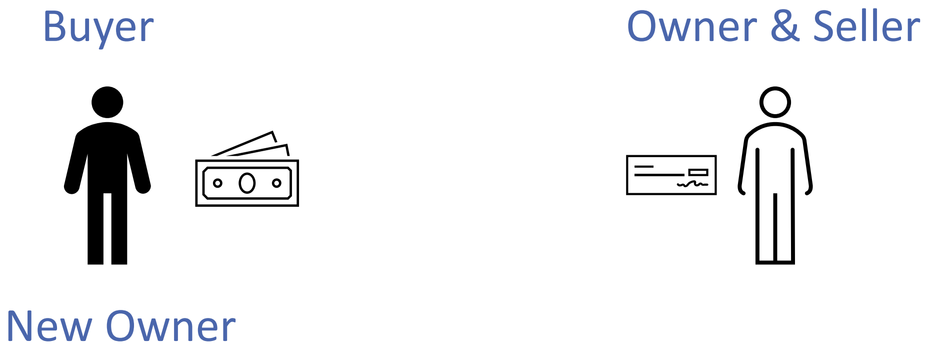
Algorithmic Trading A-Z

with Python and Machine Learning

Spot vs. Derivatives Trading

Spot Trading / Investing

“Spot trading involves ***directly purchasing or selling financial instruments and assets*** *such as cryptocurrencies, forex, stocks, or bonds. Delivery of the asset is often immediate. Spot trading occurs in spot markets, which are either exchange-based or over-the-counter (directly between traders).”* (Source: Binance.com)

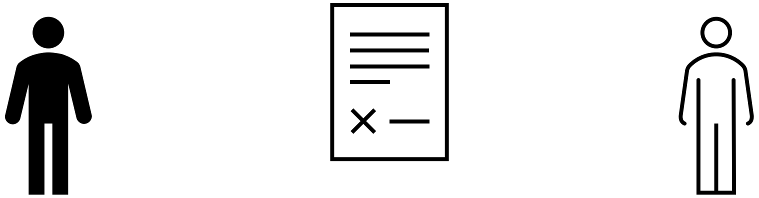


- Transfer of Ownership
- Buyer pays the full price
- Seller can only sell what he/she owns
- Major Use-Case: Buy-and-Hold

Derivatives Trading (Futures, CFDs)

"Derivatives are financial contracts, set between two or more parties, that derive their value from an underlying asset, group of assets, or benchmark" (Source: Investopedia.com)
→ It´s a bet on the future price movement of an asset (highly speculative).

Trader Contract Broker



- Trader will never become the Owner of underlying Asset.
- Trader doesn´t pay a price. He/She needs to post margin to collateralize (potential) cash settlement obligations
- Margin Requirement is typically (much) less then the price of the underlying
- → Trading with Leverage
- Trader can benefit from rising and falling prices of the underlying asset

Example (Rising Price)

Traders A and B expect the Price of Bitcoin to rise in the near Future (relative to USD). The current Bitcoin Price is USD 40,000.

Spot Trading

- Trader A is a Spot Trader. He **buys 1 Bitcoin** for USD 40,000 in the Market.
- Five Days later the Bitcoin price increased to USD 45,000
- Trader A sells the Bitcoin and realizes a Profit of USD 5,000 with an initial Investment of USD 40,000

Derivatives Trading

- Trader B is a Derivatives Trader. He bets on **rising Bitcoin prices** with a **long Contract** (BTC/USD). The Margin Requirement is 50% (USD 20,000)
- Five Days later the Bitcoin price increased to USD 45,000
- Trader B terminates/closes the contract and realizes a Profit of (approx.) USD 5,000 with an initial Investment of USD 20,000

Example (Falling Price)

Traders A and B expect the Price of Bitcoin to fall in the near Future (relative to USD). The current Bitcoin Price is USD 40,000.

Spot Trading

Spot Traders (typically) can´t directly benefit from falling prices.

Derivatives Trading

- Trader B is a Derivatives Trader. He bets on **falling Bitcoin prices** with a **short Contract** (BTC/USD). The Margin Requirement is 50% (USD 20,000)
- Five Days later the Bitcoin price slipped to USD 35,000
- Trader B terminates/closes the contract and realizes a Profit of (approx.) USD 5,000 with an initial Investment of USD 20,000

Conclusion

Spot Trading

- Benefit from rising prices only
- Buy-and-Hold and active Long-only Strategies
- (Typically) not restricted by regulators

Derivatives Trading

- Benefit from rising and falling prices
- Active Long-Short Trading Strategies
- Leverage increases Volatility and amplifies Profits and Losses
- High Leverage means High Risk
- Restricted in many countries by regulators to protect retail traders
- Different Leverage Rules/Limits for different asset classes

Is Leverage equally desirable/useful for all asset classes?

- If the Volatility of the underlying asset is low, high Leverage (30-50) can be beneficial/manageable for experienced Traders (EUR/USD)
- If the Volatility of the underlying asset is high, no or moderate Leverage (2-5) is better than high Leverage (Cryptos like Bitcoin)