

GHO Genesis Parameters

Aave Companies' Risk Team has investigated historical data to guide the launch of GHO, leading to the following recommendations for the genesis parameters of the asset.

Borrow Rate (BR)

stkAAVE Discount Rate (DR)

Facilitator Bucket Capacity

DEX liquidity pool 50/50 GHO/3Pool

Launch

BR 2% to 2.5%

DR 25% T=4 max 25% of GHO supply for stakers

minimum of 50M or 25% of active borrows on V3 Ethereum Market

Need to seed DEX liquidity ⇒ Target stable liquidity pool of \$15M GHO

Supply

The GHO supply includes all GHO minted through DAO approved Facilitators. Each Facilitator is granted a specific minting cap, with the resulting amount of GHO minted by each Facilitator dependent on demand. The market availability of GHO is therefore directly influenced by these minting caps, which can be adjusted to balance the supply and demand. For instance, if the token price exceeds its peg, minting can increase the supply, which creates downward pressure on the price.

Rates

The net minting rates of GHO compete with the Ethereum DeFi Dollar Borrow Index, a measure of stablecoin borrow demand across DeFi. Currently, the average cost of borrowing a stablecoin is around 1% after accounting for stablecoin borrow rates, collateral supply yield, and incentives. Based on the yield of assets supplied to Aave Protocol, the recommended rate range for GHO to remain competitive is between 1.5% and 2.5%.

[

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The GHO minting rate has a direct impact on the demand and can be recalibrated as a peg stability tool. A cautious approach at launch could be to set a higher rate, at 2% or above, which can be later adjusted as needed. This also gives some margin for adjustments which would create new data to validate assumptions on user behavior and fine-tune rate choice.

Staking

To incentivize and reward community members for protecting the Aave Protocol, AAVE stakers are eligible to mint GHO at a discounted rate. This 25% discount gives AAVE stakers a highly competitive net borrow rate compared to other markets.

To promote decentralization of GHO token holders, it is proposed that a maximum of 25% of the GHO supply should be minted by AAVE stakers. In the current market conditions, this would enable each \$stkAAVE to mint 4 \$GHO. In case the minting cap was to increase over time, while the number of \$stkAAVE was to remain stable, stakers would be able to mint more \$GHO tokens.

Redeemability

To maintain GHO's stability, a dedicated Stability Module should be established to pool backstop liquidity. While utilizing the Aave V3 eMode or direct minting and redemption may provide some degree of stability, GHO will benefit from a tailored approach.

This module has the potential to become a major Facilitator, much like Maker's PSM, which accounts for over half of the minted DAI.

Liquidity

Liquid secondary markets are critical for leading stablecoins, typically with 15-30% of their supply on exchanges. As GHO aims to become a resilient stablecoin, it will require a significant share of liquidity on DEXs, although this share can decrease as supply levels rise.

The Aave DAO has amassed 300k BAL in governance power through Balancer. To bootstrap liquidity, these holdings could be used to incentivize a Balancer GHO pool providing attractive yield opportunities for GHO liquidity providers.

Progressive growth

As the operations of Aave Protocol make GHO successful in the long term, it is crucial for the DAO to prioritize risk mitigation. Additionally, market conditions have meaningfully changed since the launch of prior stablecoins which necessitates validating underlying assumptions through observations. Therefore, we support adopting a slow growth plan to contain risks until GHO contracts are thoroughly battle-tested, and the market for GHO is highly liquid.

Borrow Rate StkAAVE Discount Rate

Facilitator Bucket Capacity

DEX liquidity pool 50/50 GHO/3Pool

Launch

BR 2% to 2.5% DR 25% T 25% of supply

minimum (50M, 25% borrows)

Need to seed DEX liquidity ⇒ Target stable liquidity pool of \$15M GHO

After 1 month

BR 1.5% to 2.5% DR 25% T 25% of supply

minimum (100m; 25% borrows)

⇒ Target stable liquidity pool of \$25M GHO

When DEX liquidity pools reach previous target

BR 1.5% to 2.5% DR 25% T 25% of supply

250M

⇒ Target stable liquidity pool of \$50M GHO

When DEX liquidity pools reach previous target

BR 1.5% to 2.5% DR 25% T 25% of supply

500M

⇒ Target stable liquidity pool of \$100M GHO

When DEX liquidity pools reach previous target

DAO Review

1B

⇒ Target stable liquidity pool of \$400M

GHO Stability Toolbox

The primary characteristic of GHO is its stability, and any deviation from its peg could lead to a loss of trust in the stablecoin. It is crucial for the DAO to take measures to maintain the stability of GHO. We have identified several tools that can be utilized to safeguard the peg of GHO, and we welcome input and suggestions from the community.

Tools

Depeg

Risks

Notes

Overcollateralization

Over/Under peg

N/A

This arbitrage has not proven sufficient for DAI's stability in volatile market conditions → before PSM it went significantly over peg in deleveraging situations

Deep DEX Liquidity

Over/Under peg

N/A

Many stables have attempted to reach escape velocity via liquidity, maybe the winner is FRAX

Interest Rate Management

Over/Under peg

In GHO's case, slow

Significant monetary policy changes are slow and need governance to get involved

GHO Borrowable on Aave (eMode)

Overpeg

Possible non-GHO stablecoin liquidations → Need time to unwind positions, actors need to be willing to take time risk, the only people that can actually do the trade are people with positions open on AAVE, there could be an issue in the beginning if borrow cap are met

97% LTV ~ 30x leverage for arbitrage

GHO Collateral on Aave (eMode, isolation)

Under peg

Couple of quarters before GHO can be a collateral GHO liquidations if GHO:STABLE falls → Need time to unwind positions

97% LTV ~ 30x leverage for arbitrage GHO as collateral could be risky in the near future. Further, we would not recommend it as collateral on the market it can be minted on. Still, cascading liquidations on Aave are less likely due to \$1 hardcoded

Custom Stability Module

Over/Under peg

Depends on the design

A new facilitator offering redeemability between newly minted GHO and stable assets.

Conclusion

In conclusion, GHO has the potential to become a leading stablecoin and a valuable addition to the Aave ecosystem. To ensure its success, the DAO must consider uncertainties, focus on risk mitigation, and validate assumptions with a cautious approach to growth. The stability of GHO is critical, we have identified several tools to strengthen the peg, including a stability module and minting rate adjustments.

The full research and analysis can be found [here](#).

The aim of GHO is to be reliable, secure, and accessible to all, and working together as a community is the best way to achieve this goal. We encourage the community to share their thoughts, ideas, and concerns on GHO. We have provided a range as a basis, and count on the community responses to this post to align on specific rates and growth targets.