title: [TEMP CHECK] Safety Module Update Part I - Migrate AAVE/wETH Balancer v1 Pool to Balancer v2

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Summary

The publication proposes creating a new AAVE liquidity pool on Balancer v2 and including the BPT in Aave's Safety Module (SM).

Abstract

The SM currently accepts two deposit tokens, AAVE and ABPT. The ABPT is a 80/20 AAVE/wETH Balancer v1 liquidity pool receipt token. Balancer v1 is now obsolete and the main AAVE liquidity pool requires migrating. This publication presents several pool options to consider when migration of the main decentralized exchange (DEX) AAVE liquidity pool and if the receipt token (ABPT) should be included in Aave's SM.

Given Balancer DAO has adopted a veTokenomics model, if the new AAVE liquidity pool was to receive a gauge and incentives then this would represent an alternative yield source that does not incur any risk of shortfall. This is an important consideration when estimating the cost of renting users backstop liquidity within the SM.

This publication seeks to determine what liquidity pools should be created on Balancer v2 and if those ABPTs are to be included within Aave's SM.

Motivation

By depositing AAVE and ABPT into the SM, depositors receive stkAAVE and stkBPT respectively, along with yield nominated in AAVE. 550 AAVE are distributed daily to users who stake AAVE and another 550 AAVE is distributed daily to depositors who stake ABPT. In return for the AAVE yield, depositors are risking up to 30% of their capital by providing a backstop for the Aave liquidity pools.

Currently, the ABPT accepted in the SM is representative of a liquidity position on Balancer v1, 80/20 AAVE/wETH. The initial portion of this proposal is to focus on if the AAVE liquidity is to be migrated to Balancer v2 and if so, what pool composition should be considered. For the remainder of this publication, it is assumed Aave seeks to continue having the primary AAVE liquidity pool on Balancer protocol and other DEX providers are not considered,

This publication excludes BPTs featuring Balancer Linear boosted Pools which deposit funds into Aave v3 deployments from inclusion in the Aave SM due to the systemic risk of using deposits in Aave as backstop for Aave. This pool type is still worthy of consideration for being the main AAVE liquidity pool, or for the StakedATokens but without being accepted into the SM.

Non-Aave Boosted pool pairs were also excluded from this proposal during the initial review due to the increased risk surface area spanning beyond Balancer and Aave Protocols, but could still be considered if the community decides it, as long as the underlying strategy is fully unrelated to Aave. There are alternative means of improving the capital efficiency for liquidity providers with better risk reward trade-offs. An example is established and battle tested Liquid Staking Tokens (LST).

Considering the SM is over exposed to the AAVE token, the following options will focus on reducing the AAVE weights and explaining the pros & cons for each option. This publication presents the following four Balancer v2 liquidity pools options for discussion:

1. 80/20 AAVE/wETH

Like for like pool migrating v1 to v2

1. 80/20 AAVE/wstETH

Like for like migration with improved capital efficiency

1. 50/50 AAVE/wETH

Reduces AAVE concentration within SM, increases wETH

1. 50/50 AAVE/wstETH

Reduces AAVE concentration, increases capital efficiency by including most dominant ETH LST

In the future, an AAVE/GHO pool could be created and introduced for consideration in the SM.

Option 1 - 80/20 AAVE/wETH

This option only requires to recreate the same pool on v2 and for users to migrate.

Option 2 - 80/20 AAVE/wstETH

Option 2 is the same as Option 1 whilst replacing the unproductive wETH with wstETH. There is additional risk to consider with the inclusion of an LST relative to wETH and the additional yield it offers Liquidity Providers.

Option 3 - 50/50 AAVE/wETH

This option involves pivoting the 80/20 pool weight on the existing pool to 50/50 when deploying the new pool. Inclusion of this pool in the SM will increase the portion of wETH within the stkABPT deposits. However, it is expected the pool would experience greater impermanent loss due to the equal split composition of the pool and this could lead to higher reward expectations.

Users who migrate directly, will need to add wETH to their liquidity withdrawn from the Balancer v1 pool when depositing into the new 50/50 pool to avoid triggering a swap upon depositing.

Option 4 - 50/50 AAVE/wstETH

The Option 4 pool could be converted into a Balancer Core Pool by replacing wETH with wstETH, as the Core Pools require at least 50% in a Interest Bearing Token (IBT).

For context, 50% of the yield generated from the IBT is collected with 65% directed towards bribes via Hidden Hand for voting incentives and the remaining 35% are kept by the Balancer DAO. The Balancer team is responsible for claiming the portion of yield and distributing it to attract veBAL votes.

Considering the Shanghai upgrade date is confirmed, the risks on LST de-peg and liquidity will be reduced over time, which would make it a good asset in the SM.

Discussion

Llama suggests keeping the 80/20 composition of the v1 Balancer pool and replacing wETH with wstETH when deploying the new Balancer v2 pool. This publication favors Option 2 due to the additional capital efficiency of including an LST relative to wETH and noting the majority of the ETH correlated liquidity on Balancer v2 is nominated in wstETH. There is also the potential upside of BAL rewards which is significant given the current Aave roadmap considerations.

If the Aave community is to pursue this pool, Llama will proceed to seek support within the Balancer, Aura and other communities to determine if Aave would be eligible to participate in the 80/20 incentive program. The wstETH component, plus swap fees, would help reach the revenue contribution requirement of the pool. Whilst the time-lock on the Safety Module is only 3 weeks, it will contribute towards the 16 week time lock requirement mentioned in the proposal linked here.

Given the AAVE/wETH pool currently holds $117M of liquidity, migrating 100% of the pool would nearly meet the top tier TVL requirement ($140M with $7/BAL). With 20% of the pool held in wstETH, yielding 4.5%, this is equivalent to $1.05M in wstETH nominated yield. If Balancer was to receive 50% of this wstETH yield as revenue, then Aave could receive the maximum 250K BAL, provided other conditions are met over the lifetime of the program. For full details do read this forum post and an amendment to the original proposal.

The migration will require users to activate the cooldown, unstake the BPT v1, withdraw the liquidity, deposit on the new pool and restake.

This can be implemented independently from the following parts. In this case, a "classic" gauge will be required. Alternatively, the gauge design will be discussed in Part III.

Technical Specifications:

- Migrate the SM Infrastructure to Balancer V2 (BGD)

- Create the new pool depending on vote results (Balancer / Llama)

- Add support of the new pool in the SM (BGD)

Next Steps

Continue the discussion in the comments. The following options are to be presented for voting after a suitable period of time has passed.

Voting options

1. YAE - 80/20 AAVE/wETH

2. YAE - 80/20 AAVE/wstETH

3. YAE - 50/50 AAVE/wETH

4. YAE - 50/50AAVE/wstETH

5. NAE - Rework Proposal

6. ABSTAIN

Reference

[@bgdlabs](#) is currently progressing an upgrade the SM architecture to support the launch of GHO. The details can be found [here.](#)

Links to the the Llama publications are shown below:

1. [[TEMP CHECK] Safety Module Update Part I - Migrate AAVE/wETH Balancer v1 Pool to Balancer v2](#)

2. [[TEMP CHECK] Safety Module Upgrade Part II - Asset Diversity, SM Categories & Slashing Updates](#)

3. [[TEMP CHECK] Safety Module Upgrade Part III - Enable gauges on BPT in Safety Module (smBPT)](#)

4. [[TEMP CHECK] Safety Module Upgrade Part IV - Incentives Management Upgrade](#)

5. [[TEMP CHECK] Safety Module Upgrade Part V - veToken Holding Management Framework](#)

6. [[TEMP CHECK] Safety Module Upgrade Part VI - Future considerations](#)

Disclaimer

The Llama is not compensated by any of the mentioned communities outside of Aave.

Llama is an unpaid delegate within the Balancer ecosystem.

Members who contributed to this proposal are not angel investors or advisors to any of the mentioned communities but some do hold small holdings in those communities tokens.

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