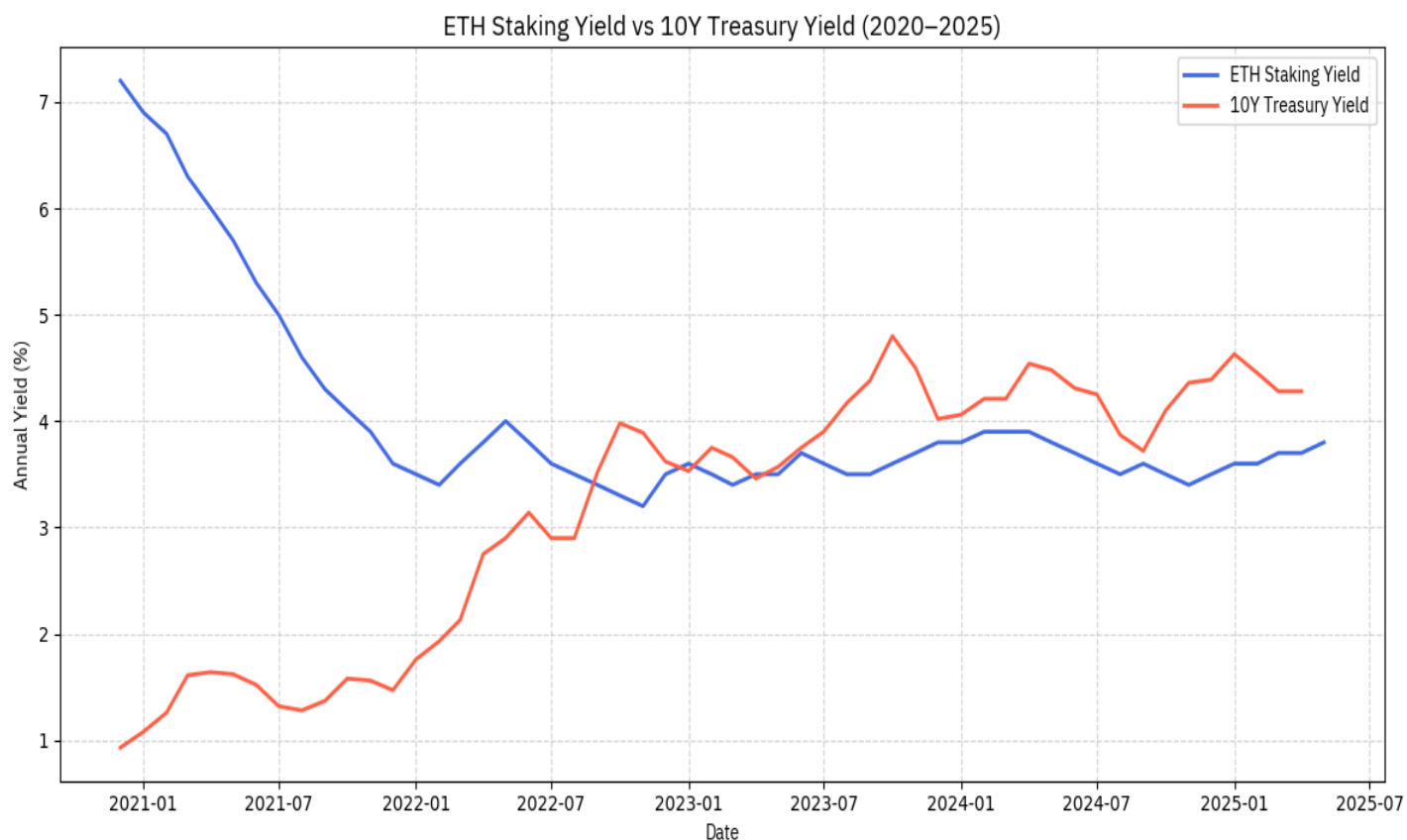


Restaking Convergence: Ethereum's Yield Infrastructure

Connor DeFrain | University of Idaho | May 2025

Staking & Treasury Yield

Ethereum staking was built to secure its network and reward validators yield in ETH. For decades, U.S. Treasuries have held the reputation of the world's safest and most liquid investment. They act as the comparative benchmark that leads pricing of all other assets in traditional finance. When Treasury yields rise, money stays defensive. When they drop, capital rotates into more speculative opportunities. Ethereum staking yields are mirroring this exact dynamic in crypto markets. Today, staking yield sits around 4%, changing on validator conditions and network dynamics.



All visuals generated by Connor DeFrain

Treasury yields respond to changes in government policy, inflation expectations, and macro sentiment. Both form similar yield curves but only one is governed by code. And while staking

and Treasury yields move in similar patterns, the risk curve for staking is far steeper. Treasuries are backed by a sovereign issuer with monetary tools, whereas Ethereum staking carries the risk of slashing penalties, smart contract failure, liquidity constraints, and the volatility of the asset itself.

Ethereum's staking rate now serves as the benchmark yield for DeFi. Stablecoin lending rates, protocol incentives, and LSDfi returns increasingly anchor to it making Ethereum staking the most reliable reference rate in crypto markets.

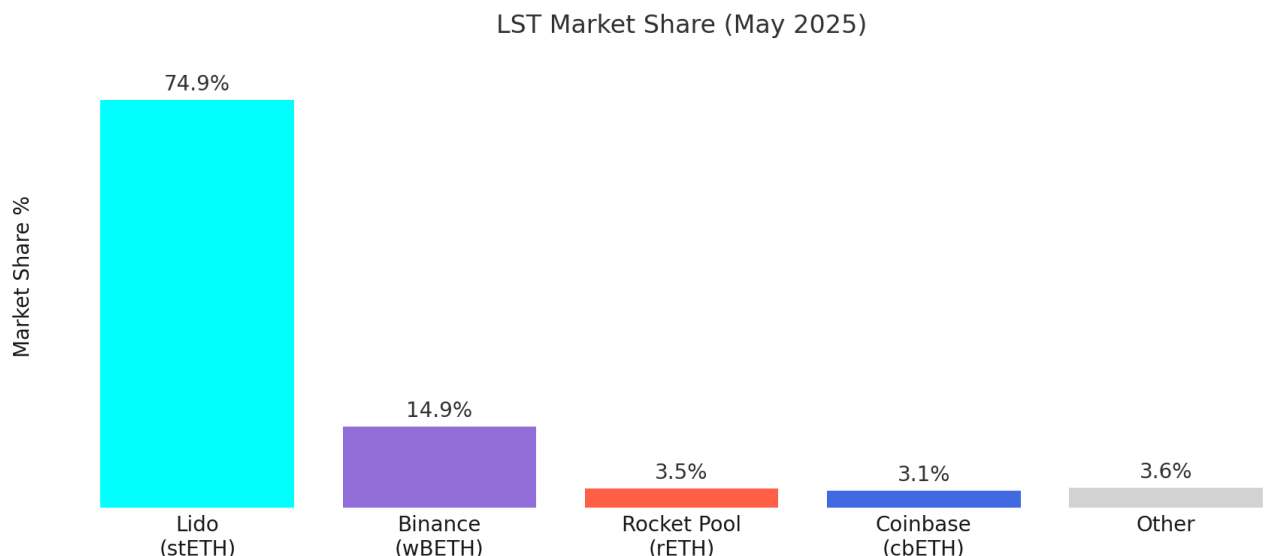
Liquid Staking Derivatives (LSDfi)

Staking directly on Ethereum's network requires 32 ETH to operate a validator node. This is a threshold few users can reach, and even fewer are actually willing to lock up.

Liquid staking protocols emerged to remove this limitation. Platforms like Lido, Rocket Pool and Coinbase pool user deposits, manage validator operations internally, and take away the technical complexity by managing the nodes themselves. These protocols issue Liquid Staking Tokens (LSTs) in return. Their native tokens (stETH, rETH, and cbETH) represent liquid claims on staked ETH and allow users to keep their yield while preserving liquidity.

LSDfi protocols quickly began building around these LSTs, creating new markets for yield trading, lending, and leverage strategies that weren't possible under traditional staking. Aside from accessibility, LSTs have also become core collateral across DeFi protocols like Aave and Pendle, enabling new forms of capital efficiency without giving up staking rewards.

However, the rise of liquid staking has introduced concentration risks. Lido's dominance with over 70% of staked ETH has set off red flags around validator centralization. In response, Rocket Pool took a different approach by allowing smaller operators to run nodes with as little as 16 ETH and using decentralized insurance through RPL staking, designed to support validator decentralization. The divergence between these models highlights the largest unresolved tradeoff in crypto: scalability vs resilience.



As LST adoption grows, the focus is shifting from unlocking liquidity to reusing staked capital across new layers of participation, security, and yield.

EigenLayer

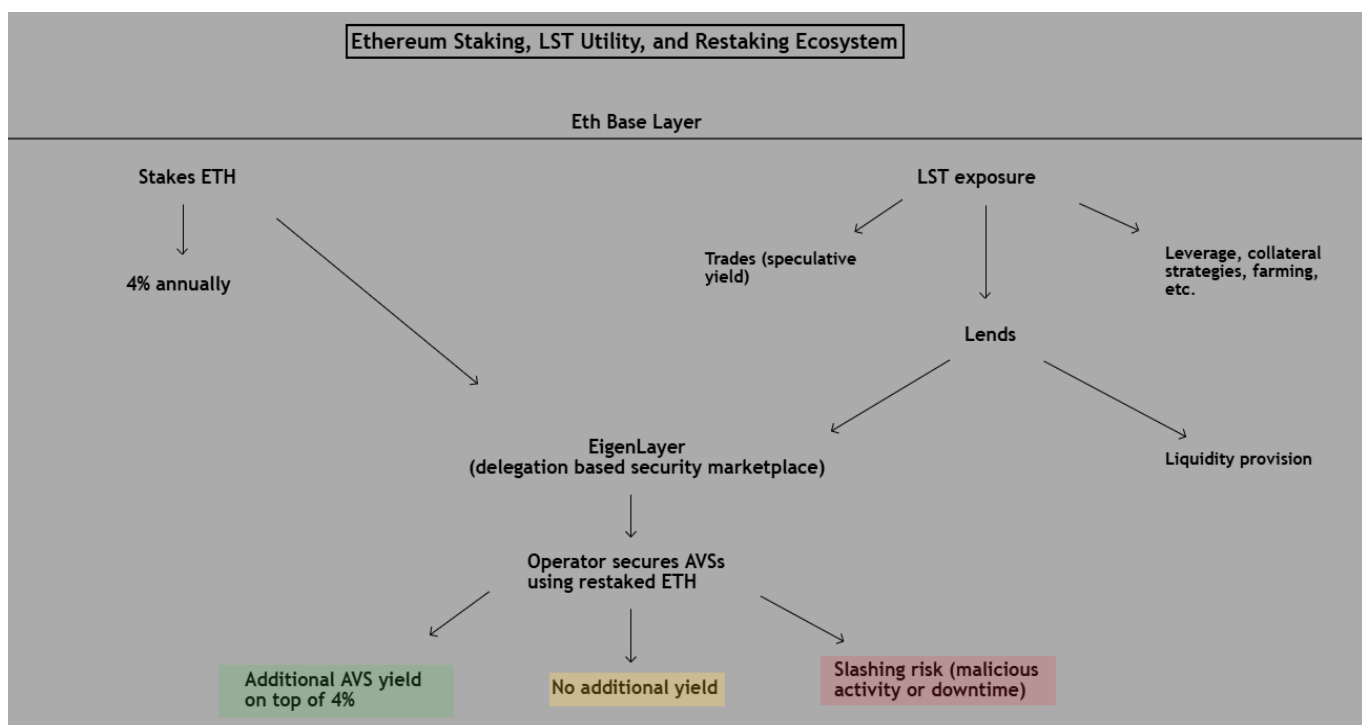
Restaking extends this foundation even further.

EigenLayer's value proposition stems from providing decentralized trust to new protocols that would otherwise need to build their own validator networks. These external protocols, known as Actively Validated Services (bridges, rollups, data availability layers, oracles, etc.), tap into the security of Ethereum's staked capital pool through EigenLayer's marketplace.

Eigen allows users to restake their LSTs directly into smart contracts that secure additional external protocols. Users can either run validators themselves or delegate restaking rights to operators who manage security participation. In return users are able to earn additional yield without needing to exit Ethereum's base layer.

To put it plainly, participants can effectively triple dip their stake by collecting the original staking yield, retaining the utility of their LSTs, and adding Eigen's AVS incentives. It's a capital efficiency breakthrough with Jevons-like implications.

That said, layered yield brings layered risk. Operator errors or protocol failures can cascade across all users restaked into a given AVS. Vitalik Buterin has warned that reusing Ethereum's validator set across too many protocols could introduce coordination risks, validator bribery, or even chain instability. EigenLayer makes those risks more concrete by tying external protocol security directly to Ethereum's staking base, creating a shared-risk model that marks a significant shift from traditional Ethereum staking.



Without liquid staking, restaking adoption would be limited to direct node operators managing their own infrastructure. The emergence of LSTs provided the liquidity foundation to unlock broad participation, necessary for restaking to scale.

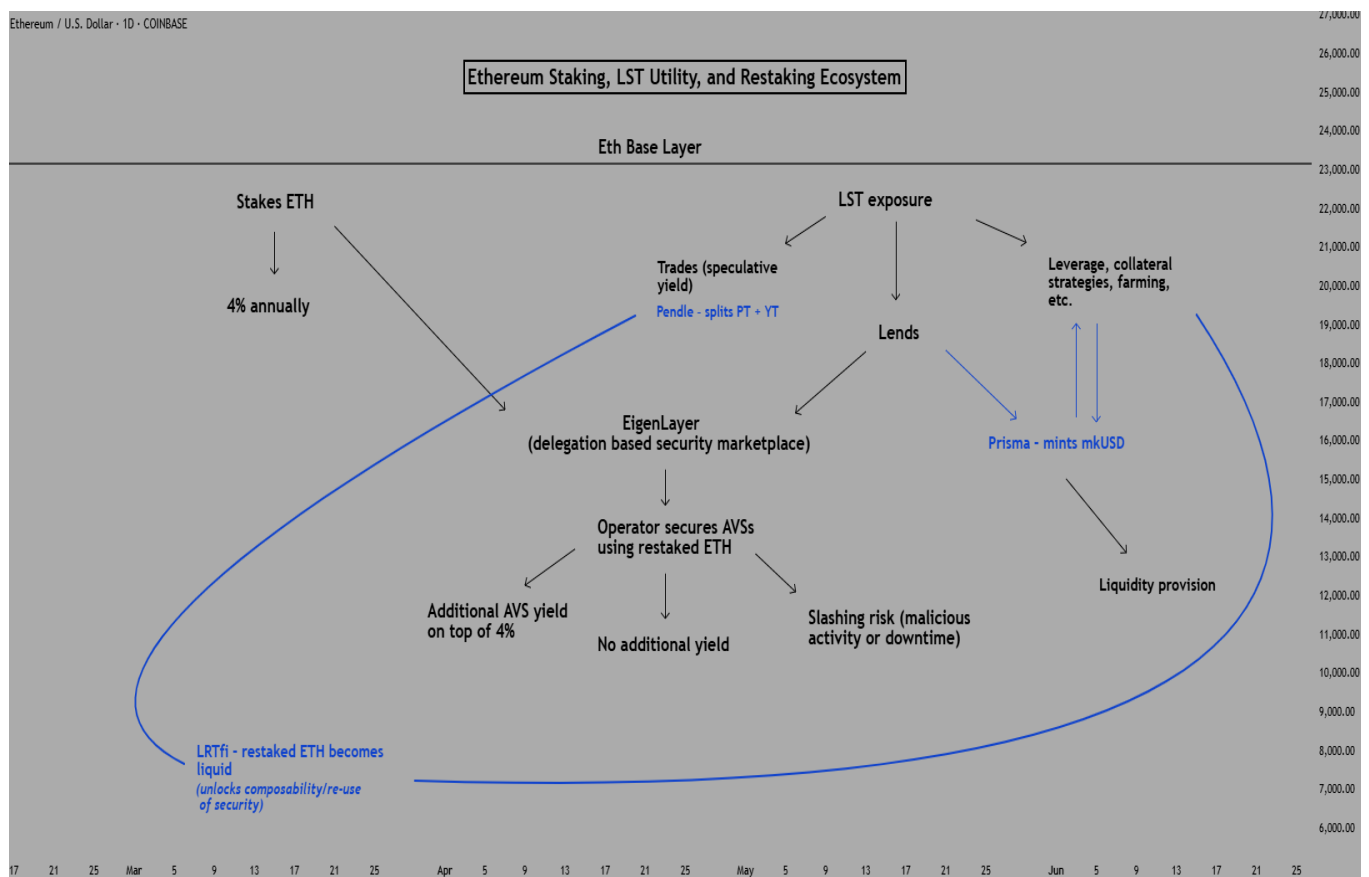
Convergence Protocols

Liquid staking derivatives building around them are starting to pull staked ETH in different directions. Each of these protocols has different use cases but stems from the same collateral.

Pendle introduces a price discovery for staking yield, demonstrating how staking yield is becoming an active and tradable financial instrument. Their key innovation is splitting LSTs like stETH into principal (PT) and future (YT) yield components. They turn staking yield into a directly tradable and hedgeable asset, effectively creating a forward liquid curve. This model allows staking yields to function more similarly to traditional markets, where future cash flows are priced and speculated on.

Prisma takes liquid staking a step further by turning staked ETH into the foundation for a new stablecoin system. Instead of simply letting users borrow against staked ETH, Prisma lets them deposit assets like stETH or rETH to mint mkUSD, a dollar-pegged stablecoin. This reframes staked ETH as base money acting in this case as collateral that directly backs a stablecoin designed to move through DeFi as if it were native cash.

There's also emerging LRTfi protocols that are pushing the model even further by making restaked ETH liquid, enabling users to secure multiple systems while maintaining flexibility.



New Monetary Implications

Jevons Paradox implies that the more efficient ETH becomes as collateral, the more protocols will demand it. What sat idle in validator queues a few years ago is now driving a phase of on-chain architecture built on reuse and composability. As each layer makes ETH more usable, the system reinforces itself and expands by consequence. Unlike Bitcoin, which was engineered as a static monetary network rooted in unchanging consensus and programmed scarcity, Ethereum's staking architecture is recursive. Its collateral base evolves through integration, with capital compounding through reuse rather than rest. This move has turned Ethereum from a network security mechanism into the foundation for liquidity, leverage, credit, and stablecoin issuance across DeFi.