galaxy | Research

# Solana's Resurgence and Growth

## Reigniting Interest and the Rise of the Third Chain

Solana Regains its Footing

- **Solana was especially affected by the FTX collapse in early November 2022 due to the ecosystem's early ties with CEO Sam Bankman-Fried.**

- **Over the past year Solana has established itself as "the third chain" thanks to its differentiated approach to blockchain design, committed and growing developer community, and strong social layer (partially a legacy of its large NFT ecosystem.**

- **Solana focuses on execution and scalability above all, with a view that the blockchain should be as fast and cheap as possible to transact on.** This is a distinctly different narrative from Bitcoin (store of value) and Ethereum (settlement) and one that opens the design space for developers to build products that are "Only Possible on Solana."

- **Due to a drawdown in onchain activity during the bear market, outside observers overlooked critical upgrades to Solana's core protocol that improved performance and uptime, addressing the network's largest critique – that it constantly goes down.**

- **Solana's annual Breakpoint conference reignited broader interest in the ecosystem as it showcased the quality of teams and breadth of products on the network.**

2023 Transactions and Daily Active Signers

Data: Artemis

Solana Downtime/Degraded Performance

Solana TPS (Non-vote transactions)
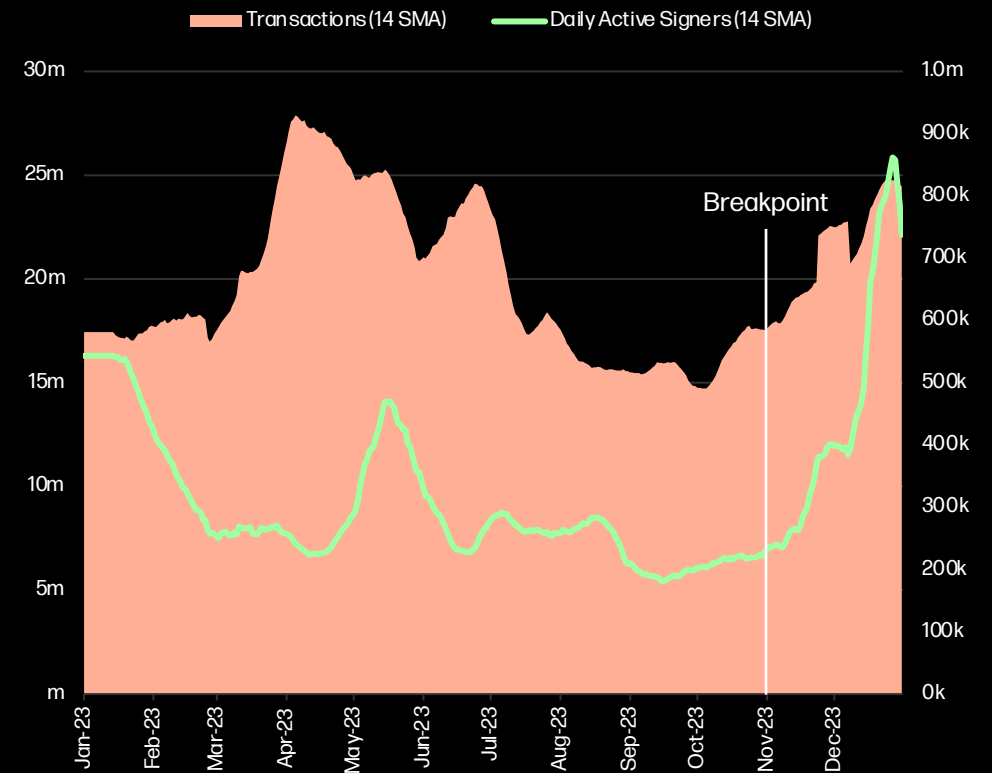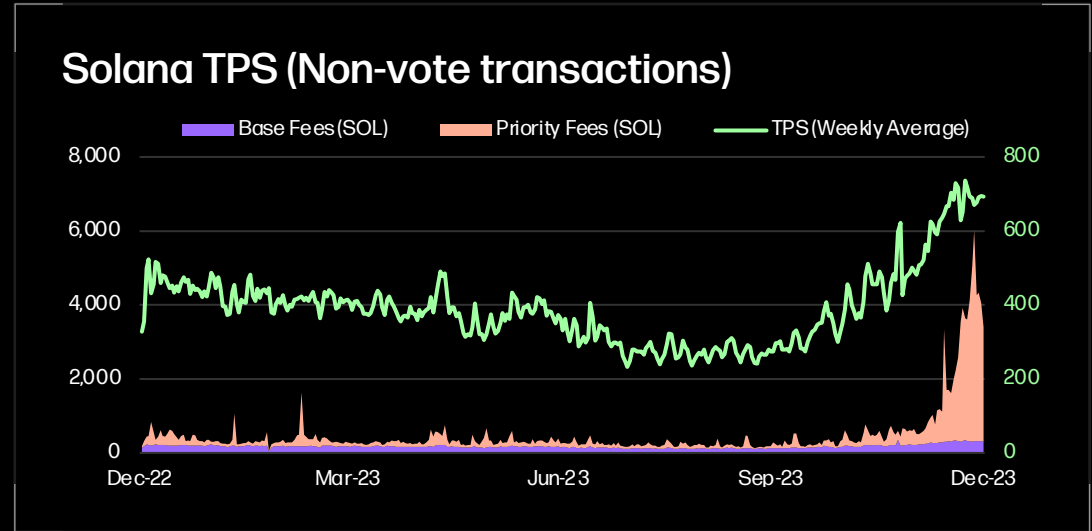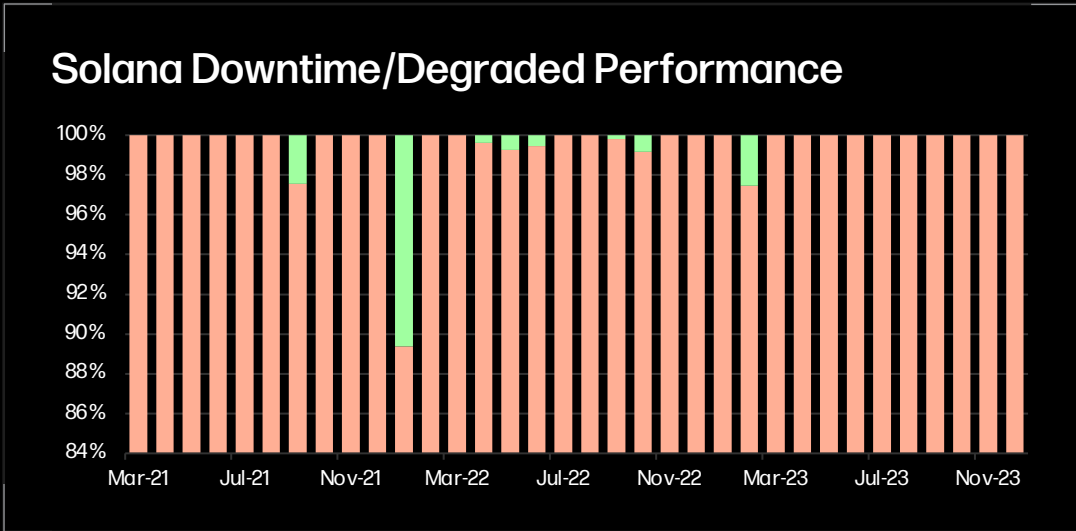
Protocol improvements implemented over the past year have resolved downtime & degradation issues (QUIC, Stake Weighted Quality of Service, and Local Fee Markets).

- **Solana has 100% uptime since February and three consecutive quarters without any network issues.** The onboarding of new validator clients and core protocol upgrades planned over the coming year will be a further test of network's stability.

- **Solana TPS, which normally ranges in the 400-500 range, has topped 700-1000+ multiple times throughout 2023**. This is greater than the next 20 fastest chains combined and a test of the network's capacity.

- **Solana has 1,958 block-producing validators, second only to Ethereum for PoS networks and a 233% increase since July 2021**.

In the coming year, multiple new validator clients are expected to be released, enhancing the network's throughput and resilience while reducing validator costs.

- **Firedancer, a validator client developed by Jump Crypto, is now live on testnet and expected to launch on mainnet in 2H2024**. Two additional validator client in production include SIG (RPC focused) and TinyDancer (Solana's first light client). Solana remains the only other major L1 smart contract blockchain besides Ethereum with multiple validator clients.

- **Validator costs, a major criticism of the network's decentralization, continue to drop as hardware gets cheaper**. The economics of running a validator have also improved as Solana onchain activity ramps up and validators earn more from transactions and MEV.

Data: Solana Foundation, Dune

Onchain Activity and Growth

Technical improvements over the past year are being put to the test as onchain activity ramps up. In December, Solana surpassed Ethereum in monthly NFT volume, weekly stablecoin transfers, and weekly DEX volume for the first time.

Solana will continue to grow its onchain market share in the coming year, both from new crypto users entering the ecosystem and existing crypto users bridging over from other chains due to:

▪ **DeFi 2.0 Airdrops**: Leading Solana DeFi protocols have a series of airdrops planned over the coming year to incentivize onchain activity and improve liquidity. Already 10+ projects have confirmed they plan to release tokens and launched liquidity mining programs.

▪ **Developer Growth**: The most recent Solana Foundation Hyperdrive Hackathon (September '23) received an all-time high of 907 submissions from 7000+ participants and three-month developer retention increased from 31-50% over the course of 2023.

▪ **Tooling and Product Diversification**: New tooling like state compression, Token 2022, and xNFTs expand the design space for teams building on Solana. Notable verticals to watch include AI, DeFi, DePIN,, Gaming, Mobile, Payments, Privacy, and RWA.

▪ **Liquid Staking Token (LST) Push**: Only 4.5% of staked SOL is in LSTs. Major LST providers including Jito Labs, Marinade, and SolBlaze have launched incentives programs to increase LSTs in circulation.

▪ **CEX Integrations**: Solana will benefit from new integrations with established exchanges like Coinbase and Swissborg, as well as newly launched ones like Backpack and Cube.

Increased onchain activity will also bring new challenges. Beyond network stability and scalability, a major focus will be on developing a more robust governance process that accounts for an increasingly diverse contributor community.

Stablecoin Transaction Volumes by Network

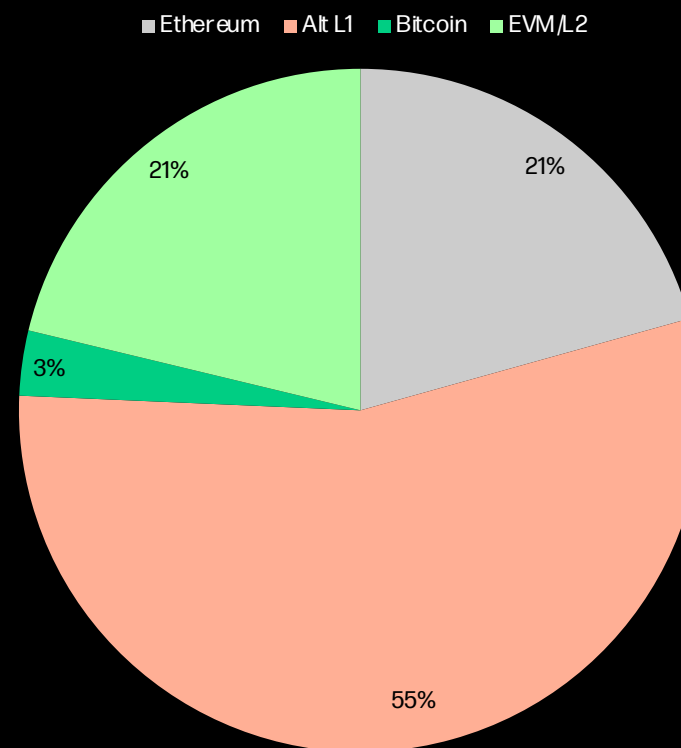Legend: Solana, Ethereum, Tron, Other

Data: Artemis
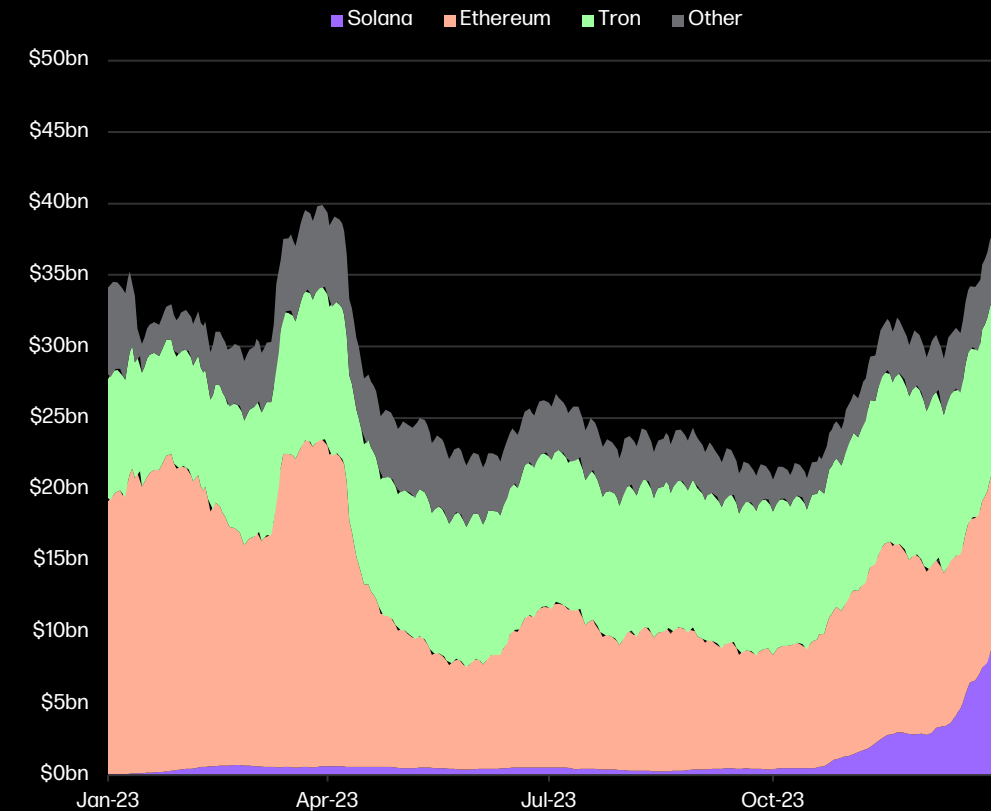
Alt L1 Interest Reignited

As onchain activity picks up across the space, demand for blockspace on dominant chains will outpace supply, once again pushing users to alternative L1s with different value propositions:
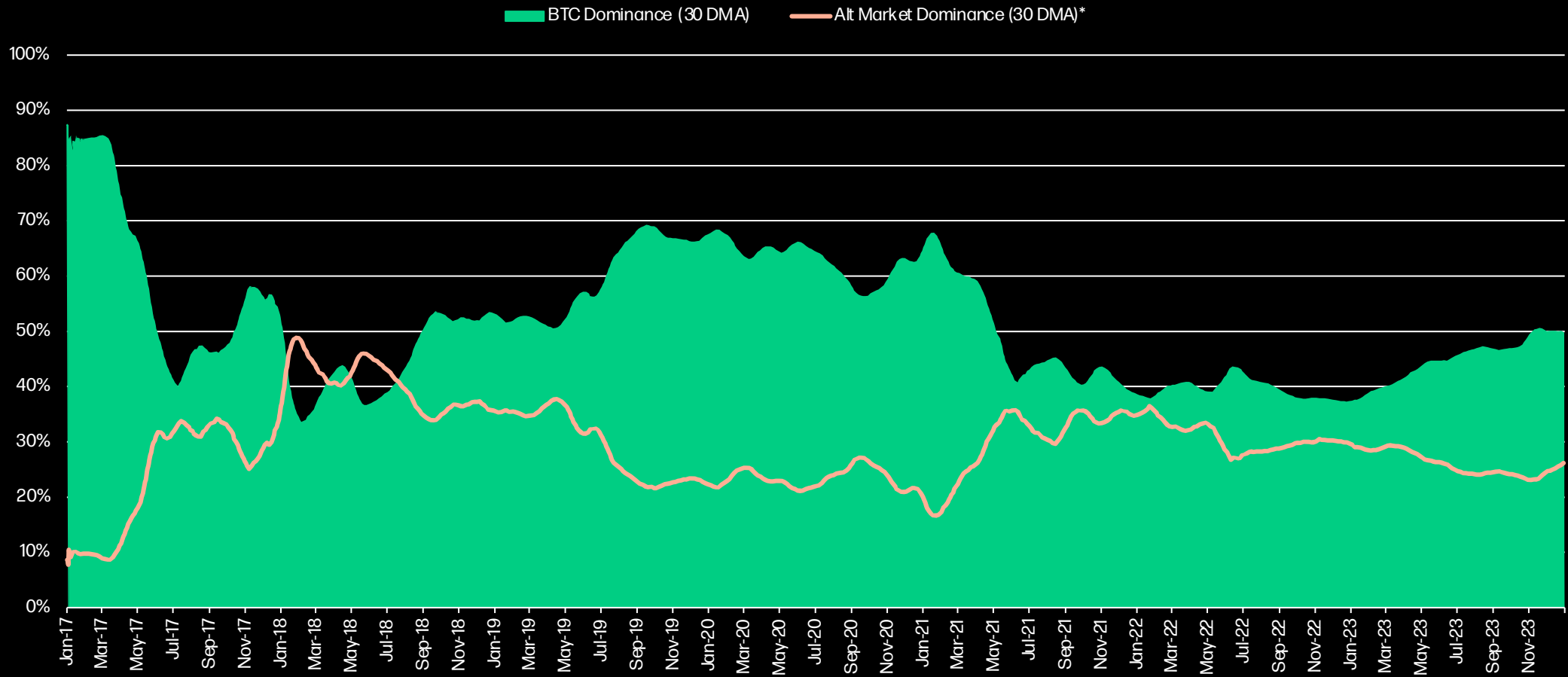
- <u>Technical Advantages Over Ethereum</u>: Alt L1s are designed to specifically address existing inefficiencies with Ethereum such as lack of scalability, inability to parallelize execution, and limited interoperability/composability. Until Ethereum and its L2 roadmap effectively address these shortcomings, Alt L1s will attract new investment and developers as they expand the design space for specific applications like gaming, social media, payments, DeFi, and institutional KYC/privacy solutions.

- <u>Continuous Technical Innovation</u>: Alt L1s have lower technical debt, enabling more rapid innovation. Constant iteration is crucial to maintain relevance in the evolving blockchain landscape. They also are working to improve developer experience by providing support for multiple coding languages and providing greater control/flexibility. Alt L1s will need to ensure these innovations unlock products that attract sticky user bases, or risk seeing them replicated and integrated by Ethereum.

- <u>Community Building, Business Development, and Marketing</u>: Despite technical superiority, Alt L1s face challenges in attracting developer mindshare, users, and liquidity. They are starting to pickup traction. As of October 2023, Alt L1s account for over 50% of developers outside of Bitcoin, Ethereum, and EVM/L2s. Further success will hinge on balancing technical prowess with effective marketing. Already, some Alt L1s are repositioning to better leverage the network effects of Ethereum's EVM and ecosystem, focusing more on complementing Ethereum rather than direct competition.

Data: Electric Capital Developer Report

Developer Count by Smart Contract Chains

Legend: ■ Ethereum   ■ Alt L1   ■ Bitcoin   ■ EVM/L2

- Ethereum: 21%
- Alt L1: 55%
- Bitcoin: 3%
- EVM/L2: 21%

Bitcoin vs. Altcoin Market Capitalization Dominance

*Alt excludes ETH and stablecoins

Data: CoinGecko and DeFiLlama