Asymmetry Finance: Staked Ethereum Index Products with DeFi Applications

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1 Abstract

Asymmetry Finance is a protocol designed to bring a solution to the centralization of the staked Ether market. The protocol will incentivize users with a sustainable yield generation model that results in market leading returns. At the same time, risk is diffused through diversification that is characteristic of the product, the Asymmetry Ethereum Index Products (afETH & safETH). AfETH and safETH are Liquid Staked Ethereum Derivative (LSED) Index products designed to more equally distribute Total Value Locked (TVL) to LSED providers.

2 Introduction

In order for DeFi to grow and truly facilitate a large percentage of financial activity worldwide, it must become more boring and solve real problems. However, in order to facilitate this effectively, Ethereum must be truly decentralized.

The DeFi liquid staked Ether market is an $8+ billion dollar market, of which nearly 90% is controlled by one entity, Lido Finance. While Lido has created a superior product that has earned its dominance in the market, control of the LSED market represents a threat to the long-term vision of decentralizing the Ethereum blockchain. AfETH & safETH are not competitors to any LSED product, but instead serve as a symbiotic vessels for driving TVL to numerous LSED protocols.

In traditional markets, $10+ trillion dollars worth of assets are held in Exchange Traded Funds (ETFs) alone since their introduction in 1993, signaling a preference from investors to invest in financial instruments through index products.

With this in mind, Asymmetry is born from two core narratives.

2.1 Decentralization of Staked Ethereum through Index Products:

Asymmetry provides market leading sustainable and scalable yield (see Section 4) while decentralizing the liquid staked Ethereum derivative market. Currently, Lido controls ~88% of the market for staked Ether derivatives[1], bringing forward risks inherent to centralization. For example, if Lido had a bug or severe depeg, 88% of the staked Ether market would be vulnerable. Another risk inherent to centralization is regulation and sanctions, as seen through the censorship of Ethereum blocks due to sanctions from the United States Office of Foreign Access Control[2]. This high level of centralization is neither safe nor in the best interest of the greater Ethereum ecosystem.

2.2 Aligning Decentralization with Financial Incentive:

History has proven that investors follow economic incentives more consistently than moral incentives. Asymmetry Finance benefits the health of the Ethereum ecosystem, but that alone will only bring a fraction of the staked Ethereum market participants to the protocol. Rational investors *do* follow yield. Thus, Asymmetry Finance utilizes a proprietary algorithm and yield generation model to offer market leading yield (by a factor of [redacted] x with afETH) to attract investors and TVL to the protocol. Assuming most investors are rational, the yield will attract them to the protocol. This accomplishes a symbiotic relationship between investors and the greater Ethereum ecosystem, as Asymmetry aligns the decentralization of the staked Ethereum market with financial incentives.

3 Asymmetry Ethereum Indices

The Asymmetry Ethereum Indices are DeFi native index products built of Liquid Staked Ethereum Derivative (LSED) products.

3.1 Indexed Products

Initially, afETH & safETH are currently composed of three LSED products with plans to further expand and diversify the index in the future. The following three LSED products are those included in alpha:

- **stETH - Lido Finance** - The first mover and largest DeFi native staked Ethereum provider, with over 5.1 million ETH staked.
- **rETH - RocketPool** - The second largest DeFi native staked Ethereum provider, with over 410,000 ETH staked.
- **frxETH - Frax Finance** - One of the newest DeFi native staked Ethereum providers. Frax Ethereum is quickly growing with over 140,000 ETH staked since inception in late October, 2022.
- **sETH2 - Stakewise** - The 5th largest LSED provider with over 85,000 ETH staked.
- **ankrETH - ANKR** - The oldest LSED protocol with over 60,000 ETH staked.

3.2 Index Weighting

Initially, the weights of afETH & safETH derivatives are seen below.

- **stETH - Lido Finance** - 14.0%
- **rETH - RocketPool** - 20.0%
- **frxETH - Frax Finance** - 29.0%
- **sETH2 - Stakewise** - 20.0%
- **ankrETH - ANKR** - 17.0%

As more products are added into the index, the weighting will adjust accordingly. The future Asymmetry DAO will have the ability to use the ASF token to increase or decrease the weights of any given afETH or safETH derivative. This can occur through a governance proposal, so long as the adjustment is within predetermined parameters to prevent one derivative from amassing voting power and dominating the index weighting. No derivative may have a weighting greater than the following equation, where n = number of LSED products.

$$\frac{3}{2n} \quad (1)$$

The effects of the maximum weight equation are illustrated below for index weighting of 3, 5, and 10 LSED products.

$$Let\ n = 3,\ \frac{3}{(2*3)} = 0.5 = 50\% \quad (2)$$

$$Let\ n = 5,\ \frac{3}{(2*5)} = 0.3 = 30\% \quad (3)$$

$$Let\ n = 10,\ \frac{3}{(2*10)} = 0.15 = 15\% \quad (4)$$

3.3 Index Functionality

When an Asymmetry token is minted, the required amounts of each LSED are acquired through direct integrations with each protocol. Asymmetry uses deposited ETH to obtain the underlying LSED products that compose the index. If, for any reason, there is no available capacity or available functionality in any given LSED protocol, Asymmetry will seek the source of liquidity with the least slippage and purchase the required LSED on the open market.

3.4 Future Index Integrations

Asymmetry is designed to expand to accommodate a large number of LSED products. The future Asymmetry DAO will maintain the index and decide upon future integrations through governance votes. In order to facilitate this process, the Core Team proposes a set of *best practices*, but not requirements, called the *Asymmetry Standards* for new protocols to use as a reference when crafting their own LSED products and proposals to the Asymmetry DAO. The *Asymmetry Standards* are an evolving list of recommendations including whitelisted audit requirements, duration of the protocol live without hacks, bug bounty, and TVL.

3.5 Protocol Revenue + Fees

Asymmetry returns 100% of protocol revenue to Asymmetry users and the Asymmetry ecosystem through a variety of mechanisms detailed in Section 7.2, including distributions to governance token holders. By not charging fees, the protocol does not bring revenue from safETH upon initial launch. Yield across the protocol is generated in the following three ways for afETH.

[redacted]

[redacted] All revenue is returned to users, as detailed in Section 7.2. On initial launch, Asymmetry does not charge additional fees to users.

4 safETH, Simple Asymmetry Finance Ethereum

Simple Asymmetry Finance Ethereum, known as *safETH* (pronounced safe-eth), is designed to be the simplest, most efficient, composable, and diversified LSED index token. SafETH is designed for institutional investors seeking a less centralized way to increase their ETH's capital efficiency, as well as novice retail users who want a DeFi native index with a set-it-and-forget-it mentality.

With this in mind, safETH has been built to lower the barrier of entry for all users and make DeFi more accessible and safe (and boring).

4.1 Functionality

As detailed in Section 3, safETH weighting is that of all Asymmetry Ethereum Index products. SafETH is designed to minimize barriers to entry, allowing users to exchange their ETH for safETH in just a few clicks.

4.2 Depositing

To mint safETH, users bring ETH to the Asymmetry dApp and deposit into the safETH vault. The deposit is split into the proper proportions of underlying LSED products and the user receives safETH tokens in return.

When acquiring underlying LSED products, Asymmetry will optimize value and result in the lowest cost for the user. For example, if any given LSED product is trading at a discount on the open market, Asymmetry will purchase instead of going directly to said protocol to deposit and mint.

Full deposit process is detailed in Figure A-3.

4.3 Withdrawing

In order to withdraw, users return to the Asymmetry dApp and reverse the deposit process by exchanging their safETH for ETH. The underlying LSED products are sold or redeemed in the most efficient manner.

4.4 Yield

Being an index style token, safETH is built up of the underlying assets and thus the yield is derived from the underlying assets. With this in mind, Asymmetry optimizes for two factors: decentralization and yield. With the weighting detailed in Section 3.2, the target yield for safETH (prior to any additional boost from the protocol) is 4.6% APY.

As detailed in Section 7.3, Asymmetry will allocate a portion of protocol revenue to increasing the yield of safETH for all users, *safETH Boost*. Targeting an additional APY of up to 1.1%, safETH can reach up to 5.7% APY while diffusing risk across the basket of underlying LSED's.

4.5 Claiming Rewards & Redemption Ratio

SafETH holders will not have to take any action in order to receive rewards. The safETH token itself is a reward bearing token with rewards built in. The redemption ratio with ETH grows daily, but the quantity never changes. This ensures maximum composability and simplifies owning the token, with no additional steps (or taxable events) included in the technology itself.

Equations demonstrating the redemption ratio functionality are shown below, assuming a 6% APY.

$$On\ day\ 0,\ 1\ ETH\ =\ 1\ safETH \tag{5}$$

$$On\ day\ 365,\ 1.06\ ETH\ =\ 1\ safETH \tag{6}$$

By including the value accrual functionality in the token price itself, all users are able to start earning rewards immediately upon acquiring safETH.

4.5 Pricing

The pricing of safETH is designed to reflect the basket of underlying assets that the safETH token itself represents. As safETH is redeemable directly for ETH, the pricing of safETH will likely be equal to ETH, plus or minus a premium or discount, not including the redemption ratio functionality.

The exact pricing of safETH will depend on variable market conditions. However, given the redemption functionality detailed in the previous section, it is unlikely that the price will deviate from ETH.

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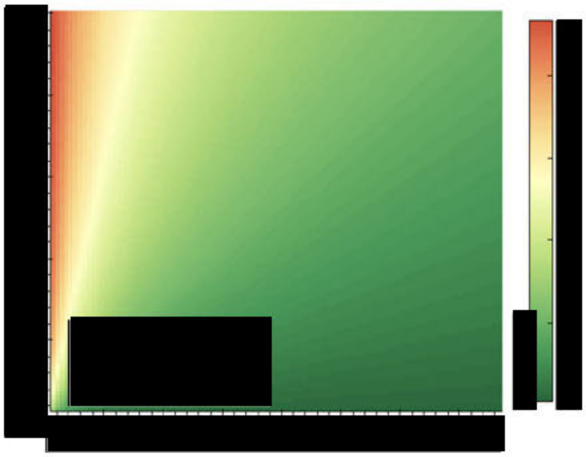

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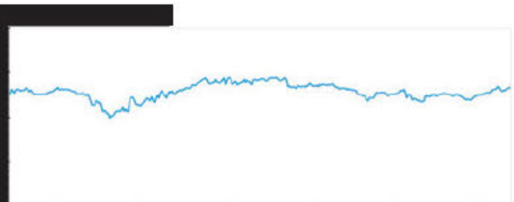

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7 Governance & Revenue Distribution

Asymmetry Finance will be governed by the Asymmetry DAO, so that the protocol is owned and managed by the community that uses it. Decentralizing ownership is critical to ensure the strength of the ecosystem and to provide control to those that participate in it.

7.1 ASF Token

The ASF token will govern Asymmetry Finance decisions and be used to vote on governance proposals submitted by the community and DAO members. The maximum supply of ASF tokens will be 51,000,000 and will all be minted, but not unlocked at the TGE.

7.2 veASF Token

Users will have the option to vote-escrow their ASF tokens as veASF, similar to Curve's vote-escrow model with veCRV. 100% of protocol profit will be distributed to veASF holders and the Asymmetry ecosystem as a whole, see Section 7.3 for more information. Protocol revenue will be distributed by using ETH block rewards and staking them in the Asymmetry dApp to mint safETH. The veASF distribution through safETH, rather than more ASF, creates a flywheel effect for the ecosystem where revenue turns into TVL which drives more revenue which drives more TVL and so on.

7.3 Revenue Distribution

Asymmetry aims to be a public good, and for a protocol to truly execute this vision, 100% of protocol revenue must be returned to the users and ecosystem. With this in mind, Asymmetry will distribute revenue to the following buckets.

- 10% - ASF Buy & Burn
- 25% - safETH distributions for veASF holders
- Up to 45% - safETH Yield Boost (see Section 4.4)
- 20% - Protocol Owned Liquidity

8 Future Asymmetry Products

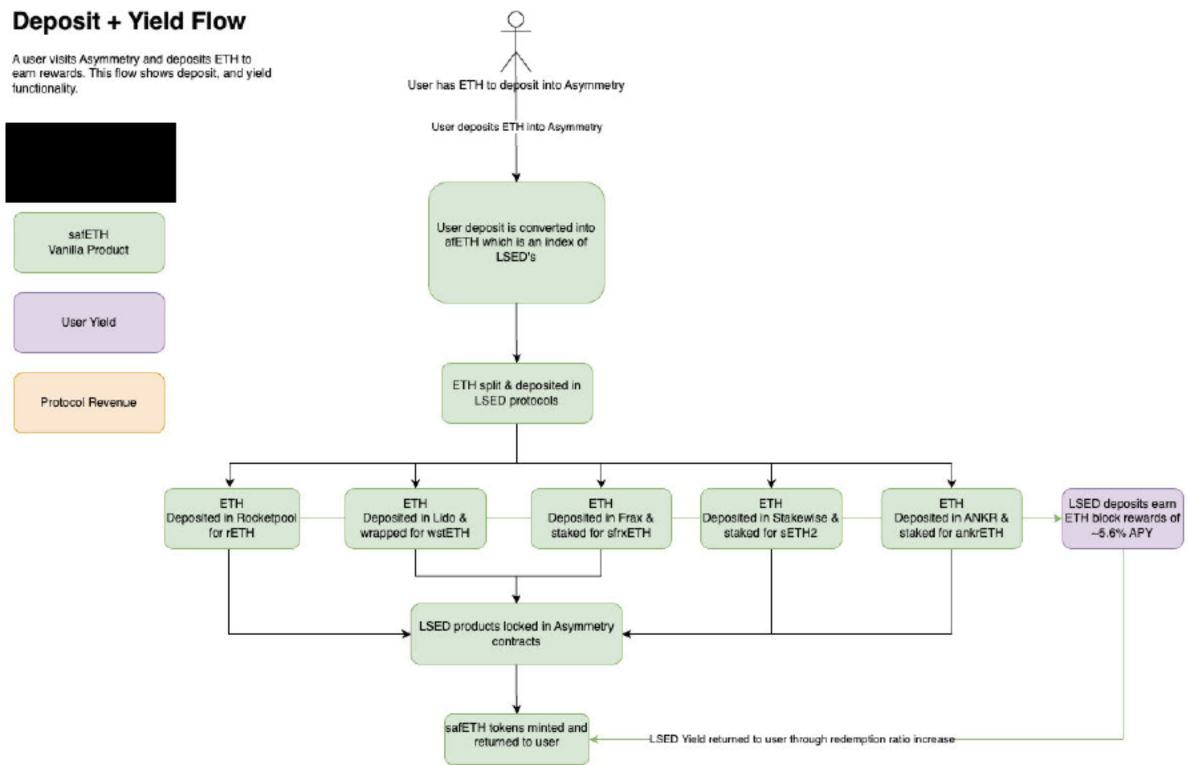
Future Asymmetry Products include, but are not limited to, the following

- [redacted]

9 References

1 - Staked Ethereum Market
https://dune.com/hildobby/ETH2-Deposits
2 - OFAC Compliant Ethereum Blocks
https://cointelegraph.com/news/ethereum-inches-even-closer-to-total-censorship-due-to-ofac-compliance
[redacted]

A-3 SafETH Deposit Process



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