

Summary:

To follow up on our [forum post](#) on January 25th, we wanted to provide the community with more detail on the impact caused by AIP 55, Gauntlet's recourse plan to potentially impacted users, and the actions we are taking to avoid future issues like these.

To summarize, AIP 55 mistakenly changed ENJ parameters that were intended to be made on FEI. As a result, ENJ's liquidation threshold was lowered from 70% to 60%.

Gauntlet has conducted analysis on users who were potentially impacted (driven to liquidation) by the lower liquidation threshold for ENJ collateral that was implemented by AIP 55. We pulled data for all accounts that were liquidated between the time of AIP 55 execution and today (which we refer to as "the cutoff time" below). Of this set of accounts, we looked at the accounts that had any ENJ enabled as collateral right before it was liquidated. Not all of these accounts were meaningfully impacted by ENJ's liquidation threshold being lowered. As an example, for accounts where ENJ accounted for only a small portion of their total collateral supplied, any change to ENJ's liquidation threshold would be a minimal factor driving the accounts to liquidation.

Quantitatively our analysis shows that not all liquidated users who held ENJ collateral were meaningfully impacted by AIP 55. However, in order to be as comprehensive as possible, we have decided to reimburse all users who were liquidated (between the time of AIP 55 execution and today) who held any ENJ collateral at the block before liquidation.

We will be paying these users the penalty they incurred from liquidation (i.e. the liquidation bonus) in USD stablecoin. Details are described below.

The success of Aave and its users has always been the priority of Gauntlet. We are providing recourse to users negatively impacted by the mistakes made in AIP 55, and are committed to ensuring that this type of mistake cannot happen again.

Liquidation Analysis:

To prepare the data for analysis, we used our platform to query data from the Ethereum blockchain. We analyzed all accounts that were potentially impacted by AIP 55. The criteria we used for pulling the liquidation data is as follows:

- Accounts which were liquidated between the proposal execution (2022-01-23 03:53:23 UTC) and the cutoff time (2022-01-28 00:00:00 UTC).
- Accounts with > 0% ENJ as collateral at the block prior to their liquidation

An account qualifies for reimbursement if it matches both

criteria. Below we have compiled a list of liquidation events with accounts that match both criteria. If you are not able to receive USD stablecoin at that address for whatever reason, please contact info@gauntlet.network.

[Aave Liquidation Data](#)

Note that the price data we used for calculating the portfolio dollar value is from the Chainlink oracle (data source for on-chain calculations, including health factor) queried at the specified block. The value of collateral liquidated is calculated based on the total portfolio value at the liquidation block -1 block minus the total portfolio value at the liquidation block + 1 block, and the liquidation loss is the value of collateral liquidated times the liquidation bonus (or penalty).

Based on our analysis, 38 liquidation transactions (31 accounts) qualify for reimbursement. The total value of collateral liquidated for these accounts is \$213,895.60 and these accounts incurred \$14,504.65 in losses.

We included all accounts that supplied ENJ as collateral instead of just accounts with ENJ collateral liquidations to ensure that the reimbursement covers all the accounts being potentially impacted by our changes. Out of the 31 accounts that were liquidated, 13 liquidation transactions (11 accounts) have ENJ collateral liquidated. The value of ENJ collateral liquidated is \$63,073.57 and these accounts incurred \$4,099.78 loss.

As noted above, we also believe that the parameter changes did not directly cause the liquidations for all 31 accounts. As an example, if an account has ENJ supplied as 10% of its collateral and AIP 55 changed the ENJ liquidation threshold from 70% to 60%, the impact can only be around 1% of an account's collateralization ratio, which is often lower than an account's collateral volatility, especially after multiple days have elapsed. To provide more context, a one standard deviation move in an average account's collateral value is between 4~7% per day. 19 (50% of) liquidation transactions occurred on these accounts where ENJ was less than 10% of the supply value. However, we still plan to reimburse these accounts in order to be as comprehensive as possible in our support plan

Events That Led To AIP 55 Issues, and Steps Taken To Prevent Future Errors:

In order to verify the correctness of our proposals, we fully simulate all proposals using mainnet fork tests. We use those

tests to verify that the proposal executes correctly, that each parameter is set correctly for each token address, and that the token addresses correspond to assets on Aave V2. In this case, the incorrect address was used when adding FEI to our proposal generation system as part of onboarding it as a new collateral asset

- the address for ENJ was specified instead. Since ENJ is also a listed asset and was not also present in the proposal, it also produced valid parameter changes and our fork tests did not catch this error. We have updated our tests to use the ERC20 token symbol as an additional check, among several other added precondition state checks, to further prevent this and other types of error.

We will also continue to improve our process to remove the possibility of errors in the proposal process in addition to improving automated testing.

Next Steps:

As discussed in the original forum post, we have posted an on-chain vote (AIP 57) to revert ENJ parameter changes and enable FEI as collateral on Aave V2. AIP 57 has reached quorum and will be executed over the weekend.

We will be reimbursing the potentially impacted users (described above) the penalty they incurred from liquidation (liquidation bonus) in USD stablecoin. These funds will be sent from our wallet and will be delivered by Friday, February 4th at 5PM PT. We will keep the community posted as we roll out this recourse plan.

We are committed to the success of Aave and take to heart the lessons learned from this experience. We hope that the lessons learned not only inform Gauntlet's actions moving forward, but also inform the community more broadly. As more and more governance proposals are published on Aave, and as Aave continues to grow its user base, it is becoming increasingly important to have robust checks in place to prevent future issues in governance proposals. We are happy to serve as a resource to the community in this regard and discuss with any parties looking to put up their own governance proposals.

We thank the community for your patience, the stakeholders who voted to pass AIP 57, and the Aave core team for all their help in resolving this issue.