Summary

A proposal for Gauntlet to instantiate and dynamically optimize a liquidity mining program on Arbitrum using a portion of Uniswap's $ARB airdrop. Gauntlet is requesting that 2M ARB be allocated to running and operating this 8-month incentive campaign.

Background

Over the past couple of years, Gauntlet has worked with both decentralized exchanges as well as L2s to optimize incentive spend and allocations based on trading volume elasticity. We've built an optimization engine that ingests both on and off-chain data, models elasticity, generates budget/spend recommendations, and continuously monitors performance via a statistical PID controller.

Gauntlet has published research and analysis specifically related to optimizing incentive campaigns for Uniswap V3. In April, we published a [Quantitative Evaluation Framework](#) to enable universal evaluation of any incentive programs run on Uniswap. We also recently published a detailed [analysis of the liquidity mining experiments on Optimism](#) We are finalizing and will soon post a comprehensive trader/LP elasticity analysis, among other related research and analysis we are currently conducting.

Additionally, some of our current/past work includes:

- [Immutable](#) - Re-designing and managing IMX's trading rewards program

- [Sushi](#) - Increased liquidity mining efficiency 5x

- [Balancer](#) - Doubled LP revenue

- [ApeSwap](#) - Provided savings of $742k ($2.3M annualized)

- [Ref Finance](#) - Budget and incentive optimization

Proposal

In April 2023, Gauntlet developed a[Quantitative Evaluation Framework](#) to enable the aforementioned universal evaluation of any incentives program that Uniswap intends to run. Through this, the target metrics with regard to the net benefit of any incentives campaign can be defined as:

Goals

- Optimize Incentive Budget and Allocations.

The benefits of an incentive program should outweigh its cost. In the case of Uniswap, the primary cost is the token budget set aside for distribution. Gauntlet aims to set optimal budgets and allocate incentives to LPs based on the value they contribute. By incentivizing LPs to bring and maintain meaningful liquidity and volume, we look to operate an incentive program that creates value for all stakeholders.

- Drive Network Effects.

Implementing a well-designed incentive program will attract LPs and encourage deeper liquidity pools, attracting volume. This will help Uniswap bolster its market competitiveness among both users and exchange routers. Enhancing this can lead to a flywheel effect of liquidity, trading volume, and platform growth.

- Generate Sustainable Growth.

A successful incentive program should incentivize LPs who continue to provide liquidity and contribute to Uniswap's growth and utility. With this strategic goal in mind, Gauntlet approaches our work for Uniswap with the view of supporting growth beyond the immediate time frame of the incentive program.

Methodology

- Ingest Uniswap V3 DEX data on Arbitrum into Gauntlet's platform

- Develop and customize incentive optimization elasticity models

- Continuously refit, update assumptions, and analyze model outputs

- Provide weekly incentive recommendations

As an example, to better understand trading dynamics and volume elasticities within Uniswap, we use a combination of simulation, address tagging, and price analysis to classify arbitrage trading to separate retail volume from volume originating from bots:

Here is another view showing potential misrouted volume based on simulating slippage incurred per swap for a few major Uniswap pools against competing exchanges for the USDT/WETH pool:

Expectations

- Incentive and Total Budget Optimization Updates

- Coverage of Uniswap's native pools (current and future)

- Supported Parameters: incentive budget, allocation points per pool

- Ad-hoc analyses to understand tradeoffs between growth and profitability

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- Communications

- Gauntlet will share methodology details with the Uniswap community along with weekly incentive recommendations

- Gauntlet will perform a mid-point and final retrospective impact analysis on the program

- Results to be shared in the forum

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- Out of Scope

- Protocol development work (e.g. solidity changes that improve risk/reward)

- Formalized mechanism design outside of the supported parameters

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Dashboard

As part of this engagement, Gauntlet will build a dashboard (example below) to provide key insights into incentive optimization, with the key metric being the lift in the long-term net present value of cash flows to Uniswap on Arbitrum net of the incentive spend required to enable this cash flow.

Cost

Gauntlet charges a service fee that seeks to be commensurate with the value we add to protocols.

Fixed Fee:

- $300K USD, denominated in $ARB

Term:

- Gauntlet will instantiate and dynamically optimize this program for 8 months

- Start date for instantiation is based on when a governance proposal is passed

Payment Method:

- Denominated in $ARB at 30d VWAP.

- This fee will be paid via a Sablier stream with a 8-month linear vesting period, to begin streaming when a governance proposal is passed

Next Steps

Please share any comments or feedback below.

About Gauntlet

Gauntlet is a simulation platform for market risk management and incentive optimization. Some of our prior work includes optimization work for Aave, Compound, Immutable, Sushi, ApeSwap, Ref Finance, MakerDAO, and Synthetix.

By approving this proposal, you agree that any services provided by Gauntlet shall be governed by the terms of service available at gauntlet.network/tos.