

Public Comment on SR-NASDAQ-2023-045

PEN

Initial remarks

Ethereum ETPs(ETH ETPs) should be approved just like Bitcoin has been. If rejected, regulatory authorities must, in accordance with the principle of equality under the law, provide sufficient grounds for refusal based on clear distinctions between Ethereum and Bitcoin. Here, redundant arguments already made during the approval of Bitcoin ETPs(BTC ETPs) should be avoided, focusing instead on the differences between Ethereum and Bitcoin and highlighting unique qualities of Ethereum not present in Bitcoin.

1. Consensus Mechanisms

It is possible to perceive ETH staking as a concept similar to BTC mining. BTC involves high-cost external tangible assets known as ASICs and significant electricity resources. On the one hand, ETH staking requires external tangible assets, such as household-level computers, and a minimum amount of electricity, along with 32ETH. Despite the differing requirements for the validation process, the intention to reward validation efforts to power the blockchain remains the same. The yield is generated from the rewards for undertaking the validation process, which involves bearing the burden of utilizing resources such as hardware and electricity, the risk of running programs, and in the case of Ethereum, holding 32ETH, which is slashed in case of misconduct. It is not 32ETH that naturally generates yield. It would be odd if the treatment of these cryptocurrencies changed solely by adding a

requirement to lock up 32 ETH. Refusing ETH ETPs solely based on the fact that it operates on Proof of Stake (PoS) instead of Proof of Work (PoW) is not rational.

Bitcoin miners are susceptible to concentration due to economies of scale facilitated by specialized equipment known as ASICs and significant electricity consumption. Actually, there is currently no possibility of a 51% attack, but there is some degree of concentration among miners.¹ While concentration poses risks, as it could compromise Bitcoin's security by undermining its decentralization, there's a possibility that monopolistic control approaching 51% would be self-regulated by miners.

On the other hand, in the case of Ethereum, the ease of external delegation through staking, coupled with the convenience of using liquidity staking tokens, increases the risk of centralization. In fact, the current distribution shows around 30% concentration in Lido.² However, akin to Bitcoin, centralization by a single entity could potentially harm itself, leading to a certain degree of self-restraint. Just because it's PoS doesn't mean decentralization is compromised compared to PoW.

Furthermore, PoW entails negative externalities such as significant semiconductor and power consumption, and environmental impacts, which PoS aims to mitigate. Rejecting ETH ETPs based on the transition to PoS would convey a misleading message.

Table. The resources required to earn yield through the validation process.

	hardware	electricity	currency
Bitcoin (PoW)	ASIC	large	none
Ethereum (PoS)	consumer-grade computer	small	32 ETH

¹ <https://www.blockchain.com/explorer/charts/pools>

² <https://dune.com/hildobby/eth2-staking>

2. Staking in ETH ETPs

While ETH can be treated as a commodity like BTC and approved as ETPs in the same manner, staking it is a separate activity from holding ETH, as mentioned earlier. And whether to allow the distribution of rewards from staking through ETPs requires separate consideration. This is akin to delegating mining operations in the case of Bitcoin, so it may not simply be treated the same as BTC ETPs, which are for mere holding.

However, Real Estate Investment Trusts (REITs) and bond ETPs also generate yield in the form of business activities added to the underlying assets (land or fiat currency) and are recognized as ETPs. Therefore, considering investors' interests, it may be acceptable to approve ETH ETPs, including staking.

If there are no precedents for ETPs based solely on individual assets, a method could be to approve ETPs only if staking is included, similar to how US bond ETPs diversify risks by mixing different maturities, such as 2-year and 10-year bonds. This could involve diversifying risks through a combination of different staking entities or various consensus clients and execution clients.

This approach would also work positively for the decentralization and stability of Ethereum. If ETH ETPs, including staking, were to be allowed, it would be preferable to improve the decentralization of staking by avoiding staking with liquidity staking providers like Lido. This would not only enhance the stability of Ethereum but also protect investors. By approving only ETPs with appropriate staking entities that regulators themselves consider decentralized, it would be possible to reduce concentration risk. While the proportion of staking by Coinbase, for instance, is currently around 14%, which is not a problem at the moment, it would be desirable to recommend custody providers other than Coinbase in case of excessive concentration. Ensuring the security of Ethereum, a public platform, and protecting investors' interests, it is desirable to allow staking in ETH ETPs.

3. The potential for ETH ETPs to facilitate fraud.

Unlike Bitcoin, Ethereum allows not only the transfer of ETH itself but also the issuance and transfer of tokens, NFTs, and execution of smart contracts. Since anyone can perform these activities by paying gas fees, fraudulent activities may occur within this economic activity. However, there are no fraudulent elements inherent in ETH itself as the base money, and ETH ETPs do not inherently promote fraud.

This is akin to the existence of fraudulent marketplaces on e-commerce platforms like Amazon, but it does not mean that the Amazon platform itself is fraudulent. Additionally, on Bitcoin, there are tokens created using the BRC-20 standard, as well as NFTs using Ordinals. While these tokens and NFTs could potentially be used for fraud, BTC ETPs have no direct relationship with them, and BTC ETPs themselves do not promote fraud.

4. Development Structure and Client Situation

In terms of development structure, both Bitcoin and Ethereum share a similar approach where core development teams take the lead. Discussions and proposals for code changes are widely conducted within their respective communities. The advancements in performance and security achieved through the contributions of these developers benefit cryptocurrency holders and stakeholders equally, with no distinction between BTC and ETH.

While Bitcoin's client, Bitcoin Core, holds a dominant position³, Ethereum exhibits a different scenario. Various clients are independently developed by different entities within the Ethereum ecosystem. This decentralization of clients helps mitigate the risks posed by bugs, although some concentration is still observed in a few clients.⁴

5. Asset Distribution

When asset distribution becomes too skewed towards specific individuals or entities, it can no longer be considered a platform of public utility. Bitcoin, with its absence of initial distribution and coins being

³ <https://bitnodes.io/nodes/>

⁴ <https://clientdiversity.org/>

generated solely through mining from the genesis, is presumed to ensure sufficient asset decentralization, despite developers being initially involved in mining. On the other hand, Ethereum distributed 50% through a crowd sale and 10% to developers before starting mining and later transitioning to staking.⁵

There's an argument against distributing initial assets to developers, but this isn't necessarily accurate. Development requires funding, and if used appropriately, distribution can be justified. Compared to Bitcoin's initial mining, which was skewed towards specific individuals such as developers due to asymmetric information at its inception, the difference isn't significant. Currently, Bitcoin's development relies on donations from related companies, and whether such dependency on these companies is healthy is a subject of debate. What matters more is the current distribution of assets rather than the initial allocation.

Examining top asset distributions per address, Ethereum's assets are estimated to be comparably well-distributed compared to Bitcoin.^{6 7} However, this includes exchange addresses and beacon deposit contracts at the top and individuals possibly owning multiple addresses, so it should be taken as a reference value. Furthermore, stocks are not necessarily denied listing due to asset concentration, so consideration should be given to the possibility of price manipulation by a small number of large holders.

6. Liquidity and Price Manipulation

The trading volume on CEXs (Centralized Exchanges) is roughly half that of Bitcoin, so concerns about price manipulation are not as significant as with Bitcoin.⁸ While Ethereum has DEXs (Decentralized Exchanges), they currently have lower trading volumes compared to CEXs and offer transparency since information is recorded on-chain.⁹ This makes price manipulation even more challenging.

⁵ <https://etherscan.io/stat/supply>

⁶ <https://etherscan.io/accounts>

⁷ <https://bitinfocharts.com/top-100-richest-bitcoin-addresses.html>

⁸ <https://dataplus.kaiko.com/asset/cexvolume>

⁹ <https://dataplus.kaiko.com/asset/dexvolume>

7. Futures ETPs

Ethereum futures ETPs have already been approved, similar to Bitcoin. Regarding Bitcoin's spot ETPs, they were approved based on the fact that futures ETPs were listed, and upon accepting court orders. Therefore, Ethereum's spot ETPs should be treated similarly, as failure to do so would be seen as regulatory whimsy, leading to unnecessary confusion.

8. Proposal for criteria to approve Cryptocurrency ETPs

Considering the approval of ETH ETPs will naturally lead to potential applications for other cryptocurrencies, it is advisable to establish criteria at this stage for the approval of any cryptocurrency ETPs to ensure fair consideration. Proposed criteria are as follows, with a focus on investor interests, protection, and public benefit:

- Functioning as a financially beneficial infrastructure with a proven track record over a significant period.
- Ensuring sufficient liquidity at a level where price manipulation is difficult, and avoiding excessive concentration of ownership among individuals or entities.
- Allowing participation in mining or staking without requiring permission or approval, enabling open access for anyone to participate.
- Prioritizing safety for investor protection.

Closing remarks

Cryptocurrency represents a new technology as a financial platform, with highly promising prospects and potential for public good. Approval processes for crypto ETPs are underway in other countries, signaling a competitive landscape in technology development.

While it's natural for new technologies to encounter challenges, solely focusing on them may not serve the interests of investors or the public good. It's important to consider what serves the best interests of investors and the public while implementing necessary regulations. I hope regulators will

make informed judgments, including on ETH ETPs, from such perspectives, ensuring fair treatment compared to BTC ETPs. I would be grateful if this public comment could be of assistance in the approval process.