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Summary

This proposal aims to temporarily halt further sUSDe cap increases and raise the sUSDe liquidation penalty from 3% to 4%.

Ethena protocol has experienced exceptional growth, with USDe supply doubling to approximately 6B in the past month, largely driven by sUSDe liquid e-mode adoption on Aave's Core and Prime instances. While this strategic partnership has proven successful, the sharp supply growth has outpaced Ethena's reserve fund capacity, pushing recommended reserve sizing requirements (both short-term and long-term) beyond current levels.

Motivation

Reserve fund capitalization

Our methodology indicates that Ethena's insurance fund is below desired levels. The analysis focuses on short-term risks that would emerge if Ethena faces unexpected negative funding rates and must handle large volumes of USDe redemptions. Specifically, we examine 1) the risk of incurring negative funding rate payments until perpetual positions are fully closed and 2) the risk of incurring slippage when unwinding these positions. We encourage stakeholders to read the full research here.

Under a conservative tail-risk scenario, our findings indicate that the reserve fund size should be ~$63M for the current USDe supply and collateral distribution, while it currently stands at $50M. Proper insurance fund capitalization is crucial to protect both protocol solvency and maintain peg stability, particularly during periods of heightened redemption pressure. While this gap in reserve fund size should be addressed, it's worth noting that Ethena has sufficient resources to adjust the reserve fund within weeks.

Recommended Liquidation Penalty

Aave sUSDe's price oracle combines the internal sUSDe/USDe exchange rate, a CAPO adapter, and Chainlink's USDe/USD secondary market price feed. For liquidations to function properly, the current 3% liquidation penalty must exceed sUSDe's secondary market discount. Otherwise, liquidators would need to unstake sUSDe through a 7-day cooldown period.

A USDe de-peg could trigger a prolonged sUSDe de-peg in high redemption scenarios. While Ethena's reserve fund could help restore USDe's peg, sUSDe's recovery would be slower due to high stake ratios and cooldown periods. This creates a risk window where sUSDe-backed loans could become liquidatable, but liquidations might be unprofitable if sUSDe's market discount exceeds the liquidation penalty, potentially resulting in bad debt.

Current data shows that approximately 25% of all sUSDe supply on Aave would face liquidation if USDe de-pegs by 2.5%.

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Source: LlamaRisk

While elevated liquidation risk is inherent to sUSDe liquid e-Mode usage, our primary concern is ensuring all bound liquidations can be executed successfully. Increasing the liquidation penalty can help mitigate the risk of failed liquidations. Importantly, this liquidation penalty adjustment would not affect current borrower experience and would not require changes to the Loan-to-Value (LTV) and Liquidation Threshold (LT) parameters.

Specification

- Halt sUSDe supply cap increase until Ethena insurance fund reaches our conservative reserve fund estimate, currently set at $63.6M (vs. current $50M)
- Raise the liquidation penalty of sUSDe collateral in sUSDe Stablecoins Liquid e-Mode to 4% to be more robust against USDe's secondary market pricing pressure

Disclaimer

LlamaRisk has not been compensated by any third party for publishing this ARFC. LlamaRisk serves as a member of Ethena's risk committee.

Next Steps

1. Publication of ARFC and escalate this proposal to ARFC Snapshot if there's positive feedback
2. If the ARFC snapshot outcome is YAE, publish an AIP vote for final confirmation and enforcement of the proposal

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