

ASIA CRYPTO **INSIGHTS**

July 2023

HashKey Capital

HashKey Capital is an institutional asset manager that invests exclusively in blockchain technology and digital assets. As one of the most experienced blockchain investors based in Asia, the HashKey Capital team has deep knowledge of the blockchain ecosystem in the region and has built a network connecting entrepreneurs, investors, developers, community participants and regulators.

HashKey Capital is affiliated with HashKey Group, a digital asset management and financial services institution in Asia.

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Blockchain and Crypto Deals

P0x labs

P0x labs is the development team behind Manta Labs. Manta Pacific is the first EVM-native modular execution layer designed specifically for widespread adoption and practical use of ZK. By leveraging Manta's plug-and-play universal circuits and SDK, developers can focus their time and resources on their products without the need to learn complex cryptography. In addition, Pacific uses Celestia's data availability layer for security assurance and reduces gas fees while achieving scalability through Caldera's customized OP stack.

In April this year, Manta Atlantic launched the NPO platform, and key ecosystem partners including Arbitrum, Galxe, Linea, and CyberConnect have issued more than 300,000 zkSBTs on it. Atlantic's native wallet, Manta Wallet, has been installed over 200,000 times.

Manta's ecosystem projects, including ReadOn, Dmail, and AsMatch, currently have over 1.5 million users and have integrated zkSBT functionality to provide privacy DID – Decentralized Identity - and other enhanced privacy features for their applications, offering a better user experience.

Commentary by HashKey Capital:

The market believes that ZK technology is a promising solution that can address Ethereum's scalability and privacy issues. Manta Network's ZK solution, Celestia's modular data availability layer, and Optimism's OP stack have all gained significant attention in their respective fields. By combining the three, we expect it to create the best ecosystem for developers and users to create ZK applications, thereby promoting large-scale adoption of ZK applications.

Ethena

Ethena offers three types of products: USDe, Internet Bonds, and Repo Financing. The first product is USDe, a stablecoin that serves as the infrastructure for derivatives provided by Ethena. USDe allows ETH or its derivatives to be transformed into a scalable, encrypted native revenue stablecoin that does not rely on the banking system. USDe is fully collateralized on-chain and maintains stability through delta-neutral hedging of stETH on CEX and DEX. Tokens that can generate revenue, such as stETH, can also serve as hedging assets for USDe, providing an additional layer of stability.

The second product, Internet Bonds, is a global floating and fixed-rate USD-denominated bond that is also based on USDe. It is converted from the basic yield of stETH and futures markets into fixed income for bondholders, making it the first globally accessible and permissionless cryptographic reserve tool. Ethena also offers a repo bond agreement feature, allowing users to earn a certain interest rate by providing liquidity on the repo product.

Commentary by HashKey Capital:

Ethena's appearance may bring a new revolution in stablecoins. Its internal infrastructure does not need to rely on auditable US Treasury bonds held in bank accounts and has encrypted collateral verification outside of traditional finance, allowing Ethena to provide scalable on-chain stablecoins, relying on ETH for globally accessible and permissionless Internet Bonds.

Forge

Forge, The project is a CRM/Identity system + Social layer for games. In the identity system, the project puts users' Web2 game information and Web3 game information into the same account system.

Users can connect their API permissions for various game platform accounts, and they can earn corresponding points based on the achievements they have achieved in the game. Points can be exchanged for rewards offered by various games, NFTs, and tokens on the platform each season. Users who participate in Web3 games can earn more rewards.

The team has established a set of node-tracking data analytics for each chain, and the results of the data analysis will allow for incentivizing users through the point system. In the future, API Track will be directly added to the game to reward behavior in Web3 games.

Currently, the project is preparing for the testnet. The Social layer of the project includes many features, such as Forge login and Gamer Graph, user profiles, friend lists, non-real-time chat, data analysis, and achievements. SMS chat will be added in the future. Possible game partnerships mainly rely on a strong network of investors and advisors.

Commentary by HashKey Capital:

The founder's resources are strong, and he is a serial entrepreneur with a good track record at running and exiting companies. The model relies on strong resources to better access more traditional game users. The project's investors include Makers Fund and Bitraft, who are both investors with a deep understanding of the game industry and can potentially provide good endorsements.

Section II

Blockchain Community and Market Update

The founder of Multichain was reportedly detained by the Chinese police, and the multi-signature address on the chain was stolen.

On May 25, 2023, the founder of Multichain was rumored to have been detained by the Chinese police. After that, the cross-chain platform was suspended. The team gradually restored some cross-chain routing by contacting the founder's family, but some public chains remained congested. On July 7, according to on-chain transaction information, about \$120 million worth of assets were transferred from the Multichain multi-signature address. The team learned that this transaction was carried out by the founder's sister for asset preservation, but later the founder's sister's whereabouts were unknown. On July 13, the team claimed to have lost control of the assets and advised users to revoke authorization for Multichain and seek asset freezing from Tether and Circle stablecoin operators. Due to the lack of operating funds, the team was forced to stop operations. Subsequently, more than 60 million USDT/USDC that were transferred were frozen.

Commentary:

After China 2021's September 24th, there is a certain legal risk for crypto projects in mainland China. Chinese projects should make corresponding policy preparations, at least ensuring the safety of multi-signature and assets. Investors and users should avoid Chinese projects as much as possible and conduct sufficient research before investing. This incident significantly impacted the FTM chain, followed by ARB/OP/Moonbeam, etc. The risks of cross-chain and Defi protocols are still high and must be used cautiously.

Azuki released a new project flops, causing a heavy blow to the NFT market.

On June 28, Azuki publicly issued the Azuki Elementals new series at a price of 2ETH. This sale airdropped 10,000 items to Azuki holders and publicly issued 10,000 more, raising a total of 20,000 ETH. The market welcomed the sale and sold out in just 15 minutes. However, the new series was too similar to Azuki, which caused strong dissatisfaction among community users and led to many long-term holders selling off.

After the Elementals were released, Azuki's floor price continued to fall from a high of 14ETH to 6ETH, while Elementals also plummeted to less than 1ETH. This decline also led to a significant drop in the entire NFT market, and BAYC also fell below 30ETH at one point, causing a large-scale liquidation of NFT lending protocols. Subsequently, the community spontaneously organized organizations such as AzukiDAO, demanding that the Azuki official return the 20,000 ETH raised, and some major holders expressed their willingness to acquire the Azuki project.

Commentary:

The NFT market has been sluggish for a year, and the issuance of new projects by Azuki has once again sucked up 20,000 ETH from a market that already had insufficient liquidity, inevitably causing the market to decline. As the tide recedes, the NFT market is facing a new round of reshuffling, and whether the future NFT market can have actual applications needs to be verified over time.

The FTX claim page went live, allowing users who have assets locked in FTX to complete KYC and file claims through this page.

On July 12, the FTX claim page was launched, and users who have assets locked in FTX can complete KYC and file claims through this page, with a deadline of September 29. According to previous reports, more than half of the users' assets have been recovered, and community users believe that about 30% can be recovered. The current FTX CEO has previously stated that they plan to launch FTX 2.0 restructuring plan and are expected to restart the FTX exchange. Companies such as BlackRock, Ripple, and Nasdaq are interested in the FTX restart. Stimulated by the market news, FTT and SOL both showed positive price reaction to the news.

Commentary:

Compared with the Mt. Gox incident in the early days of cryptocurrency, the FTX incident was handled relatively quickly. If the FTX restructuring process succeeds, it will positively impact the entire industry and have an appropriate effect on regulations.

Ripple's victory in the XRP lawsuit, with the court ruling that XRP is not a security, has led to a relaxation of US policy and regulation, triggering a significant market rally.

On the evening of July 13th, Ripple made critical "progress" in its legal dispute with the US Securities and Exchange Commission (SEC). The Southern District Court of New York ruled that the "structured sales" of Ripple's XRP token did not meet the third standard of the Howey test, as holders found it difficult to link the token's price to Ripple's business dynamics (such as announcements or marketing activities). In addition, the court did not support the SEC's charges of "incitement and assistance" against Ripple CEO Brad Garlinghouse and co-founder Christian Larsen.

With the favorable ruling of the US court on XRP, Coinbase announced that it will fully resume trading of XRP-USD.

The news boosted the entire cryptocurrency market, with the market value exceeding \$1.3 trillion and the increase reaching 6%.

Against this backdrop, the price of Bitcoin briefly rose to \$31,594.31, reaching its highest point since June 2022, and its market value exceeding \$600 billion; the price of ETH also broke through the \$2,000 mark, with an increase of up to 6.9%. The price of XRP soared by nearly 75%, reaching close to \$0.9 at one point.

Commentary:

Ripple's "preliminary victory" in its lawsuit has brought positive signals to the current cryptocurrency market. Although the far-reaching impact of the Ripple case has yet to be seen, this progress has brought some hope to cryptocurrency investors. However, investors should not ignore the fact that some of the contents of Ripple's lawsuit are still under review, and this is only a preliminary judgment; some rulings may be appealed and changed in the future. Considering that this ruling poses a challenge to the SEC's enforcement strategy, it is highly likely that the SEC will choose to appeal to the higher court to try to solidify the legislative strategy questioned in this ruling.

SEC has received multiple applications for Bitcoin spot ETFs from various institutions, leading to a narrowing of the discount on GBTC Bitcoin Trust.

Since June, several large institutions, including traditional financial giant BlackRock and large mutual fund management company Fidelity, have successively applied to the US SEC for Bitcoin ETFs. The SEC has also confirmed receiving ETF applications from multiple institutions and has officially entered the approval process. The earliest ETF application was submitted by VanEck on December 30, 2020, and also includes an application submitted by Ark Invest on June 28, 2021. These ETFs have recently been submitted for the latest review, and the SEC has confirmed that the next approval deadline will mainly be concentrated in mid to late August 2023, with the final deadline in March 2024. Due to the surge in applications for Bitcoin ETFs, market sentiment has become optimistic, and expectations for US regulatory approval of Bitcoin ETFs have risen sharply. This is one of the reasons for the recent significant narrowing of the negative premium on GBTC. Grayscale stated in April that it expects to know by the end of the third quarter whether it will be allowed to convert GBTC to an ETF. Some investors view the discount on GBTC as an implicit probability of conversion to an ETF, and the lower the discount, the higher the likelihood of a market price increase.

Commentary:

Although the US has not yet approved a Bitcoin spot ETF, investors have made substantial investments through various other structures, including Grayscale Bitcoin Trust (GBTC), US-based futures-based ETFs, spot ETFs in other countries, and private investment funds. It has been ten years since the first registration application was submitted for a Bitcoin spot ETF, and recently investors' expectations for new applications to be approved have risen again. Bitcoin spot ETFs are expected to bring significant funds to the market, and investors should closely monitor them.

The Ethereum Community Conference – EthCC - opened in Paris

On July 17, the largest annual Ethereum event in Europe, the Ethereum Community Conference (EthCC), opened in Paris at 10:00 local time. The conference will last for four days and features speakers such as Vitalik Buterin, founder of Uniswap Hayden Adams, Avihu Levy, product director of StarkWare, Anton Bukov, co-founder of 1inch, Akaki Mamageishvili, from Offchain Labs, and Aliu Musa, head of the Celo Foundation's African ecosystem. Some of the hot events at the conference worth noting for investors include:

1. Lens Protocol released version 2, which emphasizes openness, composability, benefit sharing, trust, and security. Users can now execute external smart contract operations directly in Lens content posts, and Lens V2 has the ability to interact with social media smart contracts.
2. Uniswap launched the non-custodial, dutch auction-based protocol UniswapX at the ETHCC conference. UniswapX aims to outsource routing complexity to third-party providers through an open network, and then third-party fillers compete to use AMM pools or their own private inventory and other on-chain liquidity to complete swaps, helping traders find potential best prices.
3. The cryptocurrency oracle Chainlink announced the launch of the Cross-Chain Interoperability Protocol – CCIP - which is a technology that aims to link public and private blockchains for applications. It has been launched on the Avalanche, Ethereum, Optimism, and Polygon mainnets, unlocking new cross-chain economics.
4. The Ethereum zkEVM Layer 2 network Linea, launched by ConsenSys, released the mainnet Alpha version and opened it to the entire community during the ETHCC conference.
5. Gnosis Chain released the decentralized payment network Gnosis Pay and the self-custodial debit card Gnosis Card during the ETHCC conference. Gnosis Pay is built on Gnosis Chain and can cover all Visa payment networks. According to its architecture diagram, bank systems, Visa, MasterCard, and other payment methods will directly interact with Gnosis Pay L2, and its L2 has chosen the Polygon zkSupernet stack (Polygon zkEVM).

Commentary:

The industry updates and achievements announced at the ETHCC conference in Paris are injecting momentum into the further growth of the Ethereum ecosystem and bringing innovative changes to the entire cryptocurrency field. From DeFi to Web3 social networks, the future development of Ethereum has become more diverse and extensive.

The narrative of tokenized real-world assets – RWA - has blown up.

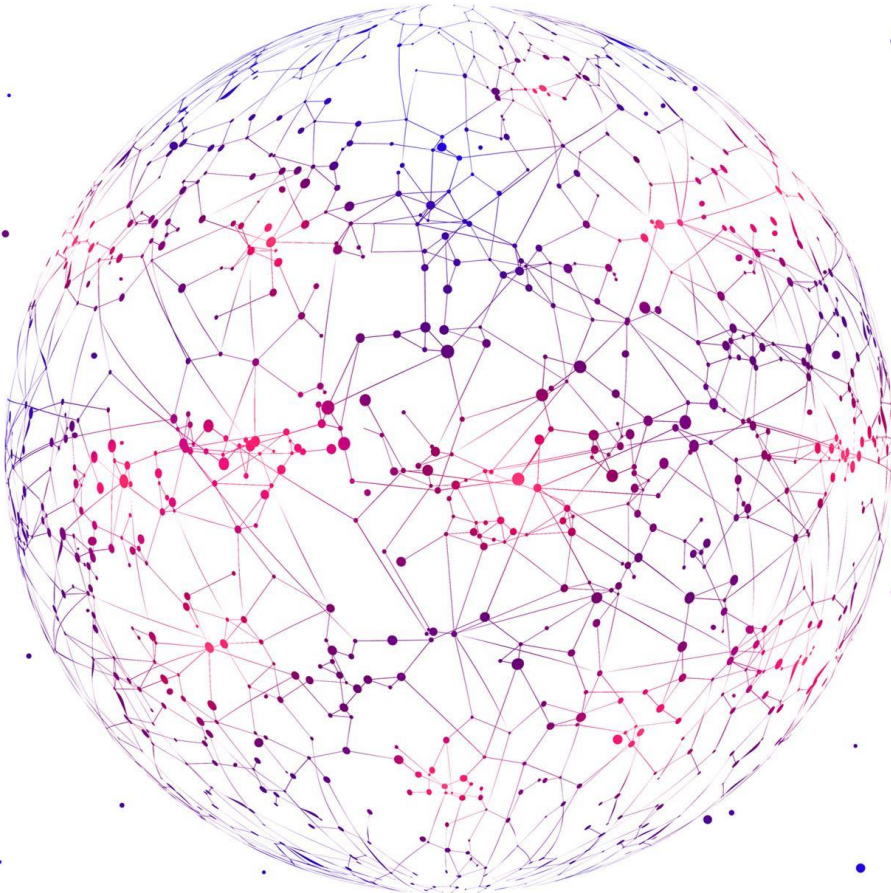
In June, the discussion around tokenized real-world assets (RWA) exploded. RWA converts traditional market assets into the token form, allowing WEB3 users to trade. The explosion of RWA is benefiting from several factors: the current cryptocurrency market urgently needs low-risk U-based assets.

As risk-free rates in major economies rise to 4% or higher, traditional financial market products become more attractive to cryptocurrency market investors. During the cryptocurrency bull market of 2020-2021, a large amount of traditional capital also entered the market seeking returns, and the launch of RWA just met this market demand.

Secondly, since the cryptocurrency market has not re-entered the bull market, RWA has become a new investment focus due to its stable returns. RWA also provides a channel for connecting traditional and cryptocurrency markets and is expected to attract more traditional investors and bring a positive impact to the entire blockchain industry.

Commentary:

RWA is becoming a bridge between traditional finance and decentralized finance (DeFi), but in the short term, the market's speculation on the RWA track is overheated, and most RWA project business indicators, such as TVL, have not grown substantially. Investors should be cautious regarding the development of this market.



- **Hive Blockchain and other cryptocurrency mining companies are exploring the use of graphics card (GPU) mining machines in the field of AI.**

<https://www.bloomberg.com/news/articles/2023-05-10/ether-crypto-miners-woo-artificial-intelligence-ai-with-gpu-chips-services>

Bitcoin mining company Argo Blockchain has raised approximately \$7.5 million through equity issuance.

<https://www.londonstockexchange.com/news-article/ARB/result-of-placing/16046458>

US presidential candidate Vivek Ramaswamy hopes to introduce new regulations to lower taxes for cryptocurrency mining companies.

<https://www.livebitcoinnews.com/vivek-ramaswamy-is-making-crypto-a-big-part-of-his-white-house-campaign/>

Section IV

China Blockchain Headlines

Shanghai will release a "Shanghai Plan" for the innovation and development of the blockchain industry.

According to China Securities Journal, the "Data Reality Integration, Leading the Future" Industrial Blockchain Ecological Forum was held on July 7 at the Shanghai World Expo Center during the 2023 World Artificial Intelligence Conference (WAIC).

Zhang Hongtao, Deputy Director of the Shanghai Economic and Information Commission, stated in his speech that Shanghai will grasp the key points and focus of industrial development, release the "Shanghai Plan" for innovative development of the blockchain industry, and build a highland for the innovative development of the blockchain industry. The plan includes four aspects: firstly, to reshape the industrial foundation through urban infrastructure projects and form a "chain alliance" urban infrastructure layout; secondly, to lead the future of the industry through the layout of key technologies and build a blockchain technology-independent innovation system across the entire chain; thirdly, to drive industrial development through the construction of major use cases, create typical applications and benchmark demonstration projects in key areas such as finance, shipping, and trade, and promote extensive interconnection among different entities, industries, and regions; and finally, to cultivate innovation ecosystem and stimulate industrial vitality, introduce incentive mechanisms and policy initiatives, gather important chain enterprises and cross-chain platforms, and vigorously enhance the core competitiveness and integration innovation of the Shanghai blockchain industry.

Lin Le, founder and CEO of Zerosum Technology, spoke on the theme of "The Difficult but Correct Path of Industrial Blockchain"

At the "Data Reality Integration, Leading the Future" Industrial Blockchain Ecological Forum on July 7. Lin believes that technology is just a castle in the air without real-world application scenarios. Therefore, it is difficult but the correct choice for Chinese blockchain companies to delve into the physical business field. "Industrial" blockchain is the only way forward.

Section IV

China Blockchain Headlines

Despite numerous blockchain-related policies issued by various ministries and local governments, the development of domestic blockchain companies in China is facing many difficulties due to a lack of growth in the industry.

According to the Blockchain Research Institute of CCID, as of the end of 2022, there were over a thousand blockchain-related policies issued by various ministries and local governments. However, in terms of industry development, the number of new blockchain companies increased by nearly 400 in 2020 but only by about 100 in 2022. As of the end of 2022, approximately 1,700 blockchain companies in China provide professional technical support, products, solutions and have invested in or generated output in the blockchain industry.

"Developing these companies is not easy. Companies find it difficult to generate revenue, and even when they have a project, it can be challenging to deliver and receive payment," said Liu Quan, Deputy Chief Engineer of the Blockchain Research Institute of the Ministry of Industry and Information Technology. "Therefore, there are challenges in the industry at present."

Section V

In this Asia Crypto Insights section, we will cover the current landscape of the LSD market and where we are heading. We will compare different LSD protocols and provide important insights into why we think this market has a big potential to grow. For more LSD research, take a look at our research page [here](#).

Key Insights:

1. The percentage of ETH staked will double in the coming years.
2. The liquid staking LSD market share will take a big share from solo and CEX staking.
3. Emerging LSD protocols will take a large share of the currently dominating LSD protocols.
4. Staking yields will be lower but LSD composability with DeFi will boost the end-user yields.
5. New technologies such as DVT – Distributed Validator Technology – will further democratize and decentralize validator networks.
6. In the future, any rational actor would have 100% of its ETH staked in LSDs. Further implementation of EIP-4337 allow fees to with ERC-20 tokens (all LSD/LST tokens are ERC-20), meaning that holding simple ETH can become redundant.
7. Ethereum staking growth is accelerating fast and in 2 years, the percentage of staked ETH can reach 45% of the circulating ETH, which will represent hundreds of billions of dollars. This will foster the LSD growth.
8. Among all LSD protocols, Rocket Pool has been growing the fastest in the last few months. On the other hand, Coinbase's cbETH has been losing market share. This shows that the decentralization ethos matters for the community.
9. In the medium term, Ethereum staking is a 100's of billion dollars opportunity. In the long term, it has potential to represent a one trillion- dollar opportunity.

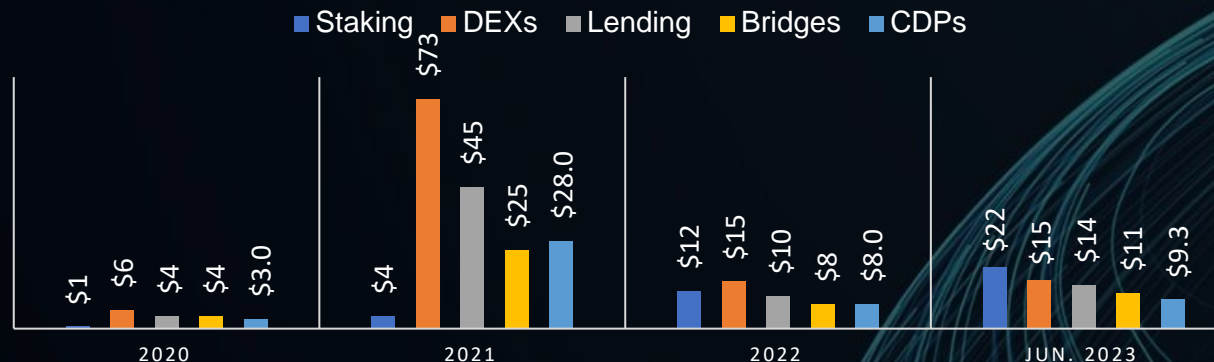
LSD Adoption

The LSD market is revolutionizing Proof of Stake, the way we secure networks like Ethereum and on-chain yield generation. Let's start with some key takeaways:

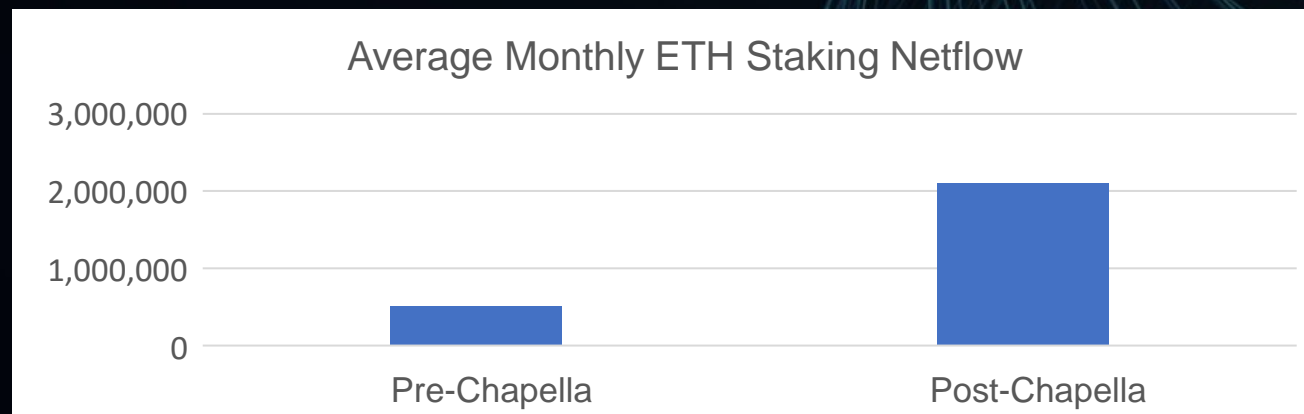
The Shanghai (or Shapella) upgrade in April 2023 kickstarted the next big narrative: **the staking wars**. New innovative LSD protocols have been popping up in the market and promise to bring innovation, liquidity, and attractive yields to stakers and validators.

- Around \$140 million dollars are staked every day on the Ethereum chain.
- ETH staking increased over 15% after the Shanghai upgrade.
- Since the Merge (Sept. 2022) the annual inflation rate is -0.31%. Had Ethereum continued to have the same issuance, its inflation would be 3.5%.
- Ether average monthly staking inflow more than quadrupled.
- These metrics show us that organic demand is increasing while organic supply is decreasing. However, the Ethereum price might not have responded accordingly yet.

TOP 5 DEFI SECTORS PER TVL (BILLION \$)



The turn has started: while just a couple of years ago, the LSD market was minuscule, LSD protocols are now the top DeFi sector in terms of TVL – Total Value Locked – with \$22 billion at the time of the writing. Decentralized Exchanges follow with (only) \$15 billion in TVL.



The average monthly volume of ETH staked more than quadrupled since the Chapella upgrade.

Why LSDs?

ETH staking saw a sharp acceleration post Chapella upgrade in April 2023. Saying this, the total percentage of ETH staked is to double in the coming years and the market has much room to grow. To be more precise we have created a statistical model that shows us that within 2 years (i.e. end of Q2 2025) the total ETH staked should reach between 31% and 45% (it's 17% at the time of the writing). This growth can correspond to an additional \$18 billion to \$24 billion in TVL over the coming two years. In the long term, this growth will compound to hundreds of billions of dollars or even over one trillion dollars.

As protocol revenue for LSD protocols directly correlates with ETH prices, liquid staking protocols can be seen as a levered bet on ETH as they gain a stronger market share over staked ETH.

Why do we see such a big resurgence in LSD TVL, and why did LSD protocols flip DEX Total Value Locked in March 2023?

Well, LSD protocols bring a strong use case to the market and significant benefits to Ethereum PoS stakers. For instance, in most PoS chains, the capital allocated to PoS validators is not liquid. It involves locking capital for a certain length of time and waiting in queues to stake and unstake. Additionally, when a user stakes their crypto in a PoS chain, the coins are locked for the staking period, making it capital inefficient, i.e. there's not much else the user can do with the staked asset.

On the other hand, LSD protocols issues a "derivative" token that represents that staked asset. This derivative token can be traded, and it is used for other purposes such as re-staking, getting a loan in DeFi, trade it or using these derivatives is a DeFi liquidity pool.

Solo Staking & StaaS

Liquid Staking

Liquidity

Tokens are locked and unavailable

Creates a derivative asset that can be traded and used in DeFi (better capital efficiency)

Rewards

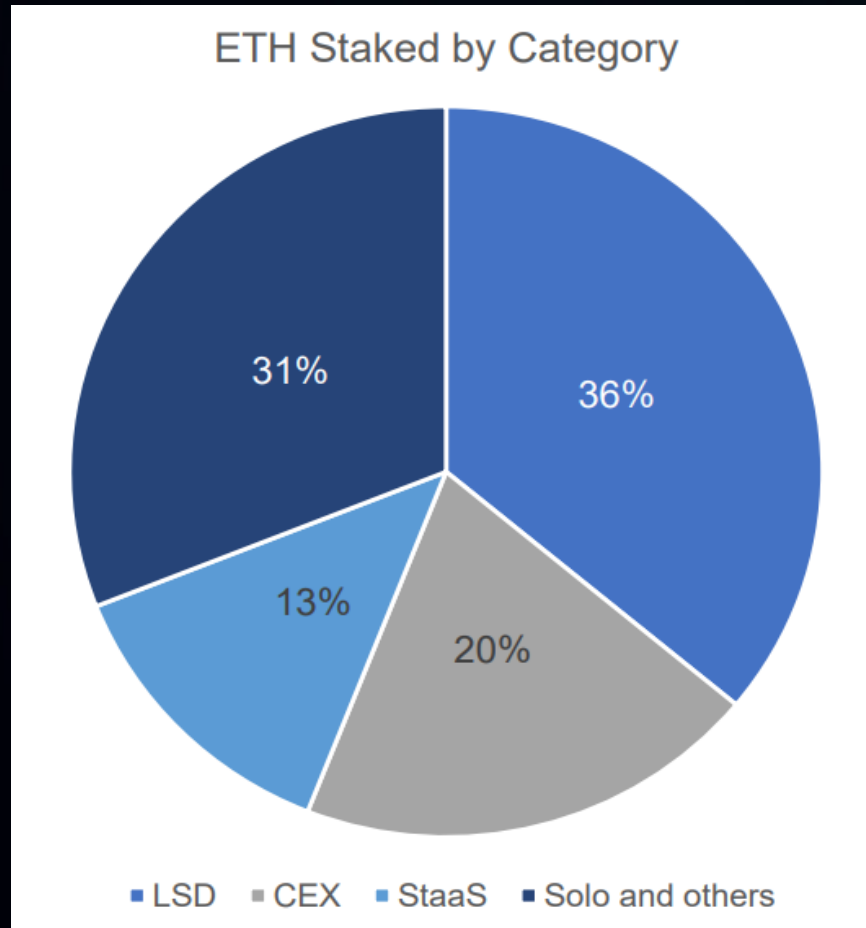
Yields are usually higher

Yields are lower but it automates auto-compound

- Ethereum Merge - PoW -> PoS Sept. 2022
- Chapella upgrade enabled withdrawals - April 2023
- 32 ETH required to start a solo validator node
- Pooled staking removed the capital and technical barriers
- LSD protocols are dominating the validator set
- The community has been criticizing LSD protocols over centralization



How is Ethereum Staking Distributed across the network?



The LSD market share is likely to grow over time as LSD protocols get more user friendly, secure and further integrated with DeFi. However, the future of this growth is in the hands of decentralization.

The categories in the graph have varying degrees of decentralization, from Solo Staking as the most decentralized to CEX as the most centralized. LSDs have been in the middle but only the community and governance can pull LSDs to the right side of the decentralization spectrum.

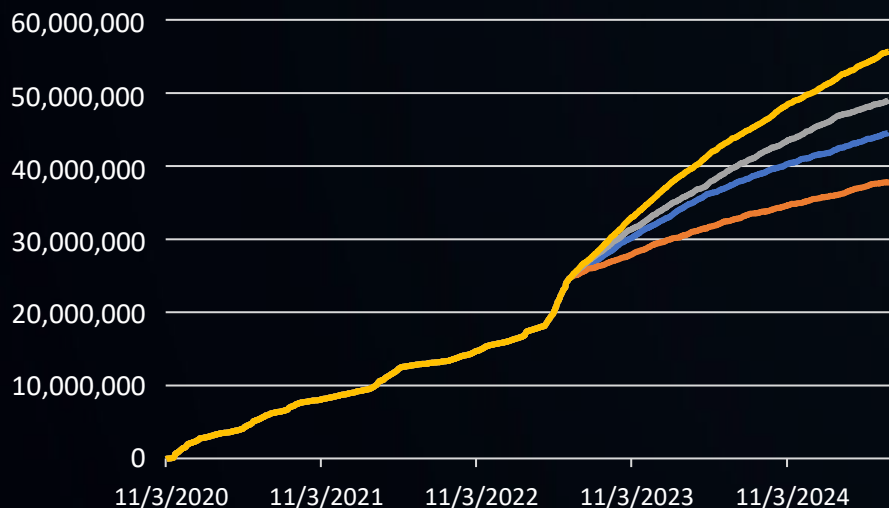
Why Decentralization in the LSD Space is Essential for Ethereum's Health

Ethereum LSD protocols are naturally fighting for their market share. A bigger market share brings more revenue to the protocol, which is good for its respective community and token holders. However, gaining too much market can be a double-edged sword, as it can harm the entire ecosystem in different ways:

- **Reduced competition:** centralization of staking can lead to less innovation, market manipulation and unfair practices.
- **Increased risk of censorship:** there is a heightened possibility of censorship with centralized staking players, as they may be subject to incentives or regulatory pressure to censor transactions. This can potentially result in a disruption of the trust within the network.
- **Decreased security:** big staking players make it easier for attackers to carry out malicious activities, such as 51% attacks.
- **Increased risk of collusion:** centralized stakers can collude to carry out actions that go against the decentralization ethos and against the users, such as malevolent MEV extraction and frontrunning.

These are the main reasons why the community has been pushing for better LSD decentralization. As seen in the previous table, many LSD protocols rely on a small number of node operators that centralize a large number of validator nodes.

Total ETH Staked - Projection



In the medium term, Ethereum staking is a 100's of billion dollars opportunity. In the long term, it has potential to represent a one trillion-dollar opportunity.

Key Figures	
Current staking	Q2 2025 projection
16%	31% to 45%
Current ETH staked	Q2 2025 projection
19 million ETH	37 to 57 million ETH
Current mcap staked	Q2 2025 projection
\$36 billion	93% to 181% 2y growth

Not surprising that the LSD wars are starting.

According to the current progress of the ETH staking we have created a statistical model that shows us that within 2 years (i.e. end of Q2 2025), the total ETH staked should reach between 31% and 45% of the total supply. This means that the LSD market has the potential to more than double its size in only 2 years. This growth can correspond to an additional \$24 billion in TVL over the coming two years.

Reaching a total staked ETH between 31% and 45% in 2 years would represent an annual growth between 43% and 75% YoY.

ETH Supply – Total Staked (Million ETH)



*Projected

LSD Token Types, Commissions, and its Impact on User Income

The type of token and protocol commission can play an important role when it comes to the income that stakers can generate.

Rebasing tokens will increase its underlying supply with yield accrual. On the other hand, **reward-bearing tokens** underlying supply remains constant, while the price of the token increases to reflect the staking rewards.

Staking protocols offering **reward-bearing tokens** seem to be more advantageous than rebase tokens (like Lido's stETH). There are two main reasons for this:

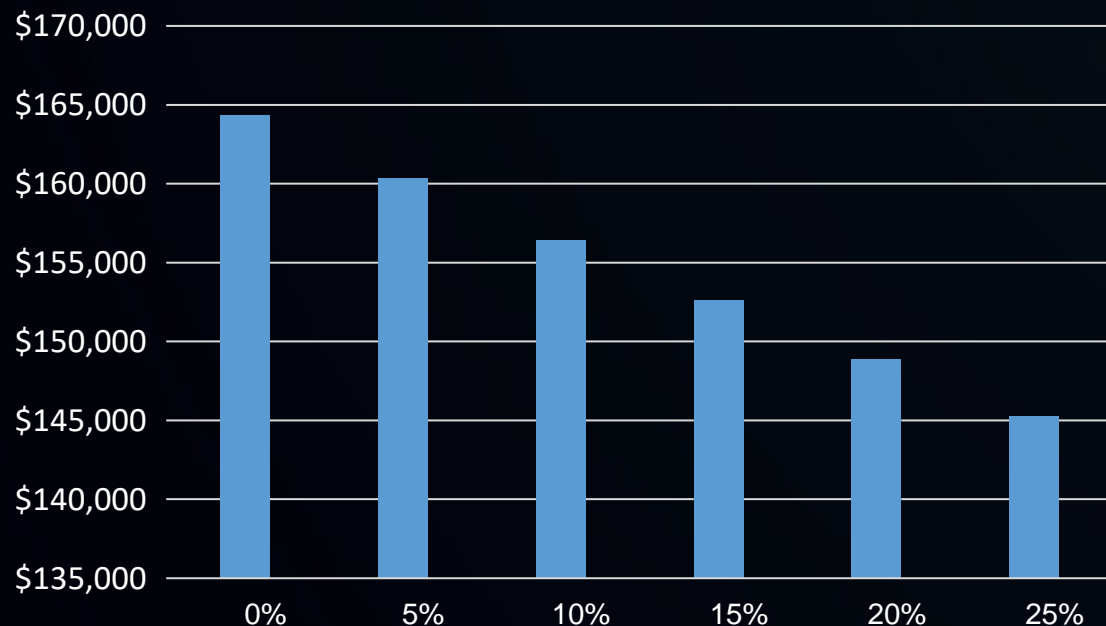
- **DeFi compatibility:** rebase tokens are harder to integrate with DeFi protocols as their supply keeps changing and most DeFi protocols smart contracts can't handle this. For this reason, in most cases users will have to wrap their stETH into wstETH adding additional transaction fees and complexity.
- **Tax efficiency:** depending on user's jurisdiction, staking might be a taxable event. In some cases, receiving tokens in a wallet is considered a taxable event (income tax), which is what happens with rebase tokens. On the top of that, when selling these tokens, the user might need to pay capital gains tax. Reward-bearing tokens increase in value rather than increasing in supply, which avoids the creation of potentially taxable events.
NOTE: this will depend on user's jurisdiction. HashKey does not provide any tax, legal or accounting advice.

Saying this, in the long term, the market might move towards reward-bearing tokens.

Another factor that can have a strong impact on user staking income are the protocol commissions. Currently, protocol commissions widely vary from 0% to 25%. These commissions impact the compounding effect, thus having a strong impact in the long run.

In the chart below, we assume that the ETH staking yield rate will always be 5% over the next 10 years:

Impact of protocol commissions over a \$100 000 investment over 10 years



Fees can have a significant impact on the investment. This chart assumes that ETH staking will continue paying a 5% yield over the next 10 years and that everything else remains the same. In the long term, protocols with lower fees, such as Stafi, Ether.fi and Swell would bring stakers significantly better returns. On the other hand, Coinbase’s cbETH would give the worse returns (\$19 116 less when compared to zero fees).

Solo stakers also enjoy the benefits of zero fees. However, it’s also worth mentioning that solo stakers have more limitations to compounding their rewards. Solo stakers will have to wait until they accrue 32 ETH in rewards to spin up a new validator (i.e. reinvest their rewards). Saying this, only solo stakers with [4 or more validators](#) compounding yield will outpace the fees they would otherwise pay on LSD protocols.

Protocols will need to charge fees to reward node operators and fund their treasury, but we will probably find a sweet spot in terms of protocol commission in the near future. Perhaps LSD protocols will also find new revenue sources through technologies such as re-staking.

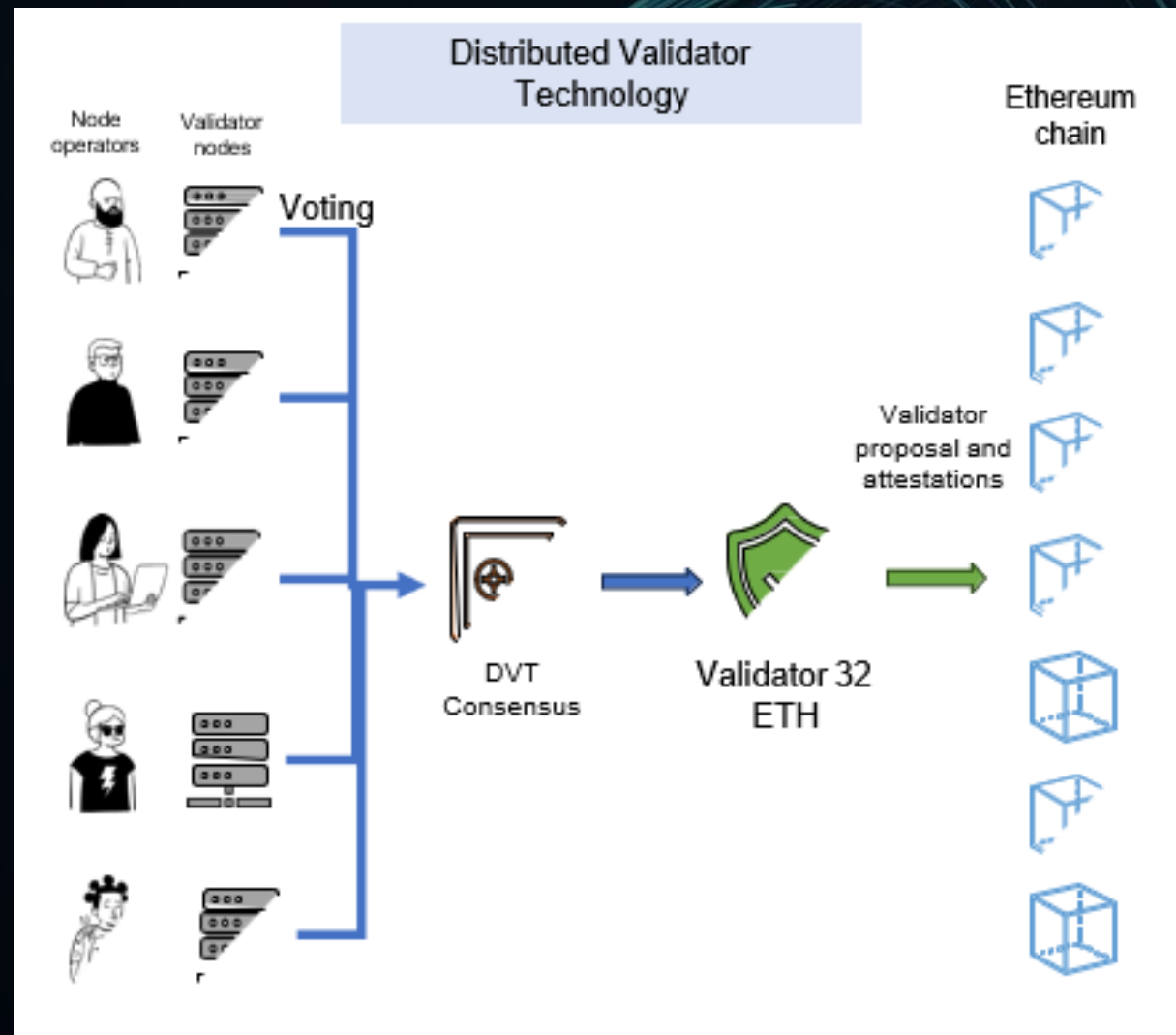
The tech leveling up staking. What exactly is DVT?

Distributed Validator Technology solves, in part, the node operator centralization risks. Multiple LSD protocols, including Lido, RocketPool, StakeWise, Stader, Stafi, Swell, NodeDAO, and Stakehouse (i.e. almost all) are planning or piloting using DVT.

Some of these LSD protocols are partnering with DVT protocols like Obol, SSV and Puffer. In a nutshell, what they do is to provide a permissionless distributed validator network where anyone can join a validator cluster and contribute to securing the network. These validators can have little or no stake on the network and they can contribute to staking pools. This is done via multi-sig validator clusters, MPC technology, Shamir's Secret Sharing and threshold signing. Gluing everything together, multiple nodes can contribute to one shared validator.

One of the advantages of DVT is the added redundancy which greatly reduces the chances of slashing if a validator goes offline.

Another advantage is allowing for "squad staking." For example, a group of 4 friends each with 8 ETH can deploy each a node and contribute to the validator.



Conclusion

Are we witnessing the birth of a trillion-dollar sector?

The LSD market is rapidly evolving, and new players with innovative technologies have been joining the market and gaining traction over the last few months. LSD protocols are trying to attract new users by providing seamless integrations with DeFi but also by adhering to the decentralization narrative. Better LSD decentralization can be achieved with DVT and by lowering the entry barrier to node operators.

In the future, we can foresee fierce competition across the LSD market to grab a piece of the multi-billion-dollar growth. Why?

- Around \$140 billion worth of ETH are staked every day and these numbers are not slowing down.
- Ethereum staking growth is accelerating fast and in 2 years, the percentage of staked ETH can reach 45% of the circulating ETH, which will represent hundreds of billions of dollars. This will foster the LSD growth.
- As ETH staking alternatives mature and LSDs get battle tested, users will gain more confidence to stake their ETH holdings. In a rational market, in the long term, the total ETH staked should be close to 100%.

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