

Crypto Trading & Markets: A Visual Introduction

Standalone Mini-Lecture

“Markets can remain irrational longer than you can remain solvent” – John Maynard Keynes

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This mini-lecture covers how crypto exchanges work, order books, trading strategies, risk metrics, and market structure.

How Do Crypto Exchanges Work?



A crypto exchange's matching engine connects buyers and sellers automatically, executing trades when bid and ask prices meet.

Live Order Book: ETH/USD

Price (USD)	Qty (ETH)	Total
\$2,003	2.50	\$5,007
\$2,002	1.00	\$2,002
\$2,001	0.80	\$1,600
— Spread: \$1 (0.05%) — Last: \$2,000		
\$2,000	5.00	\$10,000
\$1,999	3.20	\$6,396
\$1,998	1.50	\$2,997
\$1,995	4.00	\$7,980

Depth bars

Asks

Bids (deeper)

Key Terms

Best Bid

Highest price a buyer will pay

\$2,000

Best Ask

Lowest price a seller will accept

\$2,001

Spread

Ask minus Bid = trading cost

\$1

Depth

Volume of orders at each level

Liquidity

Market vs. Limit Orders

Market order: fills immediately at best available price (takes liquidity)

Limit order: waits in book until price is reached (adds liquidity)

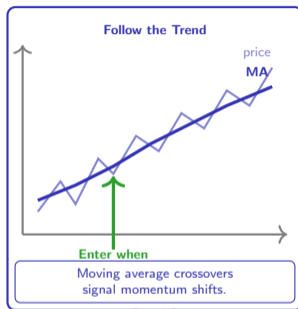
Makers earn rebates; takers pay fees

The order book shows all resting buy and sell orders. The spread is the cost of an immediate trade; deep books mean high liquidity.

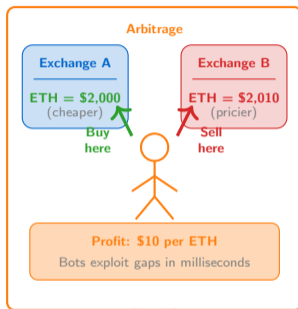
Trading Strategies for Beginners



Panel 1



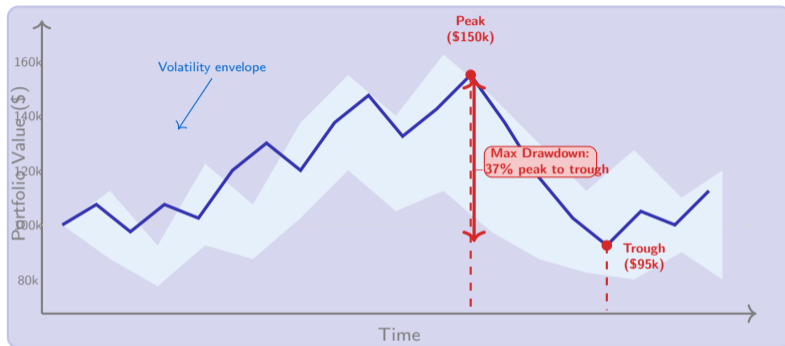
Panel 2



Panel 3

Buy-low-sell-high requires timing skill; trend following uses indicators; arbitrage exploits price differences across venues.

What is Risk?



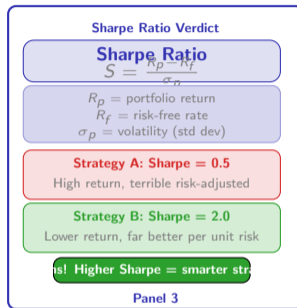
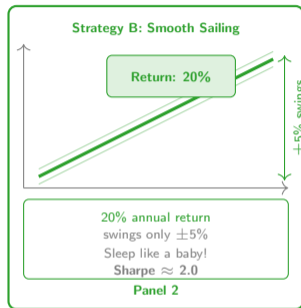
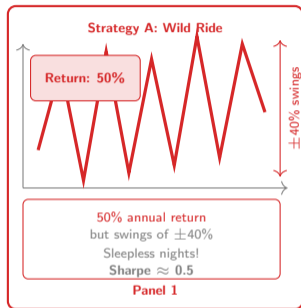
Volatility: how much value swings day to day

Max Drawdown: worst peak-to-trough loss

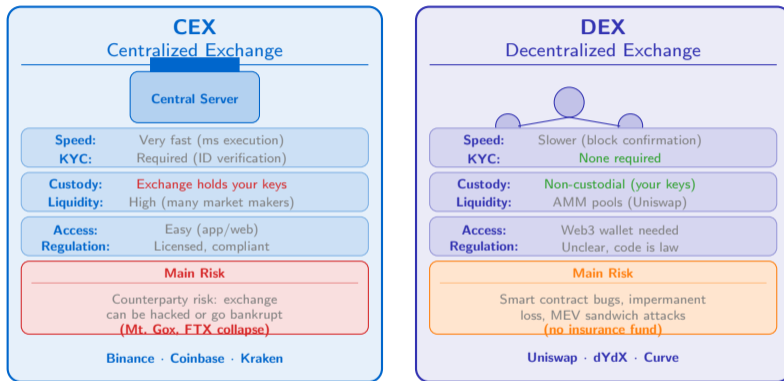
Risk \neq loss: it is uncertainty in both directions

Risk in crypto is measured as volatility (price swings) and max drawdown (worst loss from peak). High return often means high risk.

The Sharpe Ratio Explained



Sharpe Ratio = (Return – Risk-Free Rate) / Volatility. A higher Sharpe means more return per unit of risk. Target Sharpe > 1.



CEX offers speed and ease but requires trust in the operator. DEX is trustless and non-custodial but slower and technically demanding.

Market Manipulation

Step 1: Buy Wall Appears



A blue stick figure labeled "WHALE" is positioned to the left of a green-bordered box. Inside the box, the text reads "Huge BUY WALL" and "10,000 BTC BID at \$29,000".

Small traders see support:
"Price won't fall below \$29k!
Let's buy!"
Small traders pile in...

Panel 1

Step 2: Spoofing!
Whale sells at inflated price



A line graph with a vertical y-axis and a horizontal x-axis. The line starts at a low point, rises to a peak, and then falls. The rising part is blue, and the falling part is red. A red arrow points down from the peak of the red line.

Whale CANCELS buy wall
10,000 BTC order removed

This is called
SPOOFING
Place large fake order to move price, then cancel and profit.

Panel 2

Scale of the Problem

90%
of reported crypto volume may be wash-traded or fake

Other Tactics

- Pump-and-dump: coordinated hype
- Wash trading: buy/sell yourself

How to Protect Yourself

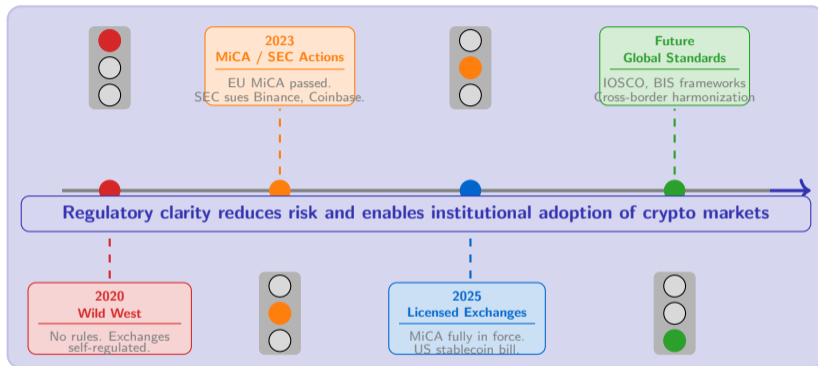
- Use regulated exchanges
- Check on-chain volume data

Skepticism is a trading edge

Panel 3

Market manipulation is rampant in crypto. Spoofing, wash trading, and pump-and-dump schemes distort prices and harm retail investors.

Regulation is Coming



Crypto is transitioning from a largely unregulated space to a licensed industry. MiCA (EU) and SEC enforcement mark the turning point.

- 1 Changes match buyers and sellers via order books; the spread and fees are the cost of trading.
 - 2 Beginner strategies: buy-the-dip, trend following, and arbitrage each carry distinct risk profiles.
 - 3 Sharpe Ratio rewards return per unit of risk: always evaluate strategy quality, not raw returns alone.
 - 4 CEX offers speed and liquidity; DEX offers self-custody and permissionless access – choose by use case.
 - 5 Market manipulation is widespread; regulation is tightening globally to protect investors.
- Next: DeFi protocols — how decentralized exchanges and liquidity pools actually work

Master the market microstructure, measure risk properly, and stay skeptical. These foundations apply to all financial markets, not just crypto.