

Stablecoins

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Course content

You will learn:

- How Stablecoins work
- Different types of Stablecoins
- Design considerations to create Stablecoins
- How to create a Stablecoin



Pre requisites

You will need

- Introduction to Smart contracts course
- Introduction to Tokens course

Introduction to Stablecoins

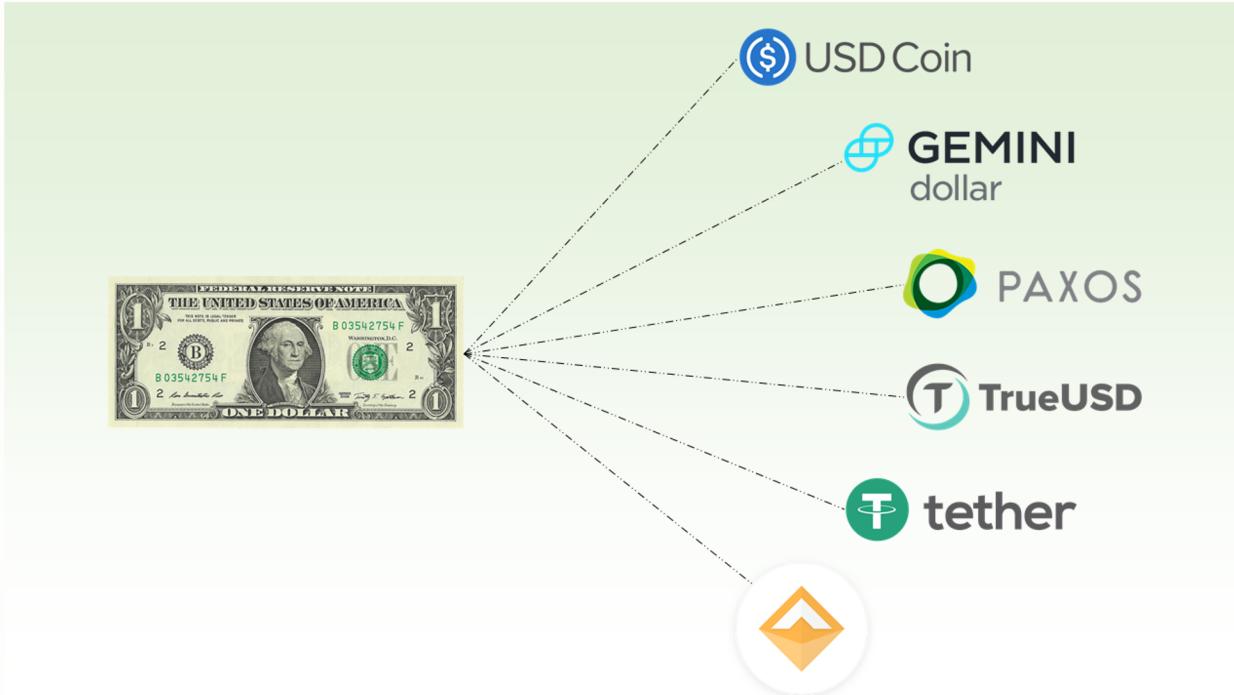
Overview of Stablecoins in Ethereum



The need of Stablecoins



What is a Stablecoin?



Top Stablecoins

#	Coin		Price	24h Volume	Exchanges	Market Capitalization	30d	Last 30 Days Circulation
★ 1	Tether	USDT	\$1.00	\$65,808,799,727	403	\$69,120,533,346	4.6%	
★ 2	USD Coin	USDC	\$1.00	\$2,117,418,066	262	\$32,213,684,223	16.6%	
☆ 3	Binance USD	BUSD	\$1.00	\$4,201,679,332	88	\$13,147,632,247	4.6%	
★ 4	Dai	DAI	\$1.00	\$279,675,902	199	\$6,242,834,261	2.8%	
☆ 5	TerraUSD	UST	\$1.00	\$70,957,115	13	\$2,685,173,528	10.7%	
☆ 6	TrueUSD	TUSD	\$1.00	\$69,426,669	151	\$1,347,465,791	-2.5%	
☆ 7	Pax Dollar	USDP	\$1.01	\$19,733,922	89	\$919,793,683	-5.1%	
☆ 8	Liquity USD	LUSD	\$1.00	\$4,783,650	6	\$593,607,734	-3.3%	
☆ 9	Neutrino USD	USDN	\$0.986673	\$13,929,068	13	\$542,211,211	10.4%	
☆ 10	Fei Protocol	FEI	\$1.00	\$30,191,673	10	\$511,393,817	24.1%	

Types of Stablecoins

- Backed by Fiat
- Backed by a Commodity
- Backed by Collateral or Cryptocurrency
- Algorithmic

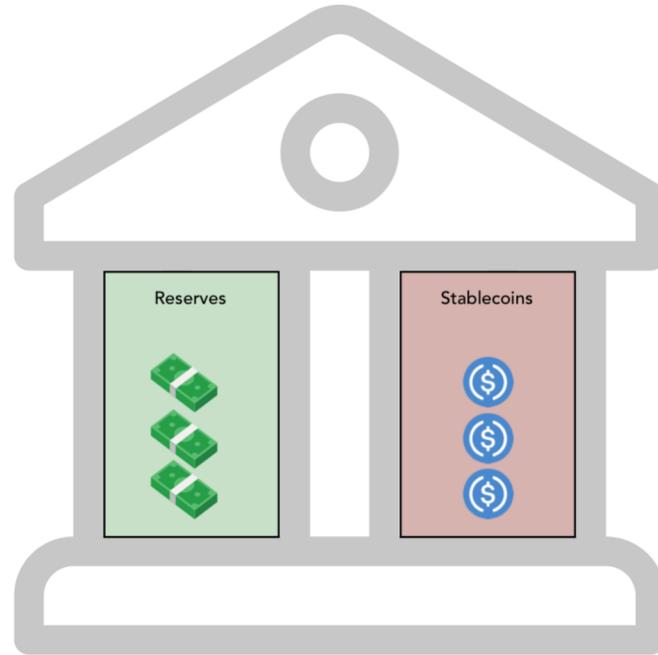
Other types of Stablecoins

- Backed by Delta Neutral Positions
- Algorithmic
 - Seigniorage Share
 - Partially collateralized
 - Rebase style

Stablecoins: Backed by Fiat



Stablecoins: Backed by Fiat



Stablecoins: Backed by Fiat

Pros

- Simplicity
- Price Stability

Cons

- Centralized
- Highly regulated
- Lack of transparency

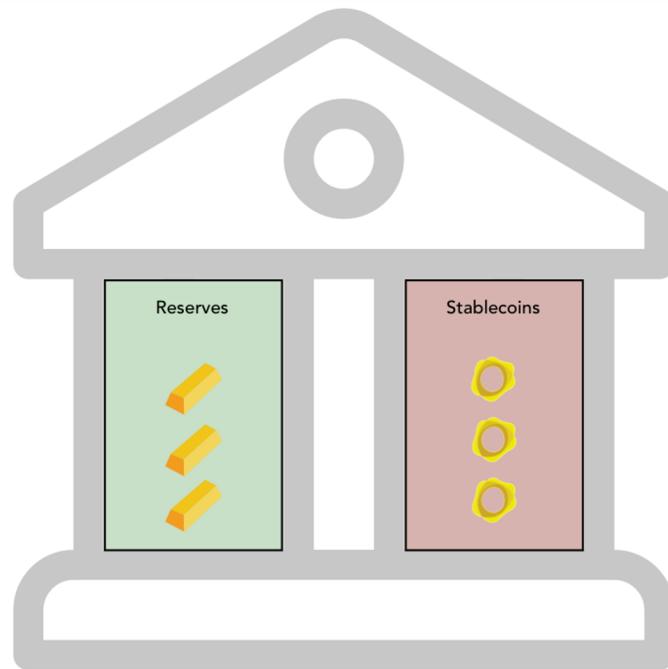
Stablecoins: Backed by a Commodity



A digital token, backed by physical gold

PAX Gold (PAXG) is a digital asset. Each token is backed by one fine troy ounce (t oz) of a 400 oz London Good Delivery gold bar, stored in Brink's vaults. If you own PAXG, you own the underlying physical gold, held in custody by Paxos Trust Company.

Stablecoins: Backed by a Commodity



Stablecoins: Backed by Commodity

Pros

- Simplicity
- Price Stability

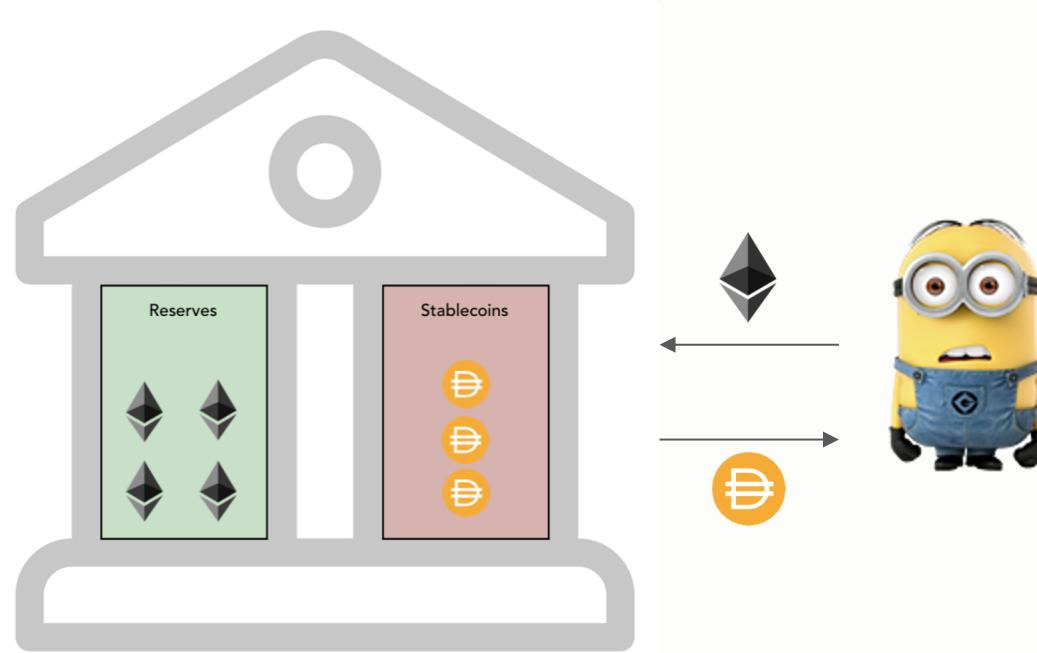
Cons

- Centralized
- Highly regulated
- Lack of transparency

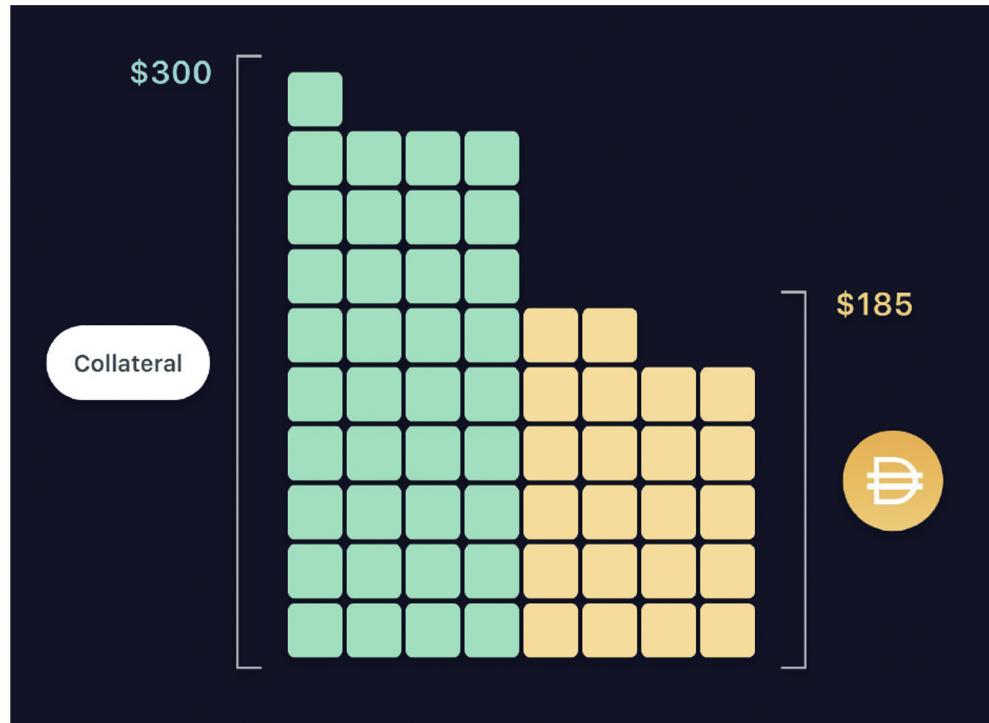
Stablecoins: Backed by a Collateral



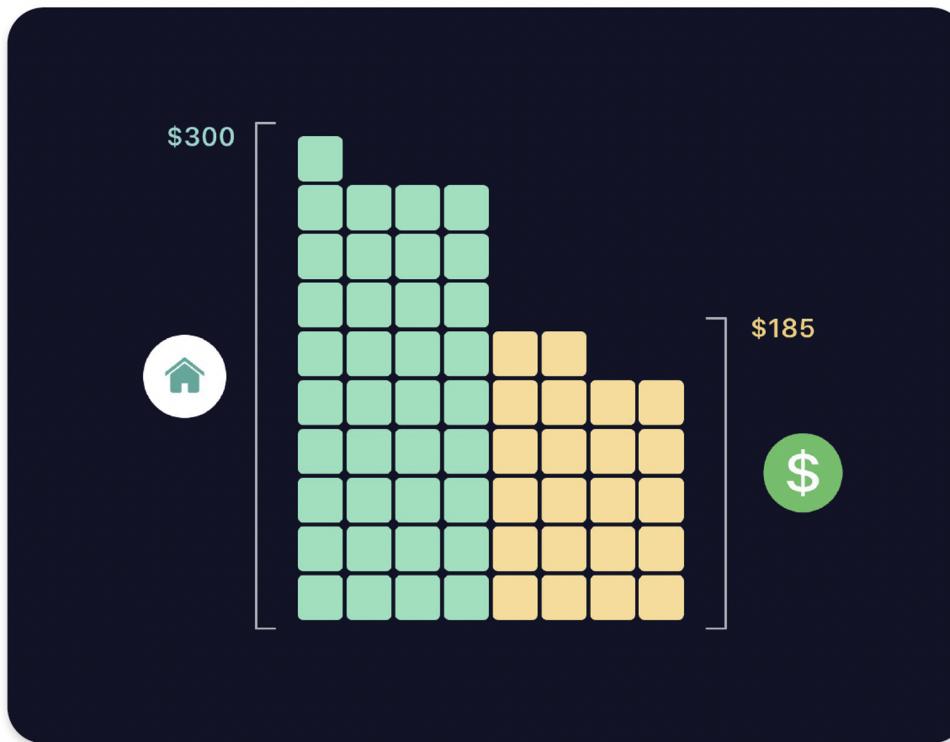
Stablecoins: Backed by a Collateral



Stablecoins: Backed by a Collateral



Stablecoins: Backed by a Collateral



Liquidations

Collateral ratio will tell us how much worth of collateral we need to deposit for each unit of Stablecoin.

For example, 150% collateral ratio means:

For each **100 DAI**

we need to lock **\$150** worth of ETH

Liquidations

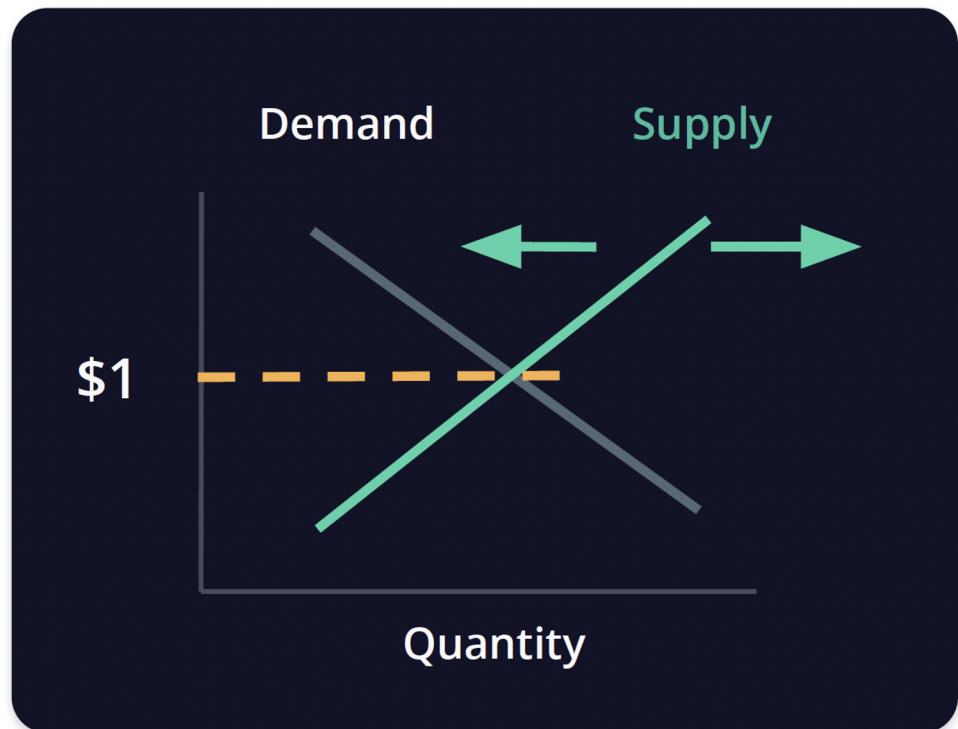


Keeping the Peg

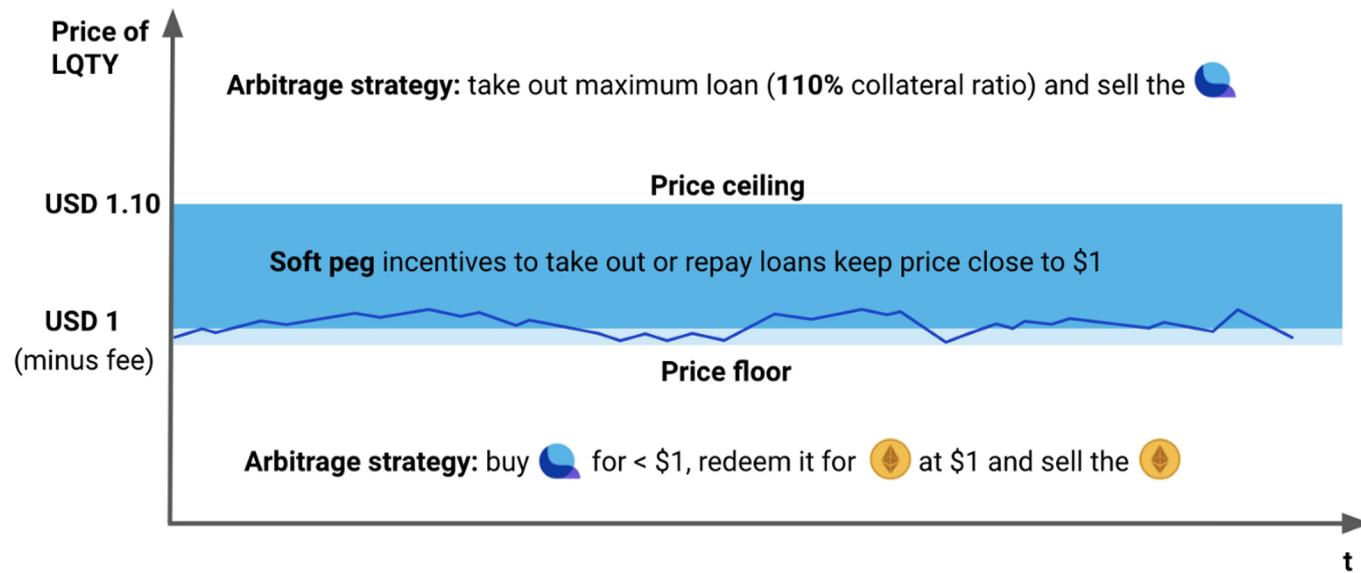
**How do we ensure
the Stablecoin is worth \$1?**

Keeping the Peg: DAI

How do we ensure
the Stablecoin is worth \$1?



Keeping the Peg: Liquity



Stablecoins: Backed by Collateral

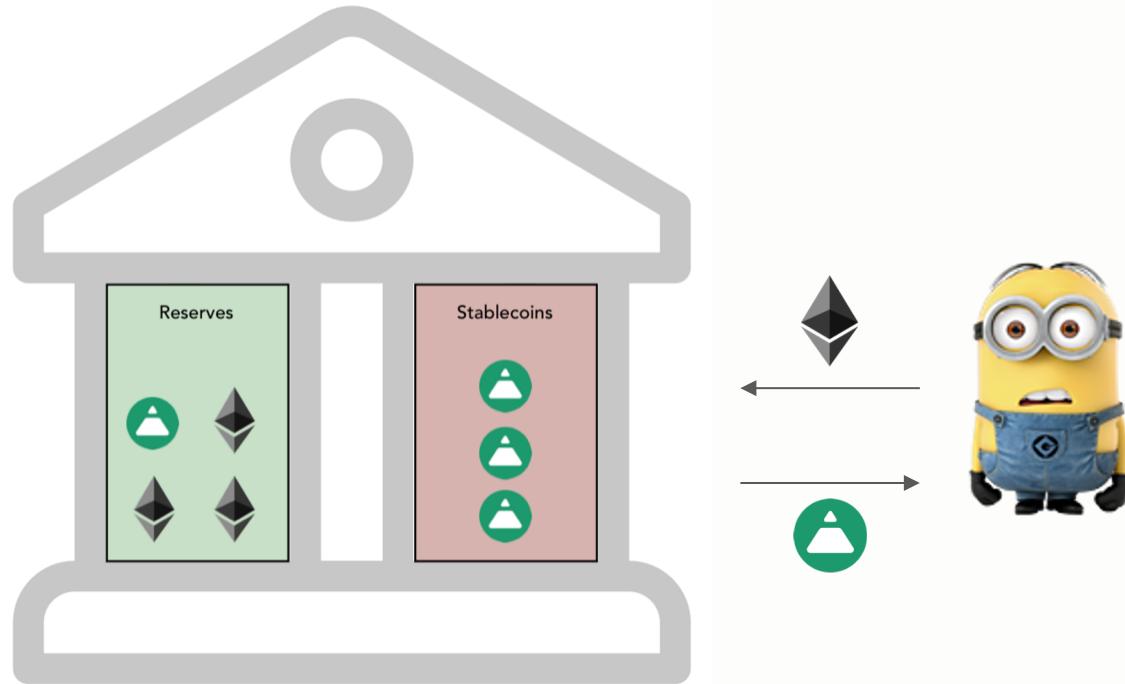
Pros

- More decentralized
- Transparency

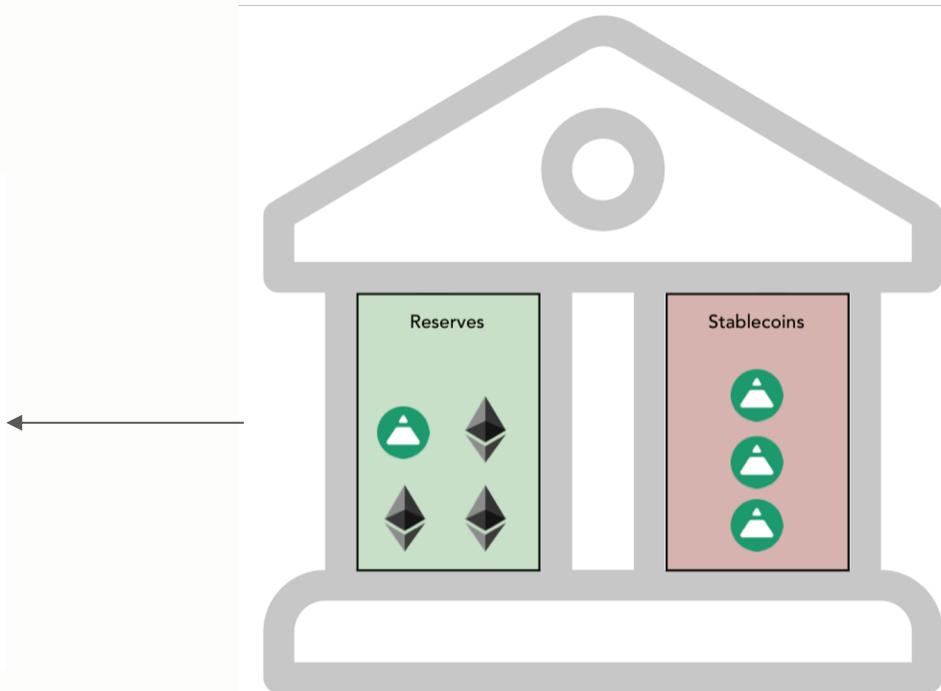
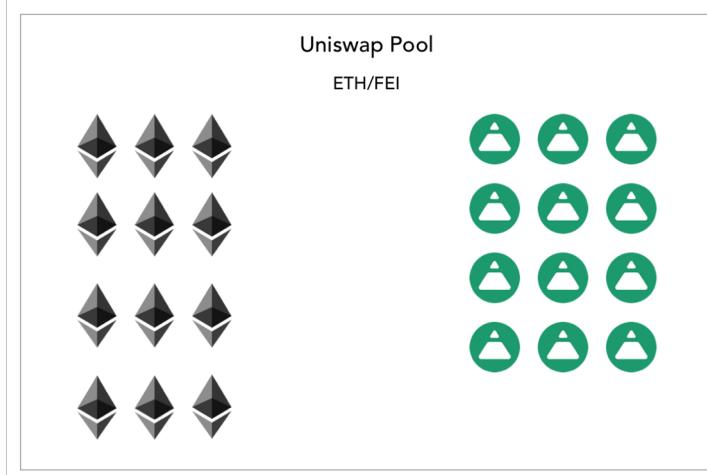
Cons

- Users are exposed to liquidations
- Less stable than fiat
- Capital inefficient
- Complex

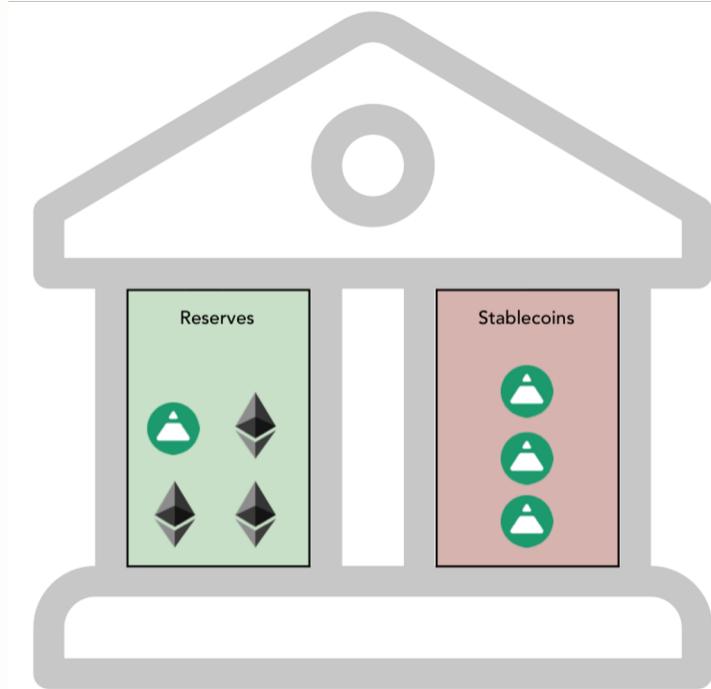
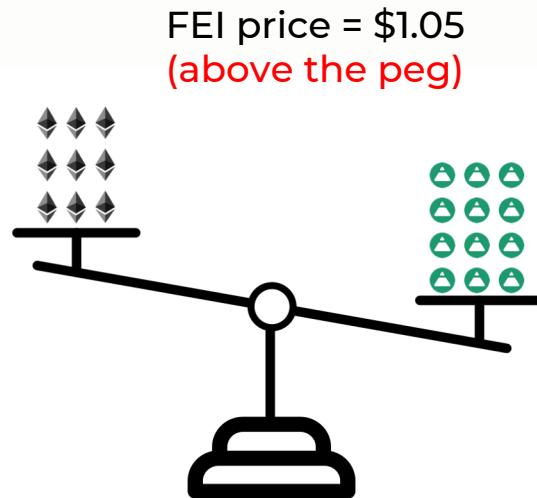
Stablecoins: Algorithmic



Stablecoins: Algorithmic

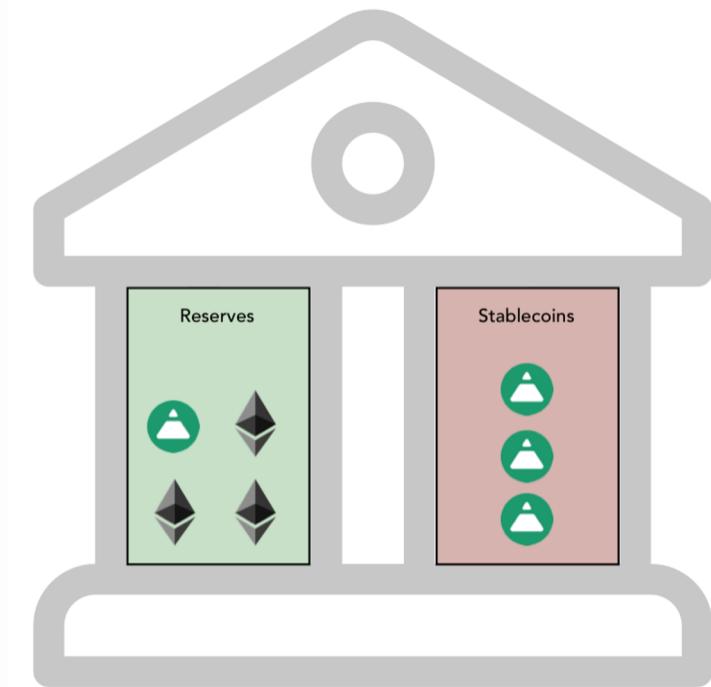
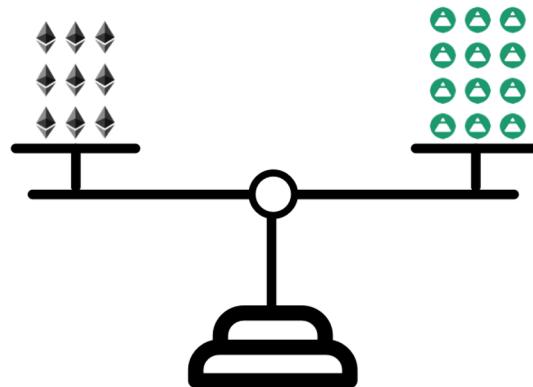


Stablecoins: Algorithmic



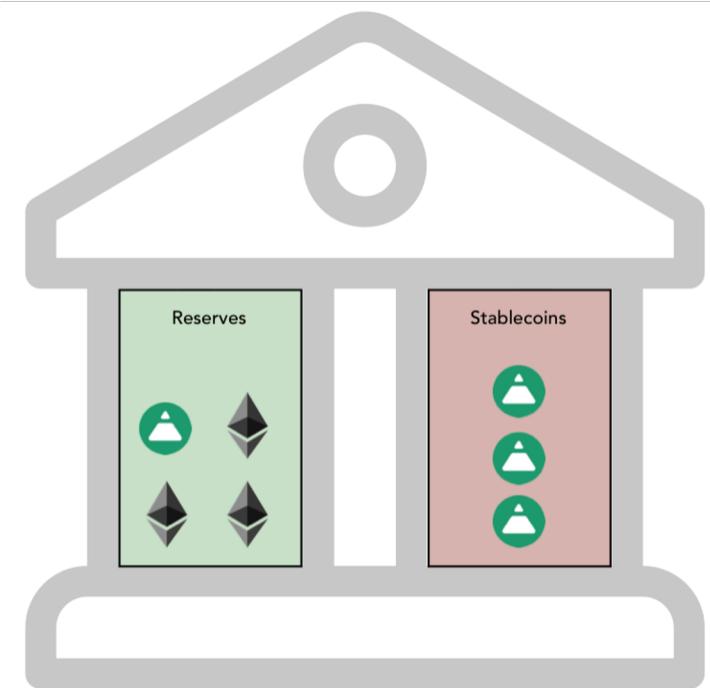
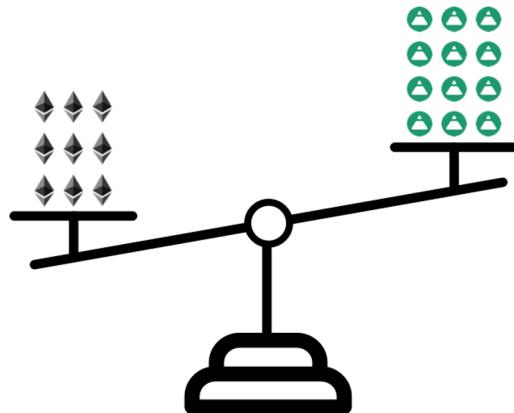
Stablecoins: Algorithmic

FEI price = \$1.00



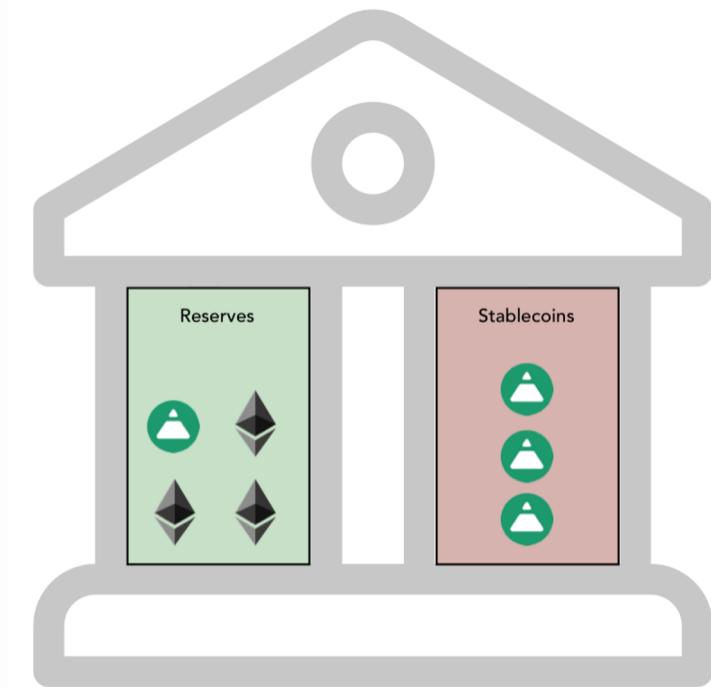
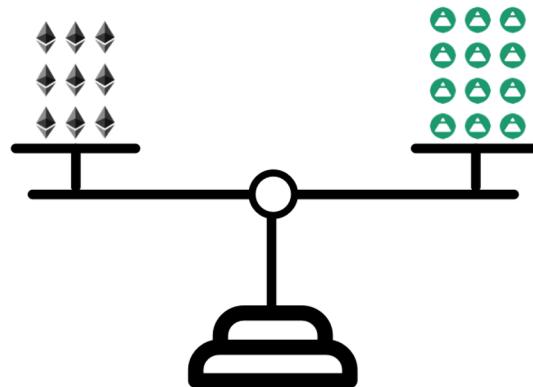
Stablecoins: Algorithmic

FEI price = \$0.99
(below the peg)



Stablecoins: Algorithmic

FEI price = \$1.00



Analysing the Liquity Protocol

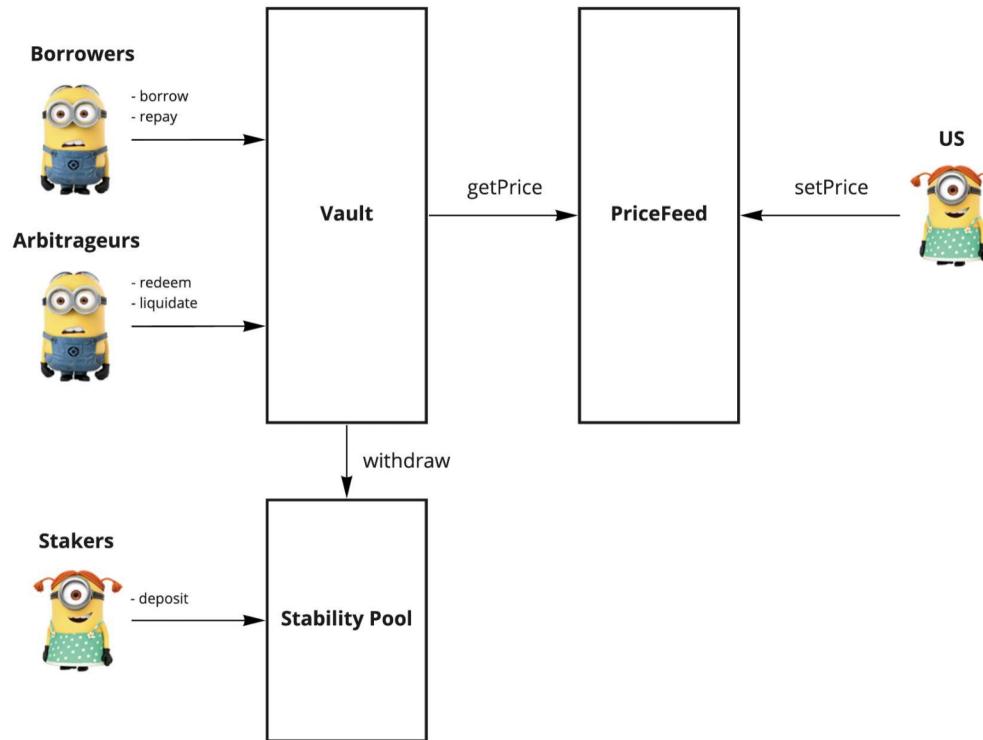
High level overview of the Liquity Protocol Architecture

How to create a Stablecoin

Learning how to create a Stablecoin in Ethereum



Architecture



Thanks!

Do you have any questions?

hello@defi-academy.com

