State of Crypto

Issue 11 / January 2024

Market Outlook 2024

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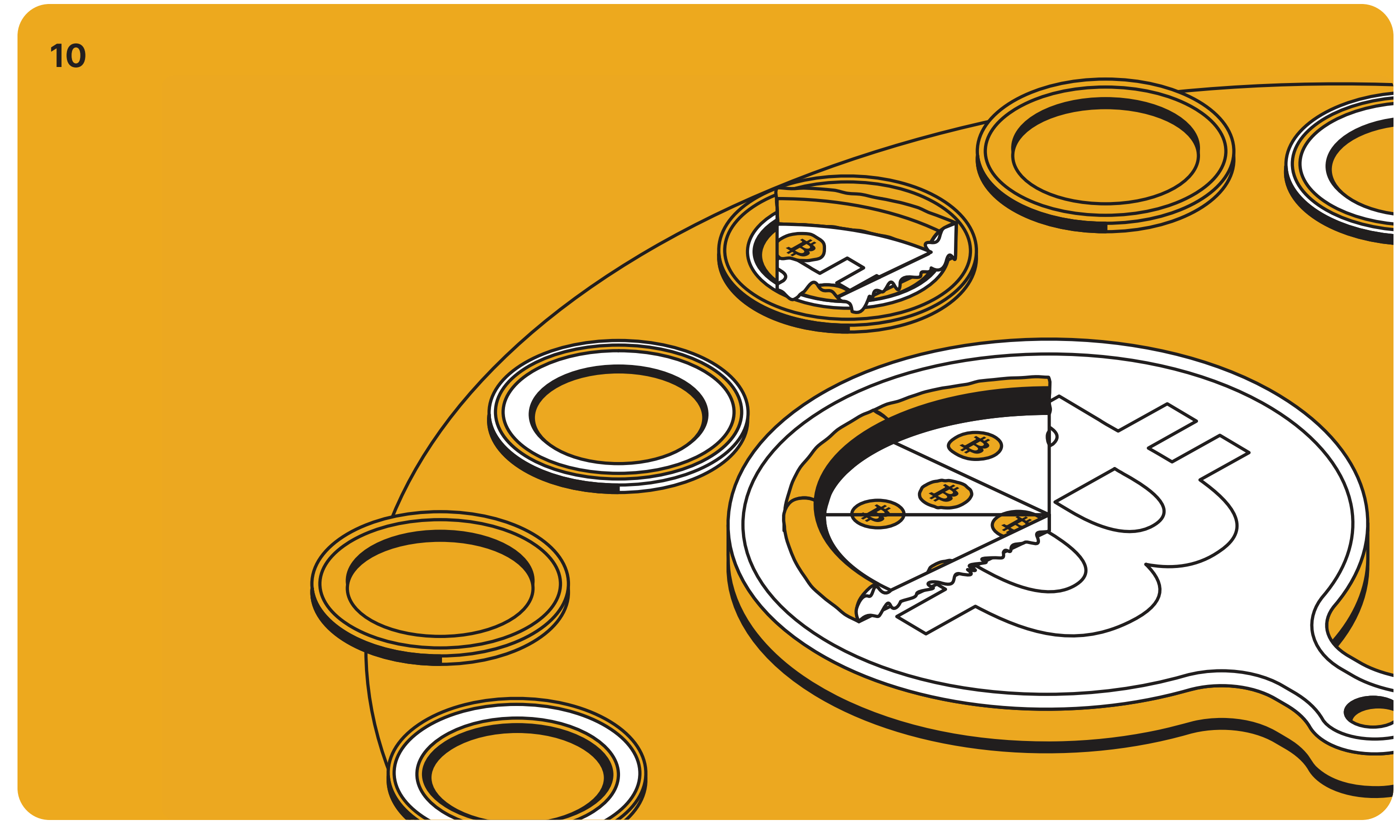

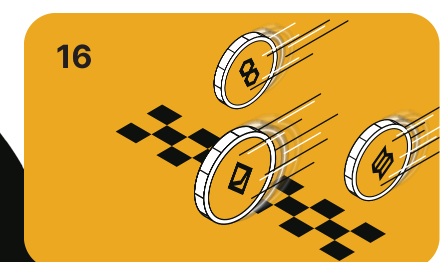

Contents

Executive Summary

- **Bitcoin in 2024, the year of the halving.** Bitcoin's most anticipated event, the halving, is set to occur in April 2024. As if the supply shock of cutting the emission of new BTC in half wasn't material enough, chances are this event coincides with an already illiquid supply, falling rates on the macro side, and a pivotal change in the market structure of Bitcoin with the potential approval of a spot ETF in the U.S. Meanwhile, Bitcoin fundamentals have never been stronger as innovations like Ordinals allow it to explore new use cases beyond a store-of-value asset.

- **Ethereum remains the liquidity hub for crypto, but can Solana give it a run for its money?** Ethereum remains the leading ecosystem with a 75% market share in total value locked (TVL), a crypto-native metric akin to assets under management (AuM). Most alternative Layer 1s (L1s) without product-market fit will continue to pivot to an Ethereum Layer 2 (L2) to tap into its liquidity and security. In this regard, the top L2 projects will keep competing for the most potent network effects. Meanwhile, Solana has risen from the ashes and will aim to challenge Ethereum's modular architecture with its integrated approach, which offers unparalleled speed and cost-efficiency.

- **Tokenization, new waves of capital flowing into the crypto market.** After 18 months of outflows, new capital has finally begun to enter the crypto market, as demonstrated by the positive increase in the fiat-backed stablecoin market cap. Recent net inflows into stablecoins suggest a changing market structure going into 2024, with institutional money returning to the ecosystem at a rapid pace. In 2023, cross-chain solutions like Chainlink's Cross-Chain Interoperability Protocol (CCIP) allowed institutions to transact with tokenized assets across public and private blockchains. Meanwhile, Circle's Cross-Chain Transfer Protocol (CCTP) enabled the seamless flow of USDC liquidity across various networks. The critical challenges for tokenization in 2024 will be institutional adoption of token standards like Ethereum's ERC-3643 or Solana's Token22, as well as KYC tooling that enables them to comply with regulatory requirements.

- **Applications: DeFi keeps chugging along.** As Uniswap introduces its v4 upgrade with features replicating the UX of CEXs, like limit orders, and exciting innovations like "hooks," we expect Uniswap to keep dominating in the decentralized exchange (DEX) vertical, where its lead remains uncontested. Regarding lending protocols, we anticipate they will follow MakerDAO's footsteps in increasingly integrating real-world assets (RWAs) to increase their profitability. Finally, the success of liquid staking on Ethereum is a preview of the similar growth we may expect in ecosystems like Solana and Cosmos in 2024, especially with innovative protocols like Jito and Stride.

- **Regulatory Competition: Who is Winning The Crypto Race?** Regulating crypto in the U.S. has been an "enforcement-only approach that has only increased consumer risk and driven customers and innovation out of the country," as described by Coinbase's chief legal officer. That may change in 2024, with Coinbase gaining further legitimacy and institutions adopting regulated financial products to get exposure to crypto at scale. It's in the best interest of the U.S. government to provide regulatory clarity regarding USD-pegged stablecoins, as they strengthen the global demand for the U.S. dollar. In the rest of the world, we expect jurisdictional competition to attract crypto talent – both the U.K. and Hong Kong have proposed frameworks to become a crypto hub, and 2024 may see businesses setting operations in these places.

“After 18 challenging months, crypto’s market structure is favorably changing.”

Introduction

We are thrilled to release our latest State of Crypto magazine - our 2024 market outlook. After 18 challenging months, crypto’s market structure is favorably changing. Bitcoin has consolidated its role as an emerging store of value and hedge against counterparty risk, as demonstrated by the “flight to quality” witnessed during the regional banking crisis in March. Meanwhile, innovations like Ordinals are expanding Bitcoin’s use cases, enabling it to become a “tech play” as we enter the year of the halving.

Ethereum’s role as crypto’s liquidity hub has been strengthened by the proliferation of Layer 2 scaling solutions. However, Solana has proved a worthy alternative with unparalleled speed and cost-efficiency, forcing Ethereum to keep innovating if it wants to remain on top. On the applications side, tokenization will become more pervasive as the advancements in cross-chain solutions enable the vision of a truly interconnected, internet-native global financial system to materialize. Finally, jurisdictional competition is intensifying in the global race for crypto talent.

We hope our writing and research can guide you over what’s to come in the next few months.

Hany Rashwan | CEO
Ophelia Snyder | President
Eliézer Ndinga | VP, Head of Strategy and Business Development

About Our Research

Since 2018, 21Shares has been providing access to crypto through simple and easy-to-use products — co-founded by Hany Rashwan and Ophelia Snyder.

The research team is a cross-functional department collaborating with the distribution, product, and engineering teams. Composed of professionals with substantial experience in the cryptoasset industry, our team places education at the core of our industrial research as we stand by free and publicly accessible content; and strongly believe information asymmetry contradicts the crypto ethos and philosophy. We provide data-driven, cutting-edge, unique insights into the crypto markets and macroeconomic factors likely to influence the state of this industry.

More than 10,000 investors are subscribed to our research notes and reports on a weekly basis, ranging from private banks, asset managers, professional traders, hedge funds, tier-1 media outlets, and regulators.

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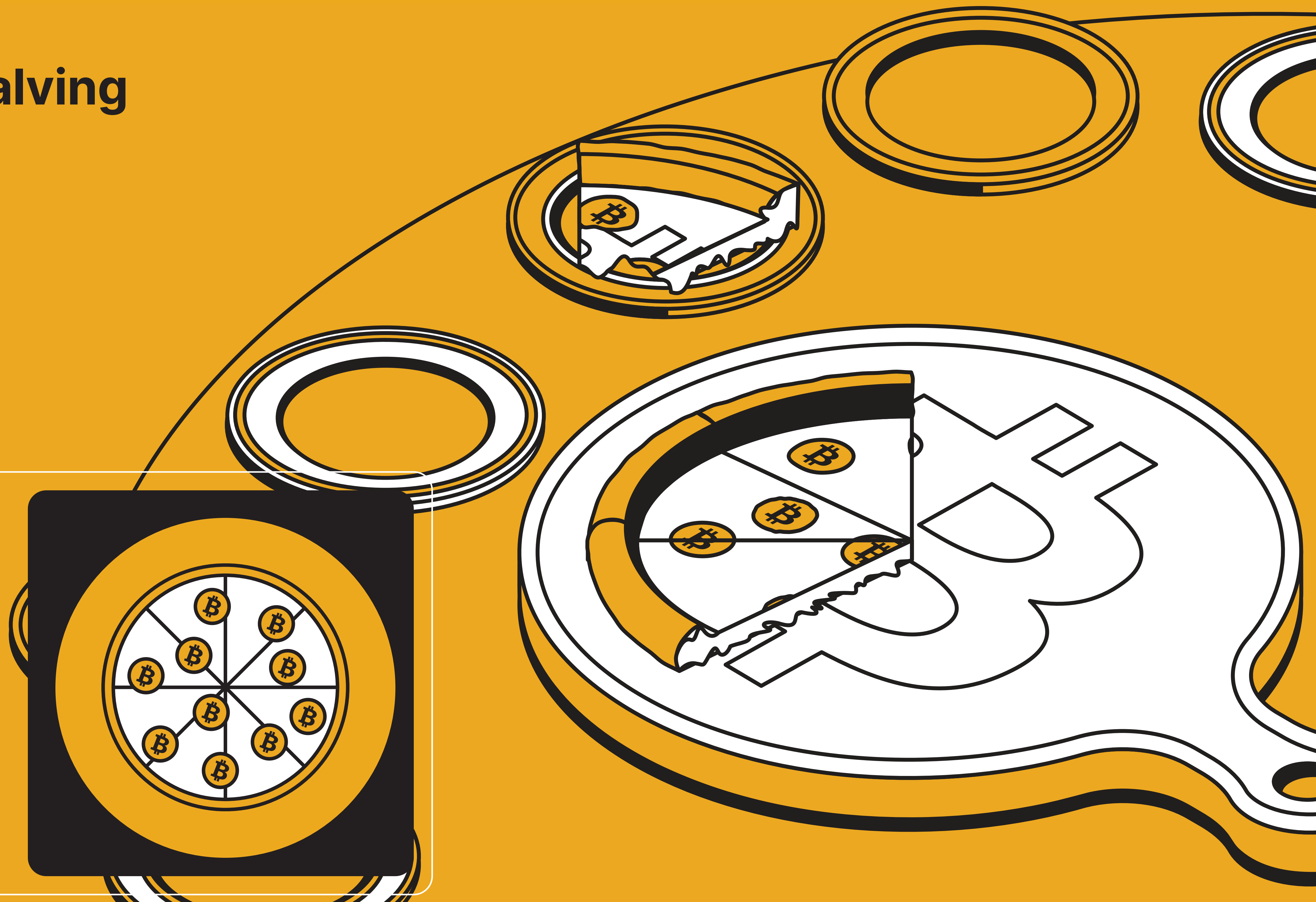
Karim | Research Associate
Leena | Research Associate
Tom | Associate, Strategy and Business Development

Bitcoin in 2024

The year of the halving



01 The Halving Effect: Bitcoin's Four-Year Cycle Compass

02 The Halving is Likely to Coincide with a More Favorable Market

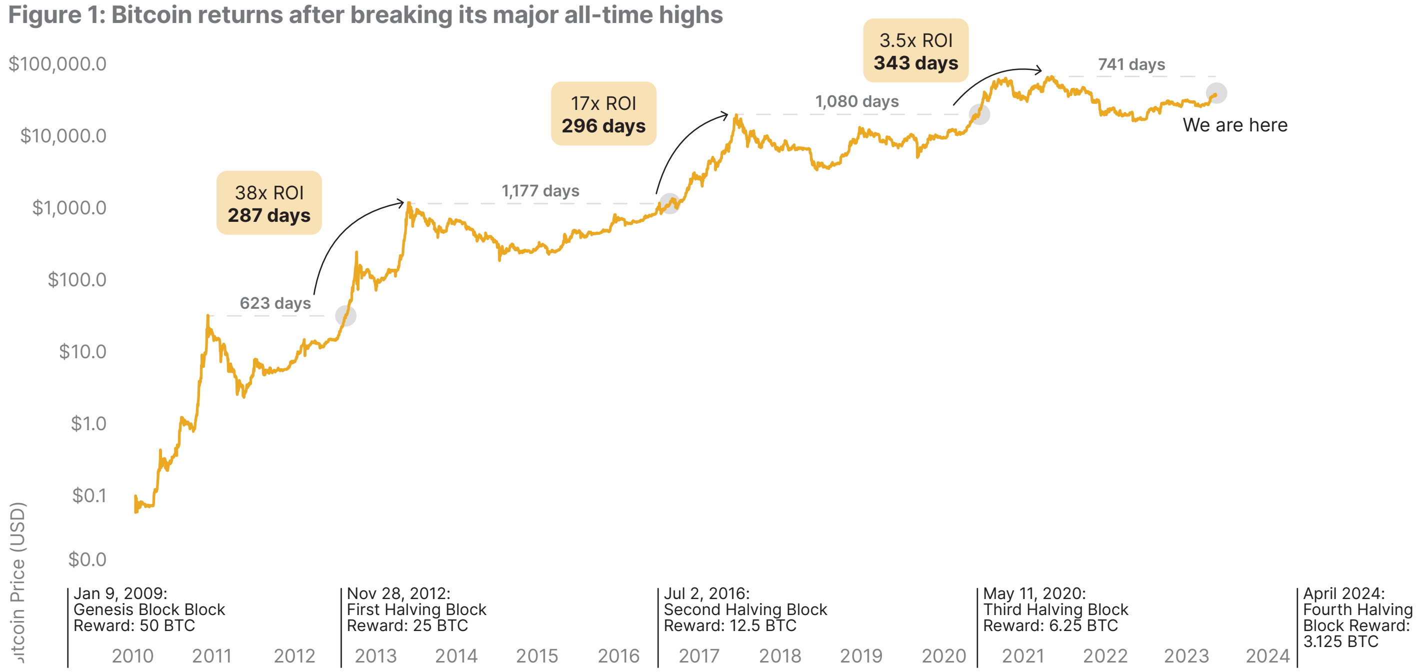
03 There's Life for Bitcoin Beyond a Store-of-Value Asset

The Halving Effect: Bitcoin's Four-Year Cycle Compass

The halving remains Bitcoin's most anticipated event. With the fourth one expected in **April 2024**, the block reward received by miners will drop from **6.25** to **3.125 BTC**, meaning Bitcoin's **annualized inflation rate** will halve from **~1.70%** to **~0.85%** as the asset follows its programmed path to **21 million units**.

The halving **supply shock**, combined with the narrative that forms around it, has historically led to Bitcoin outperforming in the twelve months after. On average, it takes BTC **172 days** to break its previous all-time high (ATH) after halving, while it takes **308 days** to reach a new cycle top once the ATH is breached.

Figure 1: Bitcoin returns after breaking its major all-time highs



Source: 21Shares, Glassnode. Data as of November 19, 2023

The Halving is Likely to Coincide with a More Favorable Market Structure

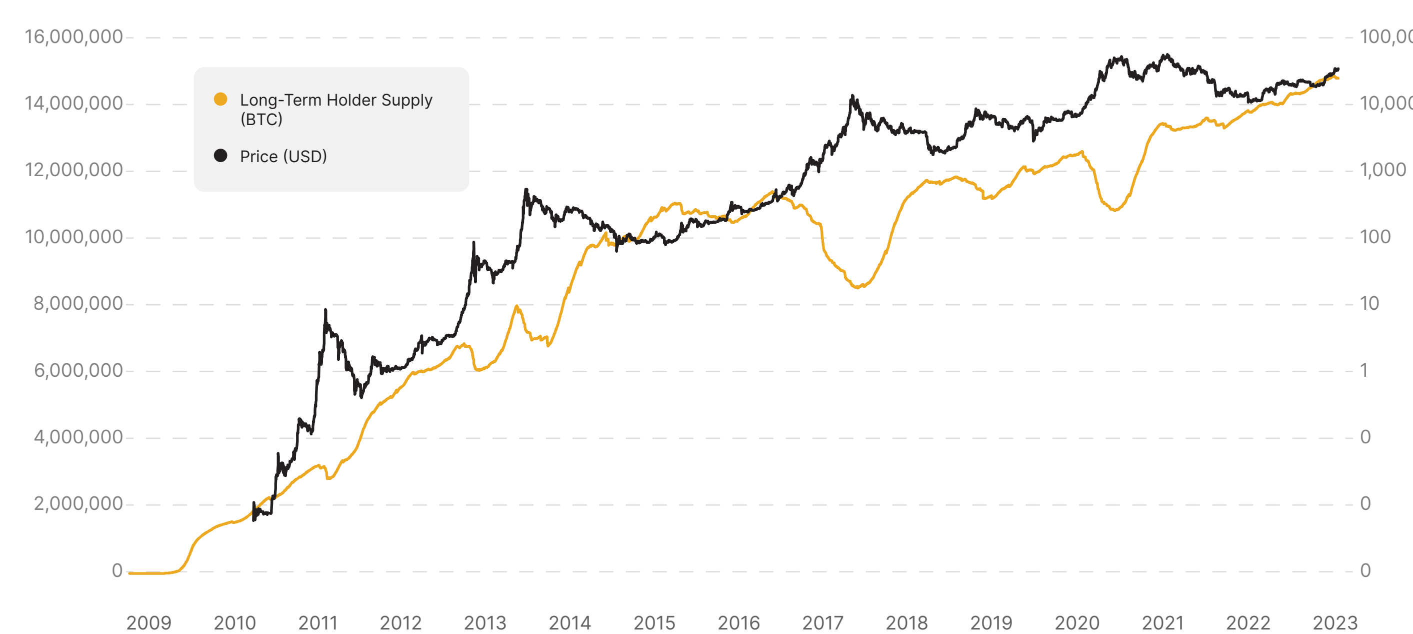
While 2024 is the "year of the halving," it may coincide with other tailwinds for Bitcoin:

- With the Fed holding rates steady in their last two meetings, the market is pricing an **~85% probability of at least one rate cut** by **July 2024** and **~99.7%** by **December 2024**, per the CME FedWatch Tool[1].

- While falling rates may lead to global liquidity expansion, the potential approval of a **spot ETF** in the U.S. may further favor Bitcoin's market structure. Galaxy estimates that the size of the **U.S. wealth management industry** was **$48.3 trillion**[2] as of October 2023, and an investment vehicle like an ETF could allow this bucket of investors to access Bitcoin in a regulated manner at scale.

- As if the halving supply shock wasn't material enough, according to Glassnode, the Bitcoin supply held by long-term holders (LTHs) - investors who haven't moved their BTC for at least 155 days - has surged to a record high, standing at **around 14.9 million BTC or ~76% of BTC's circulating supply**, as of November 18, 2023.

Figure 2: BTC supply held by long-term holders (LTHs)

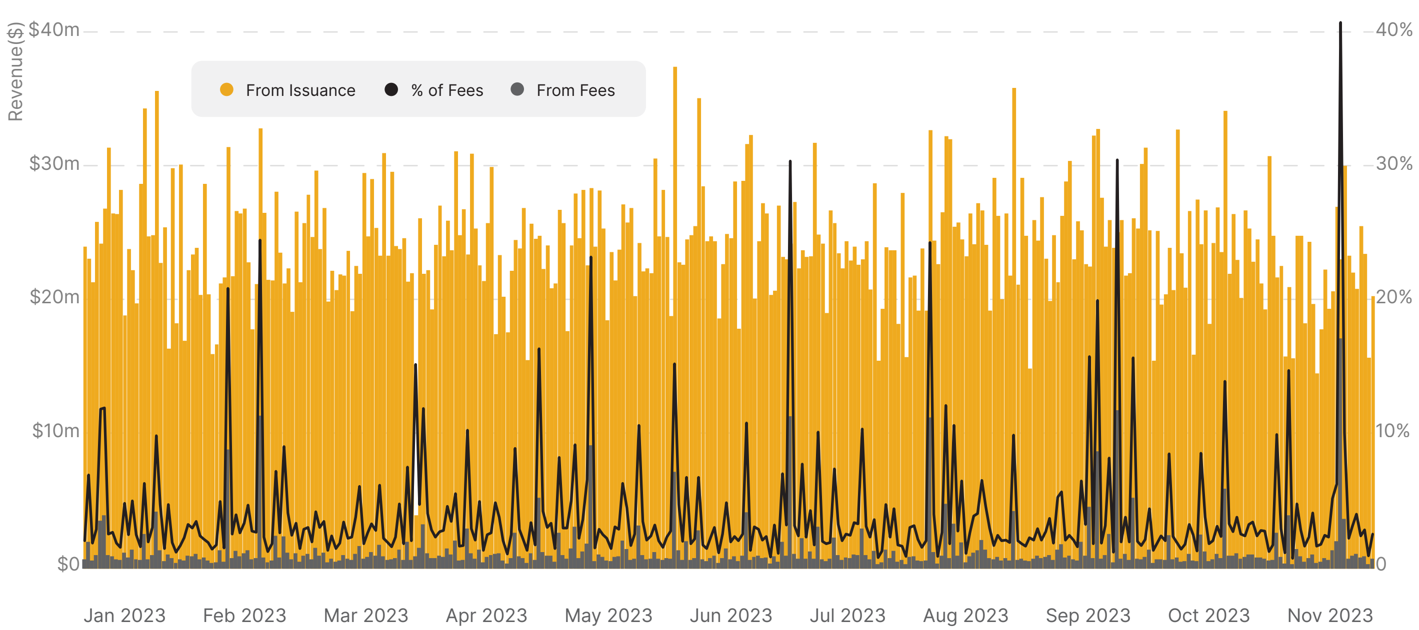


Source: Glassnode. Data as of November 18, 2023

There's Life for Bitcoin Beyond a Store-of-Value Asset

On the fundamentals side, we expect innovations like **Ordinals** and **BRC-20 tokens** to drive more demand for Bitcoin and expand use cases on the network. As Bitcoin's block size is limited, when demand for transactions increases, we see an increase in fees. In 2023, **miner revenue from transaction fees** increased from **~0.73%** at the beginning of the year to **more than 10%** in November, representing more than **$10 million in daily fees at times**. The fee increase is a net positive for the **long-term security of the network**, especially with the emission of new BTC halving every four years until the 21 million cap is reached. Rising fees may price out small-sized transactions and drive more adoption of **Layer 2s**, such as the **Lightning Network** and **Stacks**.

Figure 3: Bitcoin miners revenue breakdown and fee %



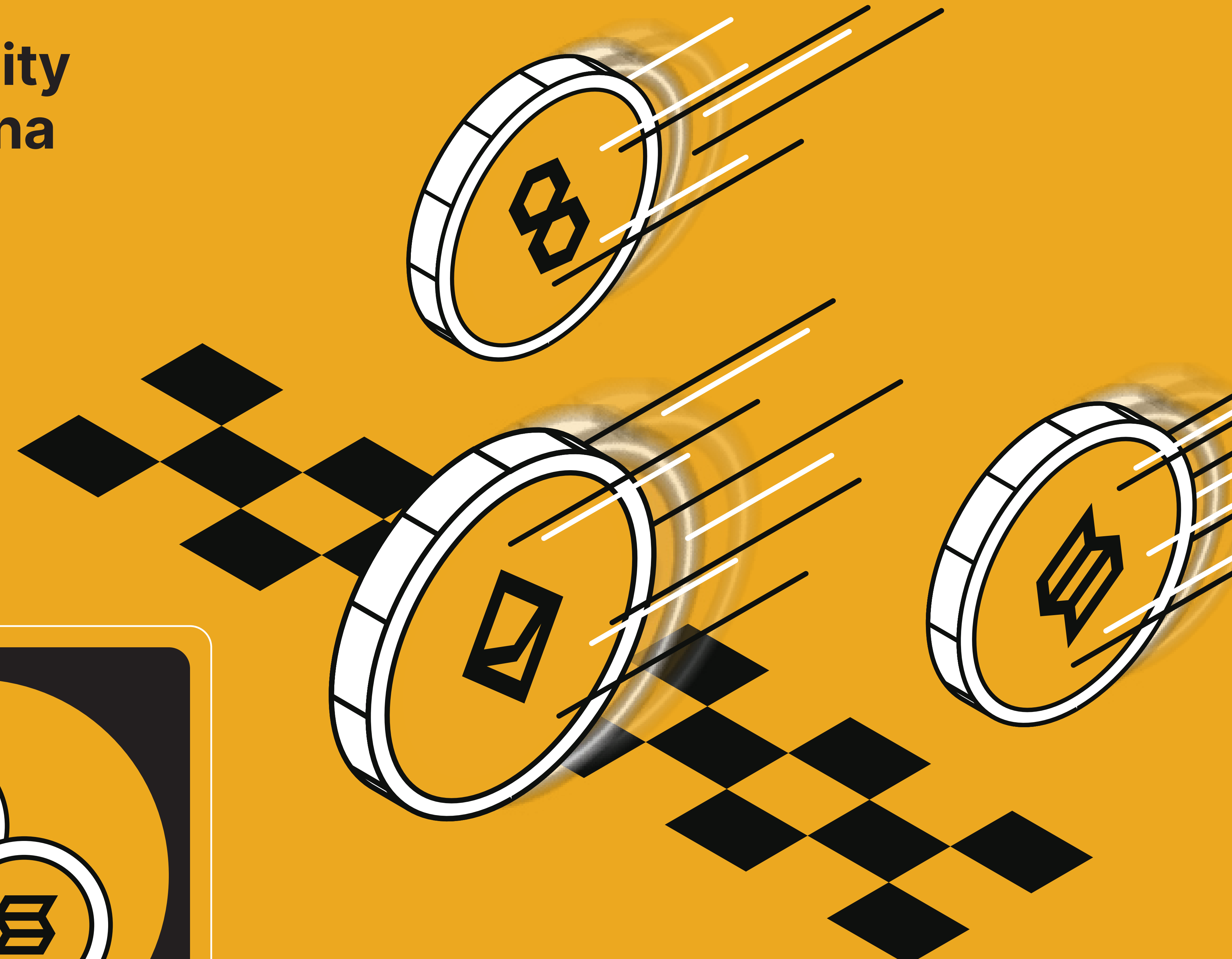
Source: 21.co (parent company of 21Shares), Dune Analytics. Data as of November 19, 2023.

> "We expect innovations like Ordinals and BRC-20 tokens to drive more demand for Bitcoin and expand use cases on the network."

Catalysts [+]	Risks [-]
• The Bitcoin **halving** coupled with an already **illiquid supply**.	• Bitcoin halving and ETF approval being a "**buy the rumor, sell the news**" type of event.
• **Falling rates** would prompt investors to go farther out of the risk spectrum, which benefits assets like BTC.	• Rising **dollar strength**, which has been negatively correlated with BTC.
• **Institutional adoption** enabled by potential **spot ETFs** in the U.S.	• **Geopolitical landscape** (like the Israel-Hamas conflict) and **regulatory pressures** are risks to the security and adoption of BTC (e.g., China ban 2021 impact on hash rate). Conversely, geopolitical uncertainty could also strengthen Bitcoin's value as a censorship-resistant asset and hedge against counterparty risk.
• Bitcoin becoming a "**tech play**" with more use cases on the network while addressing its long-term security concerns.	• Sell pressure from the **Mt. Gox** trustee's repayment and the **U.S. government**.
• Potential **adoption of Bitcoin by another nation-state**, namely **Argentina**, as libertarian Javier Milei assumes the presidency.	

Ethereum

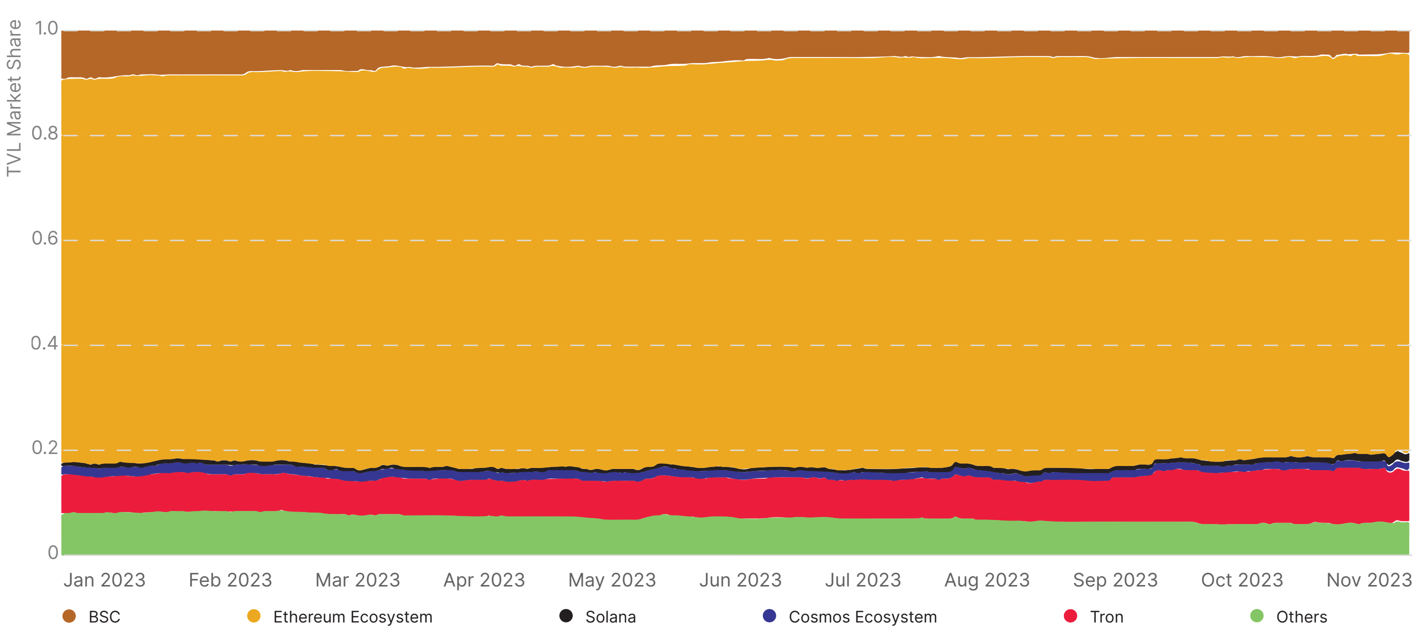
Ethereum remains the liquidity hub for crypto, but can Solana give it a run for its money?



The Consolidation of Smart Contract Platforms

Ethereum remains the leading ecosystem with a **75% market share** in total value locked (**TVL**), a crypto-native metric akin to **assets under management (AuM)**. Alternative Layer 1s (L1s) without product-market fit have been losing traction, with unsustainably high inflation and a lack of innovative applications incentivizing users to move away from Ethereum, which has the most robust network effects. On the other hand, **Layer 2s (L2s)** or scaling solutions on Ethereum can also provide **fast and cheap transactions without sacrificing security**. Some projects like Fantom[3], Celo[4], and Canto[5] have pivoted and decided to transform to an L2 on Ethereum to tap into its liquidity for a last chance to get user traction. We believe this trend will accelerate going into 2024.

Figure 4: DeFi total value locked (TVL) market share by ecosystem



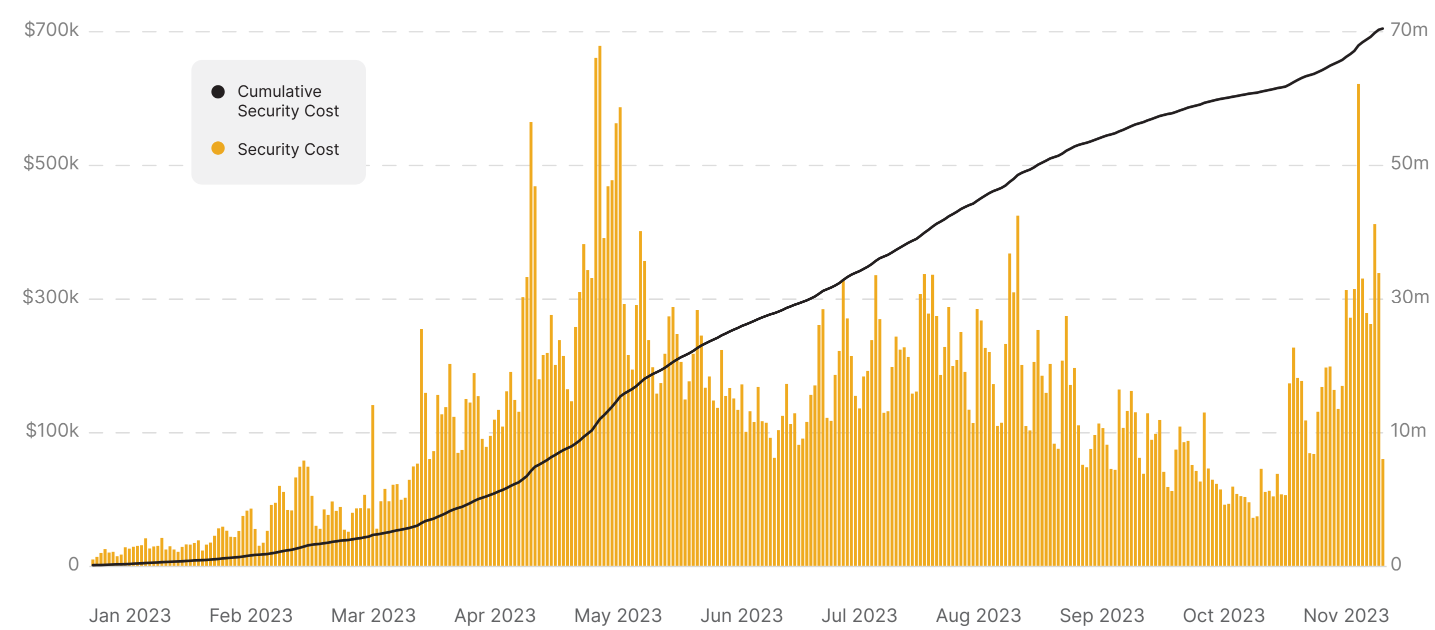
Source: 21Shares, Flipside. Data as of November 15, 2023

The L2 Wars Continue

Ethereum is moving toward a modular future by shifting its execution to L2s for better scalability, as scaling solutions now process over **70% of the transactions** on the network.[6] In this regard, Ethereum and L2s are not competitors but mutually beneficial to each other. L2s are deriving security from Ethereum via state validation and storage of transaction data. In return, L2s pay Ethereum for this service. Ethereum has received over **$72 million** in 2023 from L2s for securing their network.

Around **32** L2s for Ethereum are live as of November 2023. With more L2s gearing up for launch next year, we could witness a doubling before a consolidation. Projects like Optimism, Arbitrum, zkSync, and Polygon have already rolled out their **L2 development kits** so that applications and exchanges like **Coinbase**[7], **OKX**[8], and **Kraken**[9] can launch their own L2s with ease. We believe OP Stack, ZK Stack, Arbitrum Orbit, and Polygon CDK will compete for adoption to build network effects and economies of scale in 2024.

Figure 5: How much do L2s pay to Ethereum for security?



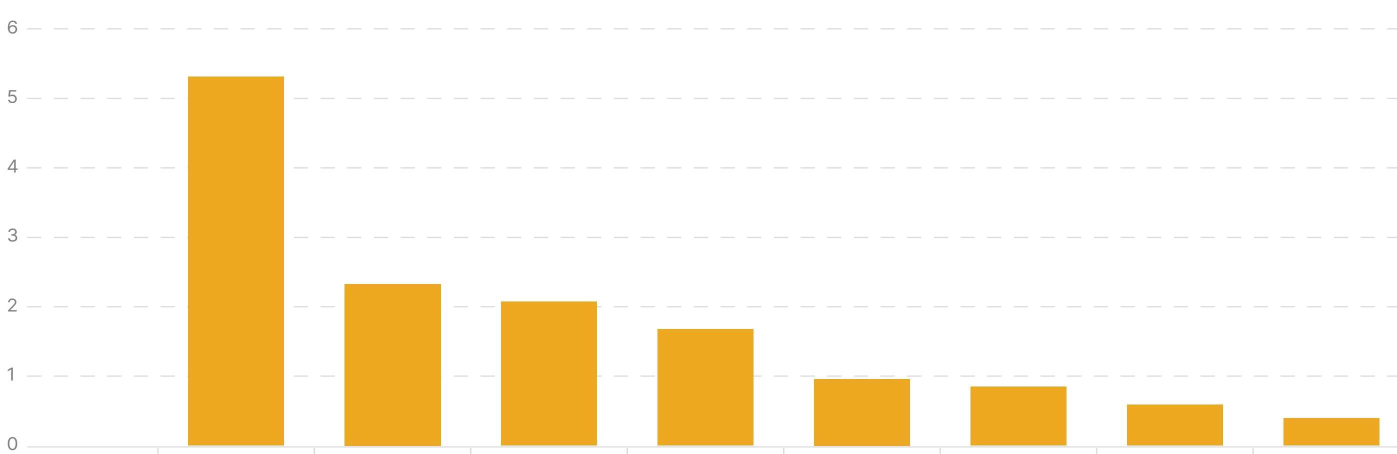
Source: 21Shares, Dune Analytics. Data as of November 15, 2023

Solana Has Risen From the Ashes to Contend the L2 Thesis

Solana has gone through a rebirth after chain issues in 2021 and 2022, and the FTX collapse. The network has retained a loyal community with almost **1,000 monthly active developers**[10] and has differentiated itself by offering **unparalleled speed and low transaction fees**, even compared to L2 solutions. Figure 6 shows Solana's DEX volume to TVL ratio is the highest among the top chains - including L2s - as of November 2023. **Solana is >2x more capital-efficient** than the second place, Polygon, and **>13x** Ethereum's base chain. The ecosystem is now thriving with innovative solutions that are hard to pull off in Ethereum-compatible networks in their current state:

- **Hivemapper**[11], a decentralized map, has covered **1,145 regions** and **82 million km** worldwide.
- **Jito**[12], a liquid staking protocol that captures **MEV**[13], has reached **$350 million TVL** and can mitigate MEV's negative impact, similar to Flashbots to Ethereum.
- **Compressed NFTs**[14] (cNFT) can bring **2,400x** cost improvement for minting one million NFTs.
- **Firedancer**[15], a new validator client, can improve Solana's **resiliency** and **throughput** by orders of magnitude.

Figure 6: DEX volume to TVL ratio comparison



	Solana	Polygon	Arbitrum	Avalanche	BSC	Optimism	Base	Ethereum
TVL (bn)	$0.57	$0.83	$2.09	$0.65	$2.98	$0.76	$0.29	$25.04
DEX Volume (bn)	$3.01	$1.93	$4.34	$1.09	$2.87	$0.64	$0.17	$9.88
DEX Volume to TVL	5.31	2.33	2.07	1.68	0.96	0.85	0.59	0.39

Source: 21Shares, Defi Llama. Data from Nov 13-19, 2023. TVL is daily average; DEX volume is cumulative.

"The network has retained a loyal community with almost 1,000 monthly active developers and has differentiated itself by offering unparalleled speed and low transaction fees, even compared to L2 solutions."

Catalysts [+]

- **L2s may offer 10x lower transaction fees to users in 2024**. EIP-4844 in the Dencun upgrade will introduce "blob space," a way for L2s to store their transaction data cheaply. In addition, data availability (DA) solutions such as EigenDA and Celestia could also offer a cheap alternative to Ethereum for L2s to post their transaction data.
- **Solana activity continues its uptrend on the back of token airdrops**. Many popular Solana applications have yet to launch a token (Jito, marginfi, Pyth, Jupiter Exchange, etc.). Potential airdrops in 2024 could trigger a new wave of activity similar to the one we observed for Ethereum in 2020.

Risks [-]

- **L2s can fragment liquidity and result in poor user experience**. While L2s can help scale Ethereum, the proliferation of multiple solutions can fragment liquidity in the ecosystem and result in a confusing user experience for new entrants, as they have to "bridge" their assets in and out of each L2.
- **Most L2s are still on training wheels**. Despite L2s like Arbitrum and Optimism having already gained billions of dollars in TVL, they are still young compared to Ethereum. Optimism hasn't launched fraud proofs yet, requiring users to trust the proposers. Arbitrum has a fraud-proof system implemented, but it is still in a permissioned manner.

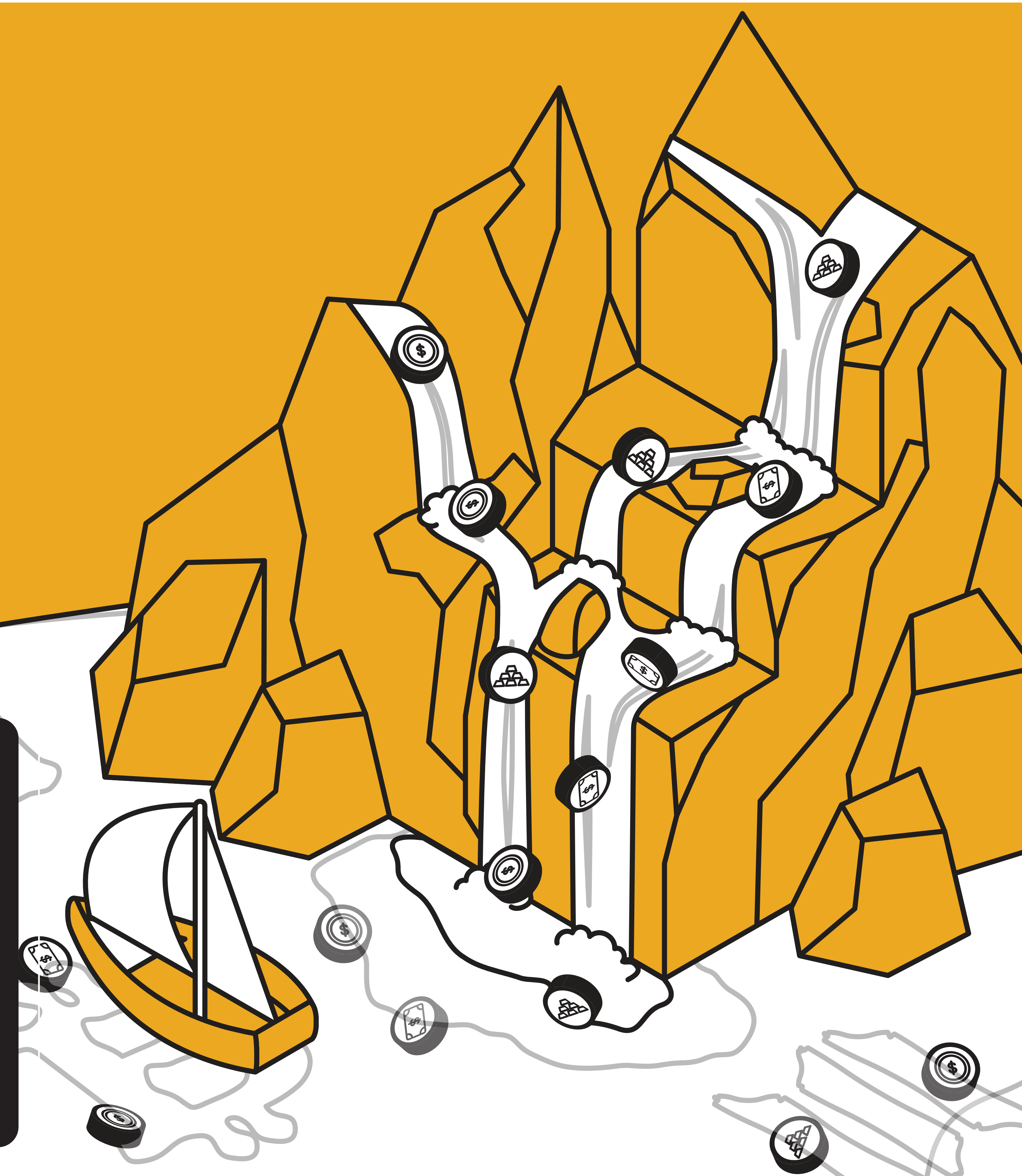
Tokenization

New waves of capital flowing into the crypto market

01 Fiat-Backed Stablecoins as a Leading Indicator

02 Interoperability Solutions Improving UX and Unifying Liquidity

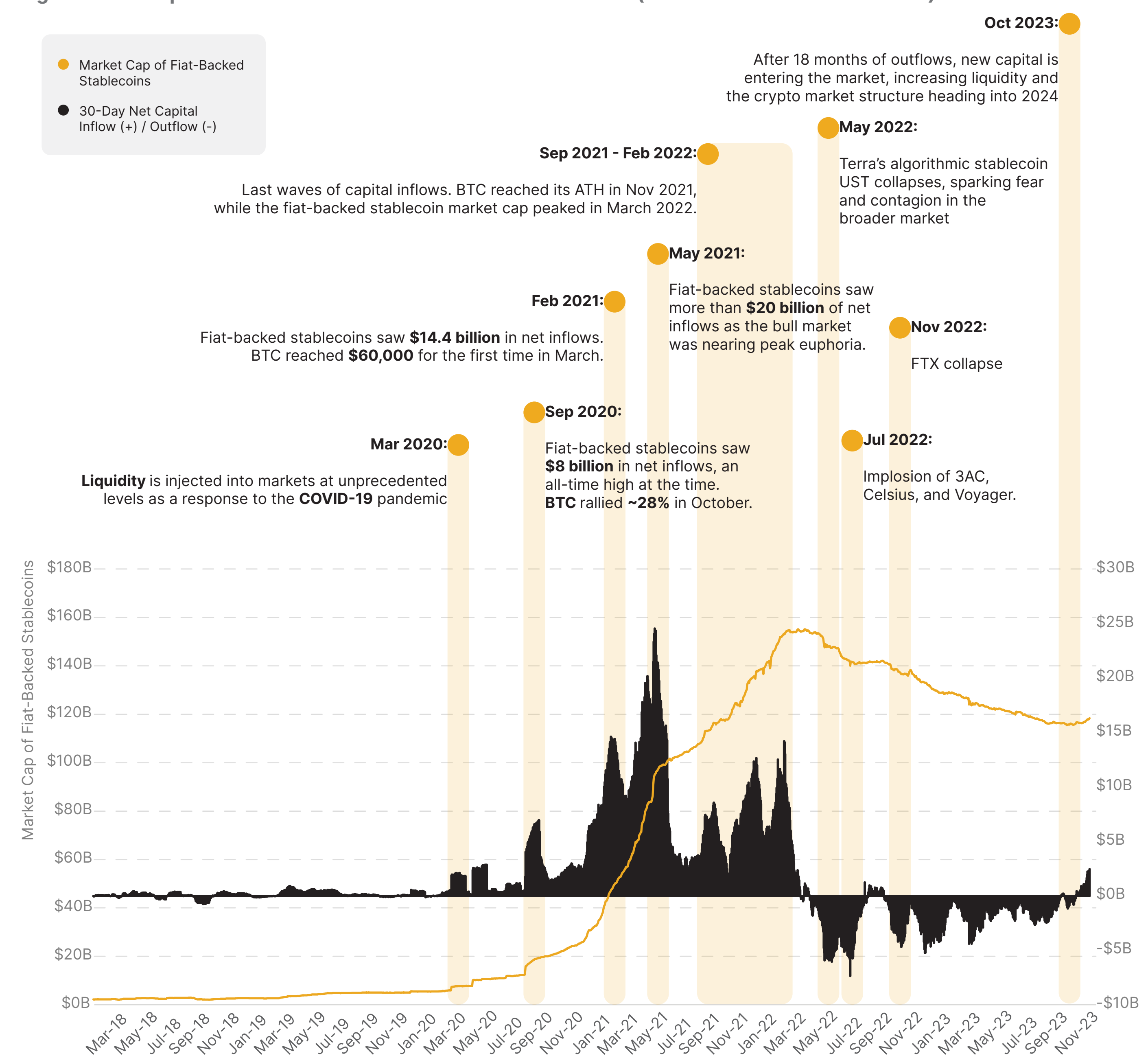
03 Token Standards and KYC Tooling Will Be the Key Challenges for Tokenization



Fiat-Backed Stablecoins as a Leading Indicator

After 18 months of outflows, new capital has finally begun to enter the crypto market, as shown by the **30-day change in fiat-backed stablecoin supply**. In other words, we are observing net capital inflows for the first time since the bear market began. In 2020, the growth of fiat-backed stablecoins was a good proxy for the waves of capital entering the ecosystem after the liquidity expansion that resulted from COVID-19 fiscal and monetary measures. This rise in liquidity preceded crypto's meteoric rise in the latter half of the year and 2021, while the net outflows in 2022 were accompanied by a decrease in price and on-chain activity. Recent net inflows into stablecoins suggest a **changing market structure going into 2024**, with **institutional money** returning to the ecosystem at a rapid pace.

Figure 7: Net Capital Flows of Fiat-Backed Stablecoins Over Time (March 2018 - November 2023)



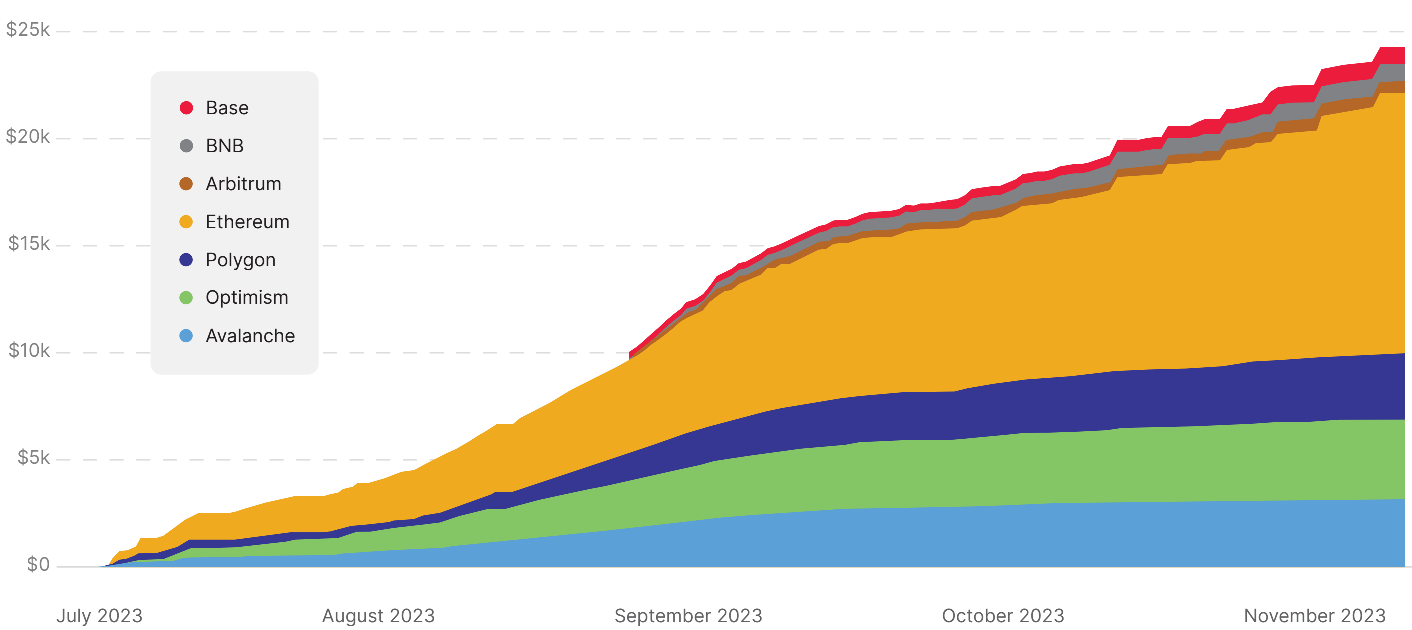
Source: 21Shares, Data from Glassnode and DeFi Llama. Stablecoins considered: USDT, USDC, BUSD, USDP, GUSD, HUSD, PYUSD, TUSD, USDK, ZUSD, EURT, EUROC, EURS, DUSD, USDTZ, EURL, RUSD, EUROe, EURE, FDUSD, USDY, SVUSD, USDM, Phase Dollar, EEUR

> "We are observing net capital inflows for the first time since the bear market began."

Interoperability Solutions Improving UX and Unifying Liquidity

Blockchains cannot communicate with the world outside their ledgers, resulting in siloed networks, liquidity, and poor user experience. In the past year, notable cross-chain communication solutions have emerged to address this issue while avoiding the vulnerable "lock-and-mint" approaches followed by many bridges. A good example is **Chainlink's Cross-Chain Interoperability Protocol**[16], which has attracted institutional adoption from entities like Swift, BNP Paribas[17], ANZ Bank[18], and Vodafone[19] by enabling them to transact with tokenized assets across public and private blockchains. As another example, **Circle's Cross-Chain Transfer Protocol**[20] has seen over **$330 million USDC** transferred across supported blockchains[21], preventing the fragmentation of stablecoin liquidity across blockchains. We believe these solutions and a few others will continue gaining traction in 2024.

Figure 8: Total CCIP Revenue by Network



Source: ericwallach, Dune Analytics

Token Standards and KYC Tooling Will Be the Key Challenges for Tokenization

The biggest challenge facing institutional players that want to bring assets on-chain is that they are at the mercy of regulation. Token standards and KYC tooling will enable these organizations to enter the space at scale while staying compliant. Ethereum's **ERC-3643** is the most successful standard as of November 2023, with over **$28 billion** in tokenized assets[22], as it ensures only users meeting predefined conditions can become token holders. Coinbase recently introduced a verification service that allows users to attest account and country credentials on-chain. These credentials are public and composable, meaning that any institution can use "Coinbase Verifications" to implement KYC for their tokenized assets.

Catalysts [+]	Risks [-]
• **Adoption of new token standards.** Solana's "Token22" adds enterprise-friendly features like confidential transfers, interest-bearing tokens, and transfer fees that could facilitate tokenization beyond Ethereum.[23] • **Tokenized U.S. Treasuries will continue to increase** as long as rates remain higher than those in DeFi.	• **Regulatory uncertainty** preventing institutions from entering the space at scale. • **Falsification, phishing attacks, or technical vulnerabilities** could scare consumers and prevent adoption. • **Asset-liability management** is crucial for tokenization issuers to fulfill redemptions promptly and avoid a liquidity crisis that leads to a "run on the bank." • Institutions could **fragment liquidity**. Some institutions have selected non-Ethereum solutions for their products, such as Franklin Templeton[24] using Stellar, Wellington Management[25] using Avalanche Subnet, Apollo[26] using Provenance, or even private blockchains, sacrificing composability and fragmenting liquidity.

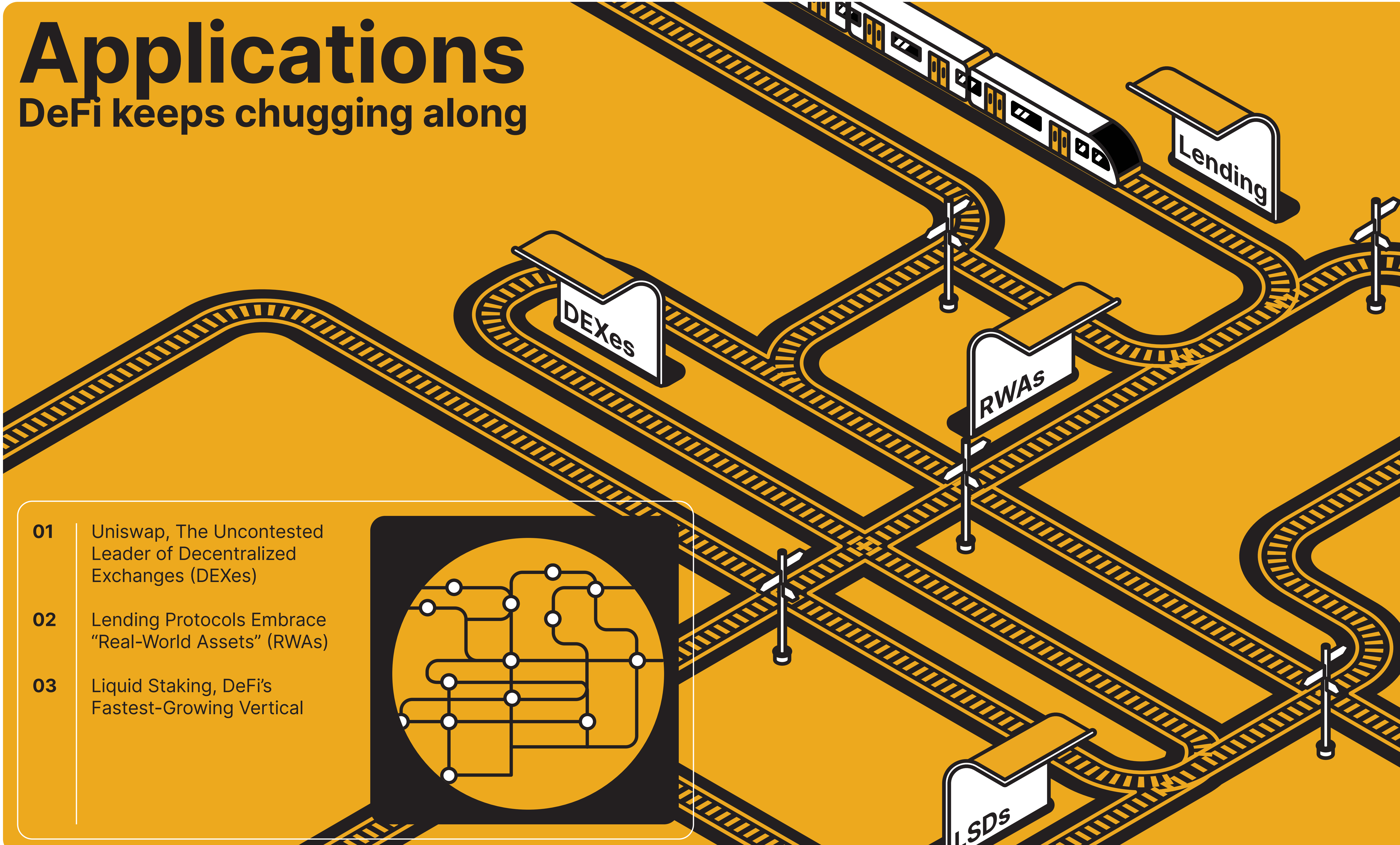
Applications

DeFi keeps chugging along

01 Uniswap, The Uncontested Leader of Decentralized Exchanges (DEXes)

02 Lending Protocols Embrace “Real-World Assets” (RWAs)

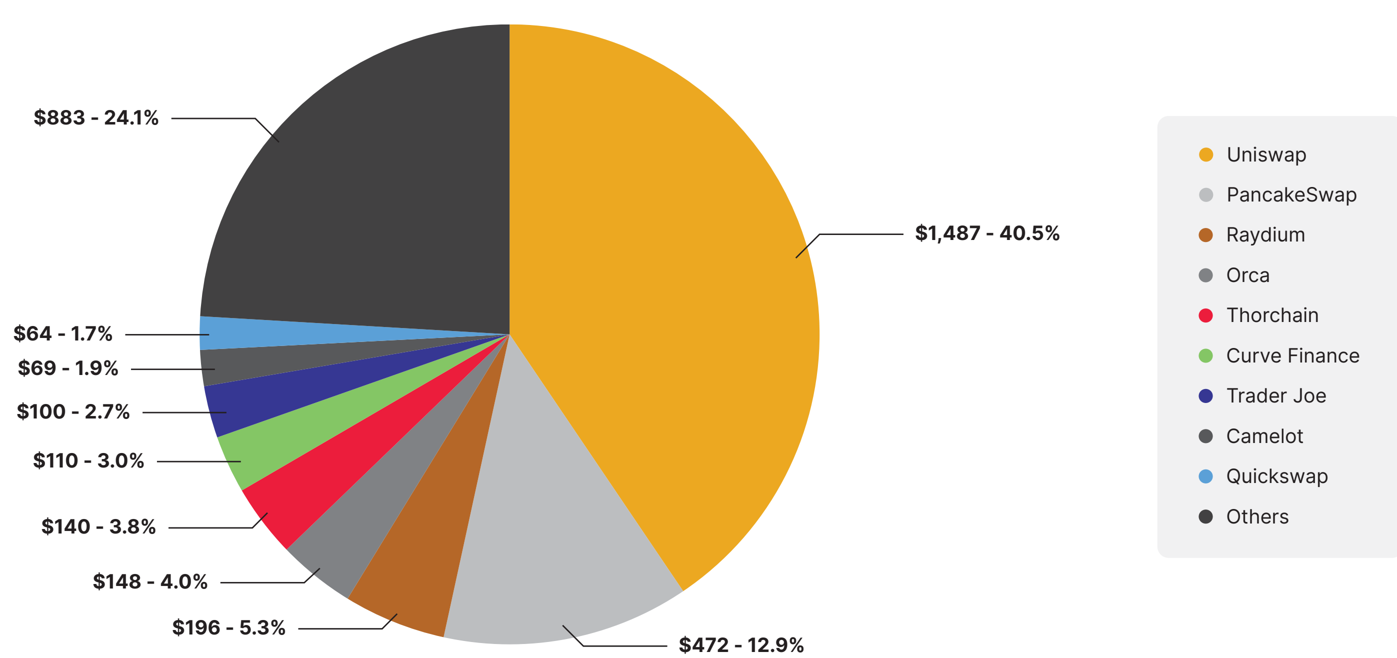
03 Liquid Staking, DeFi’s Fastest-Growing Vertical



Uniswap, The Uncontested Leader of Decentralized Exchanges (DEXes)

The collapse of opaque centralized entities like Celsius, BlockFi, and FTX in 2022 demonstrated the need for decentralized, non-custodial exchanges and lending applications, which gained significant traction in 2023. Within the **decentralized exchanges (DEXes)** vertical, **Uniswap** maintained the lion's share with a **~40% market share** of DEX trading volume as it expanded to multiple networks while offering the deepest liquidity, sometimes superseding that of centralized exchanges (CEXes). In Q1 2024, as part of the **v4 upgrade**[27], Uniswap will introduce features replicating the UX of CEXes, like **limit orders**. Another exciting addition will be "hooks," allowing anyone to launch custom liquidity pools, including **KYC-gated pools**. We expect Uniswap to keep dominating in their vertical.

Figure 9: Market Share of DEXs by Trading Volume (millions of $)

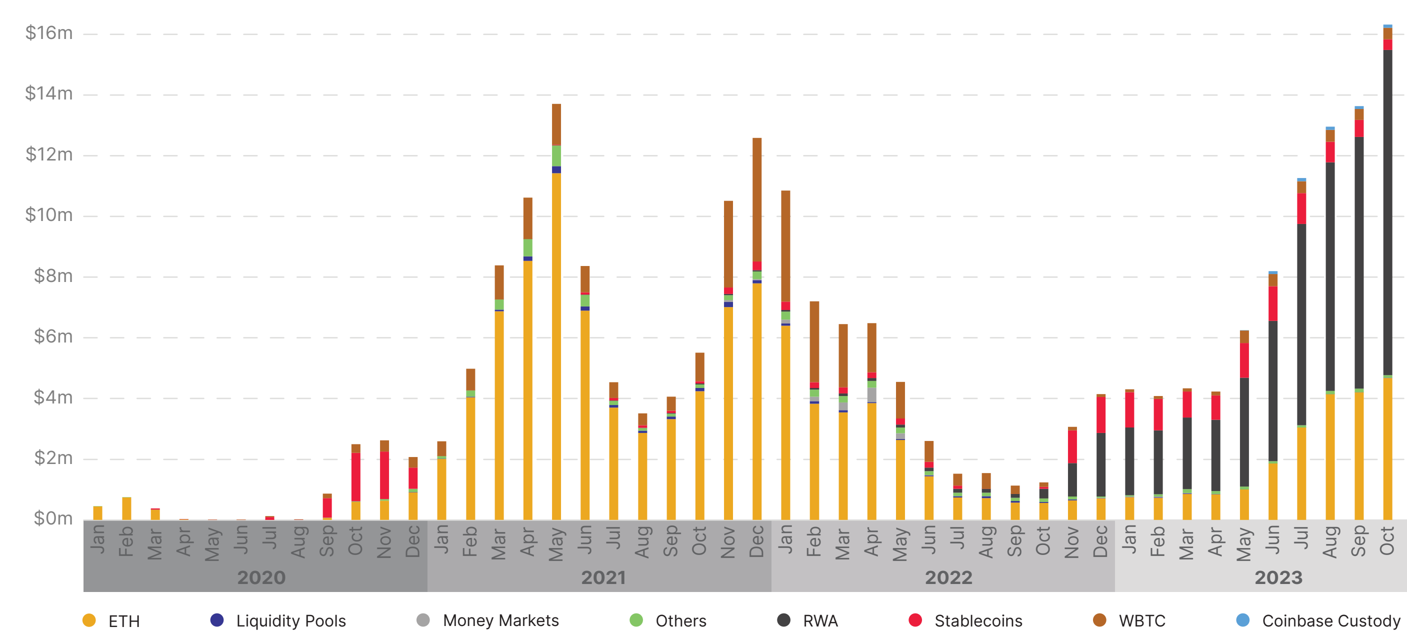


Source: DeFi Llama. Data shows 24-Hour Volume on November 21, 2023

Lending Protocols Embrace "Real-World Assets" (RWAs)

Lending protocols - led by **Aave**, with a **47% market share** of total active loans[28] - have implemented **risk-management features in 2023**, such as **isolated** markets and real-time **proof-of-reserves**. Going into 2024, we expect lending protocols to increasingly onboard **RWAs** as loan collateral and in their balance sheets to boost profitability. As an example, **MakerDAO**'s investment in various public and private credit vehicles through off-chain structures paid off in 2023, with **annualized revenue growing almost fourfold from ~$51 million in January to ~$195 million as of November 2023**. Further, lending platforms could adopt cross-chain standards like LayerZero's **Omnichain Fungible Tokens**[29] or Axelar's **Interchain Token Service**[30] to gain market share in new ecosystems while preventing liquidity fragmentation.

Figure 10: MakerDAO Monthly Revenue



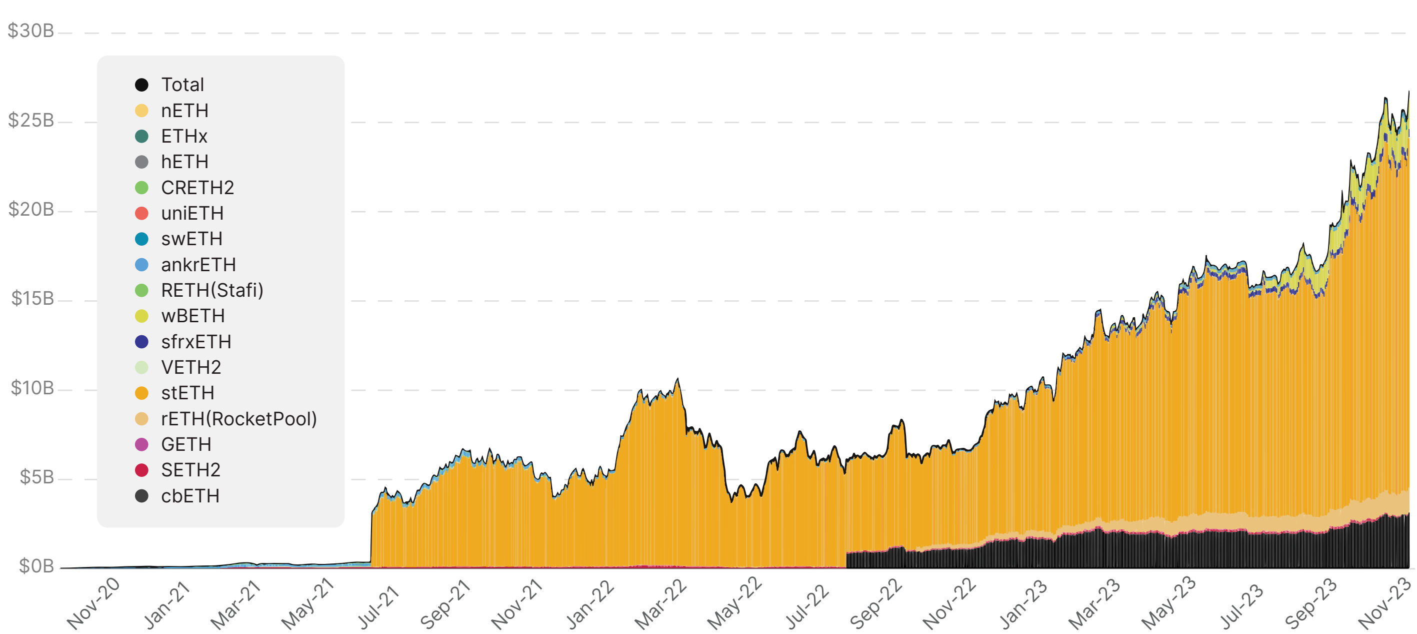
Source: Steakhouse Financial, Dune Analytics. Data as of November 21, 2023

Liquid Staking, DeFi's Fastest-Growing Vertical

Following Ethereum's transition to proof-of-stake, **Ether (ETH) became a capital asset - a sort of "digital bond"** - yielding a constant stream of cash flows to validators who wish to secure the chain. However, staking faces limitations like capital inefficiency and liquidity concerns. Entrepreneurs introduced a financial innovation known as **liquid staking** to solve this issue, allowing holders to earn yield from staking while still being able to deploy their capital in DeFi applications. **Liquid staked Ether** has grown from **~$6 billion** in September 2022 to **~$25 billion** as of November 2023. We anticipate a **similar growth trajectory for networks like Solana and Cosmos in 2024**, spurred by exciting liquid staking projects like **Jito** and **Stride**[31]. Further, liquid staking tokens like Lido's stETH will keep being integrated into various applications, showcasing the Lego-like composability of DeFi. **Prisma Finance**[32], **Lybra**[33], and Pendle **Finance**[34] are pioneering examples of this trend.

"Staking faces limitations like capital inefficiency and liquidity concerns. Entrepreneurs introduced a financial innovation known as liquid staking to solve this issue, allowing holders to earn yield from staking while still being able to deploy their capital in DeFi applications."

Figure 11: Market cap growth of liquid staking tokens

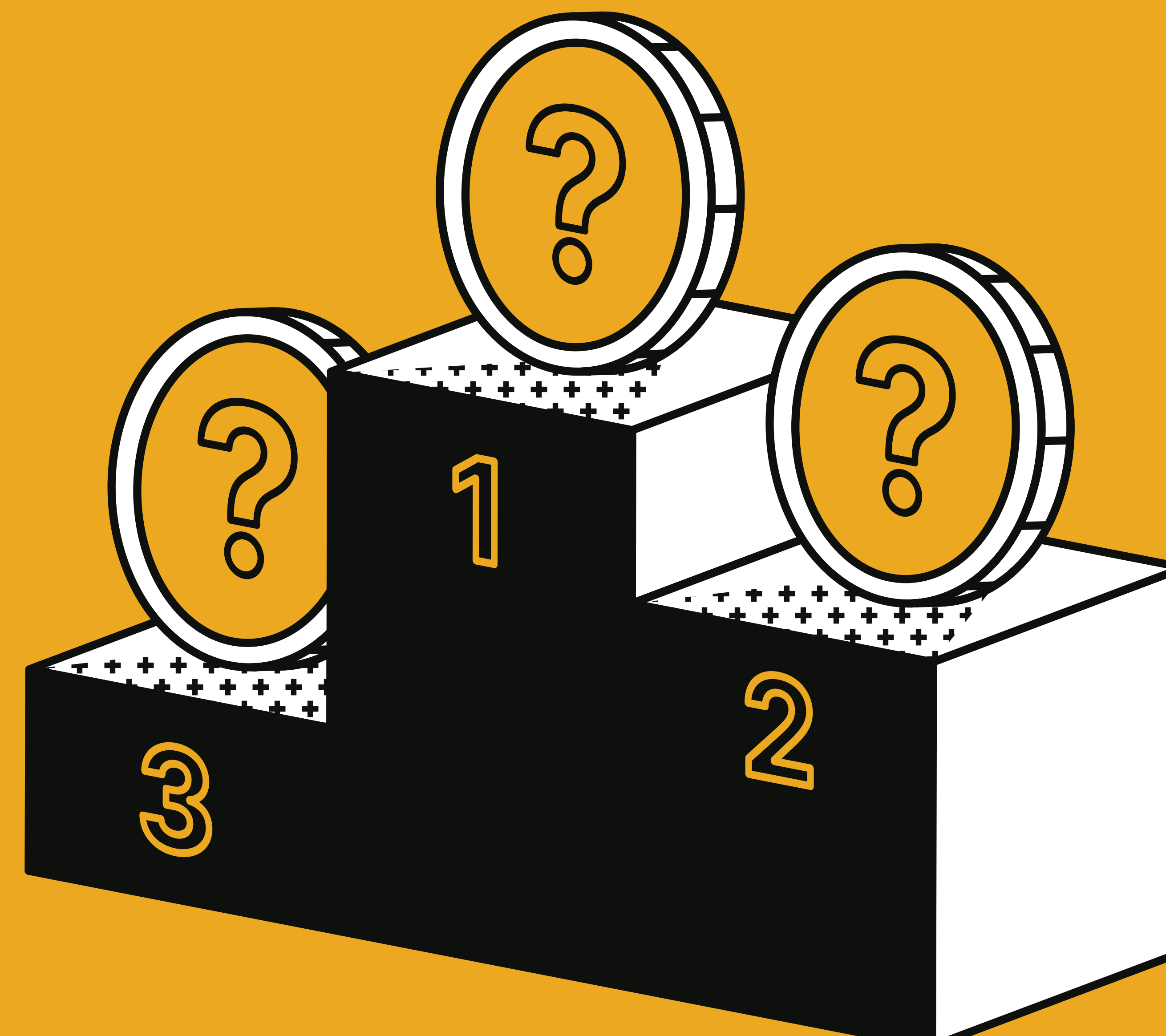


Source: 21.co (parent company of 21Shares), Dune Analytics

Catalysts [+]	Risks [-]
• The **DEX to CEX ratio** continues its upward trend, at **~15%** as of November 2023, up from **~9%** at the beginning of the year.[35]	• **Creating multiple layers of complexity** around liquid staking tokens, such as "re-staking,"[37] could cause a 2008 CDO-type of contagion risk.
• **Regulated custodians and Authorized Participants (APs) add support for liquid staking tokens**, improving their legitimacy and liquidity.	• **Purposely limiting Lido's growth** due to unfounded centralization concerns could ironically lead to centralized exchanges taking the lion's share of staked Ether, threatening Ethereum's censorship resistance.
• **Integration with existing financial software, such as Visa's PayMaster[36] Model, UX improvements, and mobile-based implementations** could accelerate user's migration to non-custodial infrastructure.	• **Regulatory uncertainty** around liquid staking tokens as they may be treated as derivatives, limiting their access to accredited investors only.
	• An **oracle provider** like Chainlink or Pyth[38] being compromised, leading to mispricing of collateral and liquidation cascades.

Regulatory Competition

Who is winning the crypto race?



01 Will the U.S. Provide Regulatory Clarity?

02 The U.K. Wants to Be a Crypto Hub

03 Hong Kong Joins the Global Race for Talent

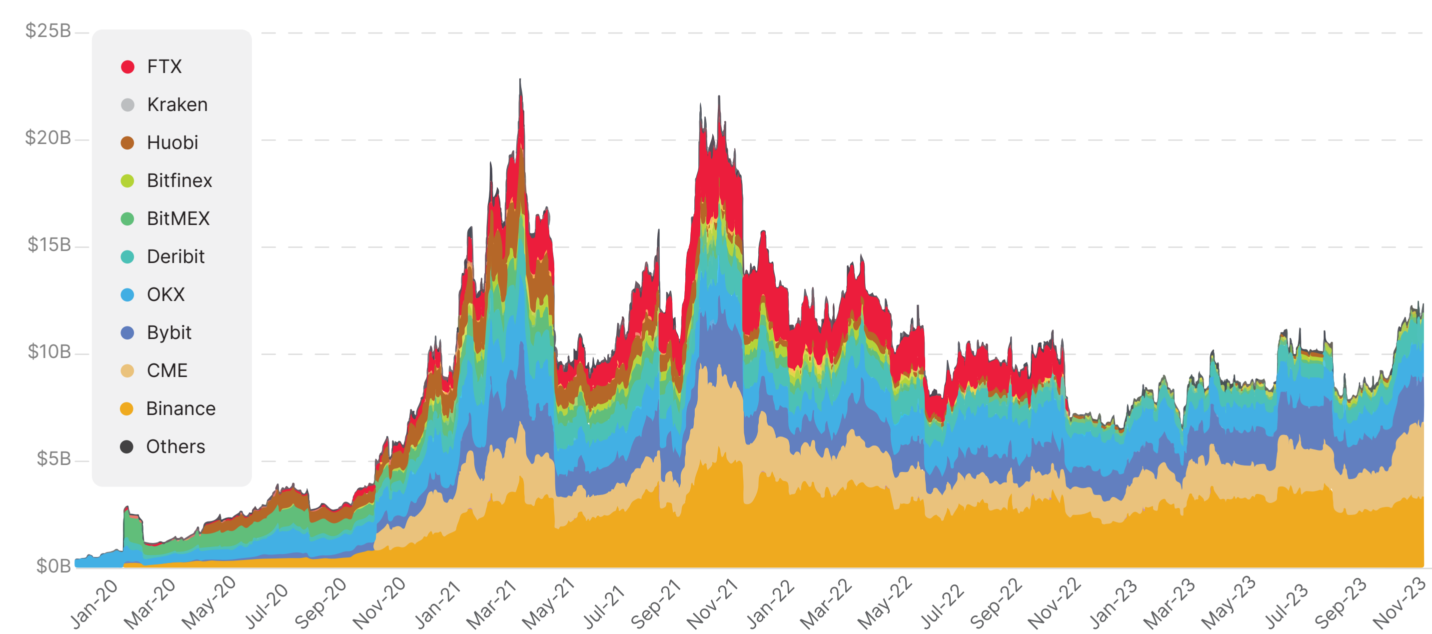
Will the U.S. Provide Regulatory Clarity?

Regulatory unclarity in the U.S. has resulted in offshore exchanges retaining the majority of spot and futures trading volume in recent years. Paul Grewal, chief legal officer of Coinbase, has described U.S. crypto regulation as an "**enforcement-only approach** that has only increased consumer risk and driven customers and innovation out of the country."[39] In this regard, **Binance's ~$4 billion settlement**[40] with the Department of Justice (**DOJ**) in November 2023 may be an inflection point, as there was significant uncertainty around the investigation. As a result, **Coinbase may gain further legitimacy** in the U.S. and consolidate as the leading exchange despite having an active lawsuit with the Securities and Exchange Commission (**SEC**)[41]. **Regulated financial products** will also continue gaining traction from the institutional side – for instance, the **CME surpassed Binance in BTC futures open interest** for the first time in history, with **$4.2 billion** in notional value as of November 20, 2023.

An essential issue going into 2024 will be regulatory clarity regarding USD-pegged stablecoins. Patrick McHenry has already proposed the "**Clarity for Payment Stablecoins Act of 2023**,"[42] a step in the right direction, as the bill clearly states that payment stablecoins are not securities. Stablecoins strengthen the U.S. dollar's status as a global reserve currency by expanding its demand via internet-native rails and "exporting" it to countries like Venezuela and Argentina, where citizens need a stable currency. Tether - the world's largest stablecoin issuer - held over **$56 billion**[43] of U.S. Treasuries as of September 2023. We believe it's in the best interest of the U.S. government to provide clarity around USD-backed stablecoins, enabling U.S.-based firms like Circle and PayPal to keep innovating in this vertical.

"An essential issue going into 2024 will be regulatory clarity regarding USD-pegged stablecoins, which strengthen the U.S. dollar's status as a global reserve currency by expanding its demand via internet-native rails. We believe it's in the best interest of the U.S. government to provide clarity around USD-backed stablecoins."

Figure 12: BTC Futures Open Interest Over Time by Entity (USD)

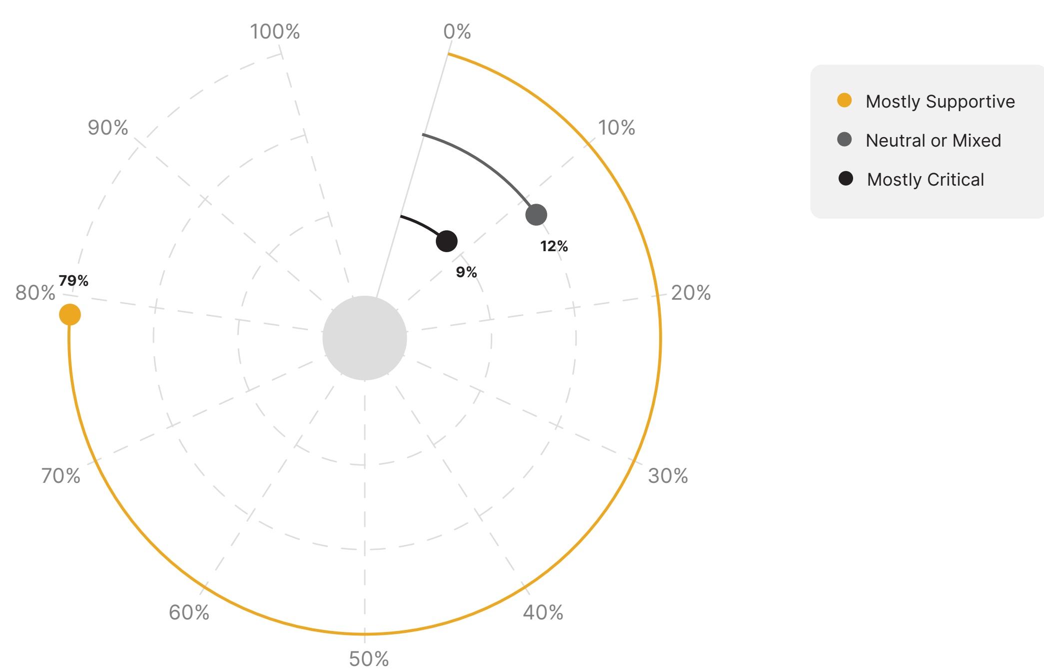


Source: Glassnode, Data as of November 21, 2023.

The U.K. Wants to Be a Crypto Hub

Despite regulatory uncertainty in the U.S., other jurisdictions are actively working to attract crypto businesses. In October, the **U.K. received highly positive feedback** on the **future financial services regulatory regime for cryptoassets**.[44] **79%** of the 131 survey respondents found the framework "**mostly supportive**," which is significant considering 40% of respondents were crypto-native firms and fintechs. The Economic Secretary to the Treasury has emphasized that "the government's ambition to make the U.K. a global hub for cryptoasset technologies remains steadfast." Indeed, the U.K. may be able to meaningfully attract crypto businesses in 2024. We already saw a preview of this trend with **a16z crypto** expanding to London and planning to host a Crypto Startup School there in 2024.[45] On the other hand, things aren't looking so clear for the European Union. While **Markets in Crypto Assets Regulation** (MiCA)[46] may help centralized service providers engage in business operations more efficiently, the **Data Act**'s clause to **shut off smart contracts**[47] may drive away blockchain developers.

Figure 13: High-level sentiment analysis on the UK's future financial services regulatory regime for cryptoassets.



Source: TK

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Finally, Hong Kong has taken a **U-turn as it relates to crypto** regulation in an effort to attract capital. In August 2023, the first licenses were issued under a new system to regulate crypto exchanges offering BTC and ETH. **OKX**, the **third-largest crypto exchange by trading volume**, has applied for a Hong Kong virtual asset trading license.[48] It remains to be seen whether Hong Kong can attract more leading crypto players and fulfill its goal of becoming a crypto hub once again.

Catalysts [+]	Risks [-]
• **Coinbase** potentially winning in court.	• Crackdown on Bitcoin mining in the U.S., especially as estimates show that U.S.-based miners account for ~40% of the global Bitcoin hash rate.[49]
• **Clarity for Payment Stablecoins Act** may pass in the U.S., providing regulatory clarity for issuers like Circle and benefiting consumers.	• Data Act may drive talent away from the E.U.
• **Jurisdictional competition** to attract crypto talent turns regulation into a "race to the bottom," resulting in favorable outcomes for crypto entrepreneurs.	• A potential ban on self-custodial wallets in the U.S., as suggested by Elizabeth Warren, would make the market less attractive for crypto custody solutions.

Conclusion

As we enter 2024, it's clear that crypto is alive and thriving. While Bitcoin has cemented itself as an emerging store of value, with the innovation occurring among Bitcoin developers, it may also become a "tech play" as we enter the year of the halving. Looking at smart contract platforms, it's clear Ethereum remains the liquidity hub for crypto as its modular scaling thesis plays out. That doesn't mean it has already won. A handful of networks like Solana - with its unparalleled speed and loyal community - will also have a place in the crypto-economy and force Ethereum to keep innovating if it wants to remain on top. On the tokenization side, recent net inflows into fiat-backed stablecoins suggest institutional money is returning to the ecosystem rapidly, a leading indicator of a more favorable market structure.

Regarding applications, DeFi keeps chugging along, with decentralized exchanges like Uniswap consolidating its lead, lending platforms integrating tokenized assets like U.S. Treasuries, and liquid staking becoming the fastest-growing vertical as it now eyes ecosystems like Solana and Cosmos. Finally, we must not forget regulation. We are seeing increasing jurisdictional competition in the global race for crypto talent, with the U.K. and Hong Kong as primary examples. The main question going into 2024 is if regulators in the largest market in the world, the U.S., will finally provide the regulatory clarity entrepreneurs and consumers desperately need.

Footnotes

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Notes

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