

Overview

We have previously posted our [supply](#) and [borrow](#) cap methodologies devised to accommodate Aave V3 assets with no supply or borrow caps.

We are formalizing a more robust supply and borrow cap methodology to serve the future needs of Aave V3, which we will complete in the coming weeks.

However, given the need to update several assets' supply and borrow caps across different V3 deployments, we have updated it to address the current needs. While this method is conservative, it will increase supply and borrow caps across most assets where the cap is close to its full usage.

Supply Caps

Definitions:

1. CurrentSupplyCap
2. the current supply cap configured for the asset
3. ExtremeLiquidationAmount
4. the amount eligible for liquidation given an extreme drop in the asset price using [Chaos Labs' Risk Explorer](#). We define the "extreme drop" for different market cap classes as follows:
5. Small Cap (<\$2B) - 50% drop
6. Medium Cap (\$2B-\$20B) - 35% drop
7. Large Cap (>\$20B) and Stables- 15% drop
8. Small Cap (<\$2B) - 50% drop
9. Medium Cap (\$2B-\$20B) - 35% drop
10. Large Cap (>\$20B) and Stables- 15% drop
11. MaxAmountLiquidated
12. the maximum amount that can be liquidated while keeping the slippage below the Liquidation Penalty

Framework:

1. Evaluate the ExtremeProfitableLiquidationRatio

:

This ratio represents how many times the ExtremeLiquidationAmount

can be profitably liquidated had it all been liquidated at once. Requiring 90% of an asset's liquidated amount will be liquidated at once is a defensive approach and can be set differently given changing risk appetites.

1. Set $R = \min(\text{ExtremeProfitableLiquidationRatio}, 2)$
2. $\text{RecommendedSupplyCap} = \text{CurrentSupplyCap} * R$

Notes:

1. The above assumes that additional supply and borrow amounts will be distributed similarly to the current supply and borrowing activity.
2. To accommodate for unexpected borrower and market behavior, we provide an upper bound of $2 * \text{CurrentSupplyCap}$ on the increase in supply caps.
1. To prevent over-concentration of a token's on-chain liquidity on Aave, we cap the supply of each token at 50% of its total circulating supply on a given network.
2. We recommend waiting at least two weeks between consecutive recommendations for a single asset to analyze suppliers' and borrowers' behavior.
3. For simplicity, we will round the recommended numbers to the nearest round number.

Borrow Caps

Our initial [borrow cap methodology](#) suggested setting the borrowing cap to allow utilization beyond the UOptimal point even when the supply cap is at full utilization. From experience and usability aspects, this serves as a proper benchmark. However, this may not be the case for higher UOptimal values ($>.45$), and a different approach is required.

[AAVE V3 Borrow Caps Methodology](#)

Methodology

To determine initial borrow caps, we're looking at several factors:

1. The [optimal utilization rate](#) (UOptimal
)
1. The current supply of the asset (CurrentSupply
)
1. The supply cap of the asset (SupplyCap
)

Note: UOptimal

is a static 0.45 based on the interest rate curves currently approved. Several reviews are already underway to modify and enhance these curves, which will require further research and likely amended Borrow Cap proposals.

Given recent proposals on the forums to amend IR curves and respective UOptimal points, we recommend that new proposed borrow caps be set up to $0.55 * \text{SupplyCap}$ until our new methodology is published.