

DeFi for Beginners: A Visual Introduction

No Math, No Jargon – Just the Essentials

Prof. Dr. Jörg Osterrieder

BSc Blockchain, Crypto Economy & NFTs

Spring 2026

DeFi = Decentralized Finance

- Financial services (trading, lending, saving) that run on **blockchain code** instead of banks
- **No middleman** – software does what bankers used to do
- Open to anyone with an internet connection
- Available **24/7**, no business hours

Think of it like this:

- Traditional finance = calling a taxi dispatcher
- DeFi = using a ride-sharing app directly
- The “app” is a **smart contract**: code that runs automatically on a blockchain

Key fact: Over \$100 billion is currently deposited in DeFi protocols worldwide.

DeFi removes intermediaries by replacing them with transparent, auditable computer code.

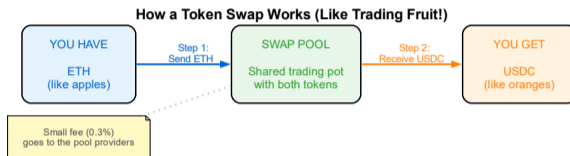
Your Crypto Wallet = Your Digital Mailbox



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

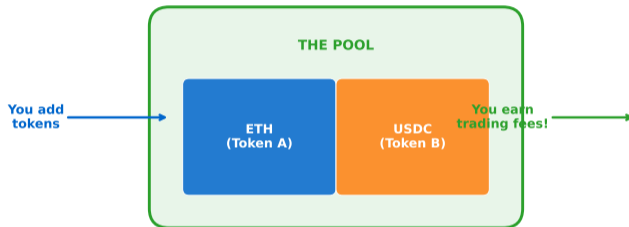
Before using DeFi, you need a wallet. It stores your keys, not your coins. MetaMask is the most popular choice.

Trading: How a Token Swap Works



A swap is the simplest DeFi action: exchange one token for another, instantly, without an account.

Liquidity Pool = Shared Trading Pot



Traders swap tokens from this pool and pay a small fee.

You get a share of those fees for providing your tokens.

Liquidity pools replace traditional order books. Anyone can contribute tokens and earn a share of trading fees.

TRADE

Swap one token for another on a **DEX** (decentralized exchange).

Like: currency exchange at the airport, but automated.

Examples:

Uniswap, Curve

LEND / BORROW

Deposit tokens to earn interest, or borrow against collateral.

Like: a savings account and a pawn shop, combined.

Examples:

Aave, Compound

SAVE

Use stablecoins (tokens worth \$1) to earn yield without price swings.

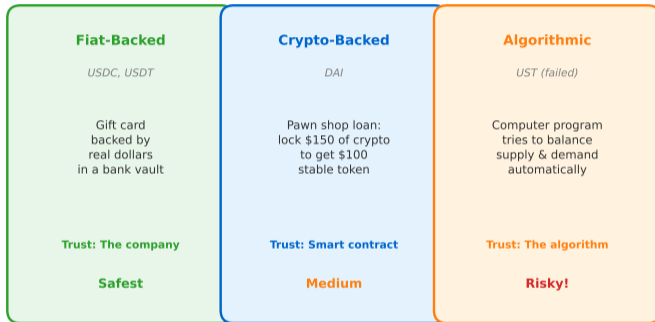
Like: a high-interest savings account, but on-chain.

Examples:

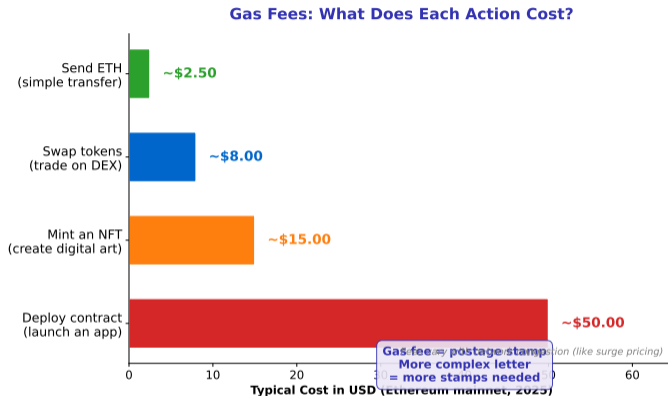
USDC, DAI

These three services form the foundation of DeFi. Everything else builds on top of them.

How to Keep a Token Worth \$1



Stablecoins are the “cash” of DeFi. Fiat-backed (USDC) is the safest type for beginners.



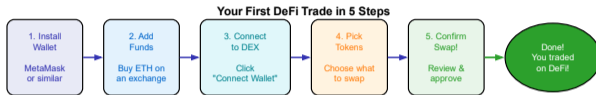
Gas fees pay the network validators who process your transaction. Busier network = higher fees.

CEX vs DEX: Two Ways to Trade



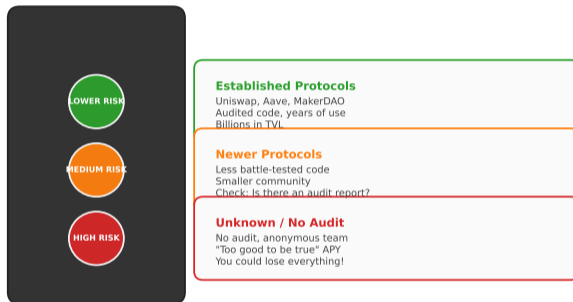
Most beginners start on a CEX (Coinbase), then graduate to DEXs (Uniswap) as they learn.

Try It: Your First DeFi Trade



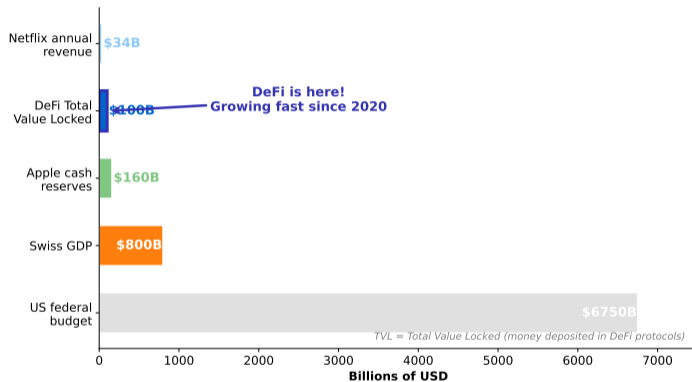
Start with a small amount on a test network (Sepolia) before using real money.

DeFi Risk Guide: Know Before You Go



Rule of thumb: if the promised returns sound too good to be true, they probably are.

DeFi TVL in Perspective (2025)



TVL (Total Value Locked) measures how much money users have deposited. DeFi grew from near zero in 2019 to over \$100B.

Four Rules for Beginners:

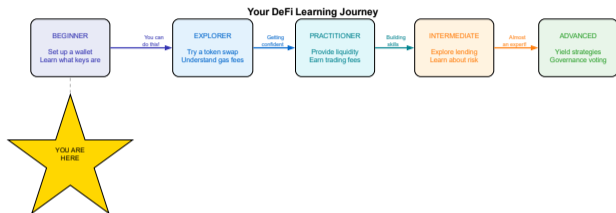
1. **Never share your private key** – not with anyone, not with any website
2. **Start small** – use test networks or small amounts until you are comfortable
3. **Check the protocol** – use only audited, well-known platforms
4. **Bookmark official sites** – phishing sites look identical to real ones

Recommended first steps:

1. Install MetaMask browser extension
2. Switch to Sepolia test network
3. Get free test ETH from a faucet
4. Try a swap on Uniswap (testnet)
5. Explore Etherscan to see your transactions

All of this is free and risk-free on a test network!

The safest way to learn DeFi is on a test network where tokens have no real value.



There is no rush. Take one step at a time and build confidence before moving to the next level.

What you learned today:

1. **DeFi** replaces banks with code – open, 24/7, no middleman
2. A **wallet** stores your keys (public = address, private = password)
3. **Swaps, lending, stablecoins** are the three core services
4. **Gas fees** pay for network processing

What to do next:

- Install MetaMask and explore
- Try a swap on a test network
- Read the main DeFi lecture for deeper understanding
- Check the **DeFi Deep Dive** addendum for advanced charts

Remember: everyone was a beginner once. The DeFi community is welcoming and the documentation is improving every day.

DeFi is complex, but the basics are simple: wallets hold keys, pools enable trading, code replaces bankers.