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A Deep Dive into Liquid Staking and Its Benefits

In this article, we'll take a deep diving into how to use liquid staking to get into Ethereum 2.0. Learn more!

The Initiation of Ethereum Staking

Ether is a powerful open source blockchain that is home to many decentralized applications. With the rapid growth of the decentralized finance (DeFi) space in the summer of 2020, it is logical that the vast majority of DeFi applications rely heavily on Ether (through the use of its immutable smart contracts) to properly transfer, lend, or maintain users' funds.

With the recent release of Phase 0 of Ethereum 2.0, Ethereum began its transition to a proof-of-stake consensus mechanism. People (now referred to as validators) stake their ETH on the Beacon Chain to secure the blockchain, and earn staking rewards in proportion to the quantity of tokens staked. This, in effect, allows users to gain a passive income stream through staking their Ethereum, or running their own validator infrastructure to participate in the network consensus.

In order to stake on Ethereum 2.0, you need a minimum of 32 ETH to become a full validator, while less will get you into a staking pool.

A core component of Ethereum is its level of decentralization and transparency. Users anywhere around the world can uphold the network by running their own node validator, and smart contract codes are transparent for users to inspect.

Despite the potential brought on by Ethereum staking infrastructure — not least the high APYs which can be earned by stakers — there exist several limitations for validators who are considering

staking their ETH.

Self Staking: Limitations & Summary

There are many limitations for users who would like to become validators, such as the immovability of staked funds, minimum amount (32 ETH) required to participate and the individual responsibilities of running a validator. Of the many, the one that we are mainly focusing on in this article is the immovability factor.

Users that stake their ETH into the Ethereum deposit contract in order to secure the network cannot unstake their ETH until transactions are enabled. As there is no official date yet set for this phase of the upgrade, users may potentially have to wait years until they can get back their staked ETH.

The long and uncertain waiting time can dissuade people from staking their ETH — a long lockup period means that staking is geared towards those users who do not mind having their ETH locked up for a significant period of time. Speculators who stake their ETH in the deposit contract are left on the sidelines until transactions are enabled: their losses and/or gains do not have the opportunity of being actualized.

Exchange Staking: Limitations & Summary

Exchange staking refers to the process of staking tokens through a centralized exchange service. This allows users to stake and unstake at any time — they are able to withdraw their rewards as they see fit, but exchanges will apply a percentage fee on their rewards.

However, exchange staking for Ethereum is complicated by the inability of users to withdraw staked Ethereum during the initial phases of Ethereum 2.0. This inability to withdraw means that exchanges are only able to safely stake a proportion of deposits — up to approximately 60% of deposited ETH — in order to let users withdraw their staked ETH. Due to this, the reward rate from

exchange staking for Ethereum 2.0 is estimated to be significantly lower than that of self-staking or liquid staking.

An additional limitation to exchange staking is the lack of transparency and decentralization associated with the process. Exchange staking brings with it a significant risk of network centralization, as users must also have faith in the centralized exchange that they are staking with. Exchanges represent some of the largest ETH holders, and exchange staking is likely to make their ETH holdings even larger, much to the detriment of the Ethereum ecosystem (in the eyes of some).

Liquid Staking

In the face of limitations surrounding both self staking and exchange staking, liquid staking comes as an innovative alternative to sidestep risks associated with illiquidity, complexity and centralization.

Liquid staking is an alternative to locking up a user's stake: it allows for users to stake any amount of Ethereum and to effectively unstake their ETH without the requirement of transactions being enabled. This is done through the issuance of a tokenized version of the staked funds — a sort of derivative — which can be transferred, stored, spent or traded as one would a regular token.

A user would deposit their ETH into a third-party application. This app would deposit this user's ETH into the Ethereum deposit contract for them (through the use of running their own validators), and in return would mint a representative ETH token for them (eg. stETH).

This representative token will thereby let users maintain their ETH liquidity, allowing them to transfer their ETH wherever they desire — all while still earning Ethereum staking rewards.

As an example, Lido allows users to stake any amount of Ethereum, issuing stETH in return, which

can be used for lending, collateral and more, all the while still earning daily staking rewards. As a user's staked ETH generates staking rewards, the user's balance will increase once per day, allowing them to access the value of their staking rewards. Lido's approach also allows users to unstake at any time through the use of stETH-ETH liquidity pools.

Once transactions are enabled on Ethereum in a future upgrade, this representative ETH will then be returned back to the third-party issuer. The issuer will then give the user back an equivalent amount of ETH to their original stake, along with their rewards earned while securing the network. Alternatively, users can unstake by trading their staked ETH tokens on the open market.

The Prospect of Ethereum Staking

Liquid staking provides users with all the benefits of self-staking without the associated risks and complexities — it provides a viable alternative to both self and exchange staking.

Liquid staking manages to seamlessly balance risk, reward and convenience, allowing users to trade staked tokens without the firm requirements that prohibit stakers on the Ethereum network.

Additionally, liquid staking services like Lido are useful for all types of ETH holders. Smaller wallets can stake any amount of Ethereum they wish, with the ability to unstake at any time. Larger holders can use liquid staking services to hedge their funds against ETH volatility; basically, it allows for all parties to stake without the requirement of maintaining complex staking infrastructure.

With a mission to promote decentralization and accessibility – and the reward of staking at the top – we see liquidity staking ready to grow in tandem with the larger DeFi movement. Liquidity staking is the purest form of DeFi.