Simple Summary

A proposal to adjust nine (9) total risk parameters, including Loan-to-Value, Liquidation Threshold and Liquidation Bonus, across four (4) Aave V3 Avalanche assets.

Motivation

Chaos Labs' Parameter Recommendation Platform runs hundreds of thousands of agent-based off-chain and on-chain simulations to examine how different configurations of Aave V3 risk parameters would behave under adverse market conditions - and find the optimal values to maximize protocol borrow usage while minimizing losses from liquidations and bad debt.

Note: As a general guideline, we limit the search range to ±3% change for all parameters as a high/low bound for a given proposal. This ensures more controlled changes and allows us to analyze their effect on user behavior before recommending further amendments to the parameters in cases the optimal configuration is outside this range.

It is important to note that the parameters across the different assets were not jointly optimized, meaning that for each asset, the risk parameter optimization was done against the current state of the protocol. After optimizing the configuration for each asset individually, we verify that the combination of parameter updates leads to improving the risk-reward balance by simulating the recommended changes together.

Please find more information on the parameter recommendation methodology here.

You can also view the simulation results and breakdown for the different assets by clicking on them on this page.

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Increase LTs + LTVs (WAVAX, BTC.b, and LINK.e)

The output of our simulations reveals an opportunity to increase LTVs and LTs for WAVAX, BTC.b, and LINK.e, resulting in improved capital efficiency of the system, with a minor effect on the projected VaR (95th percentile of the protocol losses that will be accrued due to bad debt from under-collateralized accounts over 24 hours) and EVaR (Extreme VaR, the 99th percentile of the protocol losses that will be accrued due to bad debt from under-collateralized accounts over 24 hours)

Given the changes, we project an increase of ~0.9% in borrow usage across the assets, while the increase in VaR is <10K$. The simulation shows Extreme VaR to remain within the same level.

WAVAX

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BTC.b

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LINK.e

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Decrease LT + LTV (WETH.e)

The simulations show that the LT and LTV set for WETH.e are not optimal and should be reduced to improve the overall safety of the protocol. Given the change, the projected decrease in borrow usage for the asset is 1.37%, while the decrease in VaR and EVaR is ~$7K and ~$120K, respectively.

As of 02/06/2023, reducing the LT by 3% will lead to no new liquidated accounts[link](nk).

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Community Risk Appetite

When considering the reduction of LTs and LTVs of an asset, there are more considerations to take into account that are challenging to quantify and are not currently accounted for in our simulations. These include, for example, the impact of forced liquidations on the public trust of the protocol, borrower user experience, and capital efficiency vs. competing protocols.

Given the risk-reward tradeoff presented above and other subjective considerations, we will present two options in the Snapshot vote - YAE/NAE for the LT+LTV reduction of WETH.e.

We are eager to hear the community's risk preferences and invite a discussion regarding key voting considerations.

Recommendations

Asset

Parameter

Current

Recommended

Change

WAVAX

Liquidation Threshold

70%

73%

+3%

WAVAX

Loan-to-Value

65%

68%

+3%

BTC.b

Liquidation Threshold

75%

78%

+3%

BTC.b

Loan-to-Value

70%

73%

+3%

BTC.b

Liquidation Penalty

6.5%

5.5%

-1%

LINK.e

Liquidation Threshold

65%

68%

+3%

LINK.e

Loan-to-Value

50%

53%

+3%

As mentioned above, Chaos Labs will present two options in the Snapshot vote - YAE/NAE for the parameter updates of WETH.e shown below:

Asset

Parameter

Current

Recommended

Change

WETH.e

Liquidation Threshold

82.5%

79.5%

-3%

WETH.e

Loan-to-Value

80%

77%

Next Steps

We invite a community discussion around the proposed parameter updates and will follow up with a Snapshot vote in 5 days, barring community objection.