



# Exchange

What is that?



# Basic idea

- “An act of giving one thing and receiving another (especially of the same kind) in return.” – Oxford Living Dictionaries
- Put in a currency, receive another currency back
  - With the same value
- Put in ether, receive tokens back



# Price, Spread

- Demand and Supply make the price
- Bob to Joe: „I want 10 ether, I could offer you 1000 dollar for that“
- Joe to Bob: „Well, I want to sell my 10 ether, but I want 110 dollar each“
- Ether Price: 110 us dollar
  - Demand: 100\$ each
  - Supply: 110\$ each
  - Spread: \$10 = Highest „Bid“ minus lowest „Ask“



# Limit Order vs. Market Order

- ▶ Bob and Joe posted *limit orders*
  - ▶ Sell 10 ether for \$110 each
  - ▶ Buy 10 ether for \$100 each
  - ▶ Is stored but not executed
  - ▶ Limit Order Book
  - ▶ „Market Maker“
- ▶ Bob really wants the ether: „Give me 5 of your ether, no matter how much!“
  - ▶ Bob buys 5 ether for \$110 each from Joe
  - ▶ Market Order



# Volume, Tick Data

- Bob buys 10 ether
  - Volume is 10 ether
- Tick Data
  - Every single trade
  - In contrast to e.g. candlestick chart
  - Open, High, Low, Close (OHLC)
  - Summarizes data from several trades
  - First Trade, Highest Trade, Lowest Trade, Last Trade within a time interval



# What you learned

- An exchange is a place where things can be exchanged
- A limit order is written down in the order book and executed later
  - Or Partly
- A market order is executed immediately