Protocol Fee Sharing and the Future of Uniswap

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In the coming months, the Uniswap DAO appears poised to vote

[on protocol fee distribution to UNI stakers

](https://twitter.com/UniswapFND/status/1761029569983971567). This article shares personal takes and speculations on the future impact of this vote.

Disclaimer #1: The author is an independent researcher, not associated with the Labs or the Foundation.

Disclaimer #2: The discussion focuses on the technical and cryptoeconomic aspects of the new model, without reflecting any legal considerations.

Summary of the UNI staking proposal

A proposal that aims to turn UNI into a fee-sharing token is currently being discussedon the Uniswap's governance forum. The main ideas are to:

Upgrade Uniswap Protocol Governance to enable the permissionless and programmatic collection of protocol fees

Distribute any protocol fees pro-rata to UNI token holders who have staked and delegated their votes

Allow for governance to continue to control core parameters: which pools which are charged a fee, and the magnitude of the fee

This initial proposal lies the groundwork of another, future proposal, which would actually introduce protocol fees on some Uniswap v3 pools:

Assuming a successful on-chain vote, the community will then have the option to turn on fees.

As a Uniswap delegate, I'm broadly in favor of the proposed fee distribution to UNI stakers from Uniswap v3 pools. I think it would be an interesting experiment to run. The thorough preparation behind this proposal clearly shows the Foundation's competence and capability.

At the moment there are still uncertainties, such as the specific pools where fees will be implemented and the exact protocol tax rate. The fee switch must be tailored to each pool, meaning fees will only be activated for a select group of Uniswap v3 pools. Economically, it doesn't make sense to apply fees to pools with low volume or short lifespans, especially when considering the DAO governance efforts required for each fee switch decision. It's probable that the pools selected will largely coincide with those where Uniswap Labs' 0.15% frontend fee is already in place. Based on previous votes, it's anticipated that the protocol fee rate will be set between 10% and 20% of the total swap fees.

Currently, there are no publicly available plans to implement fees on v2, v4, or UniswapX. These versions can be addressed in future discussions, with the V3 fee switch experiment serving as a crucial reference point.

The future of v3

Uniswap v3 is currently the most dominant iteration of the platform and, by some measures, the largest DEX in existence. However, I'd argue that Uniswap v3 is already on the decline for several reasons, outlined below. This implies that experimenting with the fee switch on v3 is relatively low-risk action.

V4 is coming and will largely replace v3

Uniswap's development strategy has some analogies with the Intel'sformer tick-tock model, where architectural advancements ("tocks") are followed by optimizations ("ticks"). In this context, Uniswap v1 and v2 represent one tick-tock

cycle, with v3 and the forthcoming v4 constituting another.

Uniswap v1 was a significant advancement over the state of the art at the time. V2 was architecturally similar, but with new features such as ERC20/ERC20 swaps and price oracles, and with other enhancements to the overall design. Despite the competition from v3, v2 remains robust, underscoring its enduring appeal.

V3 introduced another architectural leap with concentrated liquidity. However, it does have some major drawbacks, being not only more complex to use, increasing the market risk of the LPs, but also being much more affected by MEV leakage to arbitragers, particularly in lower-fee-tier pools for volatile assets.

I predict that Uniswap v3's design will not sustain in the long run, with the tried-and-trusted v2 model likely outlasting it. Once launched, v4 is expected to quickly overshadow v3, driven by several improvements:

- Gas optimizations

: v4 introduces various optimizations, including a singleton design reducing ERC20 transfer costs and transient storage mechanisms significantly lowering gas expenses.

- LP-friendly innovations

: Features designed to recapture lost value from arbitrage (LVR) through auctions and dynamic fees promise a more favorable environment for LPs.

- Support for v2 features

: V4 will reintegrate full-range liquidity positions, accommodate fee-on-transfer tokens, and allow for LP donations within the liquidity pool, among other enhancements.

In essence, v4 is poised to address v3's shortcomings while incorporating the strengths of its predecessors.

Intensifying Competition in the DEX Landscape

1. Rising rival AMMs

Uniswap v3 initially capitalized on its innovative concentrated liquidity model and restrictive licensing to dominate the sector. However, these particular advantages are no longer there. V3 core code now has been under the GPL for nearly a year. High-quality competing AMMs are emerging. Uniswap v3 does still have the most lindyness, and the most battle-proof and solid codebase, while some competitors have fallen to hacks. However, it's inevitable that these benefits are going to wane with the time, too.

1. Evolving trading mechanisms

On-chain trading is moving towards intent-based systems. As a result, we can expect a decline in the proportion of trades that get routed through AMMs. While it's far too early to declare the AMM model obsolete, the rise of platforms like UniswapX and Cowswap will likely continue and increase in their market share.

1. Emerging DEX-focused chains and rollups

The debate over whether a dedicated Uniswap appchain or rollup is the future of DEXes has compelling arguments on both sides.

- The case for

: As highlighted by Dan Elitzer, in the current model swappers pay more in Ethereum's network fees than they pay to Uniswap's LPs in swap fees. This is a shocking inefficiency. Additionally, the trader losses from imperfect execution due to slippage are also larger than the swap fees — at least that was the case in 2021/2022. The DEX trading UX does get significantly better with each year, but if the focus of Ethereum remains to be a settlement layer, these problems are unlikely to be fully solved in the future. One can keep optimizing and complicating the design of DEXes, however, it's just not possible to fully replicate the CEX trade experience on a chain that has 12 second block times — at least not without sacrificing decentralization or censorship resistance.

- The case against

: no-one want to bridge their assets across chains for marginal improvements in their trading experience. Also, we really don't need further liquidity fragmentation.

However, the potential for shared sequencing on Ethereum's mainnet could be a gamechanger. This innovation would enable synchronous composability among rollups, allowing DEX contracts on a Uniswap rollup to access liquidity across all participating rollups seamlessly. Such a development would remove most of the concerns around liquidity fragmentation and user inconvenience.