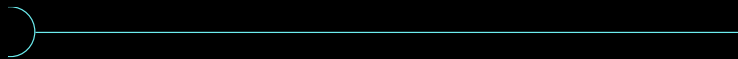


coinbase

Please note that One River Digital, a subsidiary of One River Asset Management, was acquired by Coinbase as of March 3, 2023. Read more [here](#).

One River Digital Pulse



9 March 2023

One River Digital
Research

Weekly Pulse – Shapella

The Ethereum 2.0 Merge was a bright spot in a tumultuous 2022. But the excitement was short-lived, as attention switched to the elephant in the room – the \$28 billion in staked ether locked for over a year. The “Shapella” upgrade, slated for early April, will allow those staked assets to be withdrawn, including partial redemption of rewards. Validators will have two broad options: use excess balances to create new validators, thus maintaining their ETH exposure, or sell ETH to rebalance portfolios. Given that 69% of staked Ethereum supply is now in loss, fears are that investors rush for the exit door once it opens. Of course, a drain of staked ether would be detrimental to the security of the network. But developers long anticipated this challenge. The design of the withdrawal mechanics ensures any outflow of ether is gradual. Only 7 validators can exit per epoch, the time it takes to create a fixed number of blocks. This equates to a maximum of 1,575 validators per day. At current ether prices, it translates to a limit of roughly \$75 million per day, a minuscule 1% of the average daily ether spot volume. The incentive to stake is also programmed to rise as ether assets leave the ecosystem – ether yields increase as staked assets decline. Patience is compounding. The upgrade could usher more staking inflows given the reduced risk from improving withdrawal flexibility and the relatively low percentage of ETH assets staked relative to other staking protocols. [Shanghai](#), [Capella](#), [Shapella](#), [EIP 4337](#). Innovation is live on Ethereum.

coinbase ASSET MANAGEMENT

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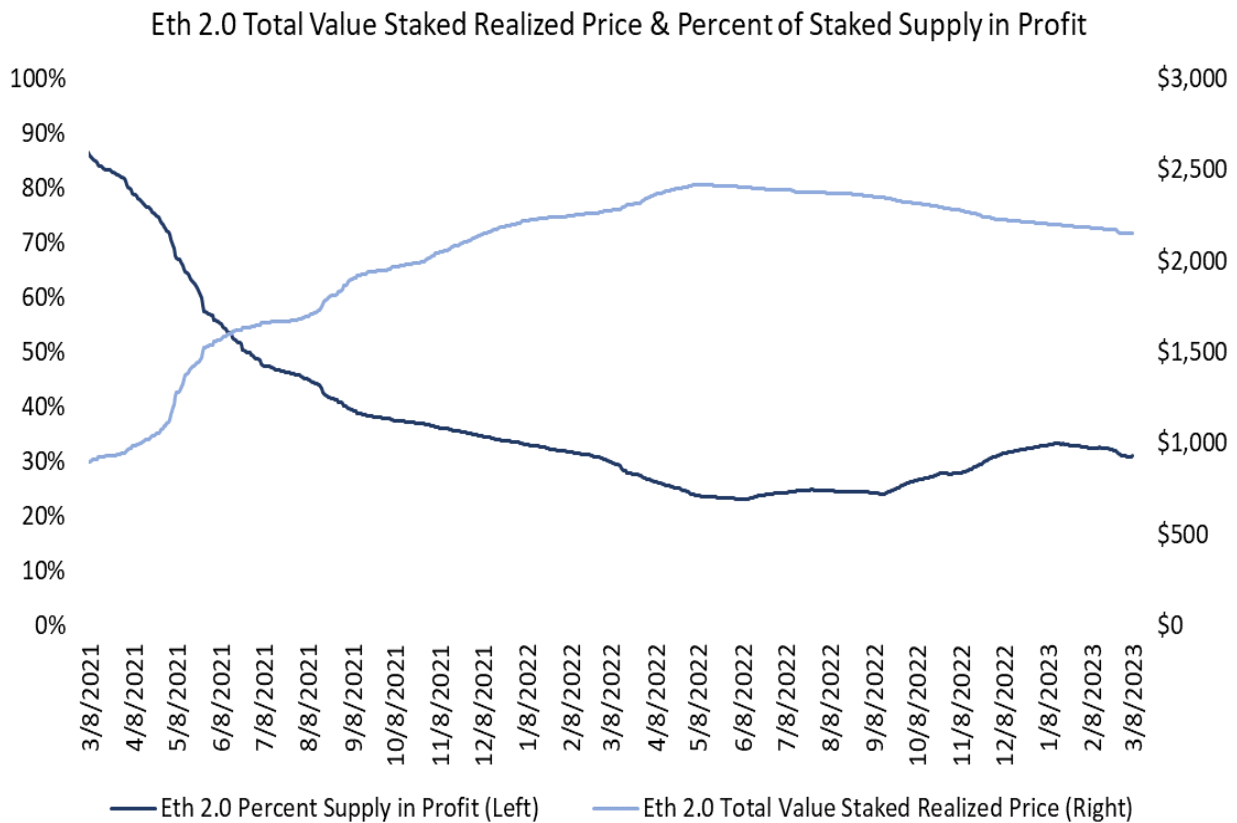
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WEEKLY BEATS

1. Chart of the Week – 31% of Staked Ether in Profit
2. Fundamental Pulse – Neutral
3. Constrained staked ether withdrawals
4. Validator sentiment
5. Additional runway for Ethereum staking

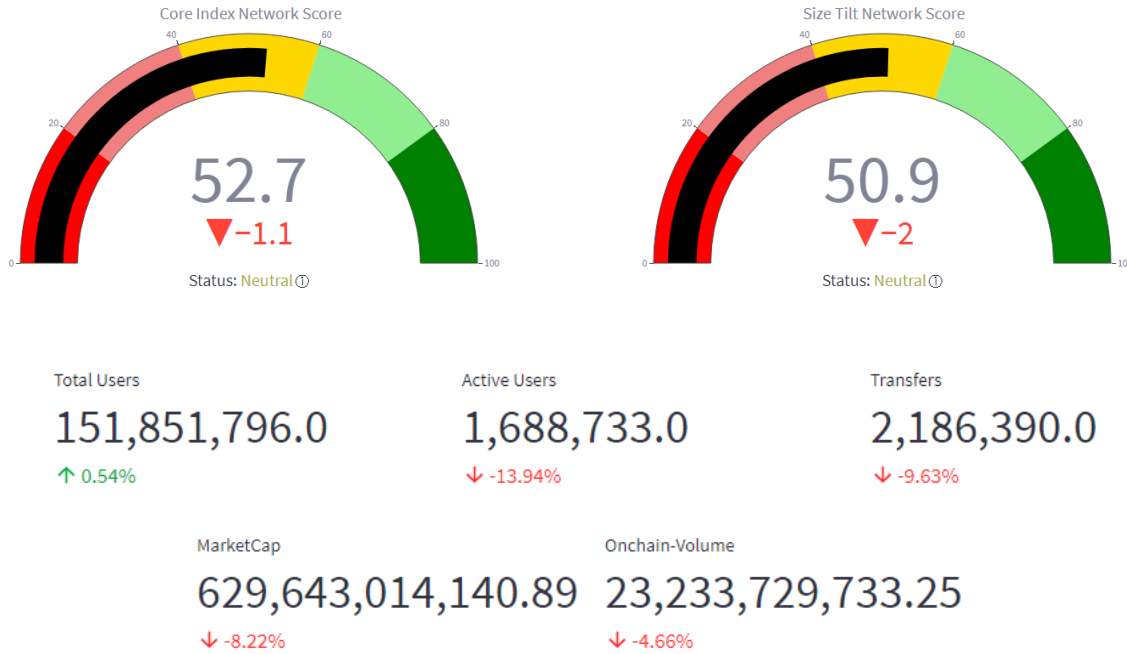
1. 31% OF STAKED ETHER IN PROFIT

Stakers & validators will have to decide their next course of action once the staking withdrawal functionality is enabled. Current Ethereum 2.0 staked assets are locked an average price of \$2,390. At ether's current price of \$1,531, 31% of the supply is in profit. Markets fear a sell-off as investors sell their newfound liquidity. But it is not so straightforward.



Source: Glassnode.

FUNDAMENTAL PULSE – NETWORK PERFORMANCE



Despite a slight decrease in the Pulse scores over the past week, we are still in a neutral range. Ethereum is the lowest for the week, losing previous gains. This can be largely attributed to a drop in active users and user growth rate ahead of the latest upgrades.

Assets	Asset Score	7d Change	30d Change	Volume	Transfers	Active Users	User Growth	Valuation	Velocity	Network Distribution
Core	53	-1	1	24	70	47	55	24	52	95
Size Tilt	51	-2	0	30	63	41	50	31	49	91
Bitcoin	60	2	4	20	76	64	71	20	69	100
Ethereum	36	-9	-4	25	64	11	23	28	13	88
Cardano	58	0	-5	74	15	14	38	68	99	100
Polygon	45	-7	-8	64	33	33	24	65	8	84
Litecoin	56	4	5	12	80	77	77	25	62	55

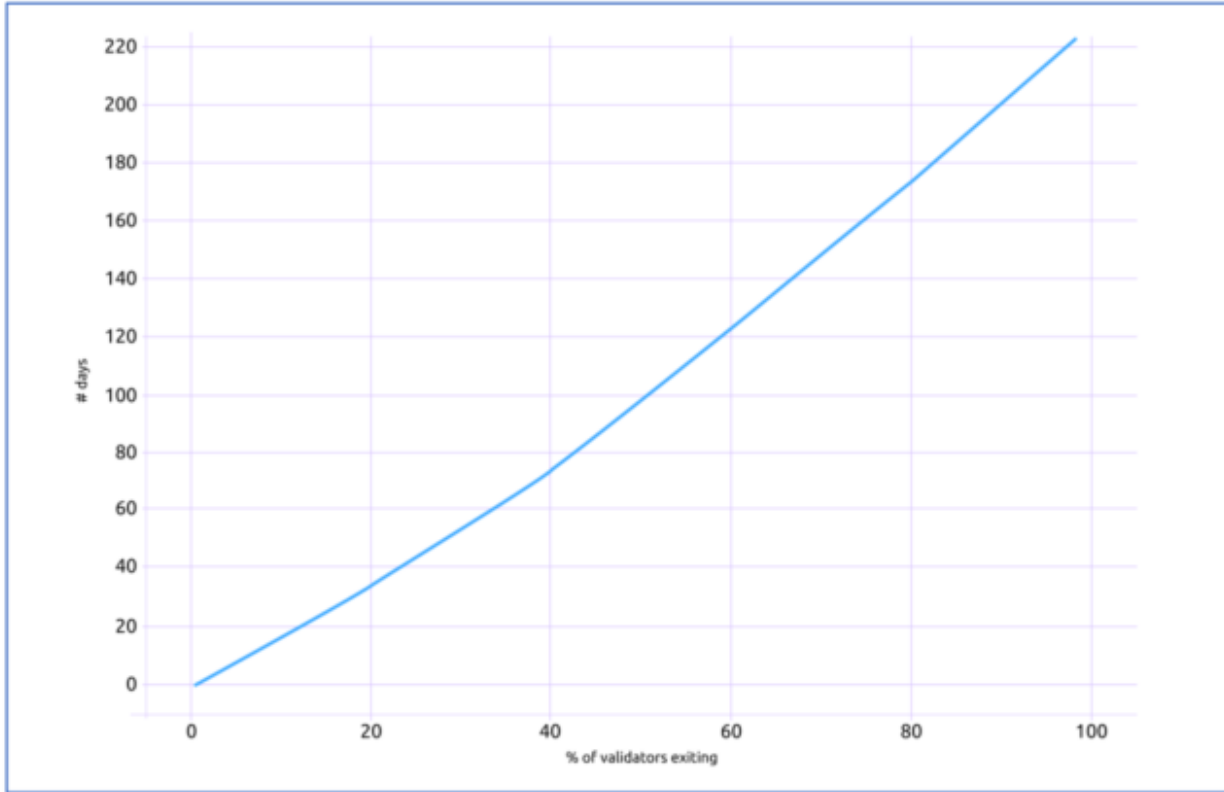
*Snapshot from the One River Digital Pulse on 3/9/2023. Seven-day change in the Core and Size-Tilt Index Scores.

Notes: Status- High > 60, Neutral 40 to 60, Low < 40. A score of 54.5 means the Index value is better than 54.5% of its values in the past 365 days. Index scores exclude Solana, Cosmos, and Polkadot due to incomplete data coverage.

3. CONSTRAINED STAKED ETHER WITHDRAWALS

The withdrawal process is designed to disincentivize large validator exits. Validators are limited by technical constraints requiring a waiting period. For example, if 60% of validators decided to exit, they would have to wait for over 4 months. Moreover, given that we already have about 57% of currently staked ether already liquid, there is even less sell pressure post-Shapella.

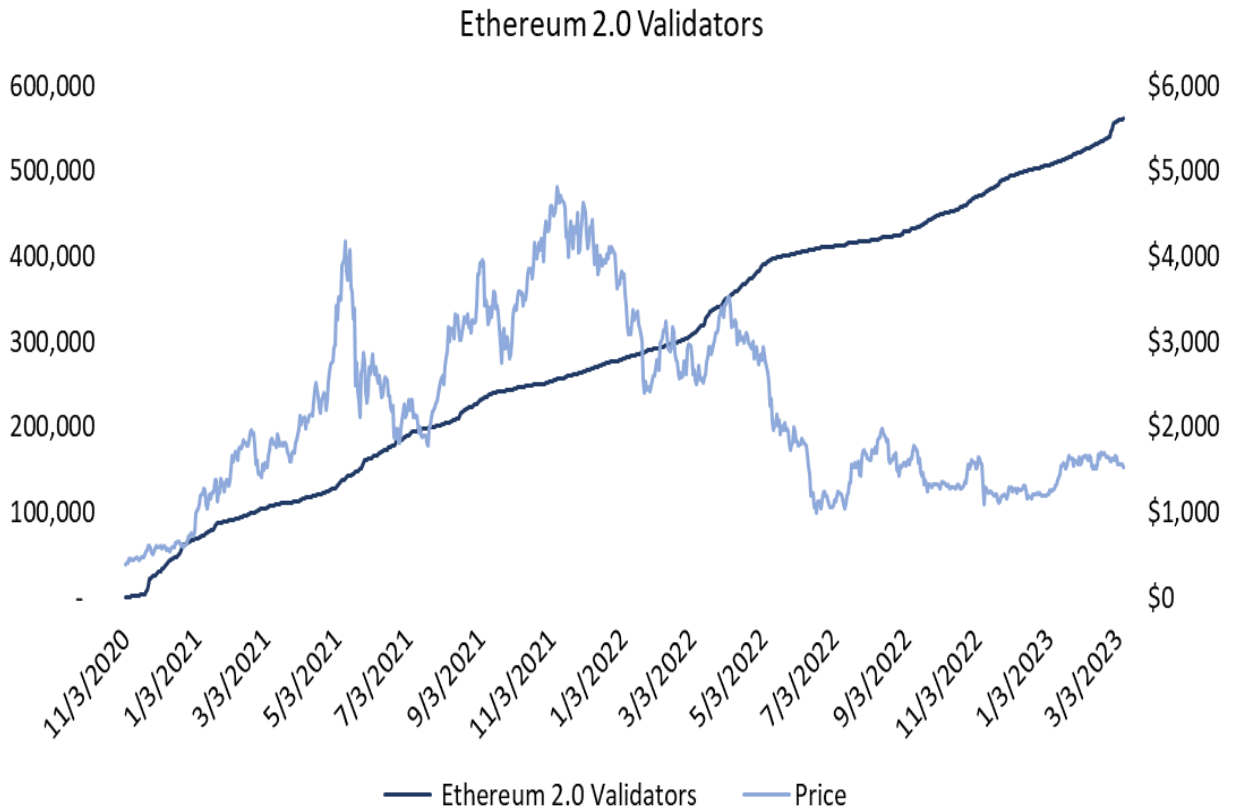
Average exit queue waiting time



Source: Twinstake.

4. VALIDATOR SENTIMENT

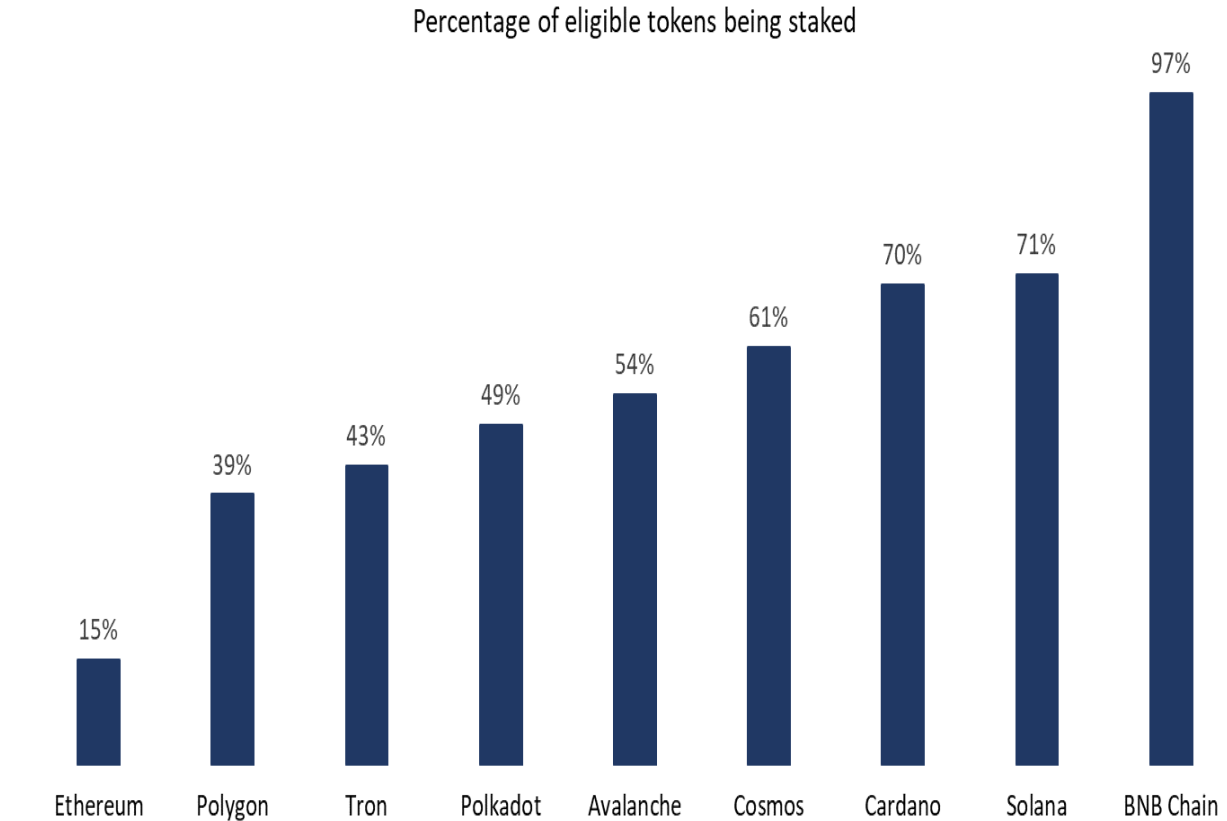
Ethereum 2.0 validators increased by 25% in the second half of 2022, despite the ether price decline. The inflows to Ethereum staking have continued into this year, even steeply, as we approach the Shapella upgrade. This indicates growing confidence in the success of the upgrade.



Source: Glassnode.

5. ADDITIONAL RUNWAY FOR ETHEREUM STAKING

By enabling the withdrawal functionality, the reduced uncertainty risk will most likely spell more inflows of staked ether. As shown below, when we compare Ethereum to other mature smart contract blockchains, it becomes evident that there is still more opportunity for growth for staked ether.



Source: StakingRewards.

Metric Definitions

1. Volume – The aggregated value of native units transferred between addresses on-chain.

2. Transfer Count – The sum count of transfers between addresses. It becomes more valuable when used in conjunction with Volume.

2.1 Low Transfer Count & High Volume: High volume but transferred by a few addresses.

2.2 High Transfer Count & Lower Volume - Indicates higher retail activity or exchanges amongst small accounts.

2.3 Lower Transfer Count & Lower Volume: Indicates slower network usage and low network demand.

2.4 High Transfer Count & Higher Volume- indicates high network usage. A persistent trend is substantial.

3. Active Users: Number of addresses active in the network as recipients or originators of ledger change. This includes value transfers, signing blocks, and other forms of ledger change activity.

3.1 High Value: High network usage and high demand.

3.2 Low Value: Low network usage and low demand.

4. User Growth Rate: The rate at which new addresses with non-zero balances are added to the network.

4.1 High Value: Indicates users being added to the network at an increasing rate.

4.2 Low Value: Indicates users being added to the network at a slower pace.

5. Valuation: This metric compares the on-chain volume to the realized capitalization representing the value of the network. Realized capitalization is a revised form of market capitalization that accounts for the value of the coin at the time the coin was last spent. A lower volume compared to the high value of the network indicates the network could be overvalued and vice versa.

5.1 High Value: Indicates the network is closer to its real value based on the on-chain volume.

5.2 Low Value: Indicates the network is very close to being overvalued considering the activity on the network.

5.3 Medium value: Asset is reasonably valued—sustainable demand for transactions.

6. Velocity –This indicator shows the turnover of coins in the network as measured by on-chain volume divided by active supply. The primary use of this metric in this instance is to help assess an asset’s market-relevant supply.

6.1 High Value: There is greater circulation of coins in the network and use for payments.

6.2 Lower Value: There is lower circulation of coins in the network and use for payments.

7. Network distribution – The metric used, the SER ratio, compares the smallest accounts (sum held by accounts with a balance less than 0.00001% of the supply) against the richest accounts (sum held by the top 1% addresses).

7.1 High value: Signifies high distribution of supply and higher decentralization.

7.2 Low value: Low supply distribution and heavy concentration amongst a few wallets.

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