



Cashmere Labs

An Omnichain
MEV Resistant

DEX Aggregator & Stableswap

An Omnichain DEX Aggregator & Stableswap

Agenda

- The problem
- The solution
- Single-side liquidity system
- Compensation ratio system
- Slippage system
- MEV attacks & Precautions
- Value Proposition
- Business Model
- Security Measures
- Roadmap
- Tokenomics

The problem

Problem

- **1- L2** networks in the market don't have sufficient liquidity on stablecoins also have security vulnerabilities. The **user has to pay high slippage** for a high number of swaps and trades.
- **2-** When users switch from one network to the other network, **users have to use bridge coins** other than the native coins of the networks, and this is **insecure**.
- **3-** There is no decentralized dapp in the market that uses **interoperability messaging protocol** to communicate between chains to swap any asset between any chain **without bridging**.

Challenge

- **1-** The invariant function logic is inefficient for stableswap and can be abused. Insufficient liquidity reduces the trading volume on the network, which can be manipulated by attackers.
- **2-** When bridging assets, security issues may arise on bridged tokens and user balances may suffer.
- **3-** Most cross-chain swaps process 1 transaction in over 10 minutes. But Cashmere aims to reduce that time by integrating to Layer0 for swap functions.

Negatives

- According to the LUNA-UST collapse, algorithmic **stablecoins should be swapped natively** with solid liquidity and securely.
- Hackers can attack and de-peg these stablecoins if a large portion of their liquidity is in a different network by bridged assets and their liquidity is bottlenecked while being transported, giving attackers an opportunity.
- However, if the liquidity of the attacked stablecoins were not on their bridged assets and **if their liquidity were native in their own network, the risk of these attacks would be much lower**.

The solution

1-Low slippage

- Single-side AMM
- Single variant marginal slippage function
- Compensation Ratio
- Cross-chain aggregator

2-Efficient for arbitrage

- High trade volume
- Positive slippage
- Low swap fee (Haircut)

3-Convenient Liquidity

- Satisfactory pool Incentives with **generating real value**
- Cashmere DAO and **Reasonable Lock System**
- Native Cross-chain swaps with **interoperability messaging protocol**
- +80% of stablecoin liquidity should be on its native network.

Cashmere Goals

1-Short term goals

- **Providing solid liquidity** to the **L2** Network's Stablecoin market in their native networks
- **Protect** stablecoins from **de-peg** to increase utility on their native network.
- Increase the prevalence of the stablecoins

2-Long term goals

- **Extending stablecoin liquidities** and prevalence to all L1 and **L2 networks**.
- **Strengthening** stables liquidity in **L1 & L2s**, facilitating its migration to other networks.
- Being the **technology solution partner of L2s**

3-Value creation

- **Generating real value** by distributing profits from the platform's fees to veCSM holders.
- **Increasing company value** as stablecoins grow by providing solid liquidity to stablecoins.

- Swap any asset between **any** **chain** without **bridging assets**
- Cross-chain** stableswap
- Inter-chain** stableswap
- Decentralized **emission rates**
- controlling by** DAO

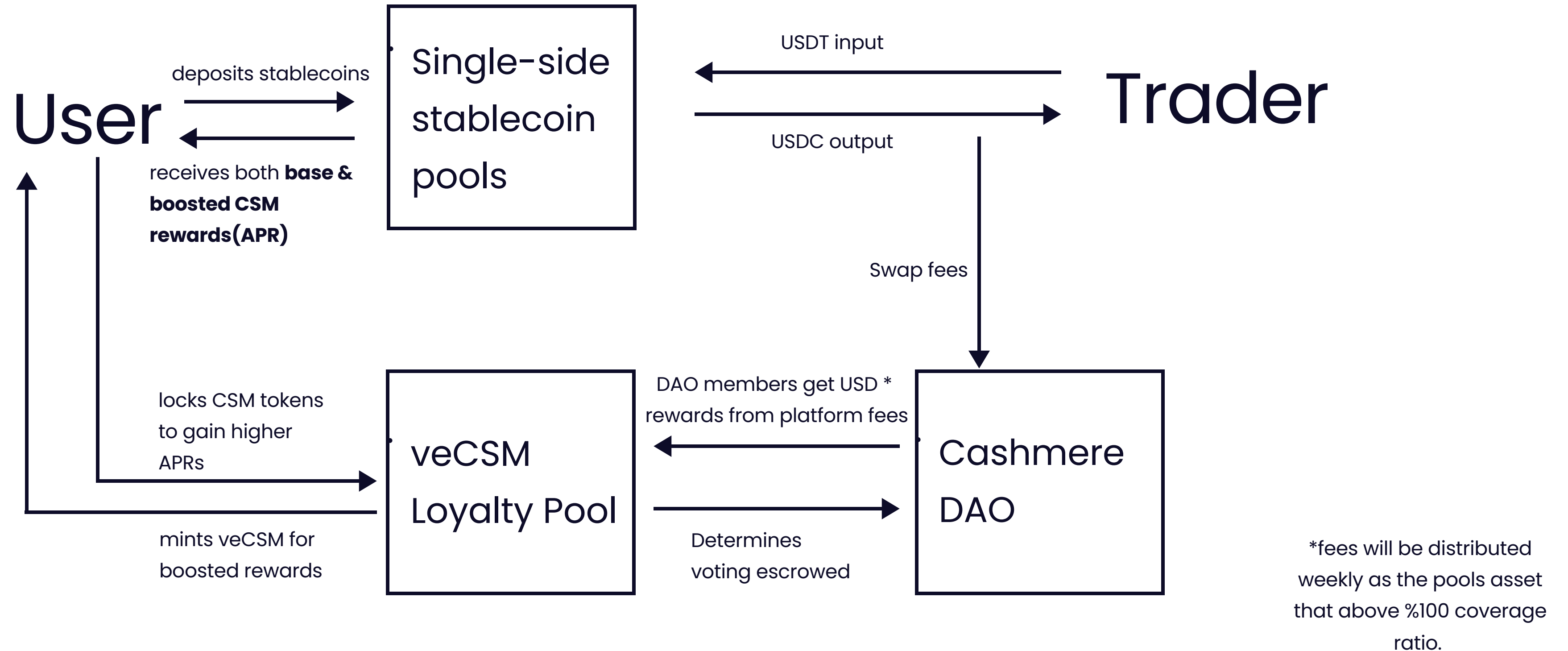


**All in
one**

**Your unique
cross-chain
stableswap & asset
aggregator platform
goes here.**

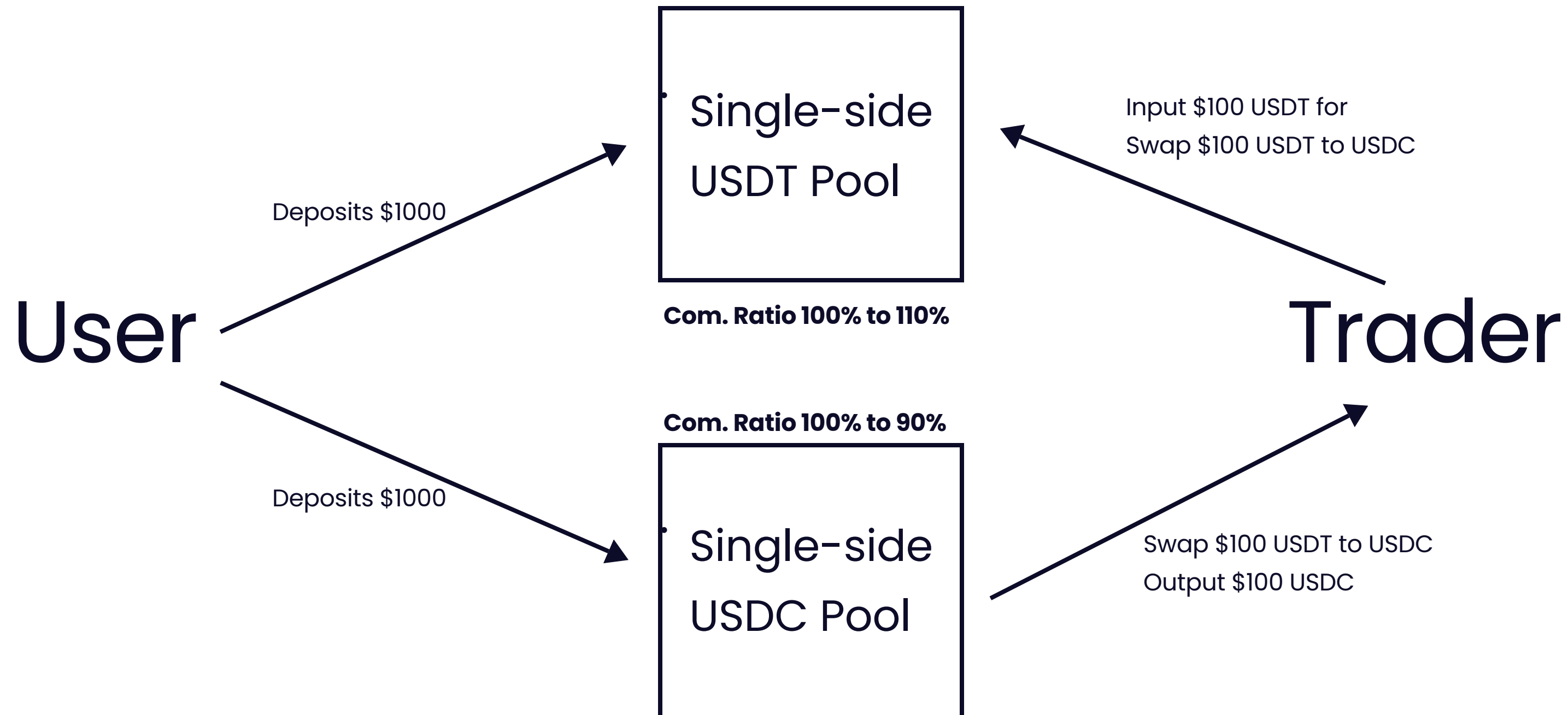
Single-side liquidity system

Haircut: 0.04%



Compensation Ratio System

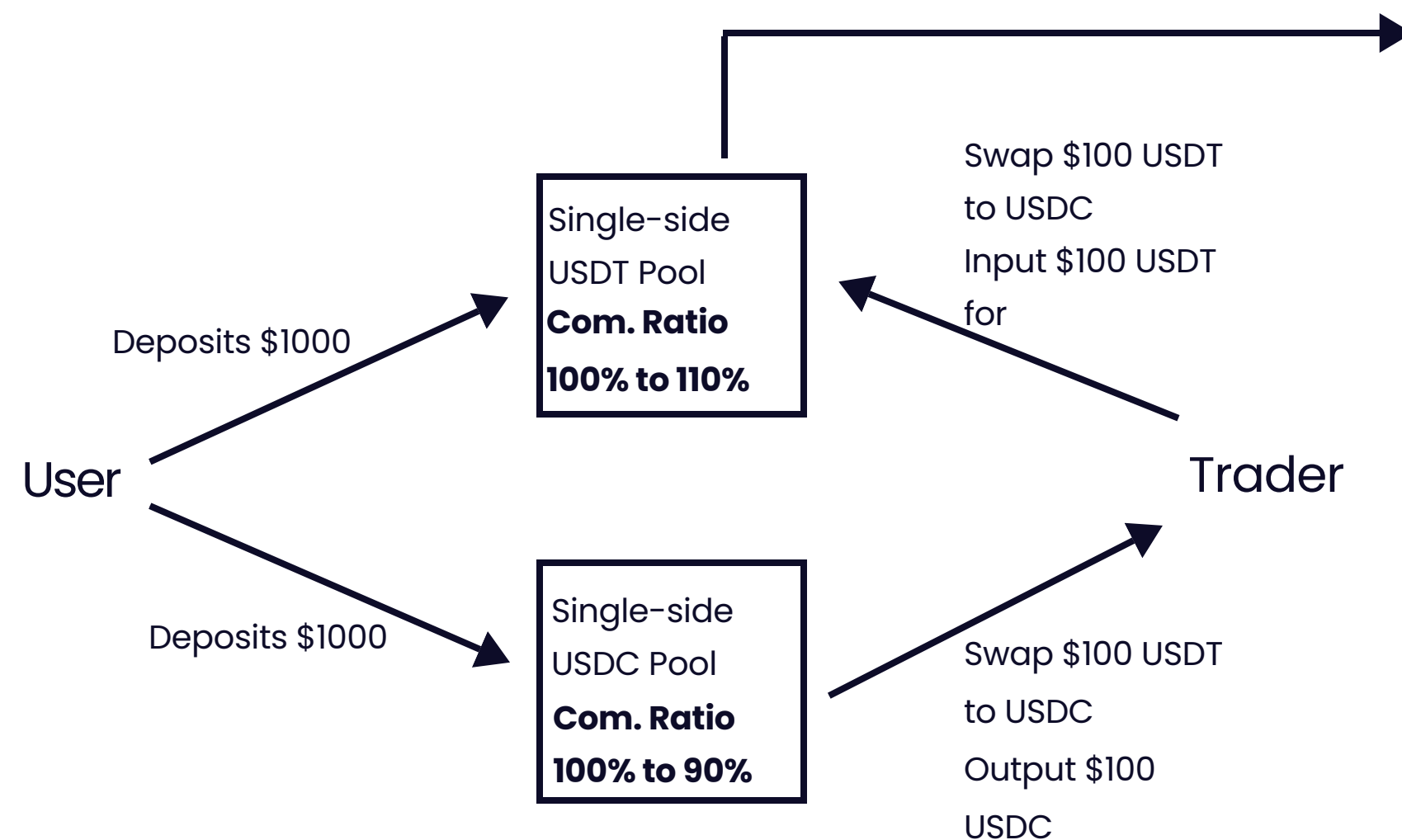
*Initial Com. Ratio 100% for both pools



• Compensation Ratio = Asset / Liability

Slippage & Positive Arbitrage System

*Initial Com. Ratio 100% for both pools



We take the compensation ratio of USN at 0.9 and USDT at 1.1. Working this out, we'd get:

USN:

$$f'(0.9) = -\frac{0.00002 * 7}{0.9^8} = 0.0325\%$$

USDT:

$$f'(1.1) = -\frac{0.00002 * 7}{1.1^8} = 0.0065\%$$

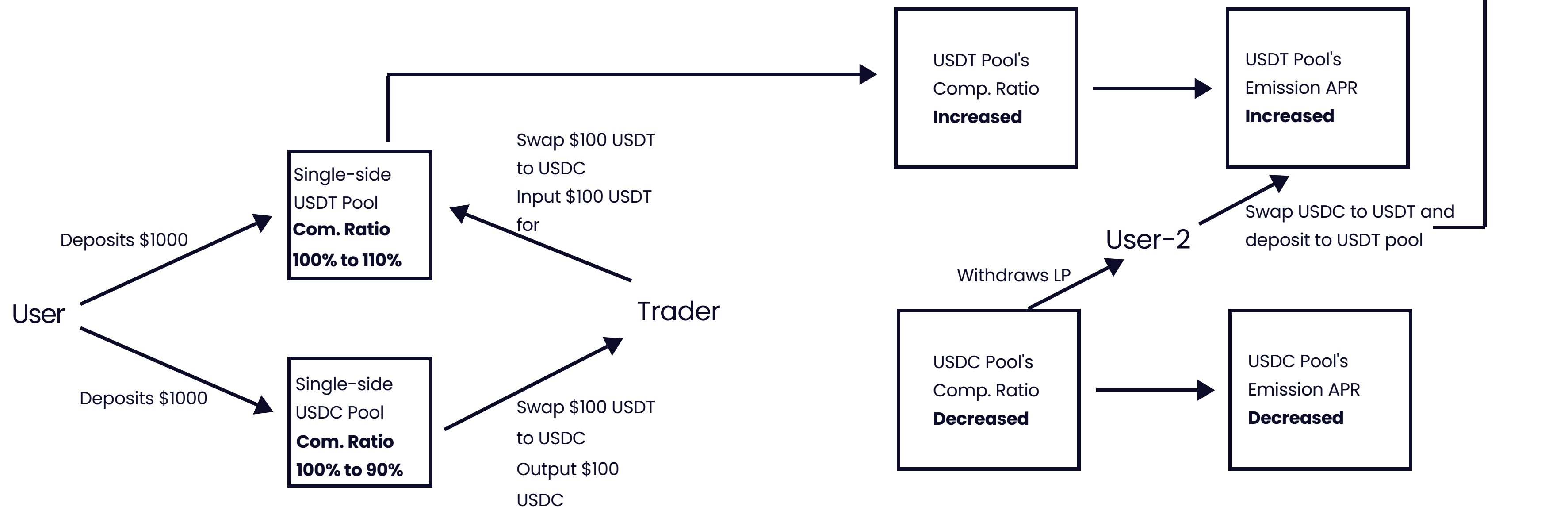
Hence we have

$$C_{USN \rightarrow USDT} = 0.0325\% - 0.0065\% = 0.026\%$$

- Compensation Ratio = Asset / Liability

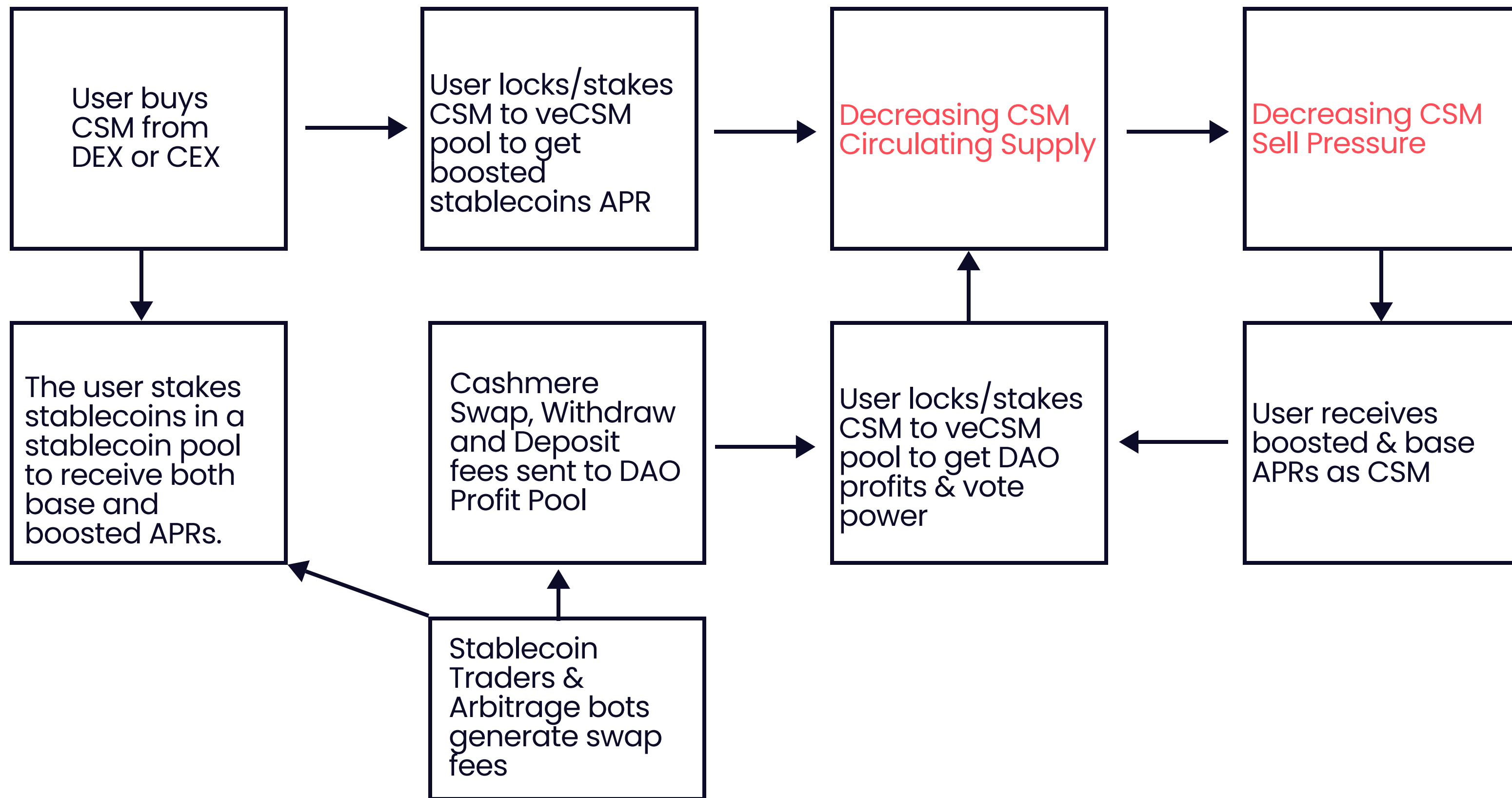
Interest Rate Model

TLDR: The higher the compensation ratio, the greater the CSM emission is to the stablecoin account.



- Compensation Ratio = Asset / Liability

Sustainability



**Powering the seamless
stableswap & asset aggregator
across 7 high value chains with
just one integration**

Cross-chain aggregator

Swap any asset between any chain with **best offers** !



Stable coins to be used



Assets to be used



Any asset that has
liquidity on any DEX

Stableswap Technical Overview

Stableswap

Aggregator

From

BALANCE 24689.905

DAI

Ethereum

24.689.905

MAX

To

BALANCE 24689.905

USDT

Polygon

24.500,400

MAX

Rate (After Fee) ⓘ1 UST = 1.017 USDT ↺

Price Impact ⓘ0.05%

Fee ⓘ24.169.287 USDT

Minimum Received ⓘ15.6235 USDT

Connect Wallet

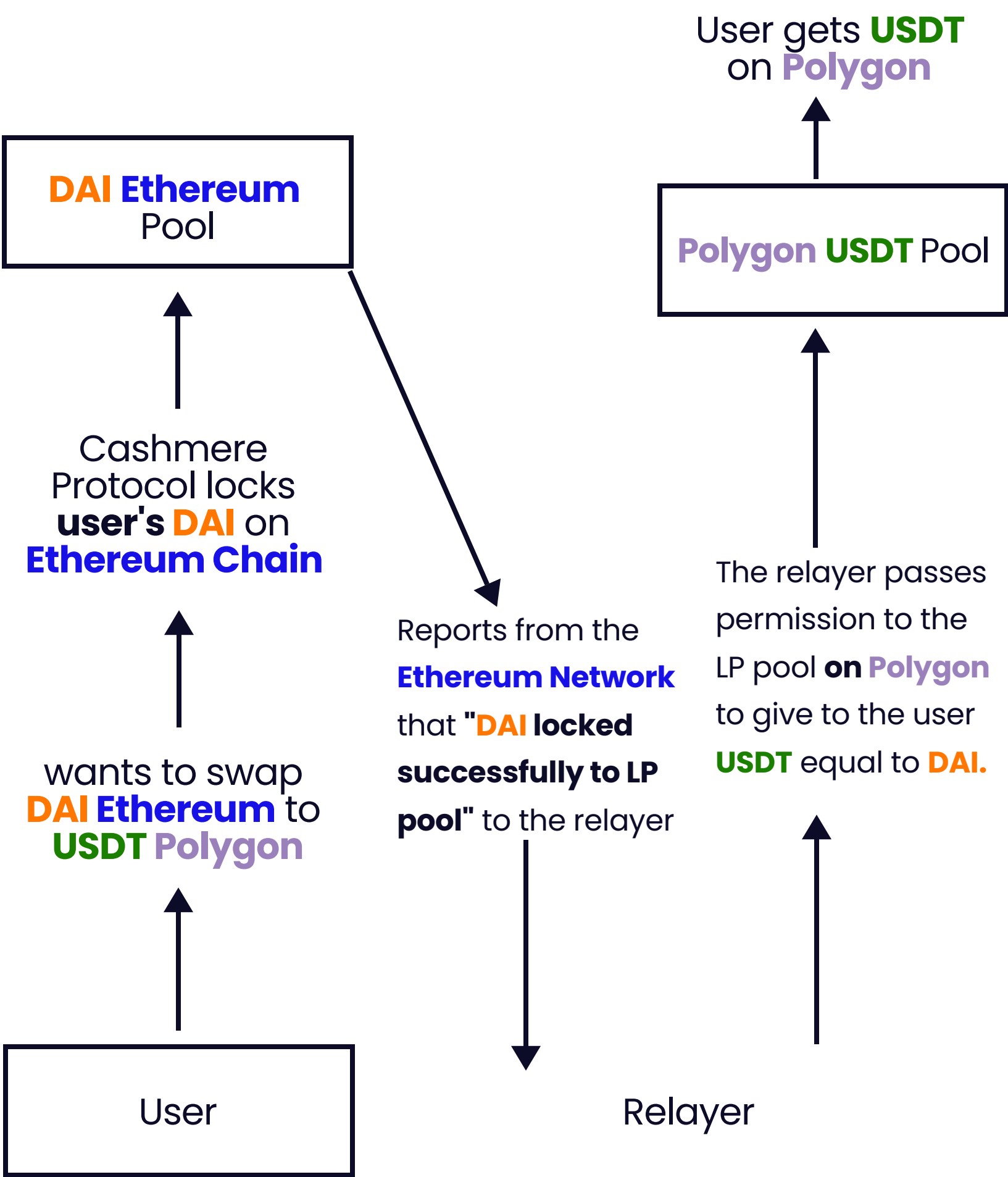
DAI

>

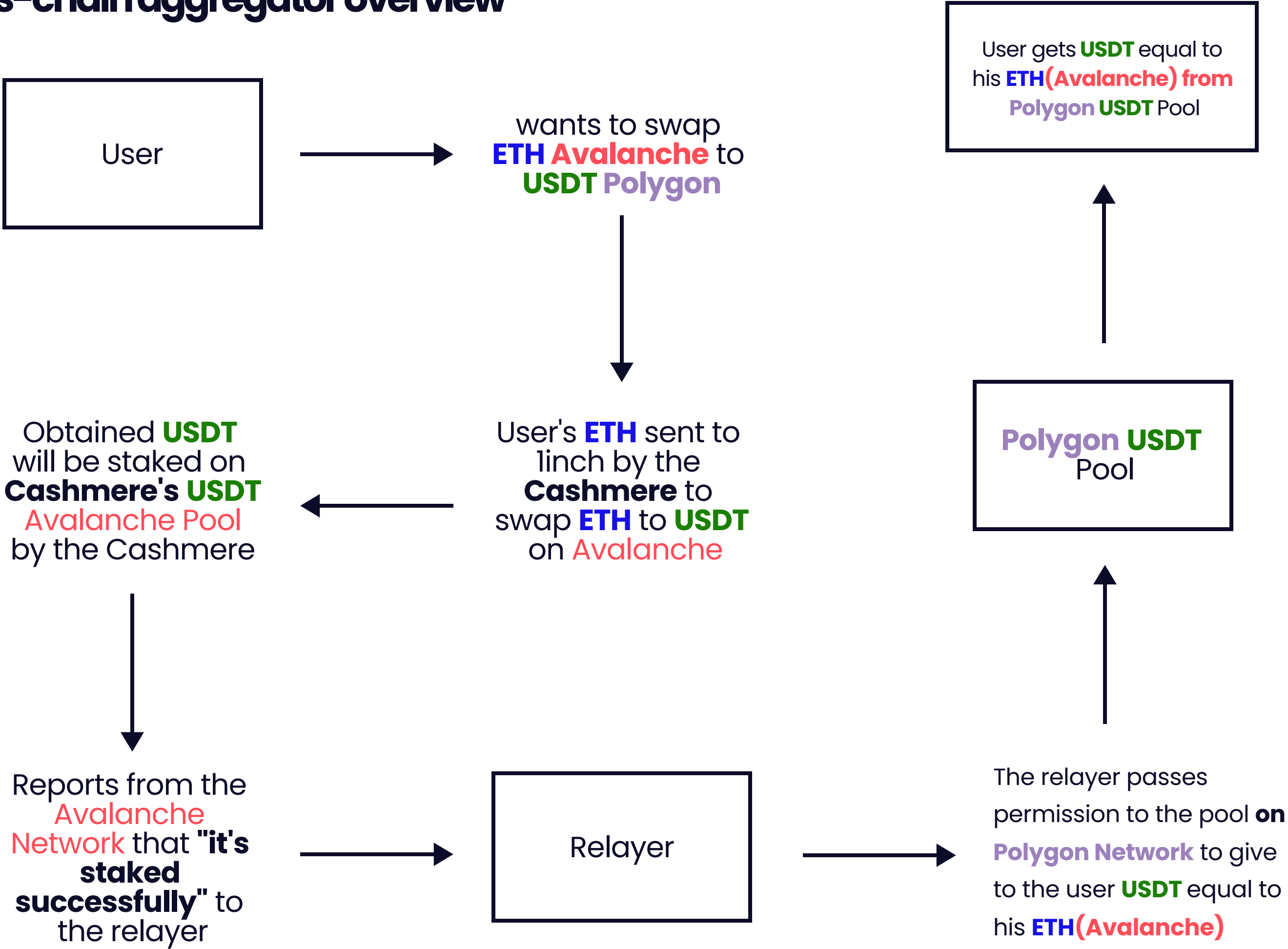
USDC

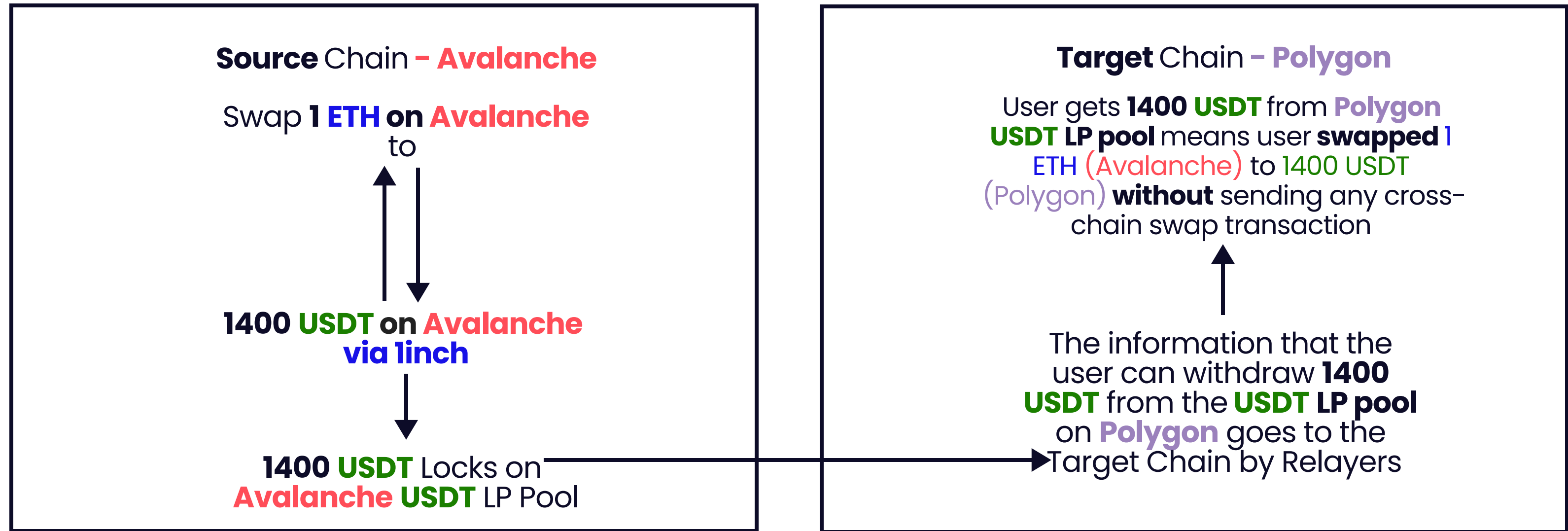
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USDT



Cross-chain aggregator overview

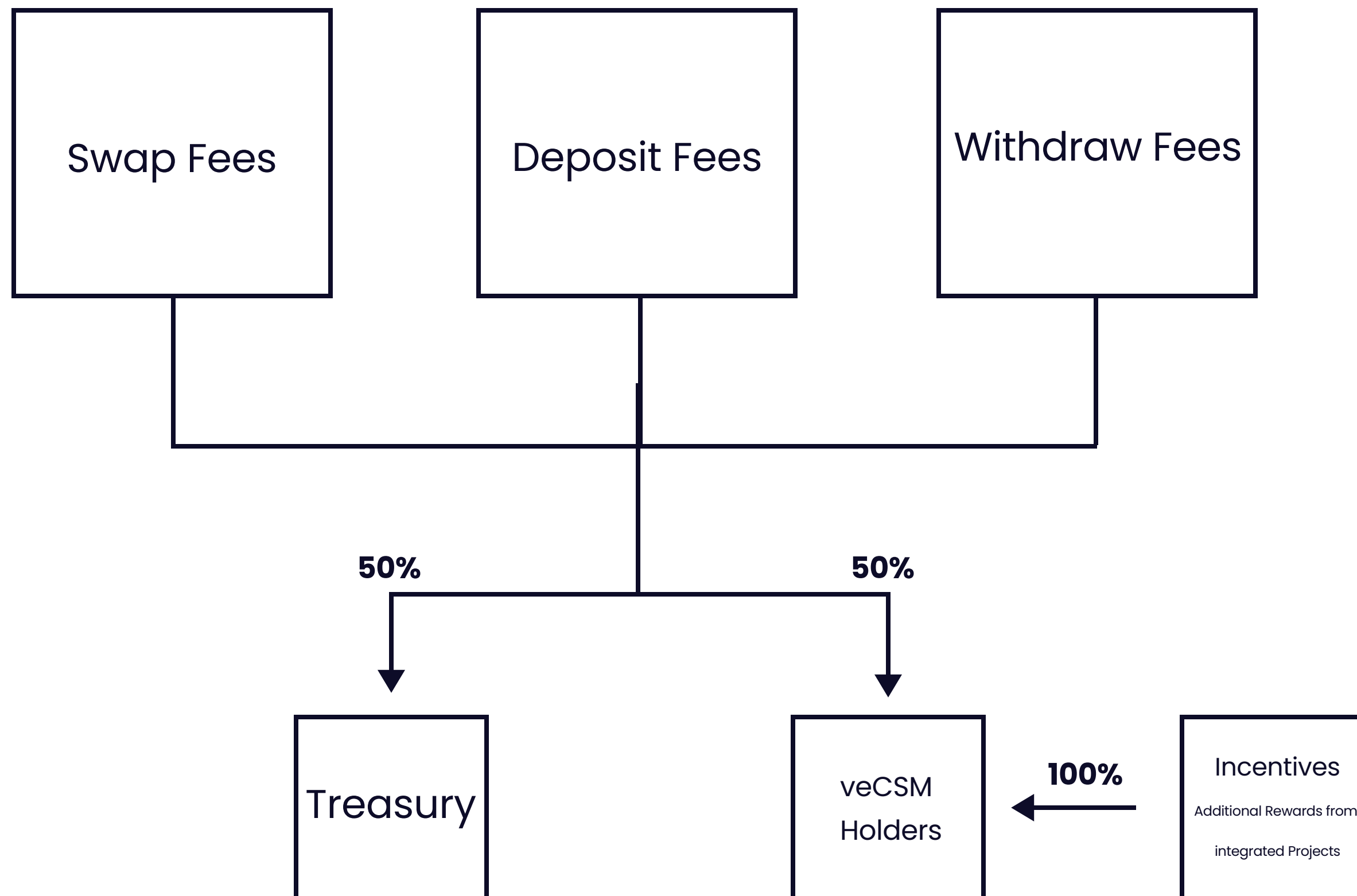





To show Cashmere's **MEV resistant** design;
We consider a user scenario who wants to **swap** wrapped **ETH** on **Avalanche** Network to **USDT** on **Polygon** Network.

Users won't be sending a swap transaction between the chains. The swap of the assets will be occurring in each chain, **seperately**. Only the **information** of the amount of the asset that will be granted to users withdrawal from stable LP pool will be delivered between the chains. Therefore, MEV bots won't be able to attack during the cross-chain messaging period. This system **does not** completely eliminates the risk of MEV. But it will provide the slippage amounts as a regular **decentralized swap operation in a native network**. The cross-chain operation does not create an additional MEV attack risk.

Business Model



Value Proposition

	 Cashmere
Security	It is enough for the user to hold 1 native stablecoin that he trusts. No bridge required.
Return of Investment	Has DAO gauge and lock system, Cashmere provides completely decentralized and fair reward distribution.
Slippage	Cashmere has the lowest slippage with single-sided liquidity.
Swap to	Any asset & Any chain
Cross-chain	Switching from any chain to other chain with interoperability messaging protocol

Project	Fully Diluted Marketcap	30 Days Total Revenue	P/S Ratio (yearly) FDV/Revenue
Uniswap	\$5,327,200,199	\$61M	6.36
Dydx	\$1,795,124,574	\$19M	6.07
Pancakeswap	\$2,363,808,268	\$13M	3.82
Balancer	\$468,059,187	\$2.8M	14.67
Curve	\$3,233,617,769	\$6M	35.76
Sushiswap	\$282,161,712	\$6M	3.30
Cashmere	\$65,000,000 (initial FDV)	\$750K – 1.5M (imaginated by similar dapps and liquidity)	3.61 – 7.22

Security Measures

1-Price Oracle

- Cashmere tracks each token's exchange rate via Chainlink. If there is a stablecoin unpeg of more than **+2%** (max price deviation), swaps will be **stopped**.
- Withdrawals will **continue**.

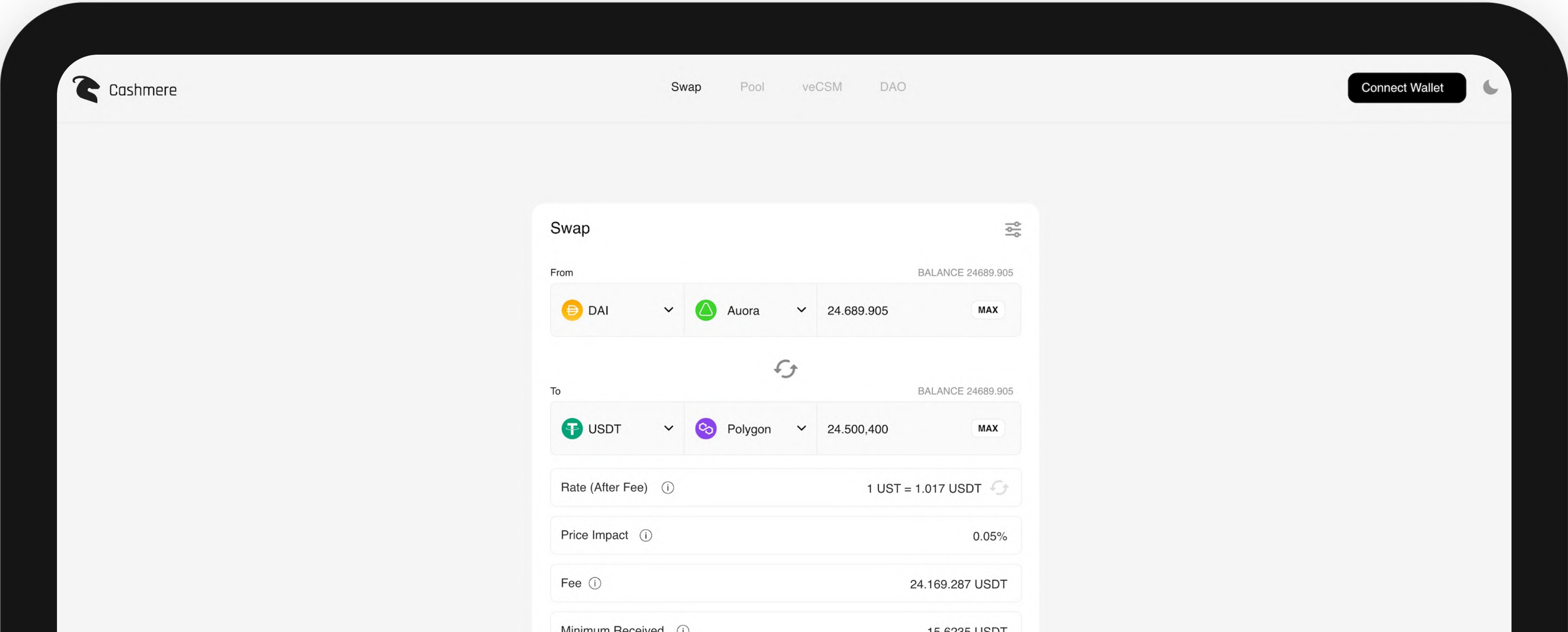
2-MEV Resistance

- The swap of the assets will be occurring in each chain, **seperately**.
- Only the **information** of the amounts of the assets will be transferred for users withdrawals will be delivered between the chains. **Not using the bridges**, which is vulnerable to attacks.
- Security measures in case of the MEV bot attacks during the cross-chain messaging period.

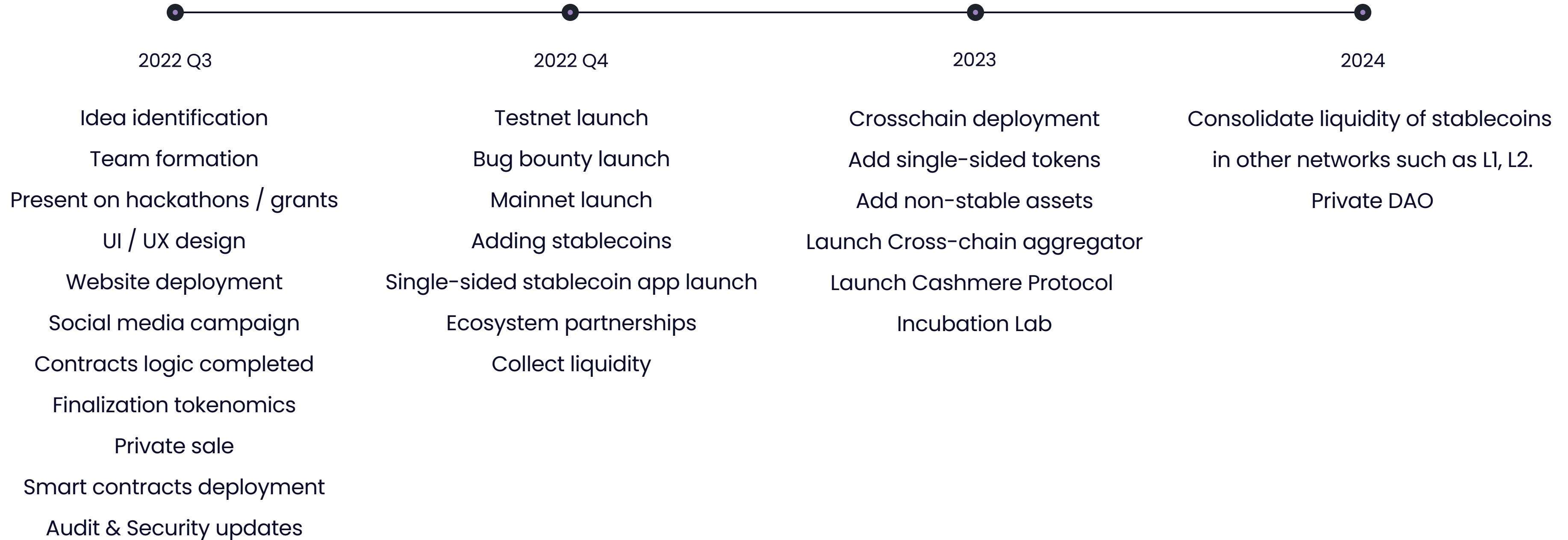
3-Upgradeability

- Cashmere Protocol is implemented as a set of **upgradeable smart contracts**.
- At early stages of the project, ProxyAdmin will be owned by Multisig.
- Later on, ProxyAdmin contract will be owned by Governance. It will be voted by veCSM holders.

Cashmere Protocol UI/UX Alpha



Roadmap



Tokenomics – General

- Max supply: 100M CSM
- 70% Ecosystem Development – 70M
 - 50% LP Rewards (50M) – Distribution depends on formula based emission rate.
 - 20% Treasury (20M) – 50% TGE, will be used for launch liquidity and other community driven activities such as early adopter incentives. Left-over 12 months linearly.
- 14% Team & Core Contributors – 14M

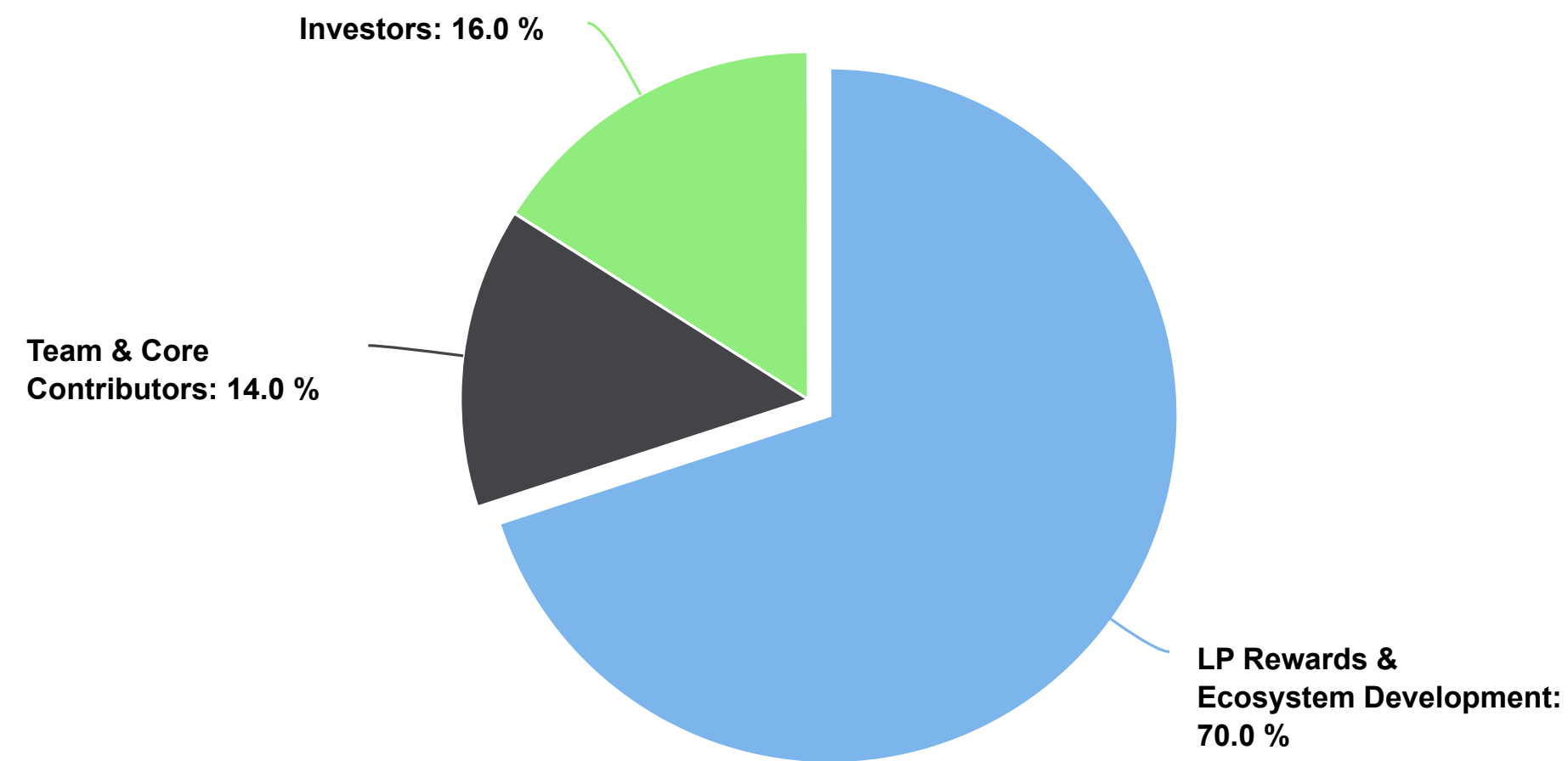
1-year full lockup, 36 months linear unlock thereafter.
- 16% Investors – 16M
 - 8% Seed Round (8M)
 - 5.5% Serie A (5.5M)
 - 2.5% Serie B (2.5M)

50% locked on voting escrow for 4 years, left-over 1 year full-lockup, 36 months linear unlock thereafter.

To decentralize ownership of CSM, the community and ecosystem partners will own the majority of the protocol. As such, they will receive 70% of the CSM genesis supply, and the core team and investors will receive a total of 30%

Cashmere Token Distribution

<https://charts.cashmere.exchange>

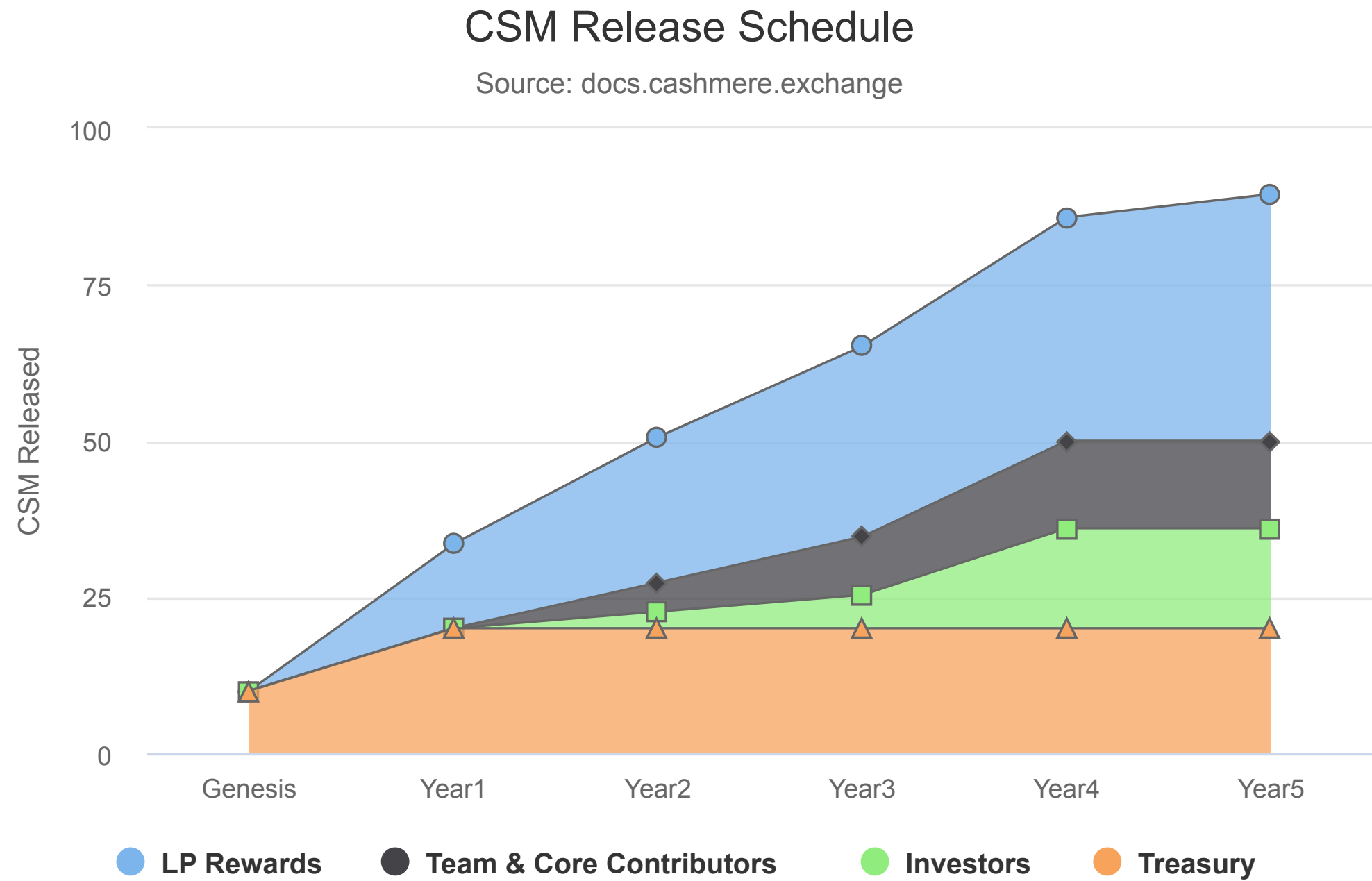


Tokenomics – Table

CSM	Percent	Amount	Lock Schedule	TGE(%)	TGE Token Amount
Total Supply	100%	100,000,000	–	0%	0
LP Rewards	50%	50,000,000	Emission formula	0%	0
Treasury	20%	20,000,000	50% TGE – to contribute CSM token launch, left-over 12 months linearly.	50%	10,000,000
Investors	16%	16,000,000	50% locked on voting escrow for 4 years, left-over 1-year full lockup, 36 months linear unlock thereafter.	0%	0
Team & Core cont.	14%	14,000,000	1-year full lockup, 36 months linear unlock thereafter.	0%	0

To contribute CEX & DEX launch of CSM, 10% of the total CSM supply will loaned to DMMS (Designated Market Maker) from Treasury wallet.

Tokenomics – Release Schedule



Highcharts.com

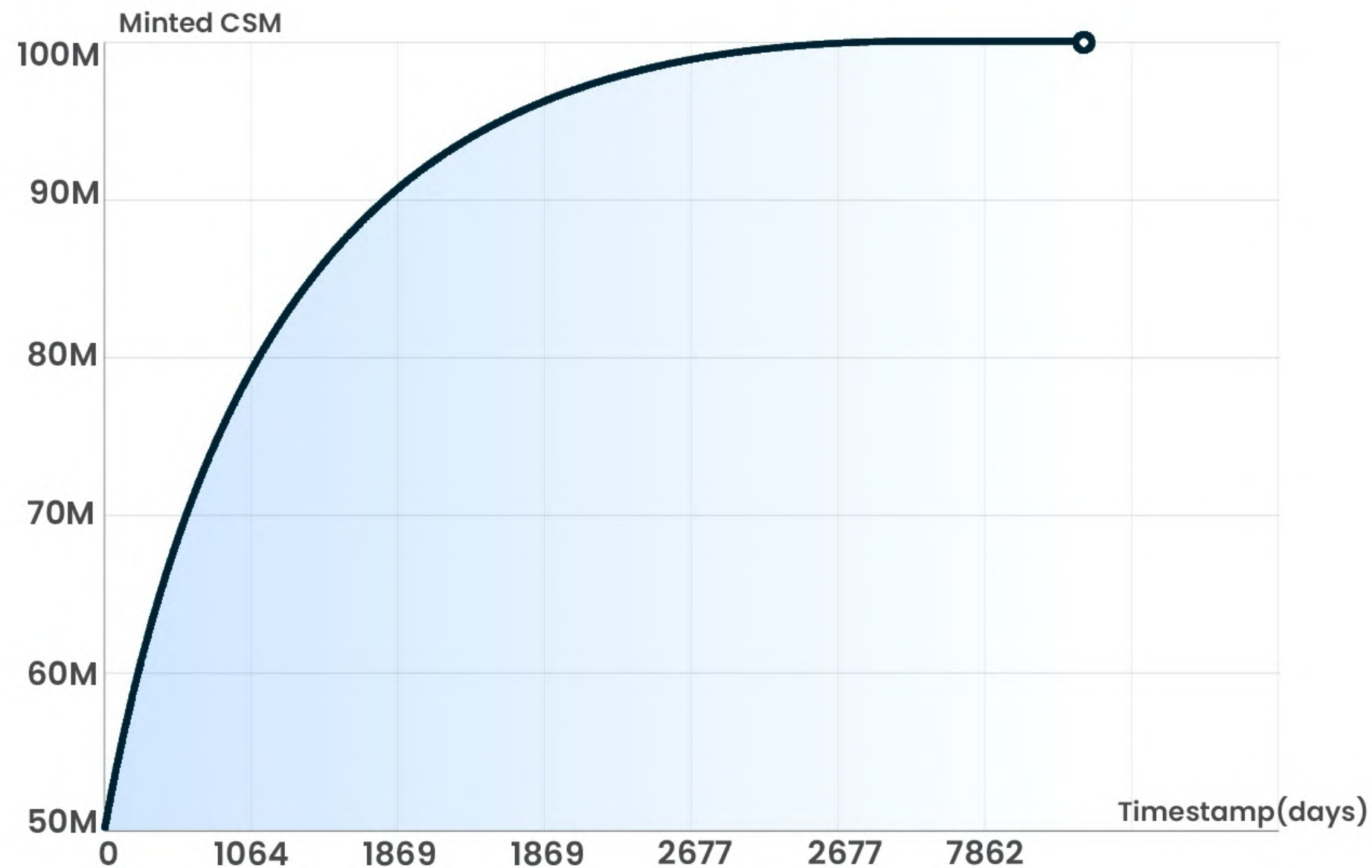
<https://charts.cashmere.exchange>

CSM Token – Emission Rates



CSM Minted per Block

Ratio reduces over time until all CSM is minted



- Supply stablecoin LPs and lock CSM to earn CSM and platform fees.
- CSM will be minted depends on emission formula.
- Minted CSM / Timestamp mint ratio reduces every 100,000 CSM.
- **CSM Mint Rate Formula:**

```

1 //constants
2 let cliffSize = 100000 * 1e18; //new cliff every 100,000 tokens
3 let cliffCount = 1000; // 1,000 cliffs
4 let maxSupply = 100000000 * 1e18; //100 mil max supply
5
6 //first get total supply
7 let csmTotalSupply = await csm.totalSupply();
8
9 //get current cliff
10 let currentCliff = csmTotalSupply / cliffSize;
11
12 //if current cliff is under the max
13 if(currentCliff < cliffCount ){
14     //get remaining cliffs
15     let remaining = cliffCount - currentCliff;
16
17     //ratio of remaining cliffs to total cliffs will be CSM Rate
18     CSM Rate = remaining cliffs / cliffCount;
19
20
21
22     return 0;
23 }
  
```

**Expect nothing
less than
the best
experience.**

