ARC Proposal: Onboarding sfrxETH from Frax Protocol to Aave V3 Ethereum Market

References:

Website: https://app.frax.finance/frxeth/stake

documentation: https://docs.frax.finance/frax-ether/frxeth-and-sfrxeth

Documents:

Github: https://facts.frax.finance/frxeth

Source code for the system(s) that interact with the proposed asset:fraxMinter

Ethereum contract address: https://etherscan.io/address/0xac3e018457b222d93114458476f3e3416abbe38f

Audits:

Code4Arena

Bug Bounty: 10% of the total possible exploit or $10m worth paid in FRAX+FXS (evenly split).

Communities:

Telegram: https://t.me/fraxfinance

Discord: https://discord.gg/UJVtDTFRaA

Governance Discussion: https://gov.frax.finance

Governance Voting: https://snapshot.org/#/frax.eth

Twitter: https://twitter.com/fraxfinance

Summary:

This ARC presents the community with the opportunity to add sfrxETH to the Ethereum V3 market as a reserve.

Motivation:

Frax Protocol is a decentralized synthetic asset platform that allows users to mint and trade synthetic assets that track the value of real-world assets. sfrxETH is a synthetic token that represents an exposure to the price of ETH.

Adding sfrxETH to the Aave V3 market as a reserve would bring additional diversity and liquidity to the ecosystem. Frax Protocol's synthetic assets are strategic assets for Aave and the launch of V3 on mainnet introducing caps & emode allows to replicate the stETH success in a risk-averse environment for other LSDs assets.

Onboarding frxETH is a source of additional revenue for Aave and benefits the ecosystem as a whole because these onboarding has an effect on assets liquidity & peg resilience.

Aave has the opportunity to help ecosystem diversity and decrease the concentration of liquidity to a unique entity while supporting more staking overall and increasing Ethereum decentralization.

Specification:

What is the link between the author of the AIP and the Asset?

The Aave-Chan Initiative is not related in any form nor paid by Frax Protocol to push this proposal. Increasing LSD diversity is part of the ACI delegate platform. The ACI received support from the Frax Protocol team to fill this proposal with relevant data and to answer sfrxETH-related questions.

Provide a brief high-level overview of the project and the token?

Frax Protocol is a decentralized synthetic asset platform that allows users to mint and trade synthetic assets that track the value of real-world assets. frxETH is a synthetic token that represents exposure to Ethereum Staking. The sfrxETH token can be used to gain exposure to the staking of ETH and its revenue without actually the need to run a validating node. This allows users to access Staking ETH without having to hold a 32 ETH minimum and run a node infrastructure. Adding sfrxETH to the Aave V3 market as a reserve would bring additional diversity and liquidity to the ecosystem.

1. Explain the positioning of the token in the AAVE ecosystem. Why would it be a good borrow or collateral asset?

2. sfrxETH is a productive asset it appreciates in value over time based on the rewards generated by Frax node operators… Wherever ETH is presently used as collateral, sfrxETH would make a better collateral since it accrues the staking reward in addition to the underlying ETH value.

3. sfrxETH is based on Ethereum staking returns and has a relatively low counterparty risk compared to other yield bearing tokens.

4. sfrxETH is a good long-term holding collateral, but many people want the option to access the value now and so want to use it as collateral for loans.

5. sfrxETH could be used in leverage and hedge trading strategies by borrowing/lending in Aave.

6. sfrxETH is a standard ERC-20 token and does not rebase, and so it should be technically easier to integrate into Aave.

7. Provide a brief history of the project and the different components: DAO (is it live?), products (are they live?). How did it overcome some of the challenges it faced?

Core concepts to understand the unified Frax Finance ecosystem include:

Fractional

– Frax is the first and only stablecoin with parts of its supply backed by collateral and parts of the supply algorithmically stabilized. The stablecoin (FRAX) is named after this hybrid fractional-reserve system.

Fraxswap, a native AMM

– Fraxswap is the first AMM with time weighted average market maker orders used by the Frax Protocol for rebalancing collateral, mints/redemptions, expanding/contracting FRAX supply, and deploying protocol owned liquidity onchain.

Fraxlend, permissionless lending markets

– Fraxlend is the lending facility for the FRAX & FPI stablecoins allowing debt origination, customized non-custodial loans, and onboarding collateral assets to the Frax Finance economy.

Crypto Native CPI Stablecoin

– Frax's end vision is to build the most important decentralized stablecoins in the world. The Frax Price Index (FPI) stablecoin is the first stablecoin pegged to a basket of consumer goods creating its own unit of account separate from any nation state denominated money.

Four Tokens

– FRAX is the stablecoin targeting a tight band around $1/coin. Frax Share (FXS) is the governance token of the entire Frax ecosystem of smart contracts which accrues fees, seigniorage revenue, and excess collateral value. FPI is the inflation resistant, CPI pegged stablecoin. FPIS is the governance token of the Frax Price Index and splits its value capture with FXS holders.

Gauge Rewards System

– The community can propose new gauge rewards for strategies that integrate FRAX stablecoins. FXS emissions are fixed, halve each year, and entirely flow to different gauges based on the votes of veFXS stakers.

Frax Ether:

it is a liquid ETH staking derivative designed to uniquely leverage the Frax Finance ecosystem to maximize staking yield and smoothen the Ethereum staking process for a simplified, secure, and DeFi-native way to earn interest on ETH.

1. How is the sfrxETH token currently used?

FraxLend is the current primary use case of sfrxETH to be used as collateral, with a liquidity of $13.6M

It's likely an Aave V3 onboarding will put Aave V3 in a top position of sfrxETH holding.

sFrxETH is a yield-bearing Asset

1. Emission schedule

There is no emission schedule.

sfrxETH is only minted when stakers deposit ETH to convert it to frxETH and then stake into frax protocol to obtain sfrxETH

1. Token (& Protocol) permissions (minting) and upgradability. Is there a multisig? What can it do? Who are the signers?

sfrxETH is minted when stakers deposit frxETH into the Frax Protocol deposit pool, and sfrxETH is burnt when stakers withdraw their frxETH.

- The Frax protocol contracts do have permissions that grant administrators mint/burn capabilities

. This was pointed out in code4Arena audit.

1. Market data (Market Cap, 24h Volume, Volatility, Exchanges, Maturity)

2. Market capitalisation: $60 192 819

3. 24H Volume ~$1.4M

(frxETH/ETH on Curve)

Decentralized exchange liquidity pools

Exchanges:

- Curve (the main source of liquidity with frxETH/ETH, sfrxETH can be unstaked for frxETH)

- Balancer

- Uniswap V3

Further information here: [Fill this]

1. Social channels data (Size of communities, activity on Github)

2. Discord: 850 members

3. Twitter: 64.1k followers

4. Github: 67 followers

5. Telegram: 14200 members

6. Contracts date of deployments, number of transactions, number of holders for tokens

7. Date of Deployment: 10-06-2022

8. Number of Transactions: 2958 transactions

9. Number of holders for token: 858 holders (liquidity pools are recorded as 1 address)

Technical Specifications

sfrxETH

sfrxETH is a ERC-4626 vault designed to accrue the staking yield of the Frax ETH validators. At any time, frxETH can be exchanged for sfrxETH by depositing it into the sfrxETH vault, which allows users to earn staking yield on their frxETH. Over time, as validators accrue staking yield, an equivalent amount of frxETH is minted and added to the vault, allowing users to redeem their sfrxETH for a greater amount of frxETH than they deposited. The exhange rate of frxETH per sfrxETH increases over time as staking rewards are added to the vault. By holding sfrxETH you hold a % claim on an increasing amount of the vault's frxETH, splitting staking rewards up among sfrxETH holders proportional to their share of the total sfrxETH. This is similar to other auto-compounding tokens like Aave's aUSDC.

Security Considerations

Frax Finance smart contracts have been independently audited by :

- Code4Arena

bug bounty:

The bounty is simply calculated as the lower value of 10% of the total possible exploit or $10m worth paid in FRAX+FXS (evenly split). https://docs.frax.finance/smart-contracts/miscellaneous

Risk parameters

While we suggest the community to wait for the feedback from risks teams Gauntlet (@Pauljlei) & @ChaosLabs, the ACI suggests the following risk parameters to start the conversation. These parameters define a non-borrowable asset with a

67% LTV.

because sfrxETH has limited supply and liquidity compared to stETH and rETH,

and because, as of now, minting permissions are not strictly limited, a supply cap is added in this proposal to limit protocol exposure to this asset

additionally, the current maturity of sfrxETH is not considered fit by the ACI to be a candidate for emode.

The ACI invites the community to follow the evolution of sfrxETH and consider adjusting mid-term the risk parameters of sfrxETH.

This will make sfrxETH slightly less attractive than stETH, rETH & cbETH but reflect the difference in liquidity between them.

Symbol: sfrxETH

Isolation Mode: NO

Borrowable: NO

Collateral Enabled: YES

emode: NO

LTV: 67%

LT: 74%

LB: 7.5%

RF: N/A

LPF: 0.10

Debt Ceiling: N/A

Supply Cap: 5k

Borrow Cap: N/A