

## Stablecoin Safety Assessment

<b>Coin</b>	Rai Reflex Index (RAI)
<b>Date</b>	04-06-2023
<b>Overall Grade</b>	B+

## Factor Scores:

S. No	Factor	Score	Assessment
1	Stability	0.76	Moderately stable
2	Management	0.84	Very low risk
3	Implementation	N/A	Not assessed
4	Decentralization	0.90	Very low risk
5	Governance	0.70	Low risk
6	Externals	N/A	Not assessed

## Summary

- RAI is an experimental decentralized stablecoin with a floating price. Unlike most stablecoins, RAI is not pegged to a fiat currency.
- The protocol is forked from MakerDAO's DAI and is substantially similar, except for 2 innovations: (a) a free-floating price and (b) the use of positive and negative interest rates to influence the market price of RAI.
- RAI is solely backed by ETH collateral. It's current Collateralization Ratio is over 350%.
- Despite its experimental nature, RAI has proven to be a reliable low-volatility alternative to conventional stablecoins. RAI is ideal for sophisticated users who want a decentralized, censorship resistant stablecoin and can understand its intricacies.

**Evaluation****1. Stability** [Score 0.76]**1.1. Reserves** [Score 0.87]**1.1.1. Collateralization % and Type of Collateral** [Score 0.87]

As of May 31, 2023, RAI is fully-backed by ETH. It has a collateralization ratio of 372%.

**1.1.2. Storage of Assets** [Score 0.75]

RAI's reserves are stored on the protocol's own smart contracts which have been audited by OpenZeppelin, Quantstamp and Solidified.

Our score does not reflect whether RAI's smart contracts are technically sound and error-proof. Rather, it indicates the general relative safety of protocol-owned smart contracts over third-party smart contracts, multi-sig wallets and EOA accounts.

**1.1.3. Asset Segregation** [Score 1.00]

RAI's reserves are fully segregated from the protocol's own treasury.

**1.2. Market Feedback** [Score 0.88]**1.2.1. Frequency of Deviation Below Peg** [Score N/A]

Not relevant as RAI does not have a fixed peg.

**1.2.2. Max Deviation Below Peg** [Score N/A]

Not relevant as RAI does not have a fixed peg.

**1.2.3. Volatility (% per day)** [Score 0.75]

Daily volatility (%) over the past 180-day period: 0.41%

**1.2.4. Downside Volatility in a Market Downturn** [Score 1.00]

Average deviation below peg during the 5 worst-performing days for BTC (DoD price change) in a 180-day period: 0%

**1.2.5. Liquidity Pool Imbalance** [Score N/A]

Not relevant as RAI's floating peg is not comparable with other fixed-peg stablecoins.

### 1.3. Stability Mechanism

[Score 0.50]

#### 1.3.1. Core Mechanism

[Score 0.75]

RAI, like DAI, is minted when users open collateralized debt positions (SAFEs) and burned when these positions are closed. The stability of RAI is maintained through two methods:

1. Liquidation - SAFEs are liquidated when the debt of a particular SAFE creator falls below a certain collateralization ratio. However, this mechanism does not directly help RAI maintain price stability. Instead, it is meant to ensure that the value of collateral in vaults is always greater than the value of RAI borrowed by SAFE creators.

The protocol's current collateralization ratio (CR) is more than 350%, which is significantly higher than the minimum CR of 135%.

2. Redemption Rates - The Redemption Price is a system-generated target price that the protocol seeks to achieve for RAI. When the Market Price of RAI deviates from the Redemption Price, the protocol adjusts the Redemption Rate to influence demand and supply for RAI through the opening and closing of SAFEs. Through changes in Redemption Rates, RAI is revalued/devalued. In simple terms, redemption rates can also be understood as interest rates (can be positive or negative).

#### 1.3.2. Primary Liquidity Access

[Score 0.25]

RAI can only be redeemed for collateral when the Emergency Shutdown Module is activated. However, under normal operations, RAI cannot be redeemed for ETH and holders must rely on liquidity pools.

## 2. Management

[Score 0.84]

### 2.1. Restrictions

[Score 0.84]

#### 2.1.1. Known Core Teams

[Score 1.00]

Reflexer Finance, the protocol behind RAI, was founded and developed by Stefan Ionescu (now at Delphi Labs) and Ameen Soleimani (CEO, Spankchain).

#### 2.1.2. Jurisdiction Score

[Score 0.68]

Our scores are derived from the World Justice Project's Rule of Law (RoL) Index – specifically the factors of 'Regulatory Enforcement' and 'Civil Justice'.

Reflexer Labs is believed to be incorporated in the USA..

### 2.2. Track Record

#### 2.2.1. Team's Background

[Score N/A]

Not scored

### 3. Decentralization [Score 0.90]

#### 3.1. Regulatory Oversight [Score 1.00]

LRAI is an unregulated stablecoin that is entirely issued and managed on-chain.

#### 3.2. Custodian Risk [Score 1.00]

RAI does not rely on custodians for storage of assets. All assets are held in the protocol's own smart contracts.

#### 3.3. Type of Collateral [Score 1.00]

RAI is backed entirely by ETH collateral which is not censorable.

(Fiat currencies earn a score of 0 and decentralized cryptocurrencies earn a score of 1).

#### 3.4. Decision Making & Voting Power [Score 0.50]

The protocol is governed by the FLX token. We believe that insiders such as founders, team members and private investors control less than 50% of the supply of FLX.

#### 3.5. User Blacklisting [Score 1.00]

RAI's smart contracts do not have a blacklist function.

### 4. Governance [Score 0.70]

#### 4.1. Voting System [Score 1.00]

We look at whether the protocol has a binding voting system enforced by automated on-chain execution of proposals.

In the Reflexer Finance protocol, outcomes of successful proposals are executed on-chain automatically.

#### 4.2. Anti-Governance Attack Measures [Score 0.40]

Anti-governance attack measures can be classified into preventive and reactive measures.

##### 1. Preventive Measures [0/1]

These help dissuade the attacker from carrying out the attack in the first place by locking up governance tokens before voting and/or granting differential voting power based on criteria that can increase the time and cost of performing an attack. Examples include vote escrow, pre-voting lockup cliffs, and time-weighted voting power.

Reflexer does not employ any Preventive Measures.

## 2. Reactive Measures [0.8/1]

These measures aim to prevent or suspend and reduce the impact of attacks that have already been initiated. Examples are time-delays, veto & exit rights for stablecoins holders and emergency shutdowns.

Reflexer incorporates two reactive measures - time-delays and emergency shutdown - to protect SAFE creators and RAI holders.

Reflexer's score is an average of [1] and [2].