Title:

[TEMP CHECK] GHO Stability Module

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Summary

This TEMP CHECK requests approval for the introduction of a Peg Stability Module for GHO (The GHO Stability Module) as referenced in this Development Update.

Motivation

Overview

A Peg Stability Module (PSM) is a contract that enables the seamless conversion of two tokens at a predetermined ratio. This mechanism has proven effective for numerous stablecoin projects, such as MakerDAO in preserving the stability exchange rates. Using this model as inspiration, the proposed Stability Module for GHO leverages the benefits of existing models whilst innovating upon them in several ways to help further maintain GHO's peg.

Features

As mentioned, the GHO Stability Module (GSM) is influenced by existing designs, with users being able to convert between GHO and governance-accepted stablecoins at a predetermined ratio. However, the design of the GSM also possesses unique features.

Price Strategies

The GSM introduces the concept of Price Strategies which provide the ability to adjust the pricing ratio between GHO and the exogenous asset, based on different strategies. Pricing strategies oversee the calculation of the price ratio, and:

• Can be fixed.

• Can be dynamic, based on price oracles and markets, linear curves, stableswap curves, etc.

For the initial launch, we recommend implementing a Fixed Pricing Strategy.

However, should the DAO choose to transition to a dynamic pricing strategy in the future, this shift can be facilitated through an AIP. The change would involve deploying a new Price Strategy contract and update the GSM to make use of the new Price Strategy.

The Debt Ceiling

The DAO may want to limit exposure to specific assets backing GHO through the GSM. The Debt Ceiling gives the DAO the ability to control the maximum exposure to the exogenous asset.

If a user tries to mint GHO and the amount of exogenous assets backing the issued GHO is higher than the Debt Ceiling, it reverts.

The Capital Allocator

The Capital Allocator provides a method through which a pre-defined portion of exogenous assets in the GSM can be used by a "fund manager" to allocate and earn yield.

The amount of funds that can be used is defined through a configurable threshold which is proposed to be decided through a separate governance process.

Last Resort Liquidations

In case of a rapid increase in risk in an exogenous asset, the GSM features Last Resort Liquidations to liquidate the exogenous asset. This special contract role allows – in the worst-case scenarios – for the DAO to take control of the asset (as a whole), thus pausing the GSM.

Price Bounds and Swap Freezes

In case the price of the exogenous asset deviates from the 1:1 ratio, trading can be stopped using Price Bounds and Swap Freezes.

Last Resort Liquidations, Price Bounds and Swap Freezes are enabled by an external contract granted with a special role that can pause trading. This contract has a function that will look up the price of the exogenous asset, and if it is outside of a certain bound, react accordingly.

Next Steps

If this TEMP CHECK receives community approval at the Snapshot phase, we will:

1. Engage community auditors for a review of the GSM codebase.
2. Following the audit, we will share the codebase with the community alongside an ARFC based on the Facilitator Onboarding Process Framework

Moreover, governance will then be able to decide on configurations around many of the GSMs features during the next stage of the governance process. These configurations include but are not limited to:

- Initial Debt Ceilings
- Initial Exogenous Assets
- Initial Pricing Strategy
- Distribution for Capital Allocation
- Price Bounds for Swap Freezes

Overall, we are excited to introduce our vision for the GSM to the DAO and believe it will play a key role in peg maintenance.

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