Session 11
Introduction to DeFi

Blockchain Protocols and Decentralized Applications

Blockchain

- Cool technology
- Who is in control?
- Who own it?
- Decentralized control
- Use cases?

DeFi

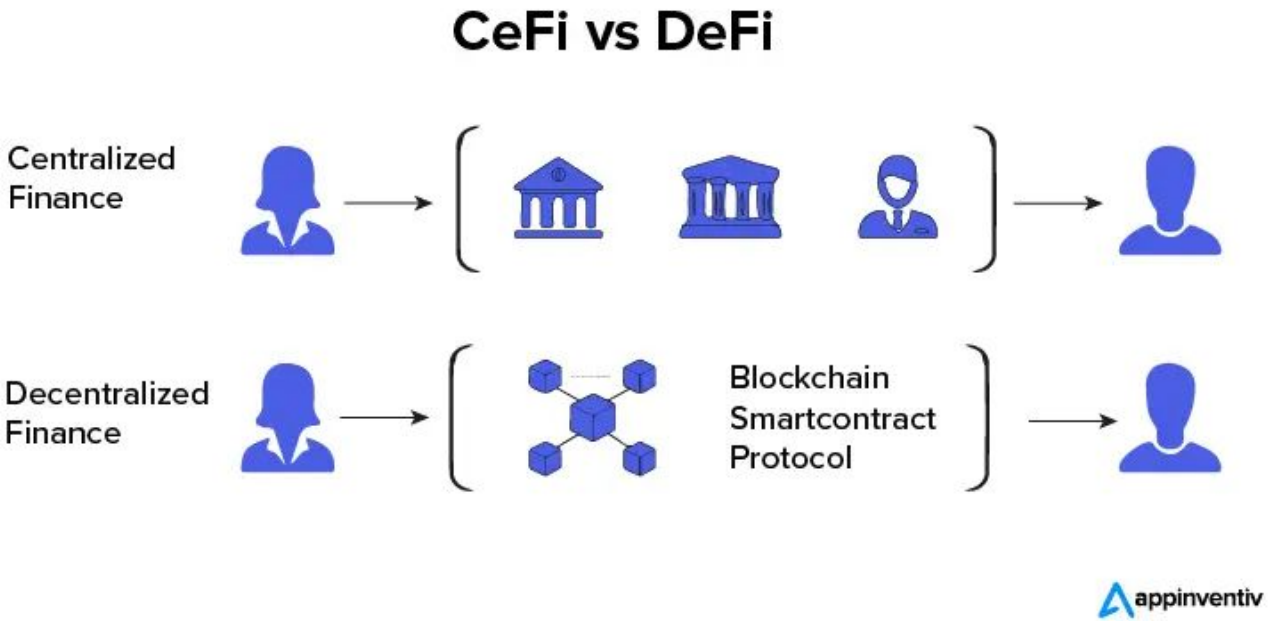
TradFi - Payments

- Classic payment: actors?
- Trust actors: bank, payment processor
- Issues:
  - Extra cost
  - Reliability issues (lack of availability, loss of funds)
- Positive side:
  - Guarantee Funds
  - Regulations

TradFi - Monetary policies

- Government/Banks powerful decisions
- Print money - inflation
- Allow Borrowing?
- Establishing the lending/borrowing rate
- Stop you from having a bank account
- Lock your funds/assets
- Payments over 5000 RON must be vetted/approved
- If business considered not legit, block access to banks
    - Ex: medicinal purposes

DeFi



https://appinventiv.com/blog/defi-vs-cefi/

DeFi

- Logic in Smart Contracts
- Decision Factor - Code
- Open to anyone
- No “blind trust” needed - just read the code
- DeFi Cost -> Blockchain Cost
- Custody: ownership
- Components:
  - Cryptography
  - Blockchain
  - Smart Contracts

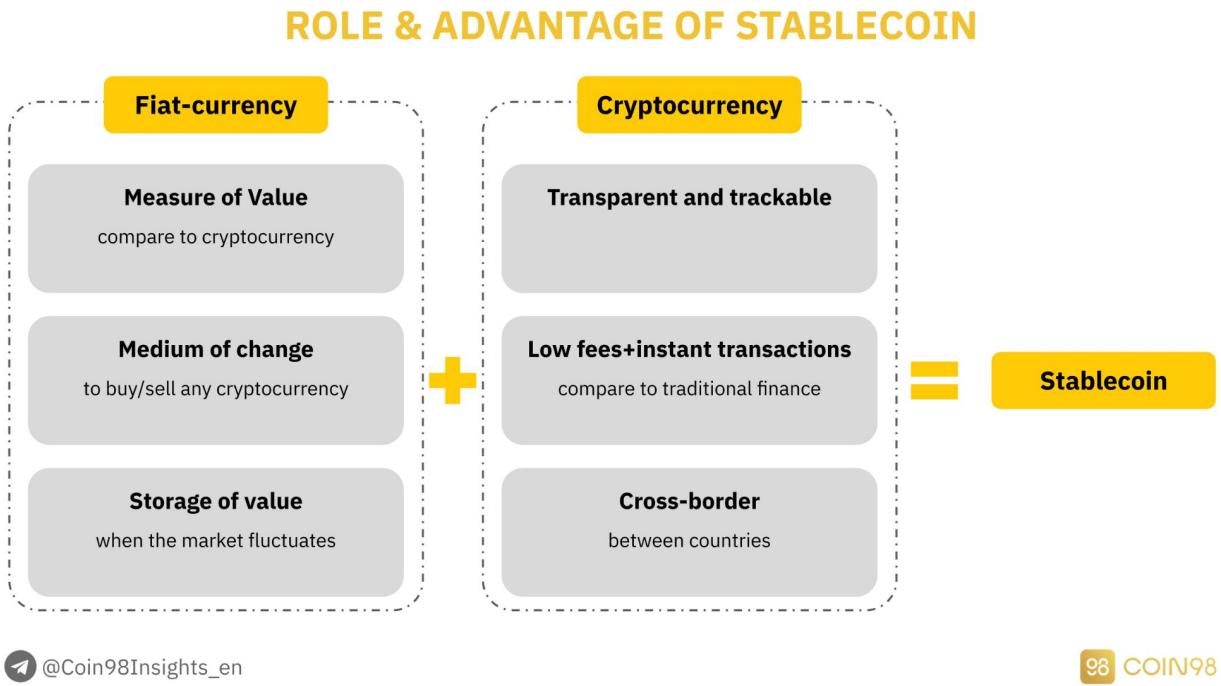
DeFi

- Permissionless
  - No necessary approval/acceptance
  - Increased Accessibility
- Trustless
  - Transparent decision making - code is king
  - Public Verification: Transparent for **ALL** transactions
- Immutability
  - Code is law

DeFi

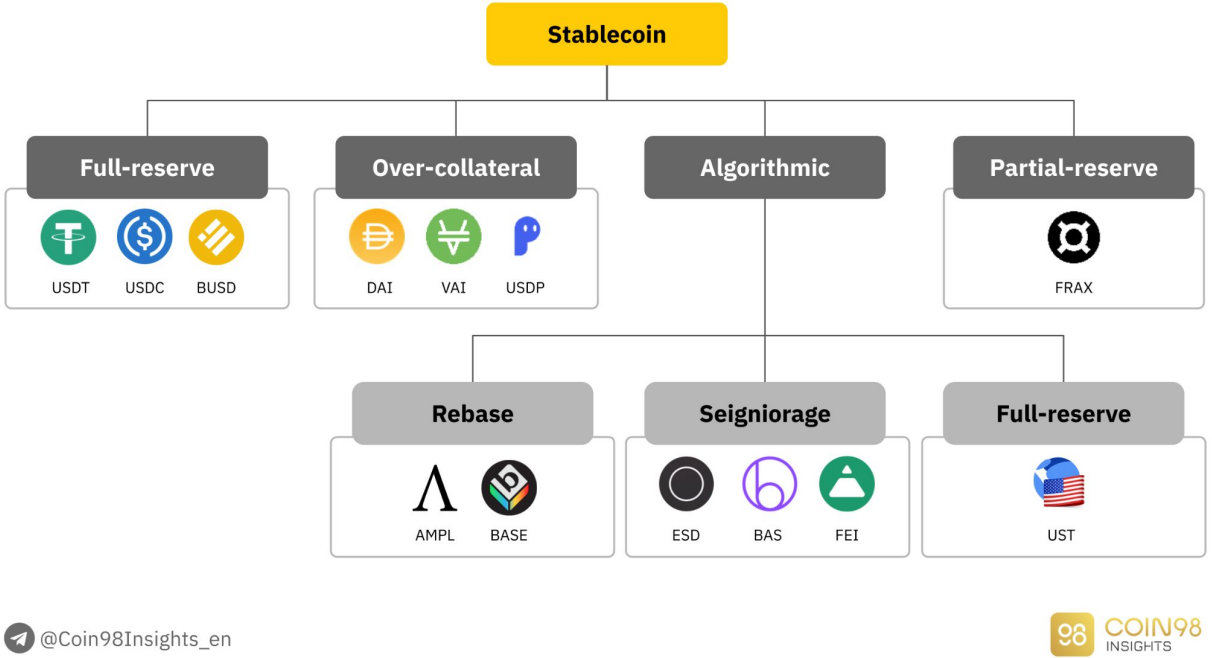
- Stablecoins
  - DAI, TETHER, USDC - 1$
  - Mint/Burn
- Lending and Borrowing
  - **Collateral**: TradFi vs DeFi
  - **Legal bound of payback**: TradFi vs DeFi
  - **Trust actor**: TradFi vs DeFi
- Decentralized Exchanges (DEX)
  - High Fees on exchanges
  - Automated Market Makers
- Insurance
  - Decision making is written in code
  - Farming example

Stablecoins



https://coin98.net/stablecoin-analysis

Stablecoins



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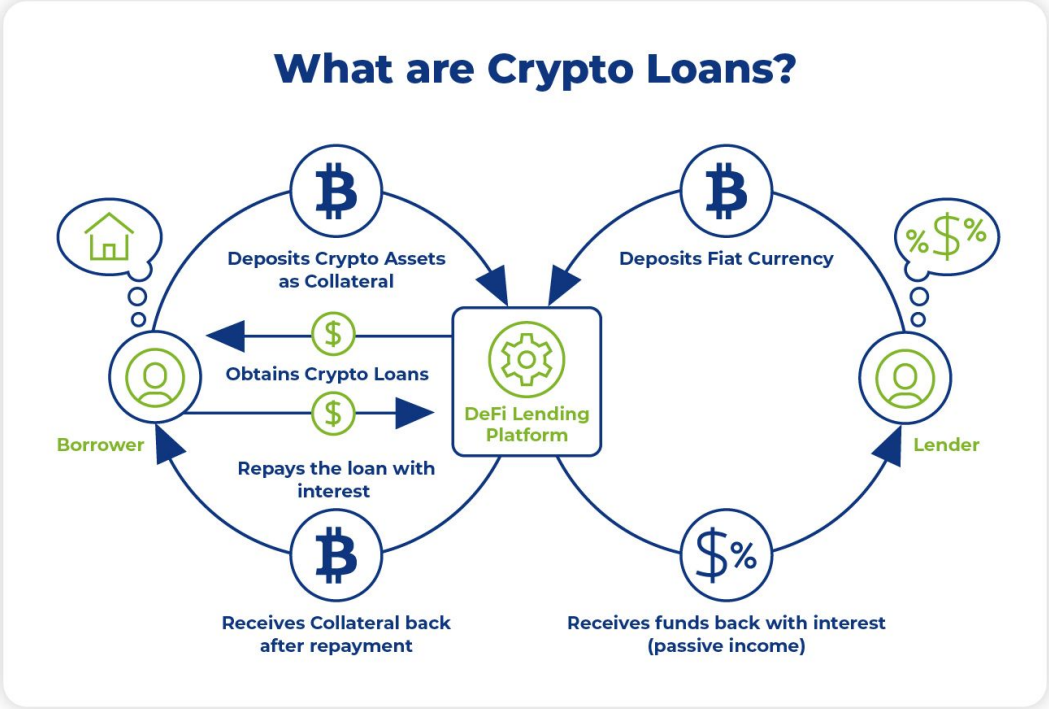
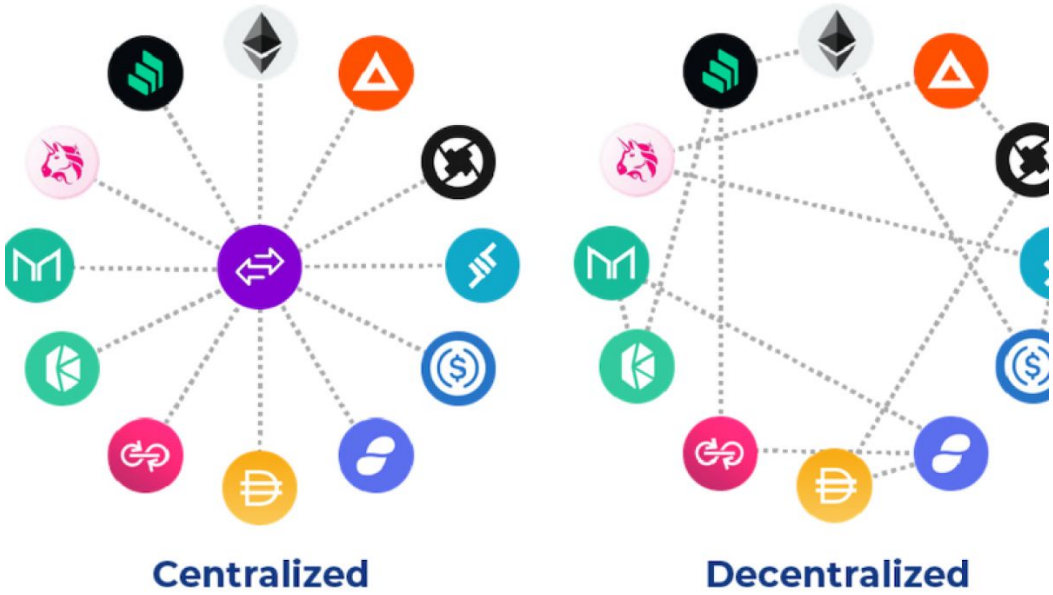
Lending and Borrowing



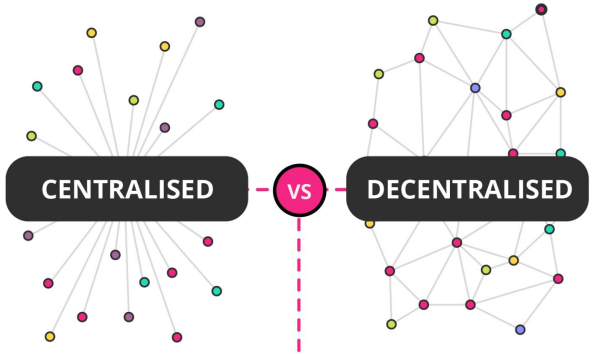
https://www.yield.app/blog/defi-lending-and-borrowing-guide

CEX vs DEX



https://medium.com/veniceswap/dex-why-the-decentralized-exchange-is-so-interesting-7b716cd0a5b5

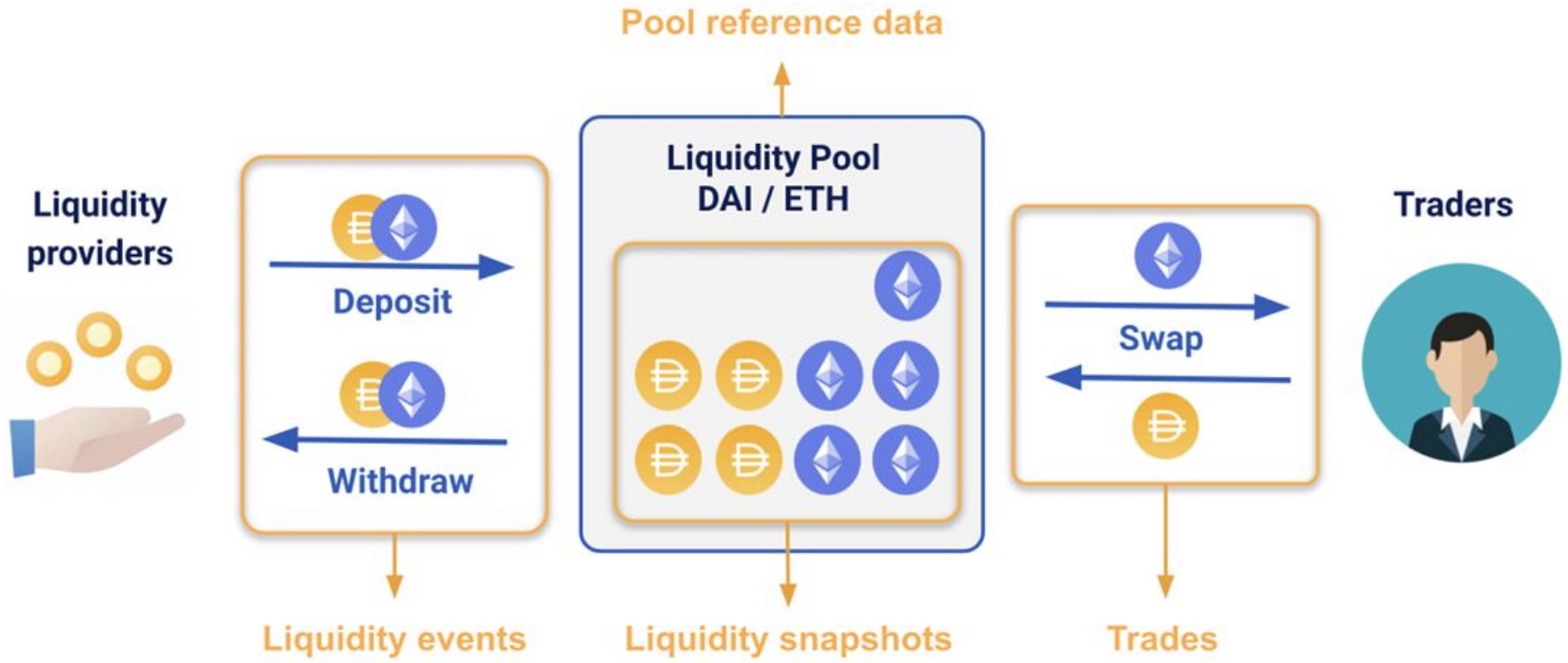
CEX vs DEX



CENTRALISED	DECENTRALISED
Exchange controls funds	User controls funds
Not anonymous	Anonymous
Hacks & server downtime	No hacks & server downtime
Easy to use	Not easy to use
Advanced tools	Basic features
Liquidity	Low liquidity

https://www.getsmarter.com/blog/market-trends/how-decentralised-exchanges-will-affect-the-cryptocurrency-market/

DEX - Liquidity Providers



https://blog.kaiko.com/dexs-diving-into-the-data-5addddd9dd7b

DEX

- Actors:
  - Liquidity Providers
  - Users wanting to swap
- Swap = Transaction on Blockchain
- Fees:
  - Fee for transaction (goes to validators)
  - Fee for swapping (goes to liquidity providers)

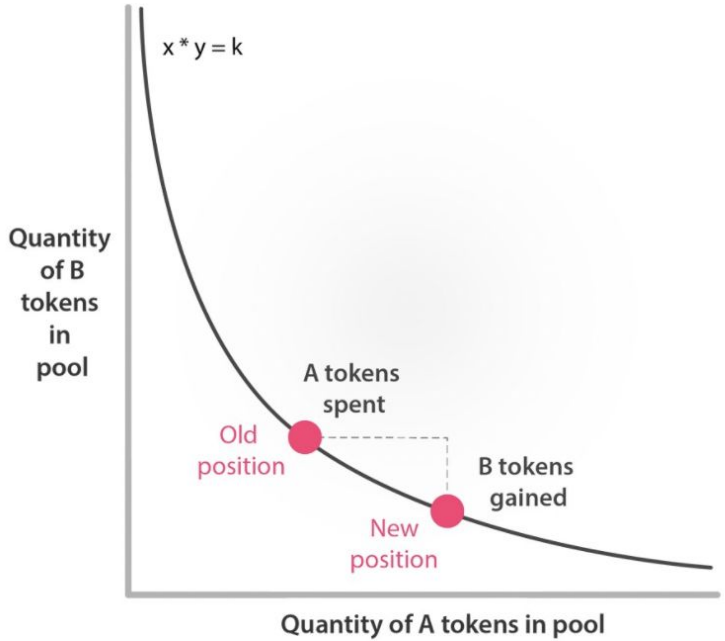
DEX

- Demo:
  - Swap
  - Create our token
  - Put a price on our token
  - Lending & Borrowing

CEX

- Exchange platforms
- Know Your Customer (KYC)
- Anti Money Laundering (AML)
- Customer support

Automated Market Makers

- Sell token A, buy token B
  - Exchange RON to EUR -> sell RON, buy EUR
- CEX exchange rate
  - Central entity (BNR, Dristor Exchange)
  - Demand and Offer (stock prices)
  - User finds price acceptable -> performs transaction
- DEX - exchange rate
  - Algorithm

Automated Market Makers