



# BitOoda Proof of Stake Research, 4/5/23

## Ethereum Ecosystem Weekly Update

Ethereum had an impressive start to April and a strong end to Q1 as the broader crypto market rally, coupled with tangible fundamental progress in ETH's roadmap, led to impressive price action over the past week.

Indeed, leaving the macro conversation to rest, the Ethereum ecosystem has been building up for its next set of technological advances after the Merge in September 2022. Additionally, since September 2022, ETH price has also been relatively lackluster, bottoming around \$1100 and being range-bound since.

This past week, ETH broke out of its range to the pre-Merge \$1900 level, with a few imminent catalysts and a healthy pipeline of innovation on the horizon that could lead to sustainable adoption.

The most impactful of these catalysts is the enabling of ETH staking withdrawals, which is exactly one week away (the Shanghai hard fork is expected to trigger on 4/12/23). While there has been much debate about the impact on flows (our report on Shanghai withdrawals calls for up to ~5mm ETH being unstaked), Shanghai also de-risks ETH staking.

Ultimately, a liquid exit mechanism from ETH staking could lead to a medium-to-long-term increase in new staking interest (from institutions that were on the sidelines and from new capital that needed withdrawals to be enabled before staking). Shanghai could also catalyze a new wave of liquid staking ETH tokens to enter the DeFi ecosystem.

Apart from staking, the rollup ecosystem is growing rapidly with the launch of 3 zkEVMs in March. As fees for users trend down over time and the app ecosystem grows, we could see ETH keep growing.



Figure: ETH Price Chart

Please see [end slide](#) for important disclosures.

Source: Tradingview

## Research

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ETH Price	\$1,900
Total ETH Staked	18,044,455
ETH Supply Change WoW	(7,057)
ETH Total Supply	120,443,641
ETH / BTC Price	0.067

## ETH Weekly Update

### ETH Price and Gas Fees

- Average ETH gas prices were marginally higher week over week as the rally in crypto prices catalyzed more trading activity over the past week. Indeed, the top gas consumers on Ethereum L1 were Uniswap and Aave.
- One notable statistic is that Uniswap, the decentralized exchange, eclipsed Coinbase's volume for the month of March (and the second month in a row). Uniswap's March volume was \$71.6bn, which was 45% higher than that of Coinbase—and this volume took place predominantly within the Ethereum ecosystem to generate L1 fee revenue.

Date	ETH Fees	ETH Price	USD Fees	Avg Gas Px
<b>Weekly</b>	<b>23,102</b>	<b>\$1,815</b>	<b>\$41,926,830</b>	<b>31</b>
3/29/22	3659	\$1,793	\$6,560,587	35
3/30/22	3944	\$1,792	\$7,067,648	37
3/31/22	3316	\$1,822	\$6,041,752	31
4/1/22	2602	\$1,822	\$4,740,844	25
4/2/22	2472	\$1,795	\$4,437,240	24
4/3/22	3510	\$1,809	\$6,349,590	33
4/4/22	3599	\$1,871	\$6,733,729	35

Date	ETH Fees	ETH Price	USD Fees	Avg Gas Px
<b>Weekly</b>	<b>19,513</b>	<b>\$1,759</b>	<b>\$34,323,367</b>	<b>27</b>
3/22/22	2537	\$1,738	\$4,409,306	24
3/23/22	2789	\$1,817	\$5,067,613	27
3/24/22	2841	\$1,750	\$4,971,750	27
3/25/22	2136	\$1,743	\$3,723,048	20
3/26/22	2284	\$1,775	\$4,054,100	22
3/27/22	3371	\$1,716	\$5,784,636	33
3/28/22	3555	\$1,774	\$6,306,570	33

Figure: ETH Fees – Trailing 7 Days

Source: Glassnode, Etherscan, BitOoda Estimates

# ETH Weekly Update

## ETH Economic Snapshot

- The ETH staking yield continues to hold steady despite new ETH continuing to trickle into the staking contract ahead of Shanghai. The amount of staked ETH now crossed 18mm, or nearly 15% of total ETH supply.
- With average gas fees above 31 gwei, ETH remains net deflationary, annualizing to -0.16% supply growth.

### ETHEREUM MODEL - PROOF OF STAKE ECONOMICS

#### Key Assumptions

Total ETH Supply	120,443,641
Total ETH Staked	18,044,455
% ETH Staked	14.98%
Annual PoS ETH Issuance	768,951
<b>Annual Fees (ETH)</b>	<b>1,201,304</b>
% Fee Revenue Burned	80%

#### Key Metrics

ETH Price	\$1,900
<b>Annual ETH Fees / Revenue (\$)</b>	<b>\$2,282,477,600</b>
Annual ETH Fee Burn (\$)	\$1,825,982,080
Issuance to Validators (\$)	\$1,461,006,157
Fees to Validators (\$)	\$456,495,520
Annual Validator Revenue (\$)	\$1,917,501,677

#### Annual Issuance Summary

Pre Merge - ETH Inflation	3.94%
Net USD Issuance / Day	\$24,673,209
Post Merge - ETH Inflation	-0.16%
Net USD Issuance / Day	(\$999,934)

#### Staking Yield Summary

ETH Staking Yield	5.84%
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#### Cost to Attack ETH

ETH Price	\$1,900
Total ETH Currently Staked	18,044,455
Total ETH Staked (USD)	\$34,284,464,500
<b>Total Cost to Attack</b>	<b>\$68,568,929,000</b>
\$ ETH Staked Under Attack	\$102,853,393,501
ETH Market Cap	\$228,842,917,900
% Market Cap Purchased	30%

Figure: ETH Economic Dashboard

Source: BitOoda Estimates

# ETH Weekly Update

## ETH Staking Update

- The table below is likely to change in the weeks after Shanghai, as the composition of staked entities can finally shift once withdrawals are enabled.
- Currently, the marketshare of “liquid staking,” where stakers are issued “liquid staking tokens” as representations of staked ETH, is 42%. There are arguments for why this percentage could increase post Shanghai (more stakers want immediate liquidity and utility while keeping ETH staked) or decrease if the ability to unstake renders the liquid token unnecessary.
- To reiterate – our withdrawal analysis report dated 2/21/23 outlines that we could see up to 5mm ETH change hands post Shanghai.

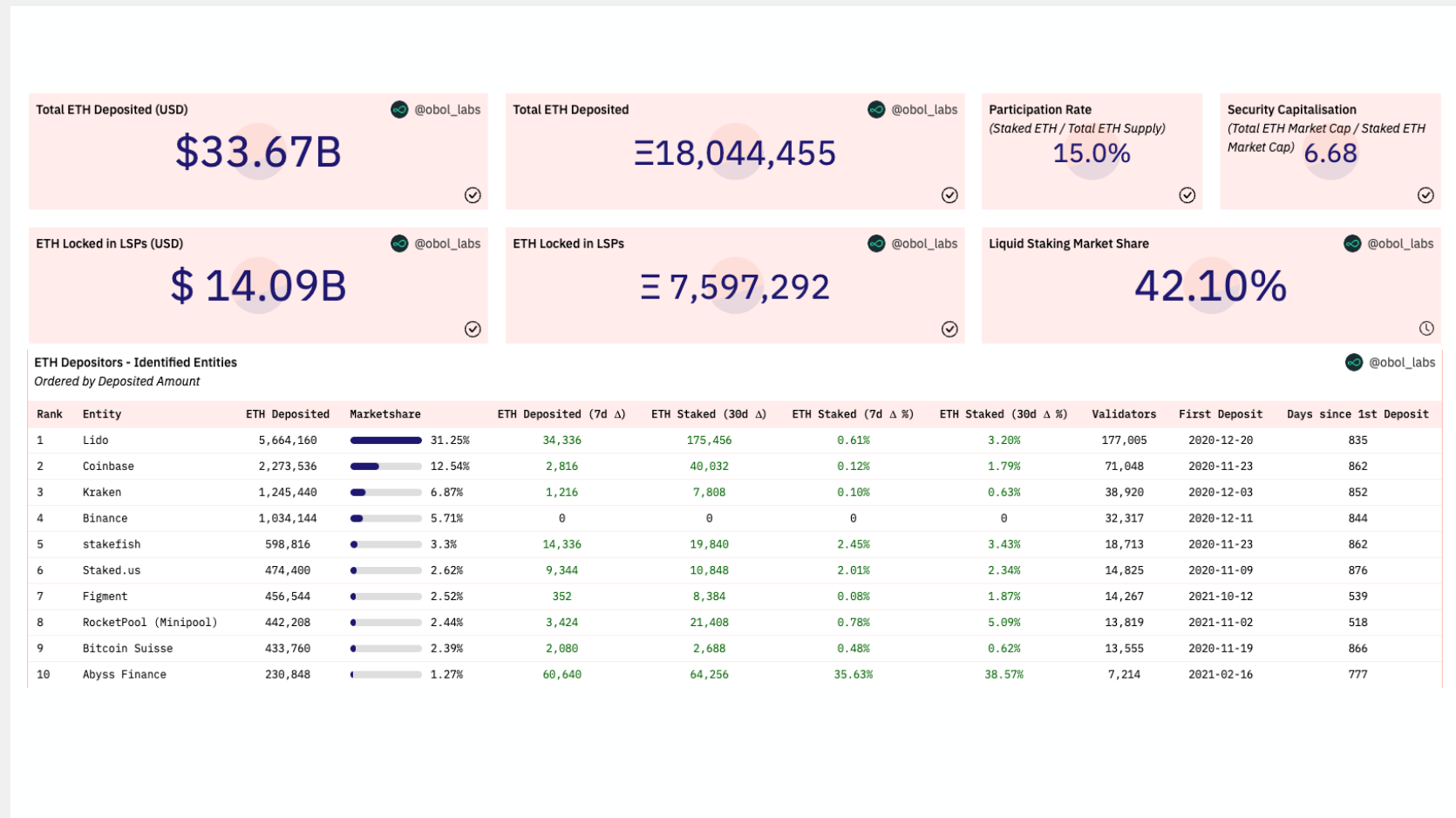


Figure: ETH Staking Deposit Dashboard

Source: Dune Analytics - [https://dune.com/obol\\_labs/eth-staking-ecosystem](https://dune.com/obol_labs/eth-staking-ecosystem)

## ETH Weekly Update

### Regulated DeFi Innovation - OpenEden

- Although the past few months have seen a number of regulatory actions against noncompliant players in the crypto space, there continues to be a push for institutional, regulated DeFi where real world assets are attempted to be tokenized and distributed on-chain.
- One notable example is OpenEden, which is building a platform to tokenize treasury bills and bring KYC-compliant, institutional capital into the space.
- By bringing USD and treasury yield on-chain, the web3 / DeFi space could create an additional driver for demand for US assets in the burgeoning digital ecosystem.



Figure: Weekly News Headline

Source: The Block, Twitter

## ETH Weekly Update zkEVM L2 Growth – zkSync Era

- One of the biggest criticisms of Ethereum since its inception was its inability to scale. Although the rollup roadmap has been in development since the start of the 2020 bull market, the holy grail for scaling has always been ZK Rollups (zero knowledge rollups).
- Several optimistic rollups (notably Optimism and Arbitrum) have grown over the past 2 years and onboarded new users. However, ZK Rollups, which had been estimated to be years away, have finally come to mainnet with a big splash in March.
- Since the launch of 2 production-ready zkEVM rollups (zkSync, Polygon) a week ago, usage and TVL (total value locked) has been robustly growing.

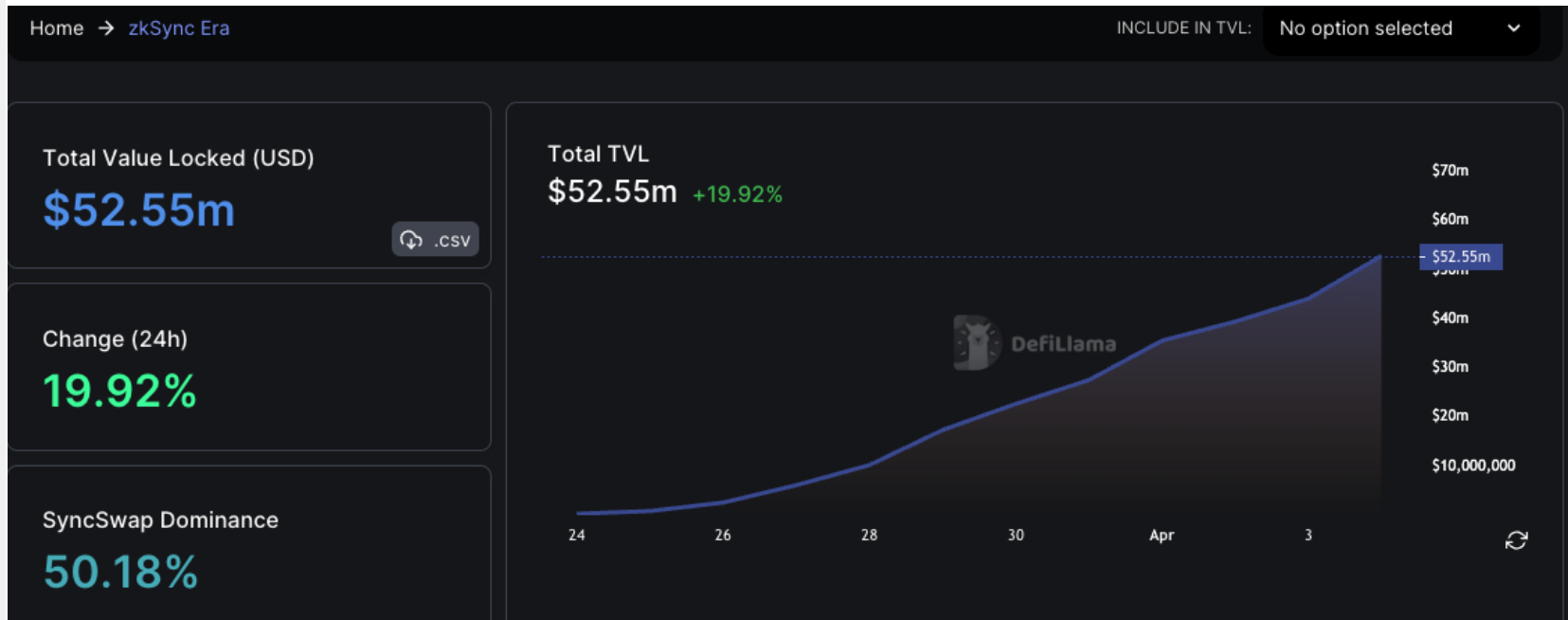


Figure: Weekly News Headline

Source: DeFi Llama



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Vivek Raman, denoted by an “AC” on the cover of this report hereby certifies that all of the views expressed in this report accurately reflect his personal views, which have not been influenced by considerations of the firm’s business or client relationships.

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