$30,000, but the order is filled at an average price of \$30,150, they've experienced 0.5% slippage.

#### Slippage Modeling

Expert

Slippage modeling involves creating mathematical models to predict the price impact of large trades. These models typically consider factors like order book depth, historical volatility, and trading volume. Accurate slippage models are crucial for market makers and arbitrageurs to estimate the true cost of their trades and identify profitable opportunities.

#### **Smart Contract**

Expert

A smart contract is a self-executing contract with the terms of the agreement directly written into code. These contracts run on blockchain networks, primarily Ethereum, and automatically execute when predetermined conditions are met. They're used to automate the execution of an agreement so that all participants can be immediately certain of the outcome, without any intermediary's involvement. For instance, a smart contract could automatically transfer payment to a seller once a shipment is confirmed as received by the buyer.

#### Smart Order Routing (SOR)

Expert

Smart Order Routing systems in crypto HFT are designed to optimize order execution across multiple exchanges or liquidity pools. These systems analyze factors like price, liquidity, and fee structures across various venues to determine the best execution strategy. For example, an SOR might split a large order across several exchanges to minimize slippage, or route to the exchange offering the best price after accounting for fees.

#### Speculation

Basic

Speculation involves trading a financial instrument involving high risk, in expectation of significant gains. Unlike traditional investing, speculation is typically focused on short-term price fluctuations. Speculators aim to profit from market inefficiencies and price movements rather than the fundamental value of securities. For example, a speculator might buy a large amount of a particular currency based on a belief that its value will increase due to upcoming political events.

#### Spot Market

Basic

The spot market is where financial instruments, such as cryptocurrencies, are traded for immediate delivery. Prices are determined by supply and demand and reflect the current market value of the asset. In cryptocurrency markets, settlement is typically immediate or near-immediate. In traditional financial markets outside of cryptocurrencies, spot markets usually settle on a T+2 basis (two business days after the transaction date).

#### Spread

Basic

"In finance, a spread refers to the difference between two prices, rates, or yields. It can have different meanings depending on the context:

Bid-Ask Spread: The difference between the highest price a buyer is willing to pay for an asset and the lowest price a seller is willing to accept.

Yield Spread: The difference between the quoted rates of return on different debt instruments.

Option Spread: A strategy involving the simultaneous buying and selling of options of the same class.

For instance, if a stock has a bid price of \$10.00 and an ask price of \$10.05, the bid-ask spread is \$0.05."

#### **Spread Optimization**

Expert

Spread optimization is the process of dynamically adjusting the bid-ask spread quoted by a designated market maker. DMMs use sophisticated algorithms to analyze factors like order book depth, trading volume, and price volatility to determine the optimal spread that balances profitability and market competitiveness. The goal is to provide tight spreads that attract order flow while still generating a viable trading margin.

#### Spread Scalping

Expert

Spread scalping is a high-frequency trading strategy that aims to profit from small price movements within the bid-ask spread. Traders rapidly buy at the bid price and sell at the ask price, making small profits on a large number of trades. For instance, a trader might repeatedly buy Bitcoin at \$30,000 and sell at \$30,005, making a \$5 profit per Bitcoin traded, excluding fees.

#### Stablecoin Regulations

**Expert** 

As stablecoins play a crucial role in crypto trading and arbitrage, traders should be aware of evolving regulations in this area. Some jurisdictions are implementing specific regulations for stablecoin issuers, which could impact the availability or stability of these important trading instruments.

#### Stock

Basic

A stock, also known as equity, represents fractional ownership of a company. When you buy a company's stock, you're purchasing a small piece of that company, called a share. Stocks are bought and sold predominantly on stock exchanges and are the foundation of many individual investors' portfolios. For example, if a company has 1,000,000 outstanding shares and you own 10,000 shares, you own 1% of the company.

#### Staking

Basic

Staking involves participating in the proof-of-stake (PoS) consensus mechanism by locking up cryptocurrency to support network operations like block validation and transaction processing. In return, stakers earn rewards, typically in the form of additional cryptocurrency. For example, Ethereum 2.0 uses staking, where participants lock up ETH to help secure the network and earn staking rewards.

#### Support Level

**Expert** 

In technical analysis, a support level is a price point on a chart where a falling price tends to pause or reverse due to a concentration of demand. It represents a price level that an asset has difficulty falling below. Traders often use support levels to make decisions about entering or exiting positions. For example, if a stock has repeatedly bounced back after falling to \$30, traders might consider \$30 as a support level and potentially look to buy as the price approaches this level.

#### Stop-Loss Order

Basic

A stop-loss order is an order placed with a broker to sell a security when it reaches a certain price. It's designed to limit an investor's loss on a position. If the market price reaches the stop price, the order becomes a market order and is executed at the next available price. For instance, an investor who bought a stock at \$50 might place a stop-loss order at \$45 to limit potential losses to 10% of their investment.

#### **Technical Analysis**

Basic

Technical analysis is a trading discipline employed to evaluate investments and identify trading opportunities by analyzing statistical trends gathered from trading activity, such as price movement and volume. Unlike fundamental analysis, which attempts to evaluate a security's value based on business results such as sales and earnings, technical analysis focuses on the study of price and volume. Practitioners of technical analysis, known as technical analysts, believe that past trading activity and price changes of a security can be valuable indicators of the security's future price movements.

#### Threshold Signature Scheme (TSS)

Expert

Threshold Signature Scheme is a cryptographic primitive that allows multiple parties to jointly compute a single digital signature. In cryptocurrency custody, TSS can be used as an alternative to traditional multisig setups, offering benefits like reduced on-chain fees and improved privacy. For example, a trading firm might implement a 3-of-5 TSS scheme where any three of five key holders can collaboratively sign a transaction without revealing who specifically participated in the signing.

#### Tick-to-Trade Latency

Expert

Tick-to-Trade Latency refers to the time taken from receiving a market data update (a "tick") to placing an order in response to that update. In HFT, minimizing this latency is crucial. It includes the time to process the data, make a decision, and send the order. For crypto HFT, a competitive tick-to-trade latency might be under 10 microseconds.

#### Ticker Symbol

Basic

A ticker symbol is an arrangement of characters (usually letters) representing a particular security listed on an exchange or otherwise traded publicly. When a company issues securities to the public marketplace, it selects an available ticker symbol for its securities to trade under. The symbol is often an abbreviation of the company's name. For example, Apple Inc. trades under the ticker symbol AAPL on the NASDAQ exchange.

#### Time-Series Momentum in HFT

Expert

Time-series momentum in the context of crypto HFT refers to the tendency of price trends to persist over very short time periods. HFT algorithms might attempt to identify and profit from momentum on timescales of seconds or even milliseconds. For instance, an HFT system might enter a long position after detecting a series of rapid upward price movements, aiming to profit from continued upward momentum over the next few seconds.

#### **Toxic Flow**

Expert

Toxic flow refers to order flow that is likely to result in losses for market makers. This often comes from informed traders or other market makers with superior information or technology. Identifying and managing toxic flow is crucial for maintaining profitability. Techniques might include adjusting spreads or reducing quoted sizes when toxic flow is detected.

#### Trade

Basic

A trade refers to the buying and selling of a security or asset in a financial market. It involves the transfer of a security or asset from a seller to a buyer in exchange for money. Trades can occur on exchanges or over-the-counter markets. For example, when an investor buys 100 shares of a company through their broker, they've executed a trade.

#### **Transaction Costs**

Basic

Transaction costs are expenses incurred when buying or selling a security. These costs include brokers' commissions and spreads (the difference between the price the dealer paid for a security and the price at which it can be sold). Transaction costs are an important consideration in investment strategy, especially for active traders, as high costs can significantly erode returns. For example, if a trader pays \$10 in commission for each trade and makes 100 trades in a year, their annual transaction costs would be \$1,000.

#### Treasury Management System (TMS)

Expert

A Treasury Management System in the context of cryptocurrency operations is a software solution designed to manage a company's crypto assets, cash flows, and financial risks. It typically includes features for cash management, risk management, payments, and financial planning. For crypto trading firms, a TMS might incorporate real-time tracking of crypto balances across multiple exchanges and wallets, automated rebalancing, and reporting tools for regulatory compliance.

#### Triangular Arbitrage

Basic

Triangular arbitrage in crypto involves exploiting price discrepancies between three different cryptocurrencies on the same exchange. A trader might convert Currency A to Currency B, then to Currency C, and back to Currency A, profiting if the final amount exceeds the starting amount. For instance, a trader might execute BTC/USDT → ETH/BTC → ETH/USDT trades in quick succession if the price relationships allow for a profit.

#### Trader

Basic

A trader is an individual who engages in the buying and selling of financial assets in any financial market, either for themselves or on behalf of another person or institution. The main difference between a trader and an investor is the duration for which the person holds the asset. Traders often make short-term trades to take advantage of small price movements, while investors typically have longer holding periods. For instance, a day trader might buy and sell stocks multiple times within a single trading day.

### Trading Platform

Basic

A trading platform is a software system used for trading securities electronically. It allows investors and traders to place trades and monitor accounts through financial intermediaries. These platforms often come with additional features like real-time quotes, charting tools, news feeds, and research access. Examples of popular trading platforms include MetaTrader, Interactive Brokers' Trader Workstation, and TD Ameritrade's thinkorswim.

#### Transaction Reporting

Basic

Some regulatory regimes require detailed reporting of crypto transactions above certain thresholds. This can apply to both the exchanges and the trading firms operating on them. Market makers might need systems in place to track and report their trading activity in compliance with these requirements.

#### **Trend**

Basic

In financial markets, a trend is the general direction in which a market or the price of an asset is moving. Trends can be long term, short term, or intermediate. They are often categorized as uptrends (prices generally rising), downtrends (prices generally falling), or sideways/horizontal trends (prices largely unchanged). Traders often use the phrase "the trend is your friend," suggesting it's profitable to trade in the same direction as the trend. For instance, in a strong uptrend, traders might look for opportunities to buy rather than sell.

## V

#### Volatility

Basic

Volatility is a measure of the frequency and severity of price movements of a security or market index. It's typically measured by the standard deviation of returns over a specified period. High volatility indicates that a security's value can potentially be spread out over a larger range of values, implying higher risk and uncertainty. For example, a stock with a beta of 1.5 is considered 50% more volatile than the overall market.

## Volume-Weighted Average Price (VWAP) Trading

Expert

VWAP trading is a strategy where traders aim to execute large orders at or better than the Volume-Weighted Average Price over a specified time period. This helps minimize market impact and achieve better overall execution prices. For instance, a market maker tasked with buying 1000 BTC might split the order into smaller pieces throughout the day, aiming to match or beat the day's VWAP.

#### Volume

Basic

Trading volume represents the total number of shares or contracts traded for a specified security during a given period. It's a measure of market activity and liquidity. High trading volumes are often associated with high liquidity and more efficient price discovery. For instance, if Apple stock trades 10 million shares in a day, that would be its trading volume for that day.









#### Wallet

In cryptocurrency, a wallet is a digital tool that allows users to store and manage their coins or tokens. It can be hardware-based or web-based. Each wallet has a public address for receiving funds and a private key for authorizing transactions. There are different types of wallets, including hot wallets (connected to the internet) and cold wallets (offline storage). For instance, a user might keep a small amount of Bitcoin in a hot wallet for daily transactions, while storing larger amounts in a cold wallet for added security.

#### Warrant

A warrant is a derivative security that gives the holder the right to purchase securities (usually equity) from the issuer at a specific price within a certain time frame. Warrants are similar to options but are typically issued by a company rather than an exchange. They're often included in new debt offerings as a "sweetener" to attract investors. For example, a company might issue a bond that comes with a warrant allowing the holder to buy the company's stock at \$50 per share for the next five years.

#### Wash Trading

Expert

Wash trading is the illegal practice of buying and selling the same financial instruments simultaneously or within a short period to create artificial market activity. This manipulative activity is typically used to inflate trading volume and can mislead other market participants. For instance, a trader might repeatedly buy and sell the same stock to create the appearance of increased interest in the security.

#### Wash Trading Detection

Expert

Wash trading, the practice of simultaneously buying and selling the same asset to create artificial volume, is unfortunately common in some crypto markets. Professional market makers need to be aware of wash trading detection methods to avoid being mistaken for wash traders and to assess true market liquidity. Detection often involves analyzing trading patterns, looking for simultaneous buy and sell orders of similar sizes from the same or related accounts.

#### Whale

Basic

A whale is a term used to describe an individual or entity that holds a large amount of cryptocurrency. Whales can significantly influence the market due to the size of their holdings. For example, a Bitcoin whale might hold thousands of BTC and can impact the market price by buying or selling large amounts in a short period.

#### Yield

Basic

Yield refers to the income return on an investment, such as the interest or dividends received from holding a security. It's usually expressed as an annual percentage rate. Different types of yields include dividend yield for stocks and yield to maturity for bonds. For example, if a stock is trading at \$100 and pays an annual dividend of \$5, its dividend yield would be 5%.

Basic

Yield Curve

A yield curve is a line that plots yields (interest rates) of bonds having equal credit quality but differing maturity dates. The most frequently reported yield curve compares three-month, two-year, five-year, 10-year, and 30-year U.S. Treasury securities. This curve is used as a benchmark for other debt in the market, such as mortgage rates or bank lending rates. A normal yield curve is upward sloping, indicating that bonds with longer maturities have higher yields.

#### **Z-Score**

**Expert** 

The Z-Score is a statistical measurement that describes a value's relationship to the mean of a group of values, measured in terms of standard deviations from the mean. In finance, the Z-Score is often used in bankruptcy prediction models and to measure the volatility of returns. For example, Altman's Z-Score is a formula for predicting the probability that a company will go into bankruptcy within two years. A Z-Score below 1.8 suggests a high probability of financial distress, while a score above 3 indicates financial health.

#### Zero-Sum Game

Expert

In finance, a zero-sum game refers to a situation in which one participant's gain is exactly balanced by another participant's loss. The net change in wealth or benefit for the entire group of participants is zero. Many derivative contracts, such as futures and options, are considered zero-sum games. For example, in a futures contract, if the buyer gains \$1000 as the price of the underlying asset increases, the seller loses exactly \$1000.

#### Zone of Support

Expert

In technical analysis, a zone of support is an area on a price chart where buying pressure is expected to be strong enough to prevent the price from falling further. Unlike a single support level, a zone of support covers a range of prices where support might be found. Traders often look for buying opportunities when prices enter a zone of support. For instance, if a stock has historically bounced back multiple times when its price fell between \$45 and \$47, this range might be considered a zone of support.

#### Zero-Coupon Bond

Basic

A zero-coupon bond is a debt security that doesn't pay interest (a coupon) but is traded at a deep discount, rendering a profit at maturity when the bond is redeemed for its full face value. These bonds have a duration equal to their maturity, making them particularly sensitive to interest rate changes. For example, a \$1,000 face value zero-coupon bond maturing in 10 years might be sold for \$600 today. The \$400 difference between the purchase price and face value represents the interest earned, which is realized when the bond matures.

#### Zone of Resistance

Expert

Similar to a zone of support, a zone of resistance in technical analysis refers to an area on a price chart where selling pressure is expected to be strong enough to prevent the price from rising further. It represents a range of prices where resistance might be encountered. Traders might look for selling opportunities when prices enter a zone of resistance. For example, if a stock has repeatedly failed to break above the \$95-\$97 range, this could be identified as a zone of resistance.