

# DeFi: Finance Without Banks

## What It Is, Why It Matters

Prof. Dr. Jörg Osterrieder

BSc Blockchain, Crypto Economy & NFTs

Spring 2026

**By the end of this lecture, you will be able to:**

1. **Explain** how DeFi replaces banks with code running on a blockchain [Understand]
2. **Describe** the DeFi stack: blockchain, tokens, protocols, apps [Understand]
3. **Compare** CeFi vs DeFi across five dimensions [Analyze]

**No math required.** Main slides use only plain English and pictures.  
Technical formulas are in the Appendix for those who want them.

---

**Bloom's levels covered: Understand, Analyze. The Appendix adds Apply for worked examples.**

# The Bank Is Closed. DeFi Is Open.

**Saturday night, 11 pm.** You need to send 50,000 dollars to a friend in another country.

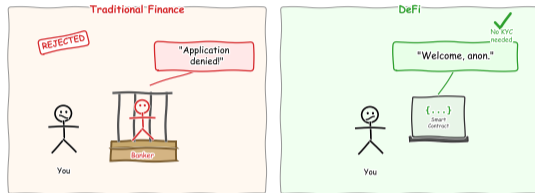
## Option A — Your Bank:

- Closed until Monday morning
- 3–5 business days to arrive
- Wire fee: 25–50 dollars

## Option B — DeFi:

- Open right now, always
- Arrives in 12 seconds
- Fee: under 50 cents

### Bank vs DeFi



Traditional finance asks for permission. DeFi asks for a wallet.

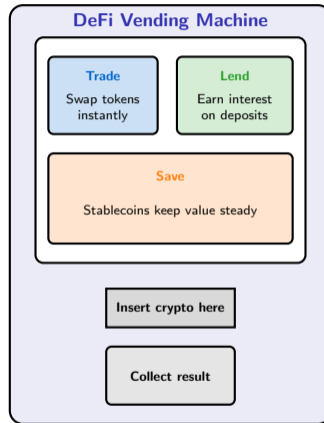
**DeFi = Decentralized Finance. Software that does what banks do, but without the bank.**

# DeFi = A Vending Machine for Finance

A vending machine does not need a cashier. It is open 24/7, serves anyone with coins, and follows the same rules every time.

- No cashier needed
- Open 24/7, serves everyone equally
- Same rules every time — no exceptions

**DeFi works the same way.** The rules are written in code called **smart contracts**. Nobody can change them secretly.



The rules are written in code called smart contracts. Nobody can change them secretly.

## Traditional Bank

- Open 9–5, Monday to Friday
- The bank holds your money
- Fees on every transaction
- Requires ID, address, paperwork

## DeFi Protocol

- Open 24 hours, 365 days
- You hold your own keys
- Low, transparent fees
- No identity required



**“Not your keys, not your coins.” In DeFi, you are your own bank — and your own security guard.**

# Step Zero: Get a Wallet

A **crypto wallet** is like a digital keychain. It stores the secret codes that prove you own your tokens.

## Hot wallet (phone app)

- Easy to use, always connected
- Like cash in your pocket

## Cold wallet (USB device)

- Offline, very secure
- Like a safe deposit box

### Your Crypto Wallet = Your Digital Mailbox



*A wallet does not store coins -- it stores the keys that control them.*

Popular hot wallets: MetaMask, Coinbase Wallet. Popular cold wallets: Ledger, Trezor.

# What DeFi Actually Does

## Trade

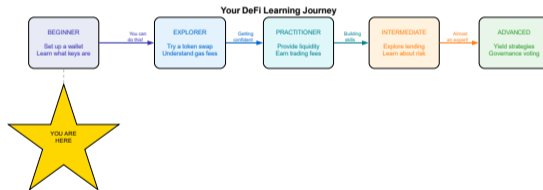
Swap one token for another instantly, like a currency exchange at the airport

## Lend

Deposit tokens and earn interest, or borrow against your crypto collateral

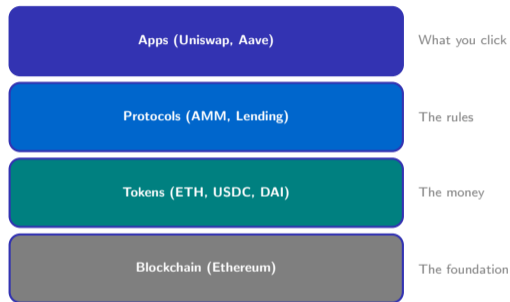
## Save

Use stablecoins pegged to the dollar so your savings do not swing wildly



These three actions — trade, lend, save — cover 90 percent of what people do in DeFi.

DeFi is built in layers, like the internet:



**Each layer builds on the one below:**

- The **blockchain** provides trust
- **Tokens** represent value
- **Protocols** define the rules
- **Apps** give you a button to click

Just like the internet is built on cables, then protocols (HTTP), then apps (your browser).

---

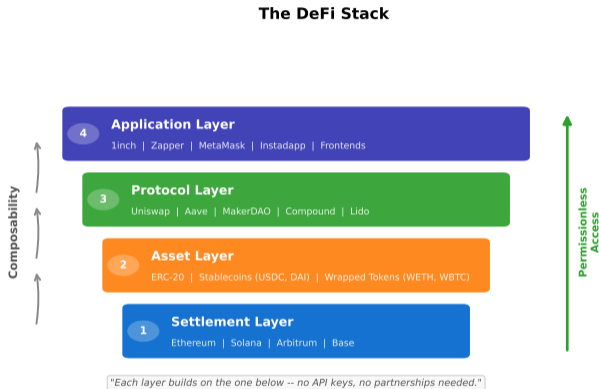
Each layer builds on the one below. This is why DeFi is called “composable” — like LEGO bricks.

## A more detailed picture:

Each layer has many real projects. You have already heard of some of them.

- **Apps** — Uniswap, Aave, Lido
- **Protocols** — AMMs, lending markets
- **Tokens** — ETH, USDC, DAI, USDS
- **Blockchain** — Ethereum, Solana, L2s

The same pattern appears on every chain.



The DeFi stack is the same idea as the internet stack: many projects at each layer, all talking to each other.

# DeFi by the Numbers (2026)

## Total Value Locked

~\$130–140B  
across all chains

## Stablecoin Market

\$311B  
total supply

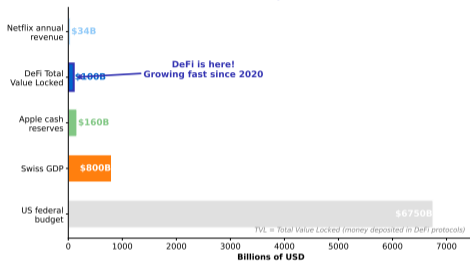
## DEX-to-CEX Volume

12–21%  
of spot trading

## DeFi Users

27.7M  
unique addresses (2025)

## DeFi TVL in Perspective (2025)

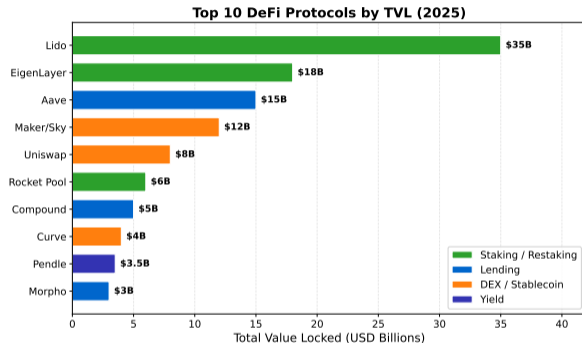


**Total Value Locked = money deposited in DeFi protocols. Think of it as the total balance across all vending machines.**

## Top protocols by TVL:

- **Lido** — liquid staking (largest)
- **Aave** — lending (\$57B TVL)
- **Sky/MakerDAO** — stablecoins (\$7.8B)
- **Uniswap** — trading (\$4B+)

These four protocols alone hold tens of billions in user deposits.



Aave V4 launched March 30, 2026. DeFi keeps evolving — these numbers change monthly.

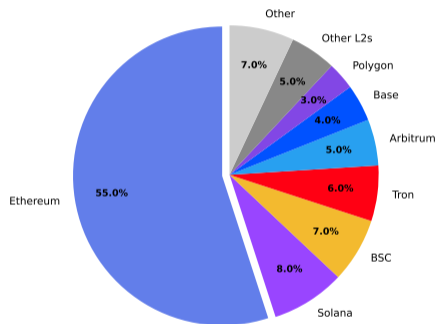
# Ethereum Dominates (But Not Alone)

Ethereum hosts roughly 68 percent of all DeFi value.

## Other chains growing fast:

- **Solana** — fast, cheap transactions
- **Arbitrum / Base** — Ethereum Layer 2s
- **BSC** — Binance Smart Chain

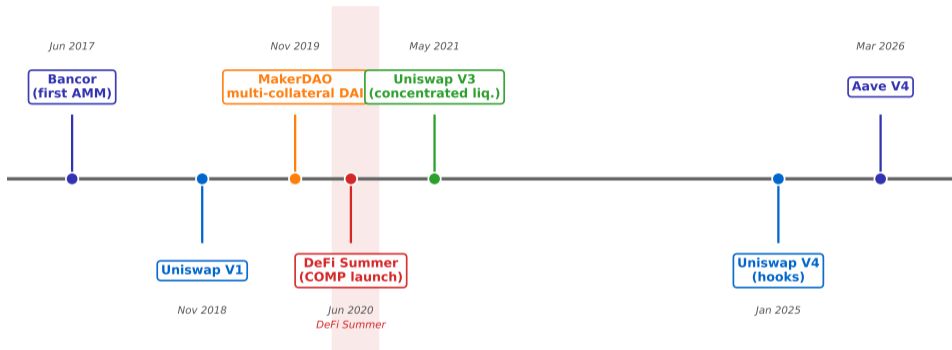
DeFi TVL Distribution by Blockchain (Dec 2024)



Ethereum maintains dominance; Layer 2s growing share rapidly

Ethereum is DeFi's home. Layer 2s like Arbitrum and Base make it cheaper.

## DeFi Milestones: From Bancor to Aave V4

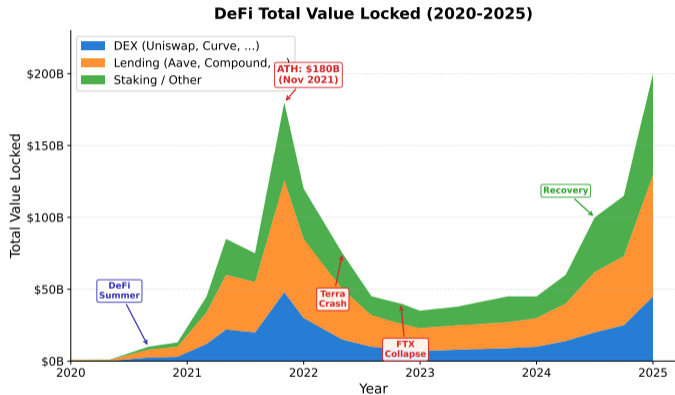


- **2017** — MakerDAO launches DAI
  - **2018** — Uniswap V1 goes live
  - **2020** — “DeFi Summer” explosion
  - **2022** — Terra crash, FTX collapse
  - **2024** — Bitcoin ETF approval
  - **2025** — Uniswap V4 launches
- DeFi went from experiment to a 130 billion dollar industry in under 10 years.

## Total Value Locked over time:

- **2018–2019** — almost zero
- **2020** — DeFi Summer lift-off
- **2021** — peak near \$180B
- **2022** — Terra/FTX crash
- **2024–26** — recovery to \$130B+

Every dip has a story. Every recovery tells you something about what survives.



TVL = Total Value Locked. It rises and falls, but the long-term trend is up.

# The Three Things DeFi Needs



Without any one of these three, DeFi cannot work.  
The blockchain provides trust. Smart contracts provide rules. Tokens provide value.

---

Without any one of these, DeFi cannot work. The blockchain is the trust layer.

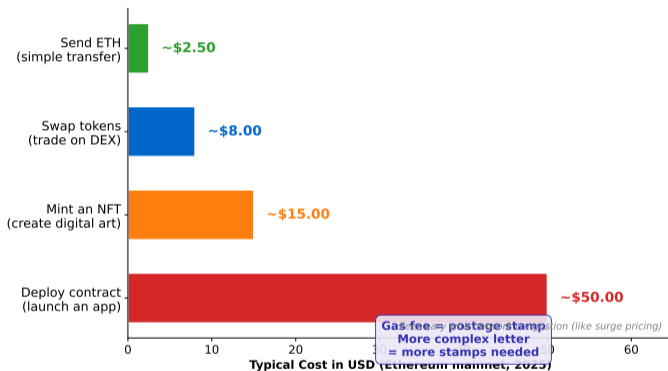
# Gas Fees: The Price of Every Transaction

Every DeFi action costs a “gas fee”.

Gas pays the blockchain network to process your transaction. Think of it like postage: small for a letter, bigger for a parcel.

- **Simple swap** — a few cents to a few dollars
- **Complex action** — can be \$10+ on busy days
- **Layer 2s** — make it 10–100x cheaper

Gas Fees: What Does Each Action Cost?



Gas = the small fee that makes the whole network run. No gas, no transaction.

# What Can Go Wrong?

## Smart Contract Bugs

Code errors can drain all funds

## Price Crashes

Collateral can lose value fast

## Scams / Rug Pulls

Fake projects steal deposits

## Regulation Risk

Governments may restrict access

### DeFi Risk Guide: Know Before You Go



#### Established Protocols

Uniswap, Aave, MakerDAO  
Audited code, years of use  
Billions in TVL

#### Newer Protocols

Less battle-tested code  
Smaller community  
Check: Is there an audit report?

#### Unknown / No Audit

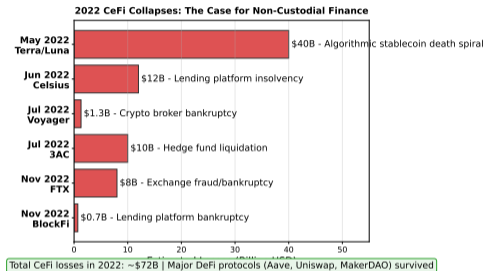
No audit, anonymous team  
"Too good to be true" APY  
You could lose everything!

DeFi removes the bank but not the risk. Understanding risks is half the skill.

## 2022: Centralized crypto failed.

- **Celsius** — froze withdrawals (\$4.7B)
- **Three Arrows** — collapsed (\$3.5B)
- **FTX** — fraud exposed (\$8B)

DeFi protocols like Aave and Uniswap kept running.  
No freeze, no fraud.



Uniswap processed 680 billion dollars in 2022. It never froze withdrawals.

Dimension	Traditional Bank (CeFi)	DeFi Protocol
Speed	1–5 business days	12 seconds
Hours	9–5, weekdays	24/7, 365 days
Custody	Bank holds your funds	You hold your keys
Transparency	Opaque (trust the bank)	Open-source code
Access	Requires ID and approval	Anyone with internet

**Neither is strictly better.**

Banks have deposit insurance and customer support.  
DeFi has composability and permissionless access.

**Neither is strictly better. Banks have deposit insurance. DeFi has composability.**



## Discussion Break: What Would You Use DeFi For?

### Send Money Abroad

Your family lives overseas.  
You want to send money  
instantly, cheaply.

### Earn on Savings

Your bank pays 0.5% interest.  
DeFi stablecoin lending  
pays 3–8%.

### Trade Without Middlemen

You want to swap tokens  
at 2 am on a Sunday.  
No broker needed.

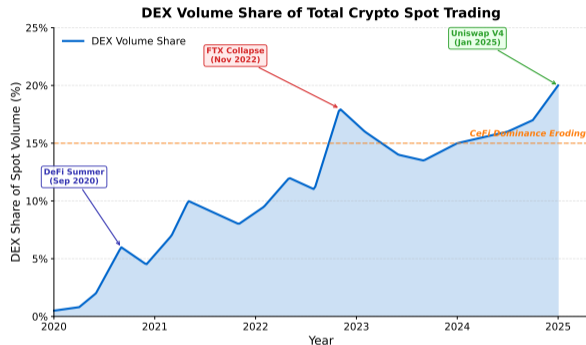
**Discuss with your neighbor (2 minutes):**

Which use case is most compelling to you? What concerns would you have?

**There are no wrong answers. The point is to think critically about where DeFi adds real value.**

## Three trends shaping DeFi:

- 1. Real-world assets on-chain**  
Tokenized bonds, real estate, and treasury bills
- 2. Institutional adoption**  
BlackRock, JPMorgan exploring DeFi rails
- 3. Layer 2 making it cheap**  
Arbitrum and Base cut fees to pennies



DEX share of spot trading grew from 1 percent in 2020 to 12–21 percent in 2026.

**You do not need to spend money.**  
Just explore. That is how you learn.  
Open your laptop and try one of these right now.

---

**You do not need to spend money. Just explore. That is how you learn.**

Visit [app.uniswap.org](https://app.uniswap.org)  
(just look — no spending); [step, fill=mlgreen!10] (S2) at (5,0) **Step 2**  
Check [defillama.com](https://defillama.com)  
for live TVL data; [step, fill=mlorange!10] (S3) at (10,0) **Step 3**  
Read a smart contract

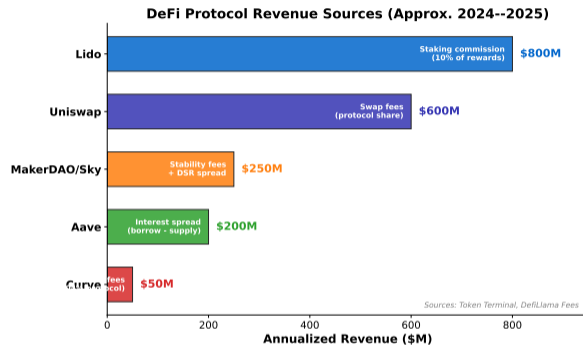
on [etherscan.io](https://etherscan.io);

# DeFi Revenue: A Real Business

Some DeFi protocols earn real revenue from real users — not just token inflation.

- **Uniswap** — fees on every swap
- **Aave** — spread on lending
- **Lido** — cut of staking rewards
- **MakerDAO** — interest on DAI loans

Uniswap exceeded 1 trillion dollars in annual volume in January 2026.



MakerDAO earned over 200 million dollars in annualized revenue in 2024, partly from US Treasury exposure.

## 1. DeFi = Financial Services as Code

Smart contracts replace banks, brokers, and exchanges. Open to anyone, anywhere, anytime.

## 2. Built on Three Pillars

Blockchain (trust) + Smart contracts (rules) + Tokens (value). Remove any one, and DeFi breaks.

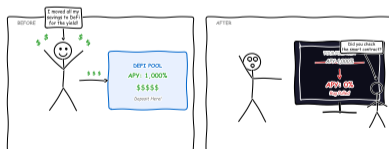
## 3. Growing Fast

Over 130 billion dollars locked. 27.7 million users. DEX volume rising from 1 percent to 21 percent.

## 4. Powerful but Risky

No deposit insurance, no customer support. Understand the risks before using real money.

DeFi Yield Farming: A Cautionary Tale



"In DeFi, if you don't understand where the yield comes from, you ARE the yield."

Next lecture: How prices set themselves in DeFi (Automated Market Makers).

## Quiz: Test Your Understanding (1/2)

**Q1. What does “DeFi” stand for?**

- A) Digital Finance   B) Decentralized Finance   C) Distributed Fintech   D) Delegated Funding

## Quiz: Test Your Understanding (1/2)

**Q1. What does “DeFi” stand for?**

A) Digital Finance   B) Decentralized Finance   C) Distributed Fintech   D) Delegated Funding

**Answer: B)** Decentralized Finance — financial services without centralized intermediaries.

**Q2. What replaces the bank in DeFi?**

A) A government agency   B) An AI system   C) Smart contracts   D) Other users

## Quiz: Test Your Understanding (1/2)

**Q1. What does “DeFi” stand for?**

- A) Digital Finance   B) Decentralized Finance   C) Distributed Fintech   D) Delegated Funding

**Answer: B)** Decentralized Finance — financial services without centralized intermediaries.

**Q2. What replaces the bank in DeFi?**

- A) A government agency   B) An AI system   C) Smart contracts   D) Other users

**Answer: C)** Smart contracts — code that executes automatically on the blockchain.

**Q3. What is a crypto wallet?**

- A) Software that stores your private keys   B) A bank account for crypto  
C) A physical safe   D) A website that holds your coins

## Quiz: Test Your Understanding (1/2)

**Q1. What does “DeFi” stand for?**

- A) Digital Finance   B) Decentralized Finance   C) Distributed Fintech   D) Delegated Funding

**Answer: B)** Decentralized Finance — financial services without centralized intermediaries.

**Q2. What replaces the bank in DeFi?**

- A) A government agency   B) An AI system   C) Smart contracts   D) Other users

**Answer: C)** Smart contracts — code that executes automatically on the blockchain.

**Q3. What is a crypto wallet?**

- A) Software that stores your private keys   B) A bank account for crypto  
C) A physical safe   D) A website that holds your coins

**Answer: A)** A wallet stores the private keys that prove you own your tokens.

**Q4. What is TVL in DeFi?**

- A) Total Virtual Leverage   B) Token Verification Layer  
C) Trading Volume Limit   D) Total Value Locked in DeFi protocols

## Quiz: Test Your Understanding (1/2)

**Q1. What does “DeFi” stand for?**

- A) Digital Finance   B) Decentralized Finance   C) Distributed Fintech   D) Delegated Funding

**Answer: B)** Decentralized Finance — financial services without centralized intermediaries.

**Q2. What replaces the bank in DeFi?**

- A) A government agency   B) An AI system   C) Smart contracts   D) Other users

**Answer: C)** Smart contracts — code that executes automatically on the blockchain.

**Q3. What is a crypto wallet?**

- A) Software that stores your private keys   B) A bank account for crypto  
C) A physical safe   D) A website that holds your coins

**Answer: A)** A wallet stores the private keys that prove you own your tokens.

**Q4. What is TVL in DeFi?**

- A) Total Virtual Leverage   B) Token Verification Layer  
C) Trading Volume Limit   D) Total Value Locked in DeFi protocols

**Answer: D)** TVL = the total dollar value of crypto deposited in DeFi protocols.

**Q5. Which blockchain hosts roughly 68 percent of DeFi TVL?**

- A) Solana   B) Ethereum   C) Bitcoin   D) Binance Smart Chain

## Quiz: Test Your Understanding (1/2)

**Q1. What does “DeFi” stand for?**

- A) Digital Finance   B) Decentralized Finance   C) Distributed Fintech   D) Delegated Funding

**Answer: B)** Decentralized Finance — financial services without centralized intermediaries.

**Q2. What replaces the bank in DeFi?**

- A) A government agency   B) An AI system   C) Smart contracts   D) Other users

**Answer: C)** Smart contracts — code that executes automatically on the blockchain.

**Q3. What is a crypto wallet?**

- A) Software that stores your private keys   B) A bank account for crypto  
C) A physical safe   D) A website that holds your coins

**Answer: A)** A wallet stores the private keys that prove you own your tokens.

**Q4. What is TVL in DeFi?**

- A) Total Virtual Leverage   B) Token Verification Layer  
C) Trading Volume Limit   D) Total Value Locked in DeFi protocols

**Answer: D)** TVL = the total dollar value of crypto deposited in DeFi protocols.

**Q5. Which blockchain hosts roughly 68 percent of DeFi TVL?**

- A) Solana   B) Ethereum   C) Bitcoin   D) Binance Smart Chain

**Answer: B)** Ethereum is the dominant DeFi blockchain by a wide margin.

## Quiz: Test Your Understanding (2/2)

**Q6. What does “not your keys, not your coins” mean?**

- A) If you don't control the private key, you don't truly own the crypto
- B) You need a physical key to access crypto
- C) Keys are tokens
- D) Banks hold better keys

## Quiz: Test Your Understanding (2/2)

**Q6. What does “not your keys, not your coins” mean?**

- A) If you don't control the private key, you don't truly own the crypto
- B) You need a physical key to access crypto
- C) Keys are tokens
- D) Banks hold better keys

**Answer: A)** Self-custody means you control your private keys — and your funds.

**Q7. Which 2022 event showed DeFi's resilience vs CeFi?**

- A) Bitcoin halving
- B) Ethereum merge
- C) FTX collapsed but Uniswap/Aave kept running
- D) MiCA regulation passed

## Quiz: Test Your Understanding (2/2)

### Q6. What does “not your keys, not your coins” mean?

- A) If you don't control the private key, you don't truly own the crypto
- B) You need a physical key to access crypto
- C) Keys are tokens
- D) Banks hold better keys

**Answer: A)** Self-custody means you control your private keys — and your funds.

### Q7. Which 2022 event showed DeFi's resilience vs CeFi?

- A) Bitcoin halving
- B) Ethereum merge
- C) FTX collapsed but Uniswap/Aave kept running
- D) MiCA regulation passed

**Answer: C)** CeFi platforms froze funds; DeFi protocols continued operating normally.

### Q8. What is composability in DeFi?

- A) Combining blockchains
- B) Protocols can plug into each other like Lego blocks
- C) Writing smart contracts
- D) Stacking tokens in a wallet

## Quiz: Test Your Understanding (2/2)

**Q6. What does “not your keys, not your coins” mean?**

- A) If you don't control the private key, you don't truly own the crypto
- B) You need a physical key to access crypto
- C) Keys are tokens
- D) Banks hold better keys

**Answer: A)** Self-custody means you control your private keys — and your funds.

**Q7. Which 2022 event showed DeFi's resilience vs CeFi?**

- A) Bitcoin halving
- B) Ethereum merge
- C) FTX collapsed but Uniswap/Aave kept running
- D) MiCA regulation passed

**Answer: C)** CeFi platforms froze funds; DeFi protocols continued operating normally.

**Q8. What is composability in DeFi?**

- A) Combining blockchains
- B) Protocols can plug into each other like Lego blocks
- C) Writing smart contracts
- D) Stacking tokens in a wallet

**Answer: B)** Composability lets you chain DeFi protocols together for new financial products.

**Q9. What is the approximate DeFi TVL in 2026?**

- A) 10 billion
- B) 50 billion
- C) 130–140 billion
- D) 1 trillion

## Quiz: Test Your Understanding (2/2)

**Q6. What does “not your keys, not your coins” mean?**

- A) If you don't control the private key, you don't truly own the crypto
- B) You need a physical key to access crypto
- C) Keys are tokens
- D) Banks hold better keys

**Answer: A)** Self-custody means you control your private keys — and your funds.

**Q7. Which 2022 event showed DeFi's resilience vs CeFi?**

- A) Bitcoin halving
- B) Ethereum merge
- C) FTX collapsed but Uniswap/Aave kept running
- D) MiCA regulation passed

**Answer: C)** CeFi platforms froze funds; DeFi protocols continued operating normally.

**Q8. What is composability in DeFi?**

- A) Combining blockchains
- B) Protocols can plug into each other like Lego blocks
- C) Writing smart contracts
- D) Stacking tokens in a wallet

**Answer: B)** Composability lets you chain DeFi protocols together for new financial products.

**Q9. What is the approximate DeFi TVL in 2026?**

- A) 10 billion
- B) 50 billion
- C) 130–140 billion
- D) 1 trillion

**Answer: C)** DeFi TVL stands at roughly 130–140 billion dollars across all chains.

**Q10. What is the main risk of DeFi compared to banks?**

- A) Slower transactions
- B) Higher fees
- C) Less composability
- D) No deposit insurance or customer support

## Quiz: Test Your Understanding (2/2)

**Q6. What does “not your keys, not your coins” mean?**

- A) If you don't control the private key, you don't truly own the crypto
- B) You need a physical key to access crypto
- C) Keys are tokens
- D) Banks hold better keys

**Answer: A)** Self-custody means you control your private keys — and your funds.

**Q7. Which 2022 event showed DeFi's resilience vs CeFi?**

- A) Bitcoin halving
- B) Ethereum merge
- C) FTX collapsed but Uniswap/Aave kept running
- D) MiCA regulation passed

**Answer: C)** CeFi platforms froze funds; DeFi protocols continued operating normally.

**Q8. What is composability in DeFi?**

- A) Combining blockchains
- B) Protocols can plug into each other like Lego blocks
- C) Writing smart contracts
- D) Stacking tokens in a wallet

**Answer: B)** Composability lets you chain DeFi protocols together for new financial products.

**Q9. What is the approximate DeFi TVL in 2026?**

- A) 10 billion
- B) 50 billion
- C) 130–140 billion
- D) 1 trillion

**Answer: C)** DeFi TVL stands at roughly 130–140 billion dollars across all chains.

**Q10. What is the main risk of DeFi compared to banks?**

- A) Slower transactions
- B) Higher fees
- C) Less composability
- D) No deposit insurance or customer support

**Answer: D)** In DeFi, there is no safety net. If you lose your keys or get hacked, nobody can help.

# Appendix

## Technical Deep Dives

The details behind the intuition

Click [blue links](#) in appendix slides to jump back to the main deck.

# A1: How Smart Contracts Work

A smart contract is a program stored on the blockchain that executes automatically when conditions are met.

```
// Pseudocode: A simple lending contract

function deposit(amount):
  store amount in pool
  issue receipt token to user

function borrow(collateral):
  if collateral >= minimum_ratio:
    send loan to user
  else:
    reject --- not enough collateral

function liquidate(user):
  if user.health_factor < 1.0:
    sell collateral, repay debt
```

# A1: How Smart Contracts Work

A smart contract is a program stored on the blockchain that executes automatically when conditions are met.

```
// Pseudocode: A simple lending contract

function deposit(amount):
  store amount in pool
  issue receipt token to user

function borrow(collateral):
  if collateral >= minimum_ratio:
    send loan to user
  else:
    reject --- not enough collateral

function liquidate(user):
  if user.health_factor < 1.0:
    sell collateral, repay debt
```

## Key properties:

- **Deterministic** — same input always gives same output
- **Immutable** — once deployed, the code cannot be changed
- **Transparent** — anyone can read the code on-chain

← [Back to main slide: DeFi = A Vending Machine](#)

---

**Solidity is the most popular smart contract language. Over 5 million contracts are deployed on Ethereum.**

**Aggregators:** 1inch, Paraswap, Zapper — route trades across multiple DEXs

**Applications:** Uniswap (trading), Aave (lending), Lido (staking), MakerDAO (stablecoins)

**Protocols:** AMM ( $x*y=k$ ), Lending (collateral ratios), Oracles (Chainlink price feeds)

**Token Standards:** ERC-20 (fungible), ERC-721 (NFTs), ERC-4626 (tokenized vaults)

**Consensus:** Proof of Stake (Ethereum), validators, 12-second block time

**Network:** Ethereum mainnet, Layer 2s (Arbitrum, Base, Optimism), sidechains

**Aggregators:** 1inch, Paraswap, Zapper — route trades across multiple DEXs

**Applications:** Uniswap (trading), Aave (lending), Lido (staking), MakerDAO (stablecoins)

**Protocols:** AMM ( $x*y=k$ ), Lending (collateral ratios), Oracles (Chainlink price feeds)

**Token Standards:** ERC-20 (fungible), ERC-721 (NFTs), ERC-4626 (tokenized vaults)

**Consensus:** Proof of Stake (Ethereum), validators, 12-second block time

**Network:** Ethereum mainnet, Layer 2s (Arbitrum, Base, Optimism), sidechains

Each layer has specialized protocols. A single DeFi transaction may touch all six layers: user clicks aggregator → aggregator queries multiple DEXs → best-price DEX executes AMM logic → tokens transfer via ERC-20 → transaction validated by PoS → settlement on Ethereum.

[← Back to main slide: The DeFi Building Blocks](#)

**The modular stack is what makes DeFi composable. Each layer can be upgraded independently.**

## 1. PROBLEM:

Traditional finance requires trusted intermediaries (banks, brokers). They can freeze funds, charge high fees, and exclude billions of unbanked people.

## 2. INCENTIVES:

Liquidity providers earn trading fees. Validators earn block rewards. Arbitrageurs keep prices accurate across markets.

## 3. BENEFITS / COSTS:

**Benefits:** Permissionless access, 24/7 operation, transparency, composability.

**Costs:** Smart contract risk, no insurance, gas fees, complexity.

← [Back to main slide: The Three Things DeFi Needs](#)

## 4. FAILURE MODE:

Smart contract bugs (3.41 billion dollars hacked in 2025). Oracle manipulation. Cascading liquidations (Black Thursday 2020). Governance attacks.

## 5. DESIGN CHOICES:

Permissionless vs permissioned. Immutable vs upgradeable contracts. On-chain vs off-chain governance. Overcollateralization vs algorithmic stability.

## 6. ALTERNATIVES:

CeFi (Coinbase, Binance), TradFi (banks), hybrid models (tokenized securities on permissioned chains), CBDCs.

---

The cryptoeconomics lens asks: who pays, who gains, and what breaks? Apply these 6 questions to every DeFi protocol.

## A4: Further Reading and Resources

Explore DeFi (no spending required):

Resource	What You'll Find
<a href="https://defillama.com">defillama.com</a>	Live TVL data for every DeFi protocol and chain
<a href="https://app.uniswap.org">app.uniswap.org</a>	The largest DEX — browse token pairs and prices
<a href="https://aave.com">aave.com</a>	Leading lending protocol — see rates and markets
<a href="https://ethereum.org/defi">ethereum.org/defi</a>	Official Ethereum Foundation DeFi explainer
<a href="https://etherscan.io">etherscan.io</a>	Read smart contracts and track transactions
<a href="https://12beat.com">12beat.com</a>	Layer 2 TVL, risk analysis, and comparisons

Recommended reading:

- Campbell Harvey et al., *DeFi and the Future of Finance* (2021)
- Ethereum Foundation, *What is DeFi?* — [ethereum.org/defi](https://ethereum.org/defi)

---

Start with [defillama.com](https://defillama.com) to see where the money is. Then explore protocols one at a time.