

Q1 Ethereum Network Review

01/01/2025 - 03/31/2025

Abstract

- Amidst cooling market enthusiasm and a more risk-averse sentiment, ETH's price experienced a significant correction in Q1, with its market capitalization shrinking to approximately \$217.3 billion.
- The daily average trading volume for ETH options saw a substantial 34.5% quarter-over-quarter (QoQ) increase to \$840 million. However, open interest declined by 6.9% QoQ, indicating a neutral market sentiment.
- ETH spot ETFs experienced continued outflows, reflecting a more conservative investor stance. Notably, Grayscale surpassed BlackRock to become the largest holder of ETH ETF.
- The total number of unique ETH on-chain addresses reached 161 million by March 31, 2025, a growth of approximately 3.54% since the end of January. The ETH holding structure remained dominated by mid-to-large holders, with stable retail participation.
- ETH network active addresses and daily transaction counts remained stable. However, the average gas fee in March saw a significant decrease of over 50%, and only 3,694 ETH were burned (a 61.36% QoQ decrease), indicating a cooling of on-chain activity.
- ETH staking data showed an increase in volume but a decrease in overall value. By March 31st, the total staked ETH reached 27.67 million, a 15.54% QoQ increase.
- Aave became the top Ethereum protocol by TVL, reaching \$14.3 billion. Real-World Asset (RWA) and stable yield strategies drove significant QoQ TVL growth for Sky (3.99%) and Ethena (12.24%).
- Major Layer 2 protocols generally experienced a decline in TVL, while emerging protocol Soneium stood out with an impressive 8,622% QoQ TVL growth.
- The market capitalization of stablecoins on Ethereum grew by 11.36% in Q1, maintaining a market share of over 50%. USDC demonstrated strong performance with a 25% surge in Q1, contributing significantly to the overall growth of ETH stablecoins.
- The Ethereum Pectra upgrade, combining execution and consensus layer optimizations, is scheduled for mainnet deployment in Q2 2025. It is expected to bring higher scalability, smart accounts, enhanced staking flexibility, and reduced transaction costs, positioning it as a key catalyst for future innovation and adoption on Ethereum.

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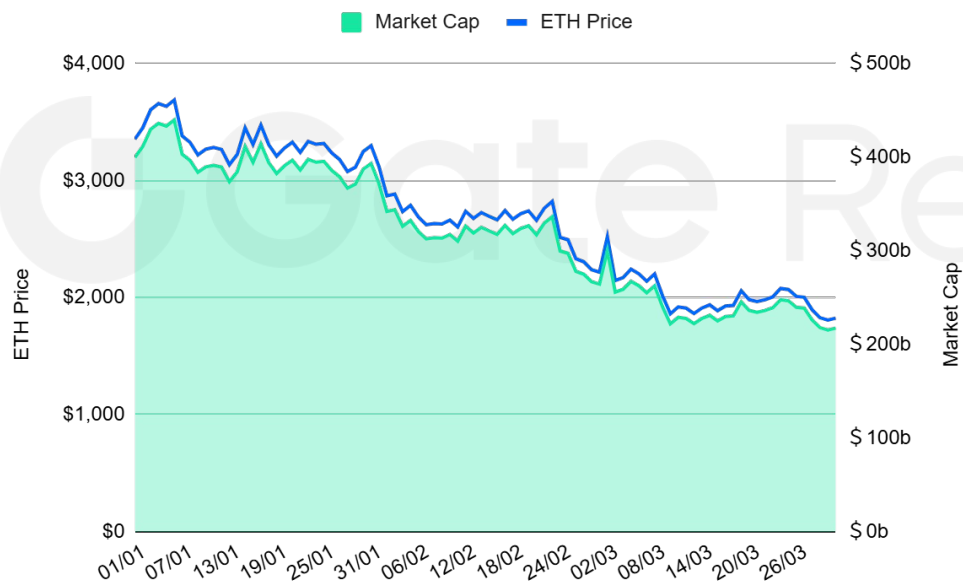
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01

Market Performance

01 Price and Market Cap Trends

ETH Price and Market Cap Trend

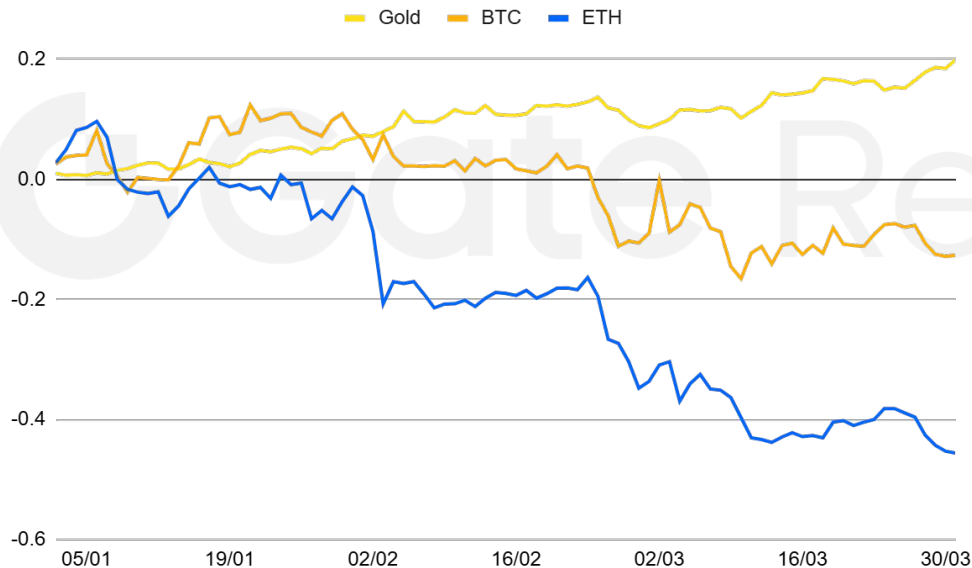


ETH's price fell sharply in Q1, and market cap shrank to about \$217.3 billion

- Following its local peak of \$4,105 USD on December 16, 2024, ETH's price experienced a significant **55.6% decline** to \$1,822 USD by March 31st, resulting in its market cap shrinking to \$217.3 billion.

02 ROI Comparison Analysis

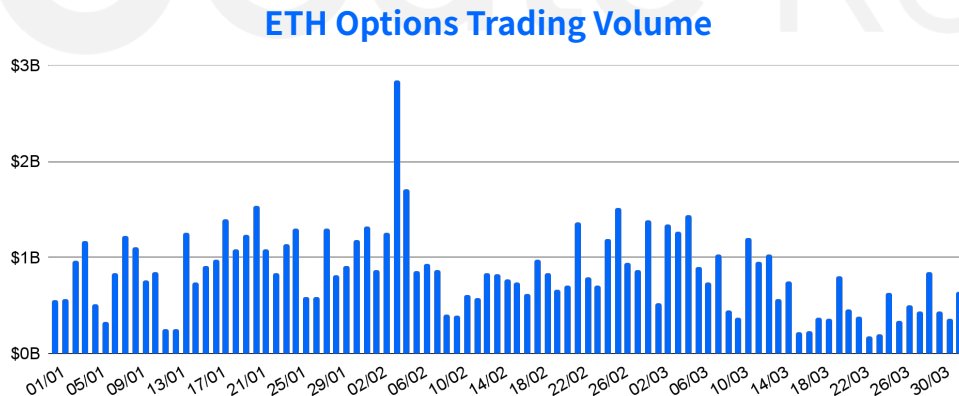
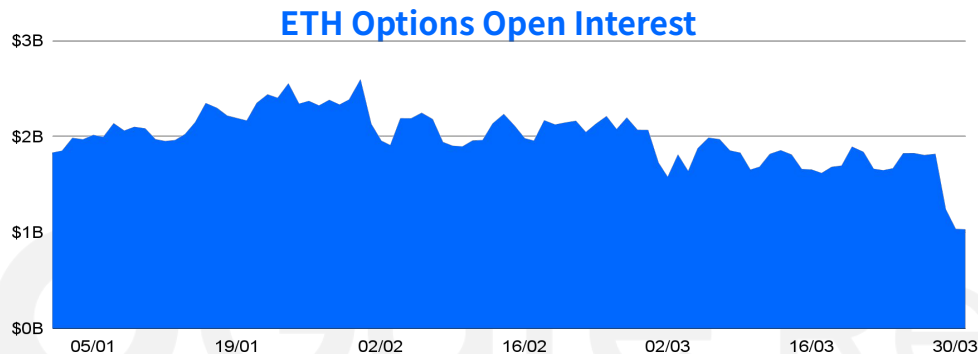
BTC & ETH vs. Gold Return Rate Trend



Cooling investor sentiment,
preference shifting to safer assets.

- Bitcoin traded choppy at highs in Q1, with its upward momentum waning. Ethereum remained under pressure, **down 45.61%** since the start of the year, suggesting weak buying interest and a risk of a prolonged consolidation.
- As risk aversion increased, investors reduced their cryptocurrency exposure and shifted toward safer assets like gold, which demonstrated stable performance with a **19.92% gain** since the year's start, drawing significant capital inflows.

03 ETH Options Open Interest & Trading Volume



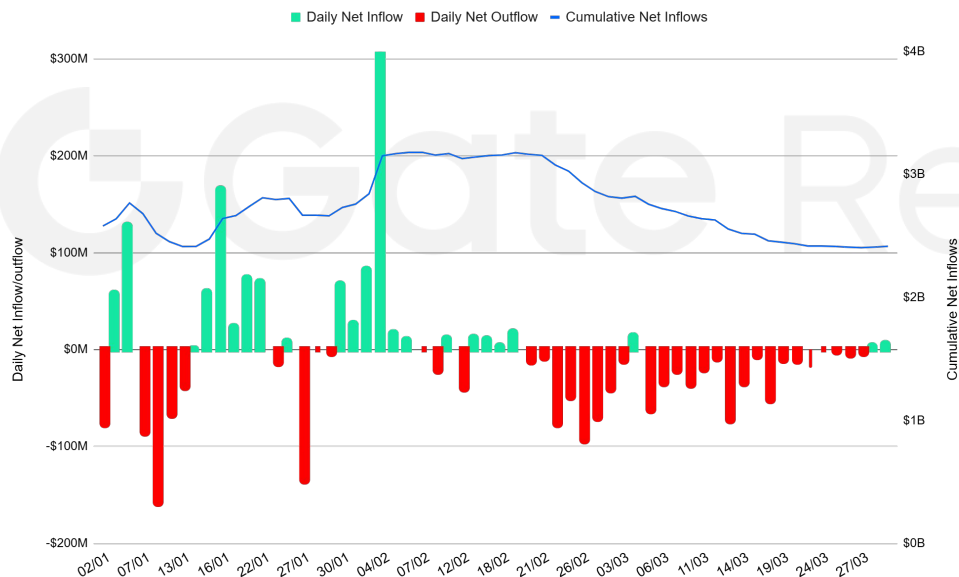
Gate Research, Data from: CoinGlass

ETH options trading volume rises, open interest falls — market sentiment is turning neutral.

- ETH options open interest averaged **\$6.7B daily**, **down 6.9%** QoQ, signaling reduced long-term positioning and increased caution.
- Meanwhile, trading volume **rose 34.5%** QoQ to **\$8.4B**, suggesting a shift toward frequent trading or short-term strategies.
- Rising volume and falling open interest signal market uncertainty, leading traders to favor short-term positions while reducing their risk exposure. Without a clear trend, ETH is expected to remain range-bound in the short term.

04 ETH Spot ETF Daily & Cumulative Net Inflows

ETH Spot ETF Daily & Cumulative Flow Trends



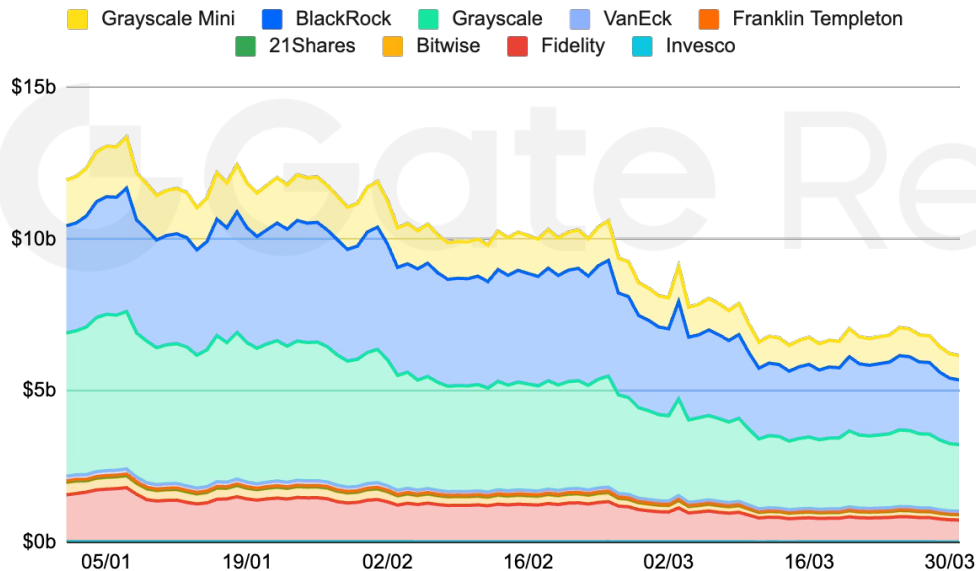
Gate Research, Data from: SoSoValue

ETH Spot ETFs saw continued outflows, reflecting cautious investor sentiment.

- By quarter-end, total net assets of ETH spot ETFs dropped to **\$6.28B**, down **38.65%** from launch, showing a clear outflow trend.
- Quarterly net outflows totaled **\$242M**, indicating reduced demand for ETH ETFs in the current market.
- Increased outflows may reflect rising risk aversion or weakening investor interest in ETH, suggesting broader market caution and low confidence.

05 ETH Spot ETF On-Chain Holdings

ETH Spot ETF On-Chain Holdings Trend



Gate Research, Data from: Dune

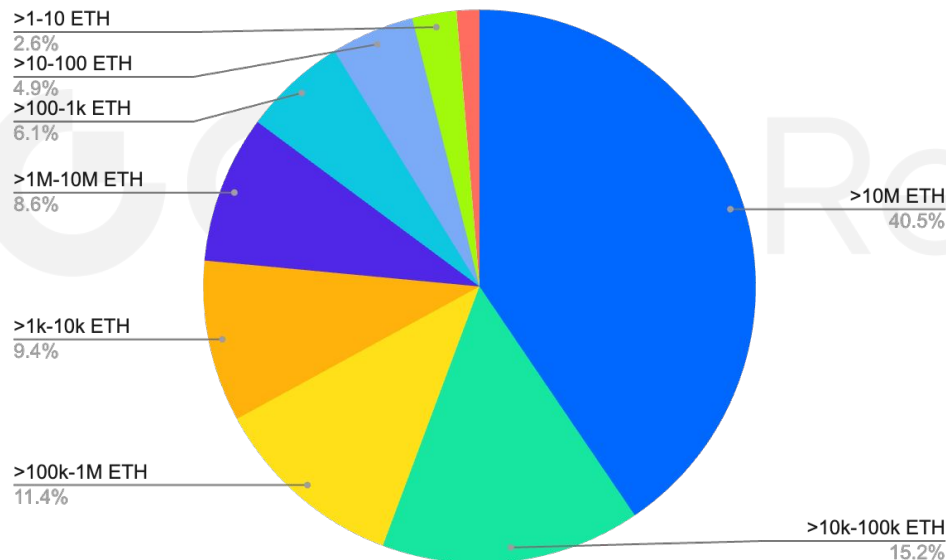
ETH Spot ETF on-chain holdings continue to decline.

- By quarter-end, Grayscale held the most ETH among ETFs at **\$2.2B**, surpassing BlackRock at \$2.13B.
- Compared to the start of the quarter, institutional ETH ETF holdings **fell 48.53%**, indicating large capital outflows. This may reflect institutional caution on Ethereum's future outlook or reevaluation based on macroeconomic, regulatory, and market volatility risks.

02 Holder Distribution

01 ETH On-Chain Holding Distribution

ETH Holder Distribution



ETH holdings are concentrated among large holders, but retail users still form a base.

- Addresses holding over 100K ETH control **60.5%** of circulating supply, totaling 88.77 million ETH.
- The distribution shows **dominance by large holders**, but retail users still contribute meaningfully. Large holders likely have greater influence on price volatility.

02 ETH Holder Address Distribution (On-Chain)

ETH Address Distribution by Holding Size

Date	2025/1/31	2025/2/28	2025/3/31
0-1	154,483,306	154,318,497	160,011,517
1-10	1,242,257	1,245,107	1,250,566
10-100	264,427	264,763	264,574
100-1k	34,240	34,276	34,282
1k-10k	4,668	4,733	4,695
10k-100k	815	819	800
100k-1M	87	84	83
1M-10M	5	5	6
10M+	1	1	1
Total	156,029,806	155,868,285	161,566,524

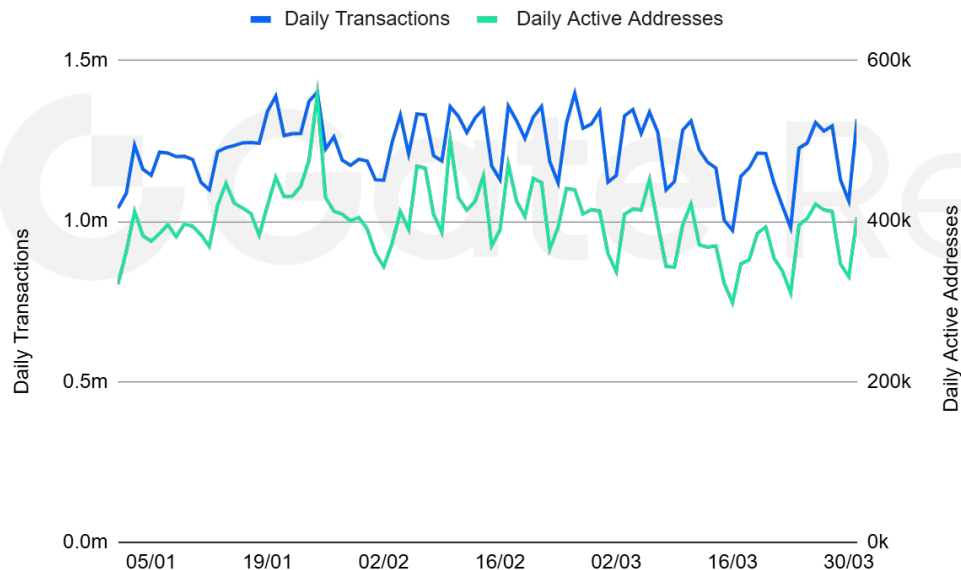
As of March 31, 2025, the total number of ETH holding addresses reached 161.57 million, up 3.54% since January.

- Addresses holding 0–1 ETH dipped in February but rebounded in March, **increasing 3.45%** since January, suggesting broader retail participation.
- Addresses **holding 1–10K ETH** saw a **slight increase**, indicating stable market engagement from smaller to mid-sized holders.
- Addresses with **over 10K to 100K ETH declined**, reflecting portfolio adjustments by large holders in response to market conditions.

03 Network Activity

01 Active Addresses & Transaction Count

ETH Active Addresses and Daily Transactions

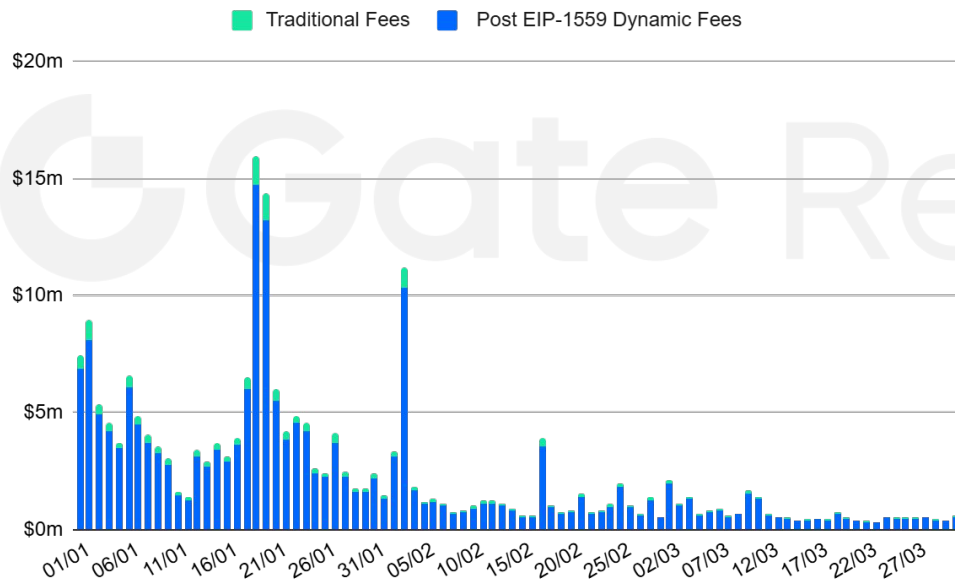


ETH network activity and daily transactions remained stable.

- In Q1 2025, active addresses ranged between **300K** and **550K**, with a daily average of 399.9K, nearly unchanged from Q4 2024 (down just 0.22% from 400.8K), showing a stable user base.
- Daily transaction counts consistently ranged between **1M** and **1.4M**, indicating that despite a generally conservative market sentiment, the Ethereum network maintained a steady operational pace for everyday use, demonstrating a degree of inherent demand and user stickiness.

02 Gas Fees

ETH Gas Fees

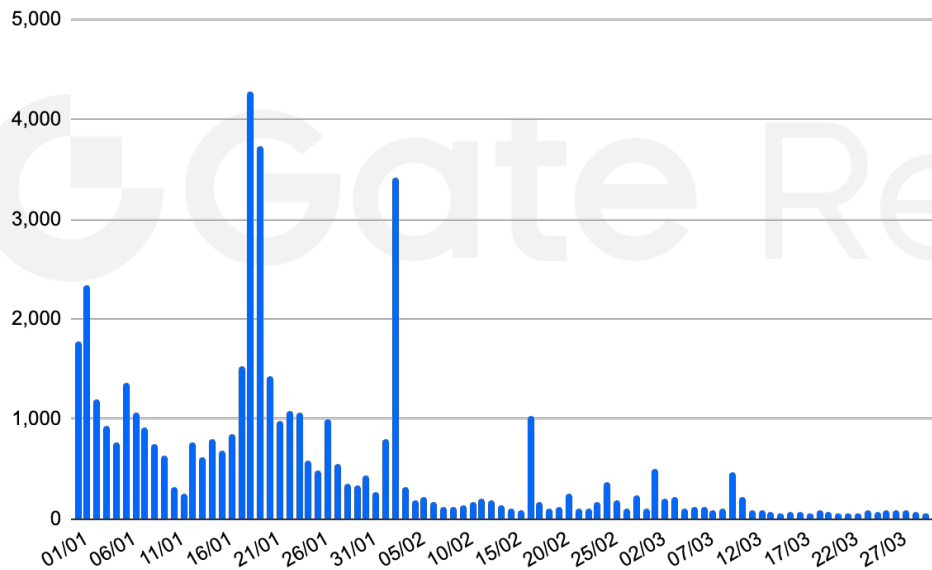


ETH network cooled down; average March gas fees dropped over 50%.

- In March, ETH's average daily gas fees fell to \$700K, **down 56.6%** from February's \$1.61M.
- The sharp drop suggests reduced demand or lower on-chain activity, leading to lower network congestion and fees.
- Network metrics (including active addresses, transaction volume, and gas fees) show stable core users and daily transactions, but decreased high-value trading activity suggests a cautious market phase.

03 Burn Volume

ETH Burn Volume



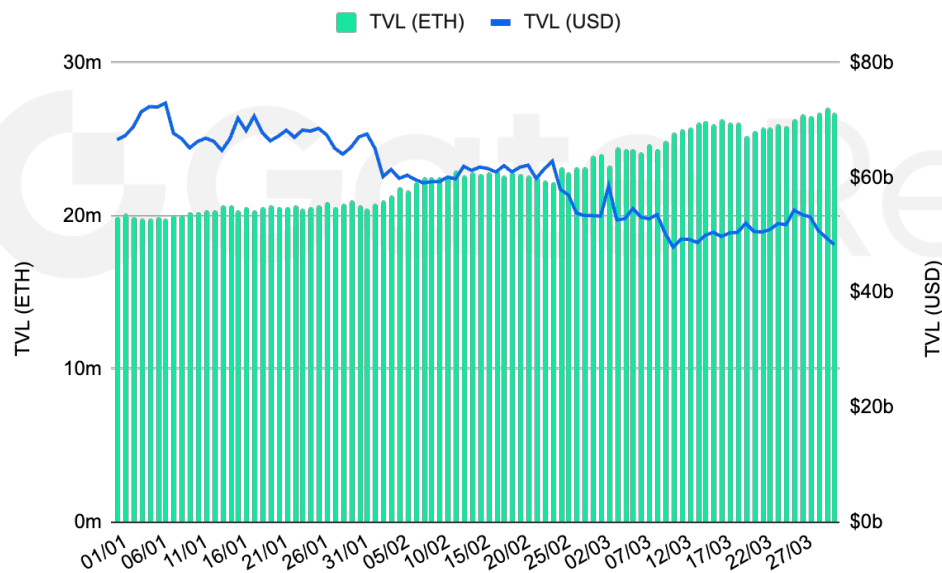
Only 3,694 ETH were burned in March, down 61.36% month-over-month.

- In Q1, ETH burn volume dropped significantly. February saw a total of 9,561.40 ETH burned, while March recorded only **3,694.43** ETH, a **61.36% decrease**.
- This sharp decline likely reflects reduced network activity and lower transaction demand, which led to decreased gas fee spending and thus lower ETH burns.

04 On-Chain Applications

01 Total Value Locked

ETH Total Value Locked

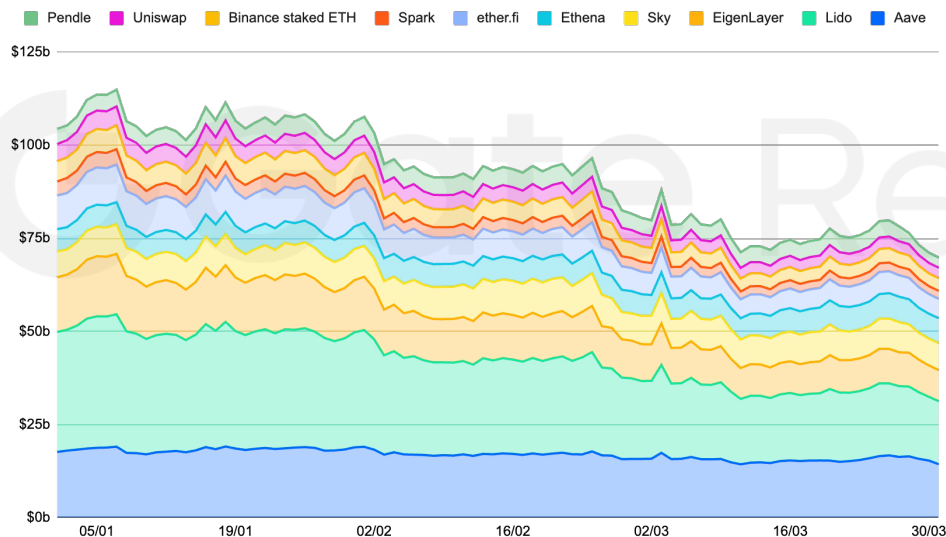


ETH TVL shows a trend of “volume up, value down.”

- As of March 31, total ETH locked reached 27.67 million, **up 15.54% month-over-month**.
- However, due to falling ETH prices, the USD value of TVL dropped to \$48.3 billion, down 27.45% since the start of the year — the lowest of the quarter.

02 Top 10 ETH Protocols by TVL

Top 10 ETH Protocols by TVL

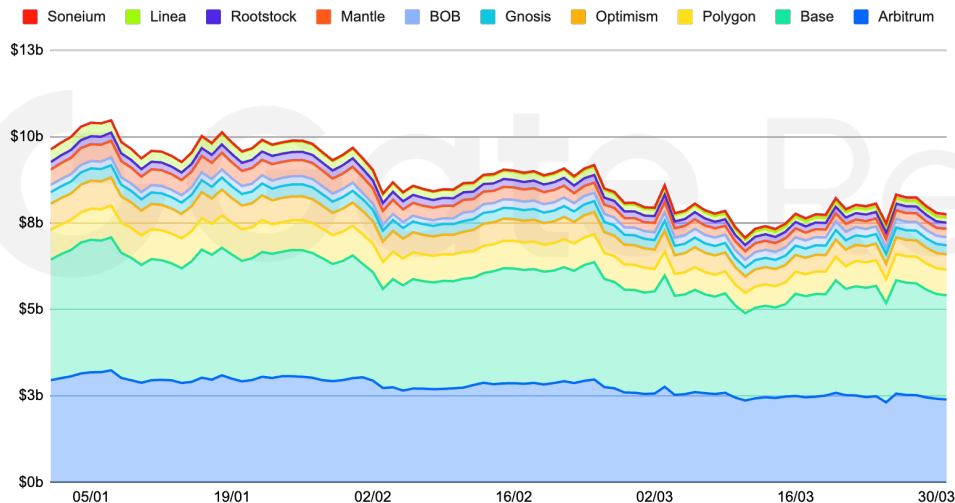


Aave leads in ETH TVL; Sky and Ethena see growth driven by RWA and yield strategies.

- In Q1, most major Ethereum protocols saw TVL decline. **Aave** surpassed Lido to become the largest by TVL, reaching **\$14.3B**, despite a drop of 18.67%.
- RWA-focused **Sky** and yield strategy protocol **Ethena** (which lets users earn yield on USDe via delta-neutral strategies) gained **3.99%** and **12.24%** TVL share, respectively. TVL ended the quarter at \$7.2B and \$6.8B, showing rising competitiveness in capital inflow despite a challenging market.

03 Top 10 Layer 2 by TVL

Top 10 Layer 2 Blockchains by TVL

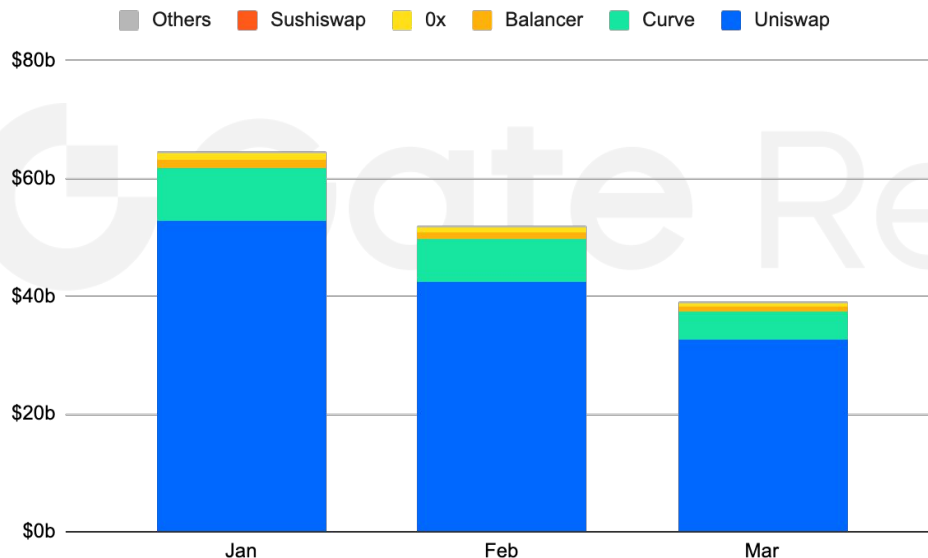


Mainstream Layer 2 TVLs declined, while newcomer Soneium stood out.

- In Q1, major Layer 2 chains saw TVL drops: Base -13.48%, Arbitrum -18.9%, and Optimism -41.76%, reflecting cautious market sentiment and pressure on mature Layer 2 chains.
- **Soneium**, Sony Block Solutions Labs' Layer 2 blockchain using Optimism's OP Stack (Optimistic Rollup), has demonstrated strong growth since January. Its TVL increased by 8,622% by March 31, showing significant market adoption and growth potential.

04 Decentralized Exchange (DEX) Volume

ETH DEX Trading Volume

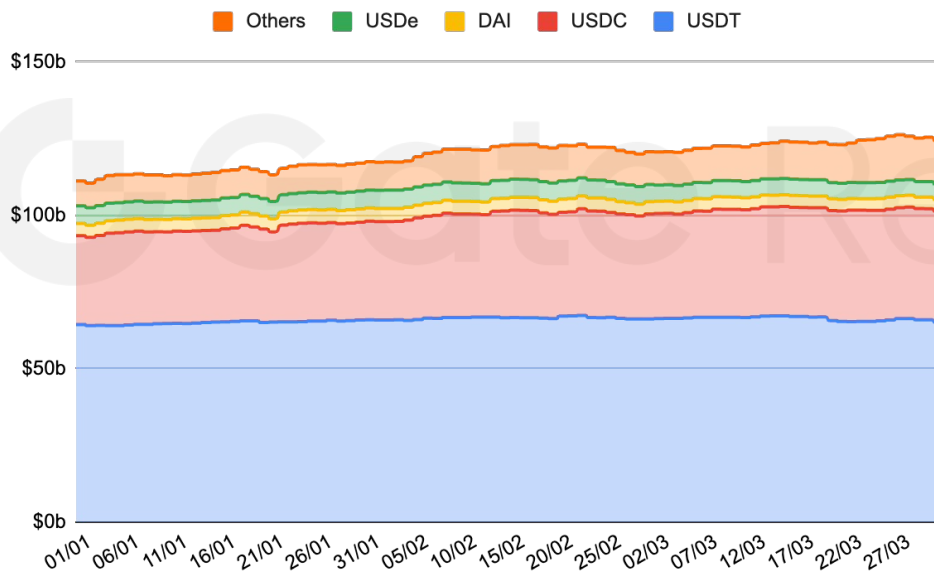


ETH DEX volume rose 13.88% in Q1; Uniswap dominated with 63% market share.

- In Q1, total ETH DEX volume reached \$233B, **up 13.88% from Q4 2024's \$204.6B.**
- **Uniswap** remained the top DEX on Ethereum, with \$146.4B in combined volume across V3, V2, and V4, accounting for **62.86%** of ETH DEX volume.

05 Stablecoin Market Cap

ETH Stablecoin Market Cap

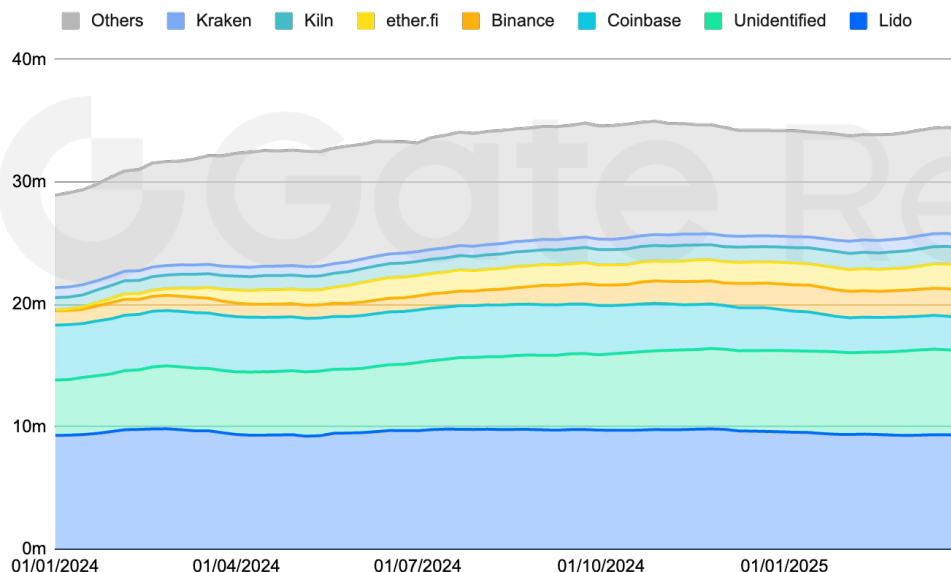


ETH stablecoin cap grew 11.36% in Q1, led by USDC's 25% surge, keeping market share above 50%.

- Total ETH stablecoin market cap **rose 11.36% quarterly**, from \$111.5B to \$124.2B, representing 53% of the total stablecoin supply (Total Market Cap: \$234.3B).
- USDT saw a modest 0.95% quarterly increase, while **USDC jumped 25.21% quarterly**, showing strong momentum.

06 ETH Staking by Entity

ETH Staked by Entity

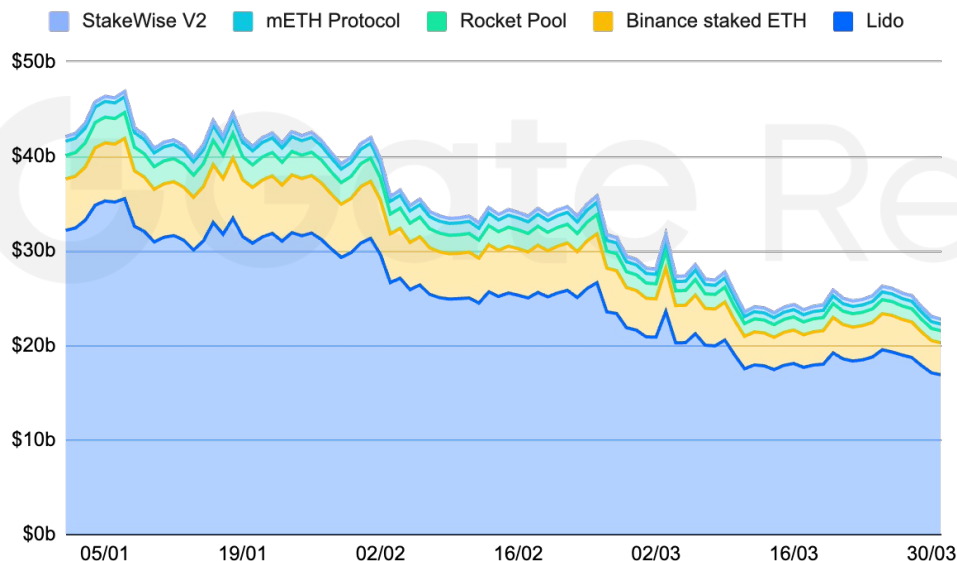


Staking growth slowed in Q1, up just 0.56%; Lido leading while multiple entities actively increase their holdings.

- As of March 31, total staked ETH reached 34.4M, **up 0.56% MoM**, showing stable staking activity despite market volatility.
- Lido** remained the dominant staking provider with 9.3M ETH, making up **27.18%** of the total staked ETH as of March 31.
- Notable growth was seen among top staking entities, with ether.fi and Kiln growing 13.77% and 15.18%, respectively. While Lido remains the leader, increasing competition among platforms is strengthening the ETH staking ecosystem.

07 Top 5 Liquid Staking Protocols by TVL

Top 5 Liquid Staking Protocols by TVL

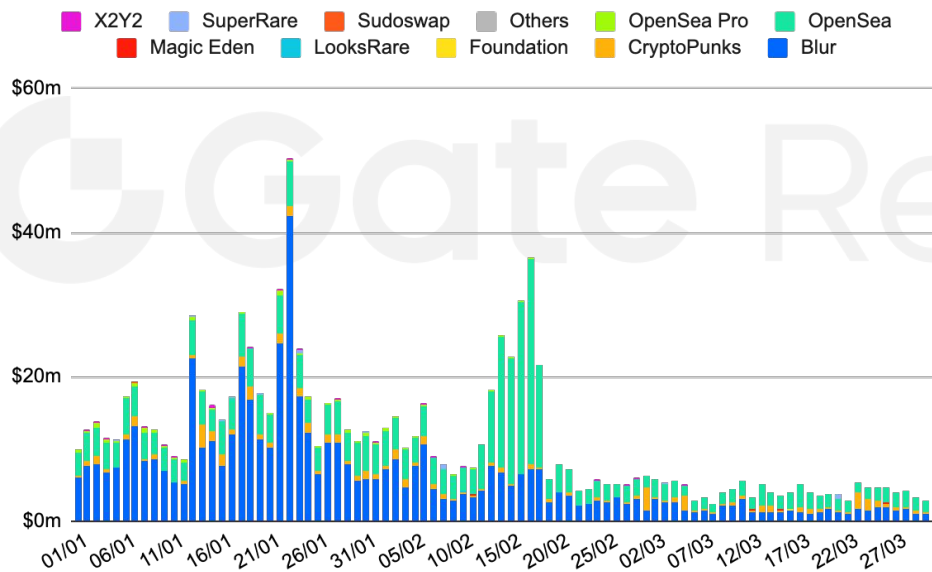


ETH liquid staking TVL declined overall, but demand remained steady — StakeWise V2 stood out with growth.

- In Q1, **liquid staking protocols** saw significant TVL declines. Industry leader Lido's TVL fell 47.51% to \$16.9B, while mETH Protocol dropped 53.12% to \$709M. However, considering ETH's 55.6% price decline, the actual staking volume in ETH terms remained relatively stable, indicating steady staking demand despite market caution.
- In contrast, **StakeWise V2** achieved **8.5% quarterly growth**, reaching \$518M TVL. While most protocols face liquidity constraints, some emerging platforms show growth potential worth monitoring.

08 NFT

NFT Trading Volume



Ethereum NFT trading hit \$1B in Q1, led by Blur and OpenSea.

- Total NFT trading volume for the quarter reached **\$1B**, with a peak on January 23 at **\$50.31M** in daily volume.
- **Blur** and **OpenSea** dominated, with **54.17%** and **37.28%** market share, contributing \$544M and \$374M respectively.

05 Future Outlook

01 Pectra Upgrade

The Ethereum **Pectra upgrade** is the next major network update, combining changes from the execution layer (Prague) and consensus layer (Electra). It includes 11 key Ethereum Improvement Proposals (EIPs) focused on scalability, staking flexibility, and user experience.

- EIP-7251: Raise staking limits
- EIP-7691: Expand L2 data capacity
- EIP-7623: Optimize data encoding via cost incentives
- EIP-7840: Enable flexible blob configurations
- EIP-7702: Introduces "ephemeral contract accounts" allowing users to sign and execute transactions without pre-deploying contracts
- EIP-6110: Faster staking deposits
- EIP-7002: Simplified validator withdrawals
- EIP-7685: Improve exec-consensus communication
- EIP-2537: Better cryptographic proofs
- EIP-2935: Extend block history
- EIP-7549: More efficient validator voting

02 Q2 Outlook

Ethereum's ecosystem is expected to develop along three key trends in Q2:

1. **Emerging Impact of Pectra Upgrade**

With Pectra upgrade scheduled for Q2 testing and mainnet deployment (expected April 30), its improvements to network scalability, transaction fees, and staking efficiency will begin to take effect. This will enhance Ethereum mainnet and Layer 2 network applications, leading to higher throughput and lower user costs.

2. **Institutional Investment and Market Sentiment**

As regulatory clarity improves (including progress on Ethereum ETF and related products), institutional capital inflow may boost market sentiment. Institutional investors' expectations for enhanced network efficiency and security could drive positive momentum in Q2, supporting ETH price recovery.

3. **Cross-chain Interoperability and L2 Innovation**

Developers are advancing cross-chain interoperability standards and Rollup technology to enable seamless asset flow between L2 networks. These maturing technologies will provide users with a more consistent and convenient cross-chain experience, expanding Ethereum's use cases and user base.

Overall, Q2 will be crucial for observing Pectra upgrade's effects and market response. The alignment of technical advances with user and institutional demands should drive Ethereum's ecosystem toward greater efficiency, lower costs, and wider adoption. However, macroeconomic uncertainties and increased competition may still affect short-term market sentiment.



Disclaimer

The information and data presented in this report are derived from public sources. While we have analyzed data up to March 31 2025, we cannot guarantee the absolute accuracy or completeness of this information. Our views reflect our analysis and judgment at the time of writing and may evolve as market conditions change.

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P2 Holder Distribution

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P5 Future Outlook

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