

# State of Crypto

Issue 14 / May 2025



In this issue:

**Solana — a blockchain  
built to blossom**

21shares®

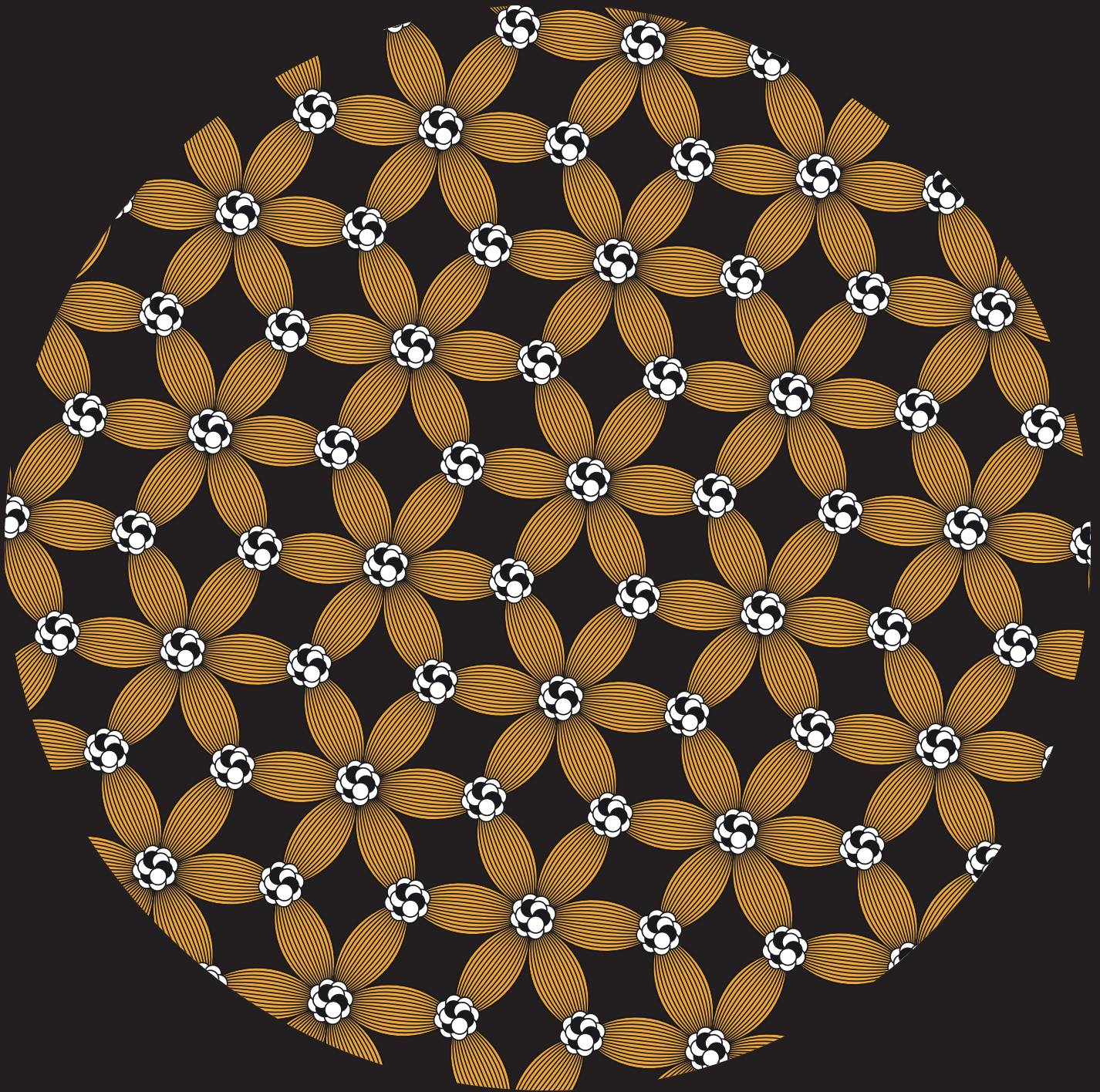
# contents

<b>What is Solana?</b>	<b>05</b>
<b>How Solana's blockchain operates and outperforms</b>	<b>06</b>
<b>How does Solana compare to other projects?</b>	<b>07</b>
<b>Solana's USP: the Nasdaq on-chain?</b>	<b>09</b>
<b>The hub for cross-border payments</b>	<b>10</b>
<b>Solana's strategic partnerships</b>	<b>11</b>
<b>Builders are focusing on Solana</b>	<b>12</b>
<b>UX/UI that feels like home</b>	<b>13</b>
<b>Solana's ecosystem</b>	<b>14</b>



<b>Memecoins: A key growth catalyst and an ultimate blockchain stress-test</b>	<b>16</b>
<b>DeFi: An increasingly vital sector</b>	<b>17</b>
<b>Beyond Crypto:</b>	<b>18</b>
How Solana is reshaping real-world Infrastructure with DePIN	<b>18</b>
Solana's speed meets AI in the new frontier of smart agents	<b>19</b>
<b>Solana's challenges &amp; risks in the road ahead</b>	<b>20</b>
<b>Solana is a tech-play &amp; portfolio diversifier</b>	<b>21</b>
<b>Solana's valuation as a massive revenue generating platform</b>	<b>23</b>
<b>Conclusion: Could Solana be potentially undervalued?</b>	<b>24</b>





## Introduction

Solana was one of last year's top performers, surging 80% in 2024 and extending its strong upward momentum, outperforming both Bitcoin and Ethereum. Smart strategic integrations with companies like Visa, Shopify, and PayPal, among others, make it the go-to blockchain for real-world commerce.

This report unpacks Solana's cutting-edge architecture, highlighting its groundbreaking technology that sets it apart from other projects. We took the opportunity to break down the bustling ecosystem Solana has nurtured over the years and the emerging use cases leveraging the network's capabilities.

As blockchain adoption accelerates, Solana's high-speed, low-cost model offers a glimpse into the next generation of the internet. Dive into our latest State of Crypto report and see why Solana is leading the charge.

# What is Solana?

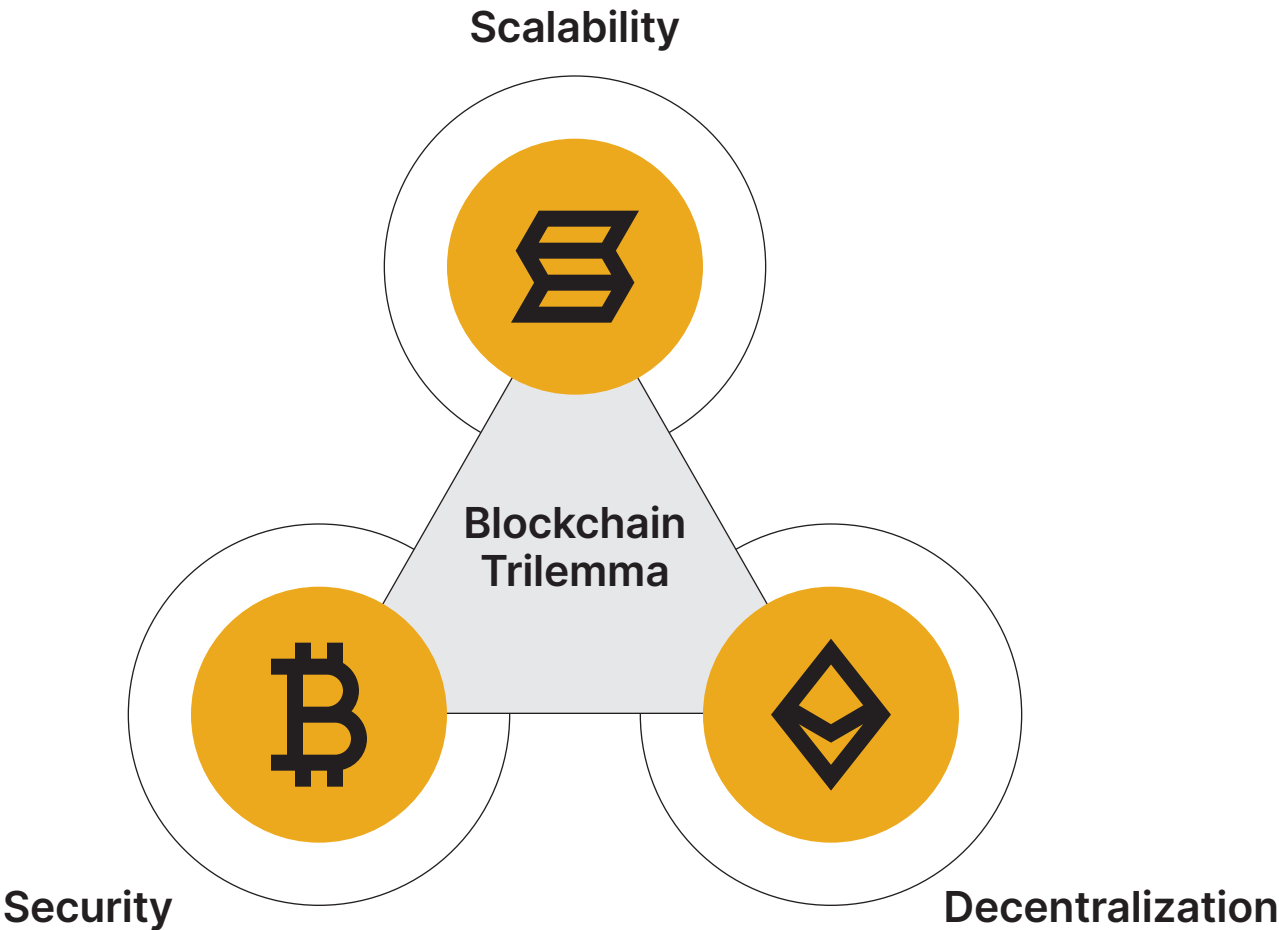
Solana is a high-performance blockchain network powered by its native token, SOL. Designed for scalability and mass adoption, Solana operates as a settlement layer for a wide range of use cases, including decentralized finance (DeFi), non-fungible tokens (NFTs), payments, gaming, and more.

Solana's architecture addresses critical challenges in major decentralized networks, particularly slow transaction speeds and high costs. By leveraging a groundbreaking timekeeping technique called Proof of History (PoH) in conjunction with Proof of Stake (PoS), Solana en-

ables unparalleled transaction efficiency. The network can handle thousands of transactions per second with minimal fees, making it ideal for high-throughput applications such as DeFi, Artificial Intelligence (AI), Decentralized Physical Infrastructure Networks (DePIN), and other emerging technologies.

Whether you're an institutional investor exploring blockchain opportunities or a tech enthusiast interested in cutting-edge innovations, Solana offers a robust and scalable foundation for the decentralized future.

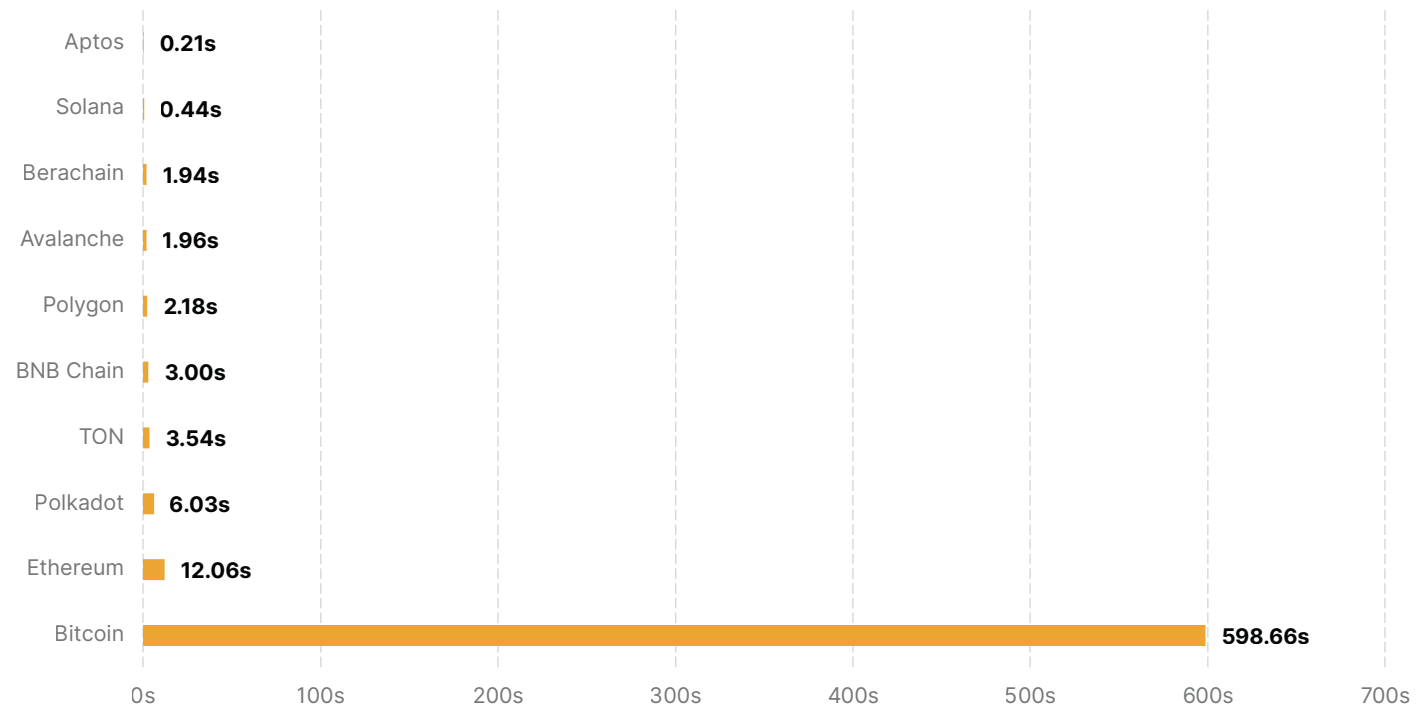
Figure 1 – Where Solana fits in the blockchain trilemma



Source: 21Shares

# How Solana's blockchain operates and outperforms

Figure 2 – Solana's speed advantage: average block times across blockchains



Source: 21Shares, TokenTerminal, Dune. Data from April 24, 2024 – April 23, 2025

Solana is a high-speed blockchain designed to handle up to 65K transactions per second, processing each block in about the same time you spend blinking — making it one of the most scalable networks available. Similar to Ethereum and other Proof of Stake (PoS) blockchains, Solana adds new SOL to its circulation through staking rewards given to validators, who process transactions and help secure the network.

To understand Solana's architecture, here is a high-level overview of the key components that ensure the blockchain is operating efficiently:

- **Proof of History (PoH) is like a cryptographic clock for transactions.** It timestamps and pre-orders them before they reach validators, so there's no need for back-and-forth

agreement on the order. This drastically reduces delays, allowing Solana to process tens of thousands of transactions per second—far faster than Bitcoin and Ethereum, where miners or validators must first agree on the sequence.

- **Tower Byzantine Fault Tolerance (BFT) is like a GPS:** Instead of validators constantly stopping to ask for directions—like other blockchains that require repeated confirmations—Tower BFT lets validators rely on PoH as a trusted map. This allows them to finalize transactions much faster while staying secure against attacks and dishonest participants.
- **Turbine Protocol is a BitTorrent-inspired delivery system:** Sending data across a blockchain can be as

slow as sending a movie via e-mail. Instead of sending transaction data as one big chunk (like older blockchains), Turbine breaks it into smaller packets and distributes them across the network efficiently.

- **Sealevel is like a multi-lane highway for smart contracts:** Unlike other blockchains that process transactions one at a time, like driving in a single-lane road, Sealevel lets many contracts run in parallel, avoiding congestion and network latency.

These features collectively position Solana as a high-performance blockchain capable of competing with centralized systems while addressing key issues prevalent on other smart contract platforms.

# How does Solana compare to other projects?

Solana, Ethereum, Sui, and TON are among the leading Layer 1 smart contract platforms with distinct technical strengths and ecosystem advantages.

## Solana

Solana achieves rapid finality in just 400 milliseconds while maintaining low transaction fees of approximately \$0.03, solidifying its role as a leading hub for AI, DePIN, and high-frequency retail activity, with a robust Total Value Locked (TVL) of around \$7B.

## Ethereum

Ethereum, prioritizing security and decentralization, boasts over 1 million validators and remains the preferred blockchain for institutional adoption. Despite its higher average transaction cost of \$3.05 and a 12-second settlement finality, Ethereum maintains its dominance with over \$49B in TVL.

## Sui

Sui offers an ultra-affordable fee structure at just \$0.006 per transaction, coupled with a near-Solana-level 480-millisecond finality. Its Move-language architecture makes it an ideal ecosystem for gaming and social applications.

## TON

TON, leveraging Telegram’s vast user base, is pioneering social media-integrated Web3 tools, aiming to bridge mainstream adoption with blockchain functionality.

These platforms serve specialized niches: Solana for speed-driven use cases, Ethereum for secure institutional frameworks, Sui for scalable gaming ecosystems, and TON for social-first retail-centric use cases. Developers and users must consider factors such as transaction costs, network speed, ecosystem maturity, and target audience—whether prioritizing Solana’s cost efficiency, Ethereum’s deep liquidity, Sui’s agile infrastructure, or TON’s social-driven reach.

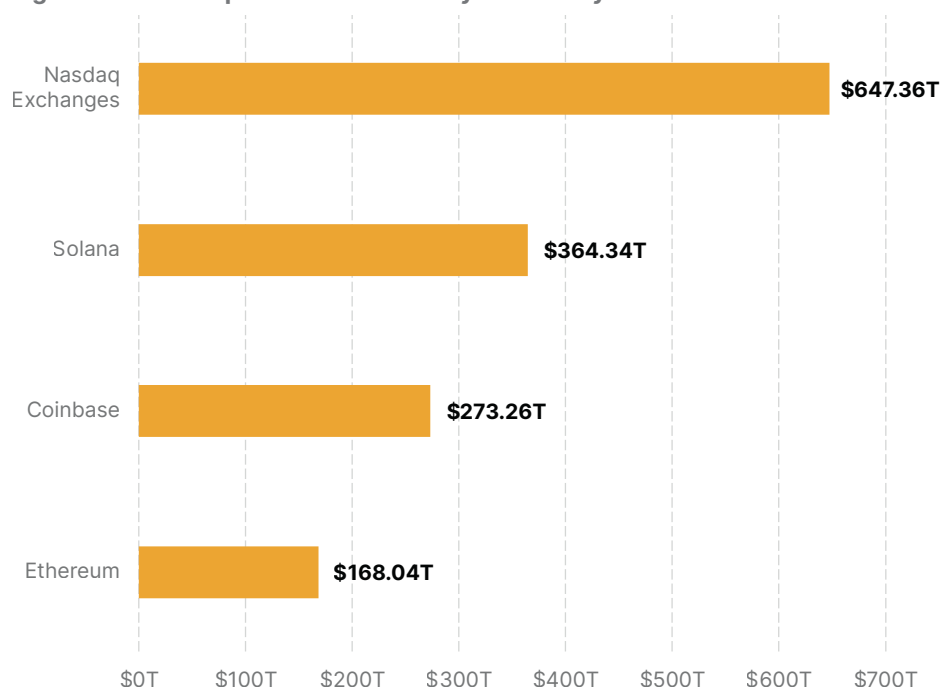
Metrics	Solana	Ethereum	Sui	TON
<b>Consensus</b>	PoH + PoS	PoS	PoS with next-generation parallel execution capabilities via novel consensus Narwhal/Bullshark	PoS + Sharding (Ethereum's long term scaling vision)
<b>Average Gas Fee (12 months)</b>	\$0.03	\$3.05	\$0.006	\$0.05
<b>Transaction Speed</b>	Around 0.44 seconds	Around 12 seconds	Around 0.48 seconds	Around 3.54 seconds
<b>Level of Decentralization (Number of Validators)</b>	1,314	1,064,480	113	400
<b>Total Value Locked</b>	\$7.90B	\$49.70B	\$1.50B	\$157.00M
<b>Key Strengths</b>	Cheapest gas fees and amongst the fastest settlement networks, dominant ecosystem for AI agents, memecoins and DePIN, and the next provable NASDAQ platform	Most secured settlement network, largest app ecosystem, deepest liquidity, wall-street chain, institutional preferred chain	Predictable gas fees, secure and efficient Move-based network building on Meta's research, a fantastic business development team with vast experience, multi-OS gaming device catering to Web2 & Web3 users	Close relationship with Telegram leading to a super app, biggest total addressable market
<b>Ecosystem Focus</b>	AI, DePIN, Memecoins and retail-focused DeFi	Institutional DeFi and tokenization	DeFi, Social and gaming	Gaming, social apps and user-focused non-crypto native apps

Source: 21Shares, Artemis, Dune. Data as of April 24, 2025



# Solana's USP: the Nasdaq on-chain?

Figure 3 – Volume processed in January & February 2025



Source: 21Shares, Dune, Coingecko, Nasdaq. Data as of February 28, 2025. Nasdaq value is based on the 10-day moving average and extrapolated over the trading days of the first two months of 2025.

Imagine a world where transactions finalize faster than you can blink, and fees are virtually nonexistent—even at peak demand.

That's Solana—the blockchain built for speed, efficiency, and scale. Dubbed “**Nasdaq on-chain**”, Solana is now the most-used network in the world, boasting over **100M** monthly active users. At its peak in January and February 2025, Solana processed \$364B in volume—more than half of Nasdaq's exchange volume during the same period—surpassing both Ethereum and Coinbase, the world's largest centralized exchange.

Since emerging from the ashes of crypto winter, Solana has staged an unprecedented resurgence. **Capital deployed on the network has surged nearly 2000%, reaching almost \$7B**, and SOL soared to a new all-time high of **\$263** early this year.

With its high-speed architecture, Solana is rapidly establishing itself as the backbone of the crypto ecosystem—bringing its **North Star of becoming Nasdaq on the blockchain closer to reality**.

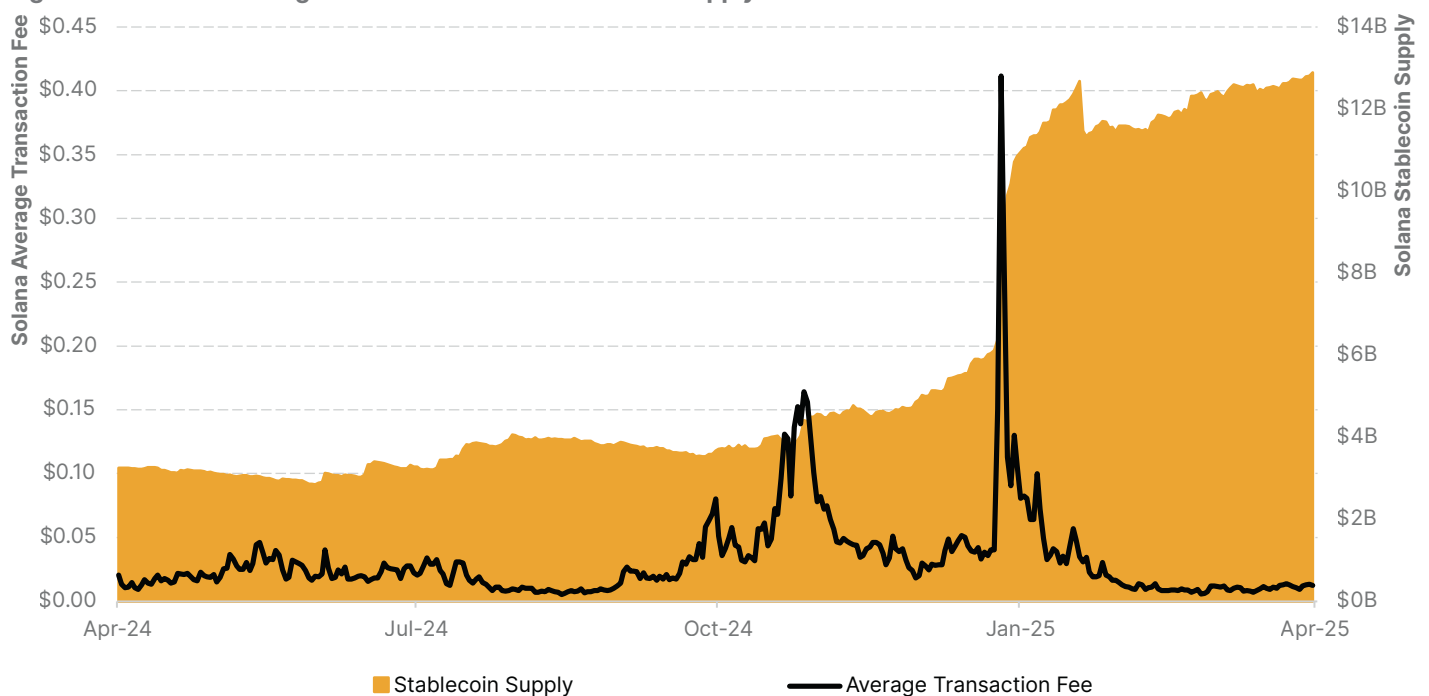
# The hub for cross-border payments

Stablecoin adoption on Solana has rocketed **600%** in 12 months, exploding from **\$2.16B to over \$12B** as its near-penny transaction fees currently around a fraction of a cent and institutional-grade throughput rewrite global finance rules. The network seamlessly handles transactions of all sizes, from million-dollar settlements to everyday coffee purchases—all for less than a dime, anytime, 24/7/365.

This growth cements Solana's architecture – **3K transactions per second**

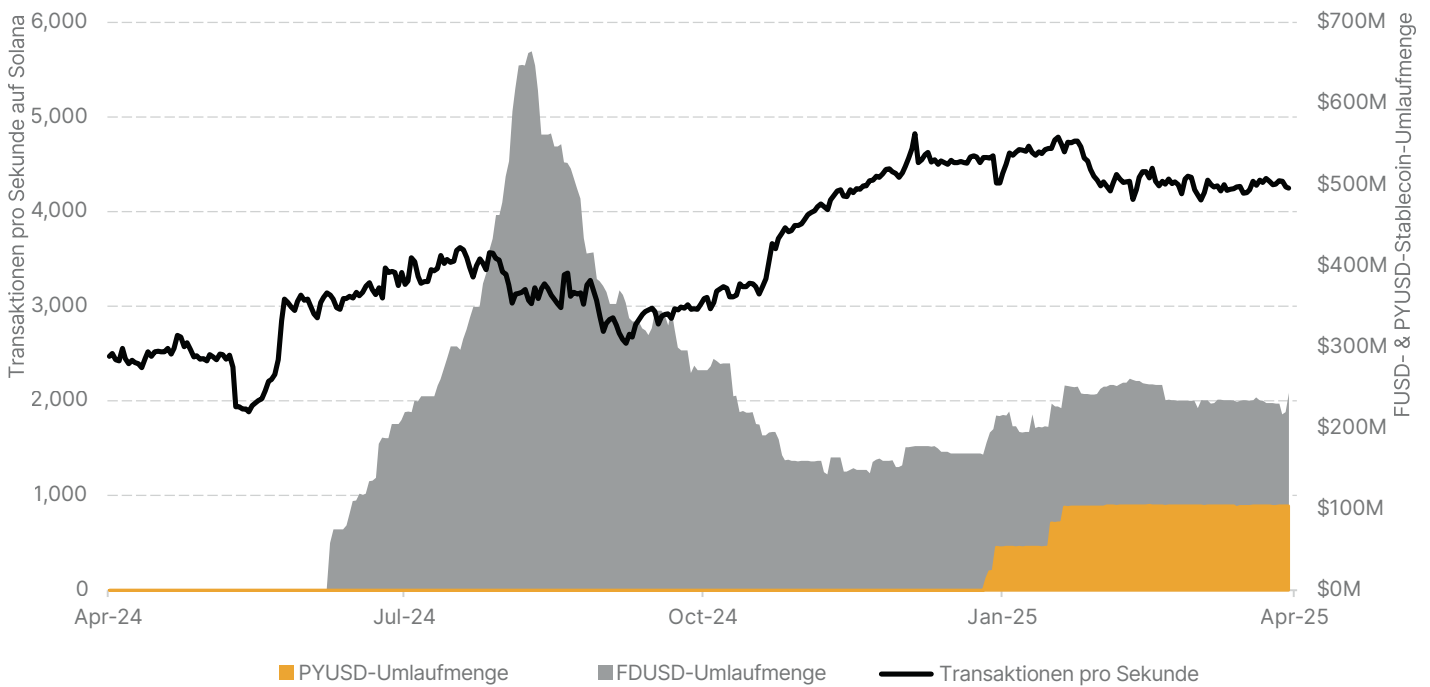
**(TPS) emboldened with parallel processing** – as the antidote to legacy finance's **slow settlements, daylight-hour limits, and fee exploitation**. By making value movement as seamless as downloading a picture, Solana now anchors ecosystems from Latin American remittances to Asian mega-exchanges and Wall Street settlement rails. The stablecoin surge isn't just adoption – it's the new financial infrastructure going live.

Figure 4 – Solana's average transaction fee vs. stablecoin supply



Source: 21Shares, Dune, DefiLlama, Data as of April 24, 2025

Figure 5 – Solana's transaction speed vs. PYUSD & FDUSD stablecoin supply



Source: 21Shares, Dune, DefiLlama, Data as of April 19, 2025

## Solana's strategic partnerships

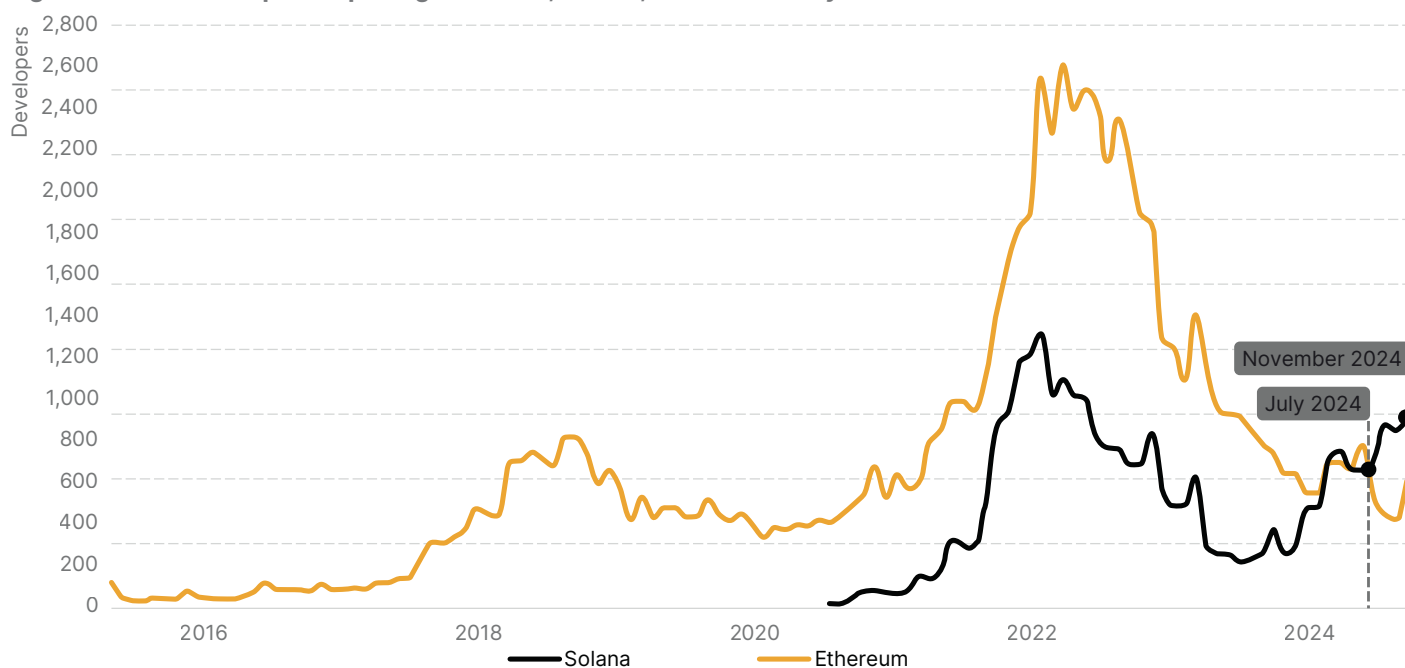
Solana's stablecoin infrastructure is setting new standards—as previously mentioned, its high-speed architecture enables 3K+ TPS, near-zero fees, and real-time settlement, reinforcing its role in scalable digital payments. This unparalleled efficiency has cemented Solana's role as a foundation for institutional adoption and a catalyst for strategic partnerships. Industry leaders like PayPal and First Digital now hold over \$100M in stablecoin supply (PYUSD, FDUSD) on its network, while Visa utilizes Solana for high-speed USDC settlements. **Shopify and Stripe** turbocharge commerce through leveraging the network's settlement capabili-

ties, enabling upwards of **3M** merchants to process feeless transactions globally. Similarly, **Solana Pay** allows retail to make instant, near-zero-fee transactions using cryptoassets like USDC and SOL. This performance dramatically outpaces competitors, surpassing Ethereum's 15 TPS by 200x and Base's Layer 2 throughput of 80 TPS by 40x. With **Jump Trading's Firedancer validator** hitting 1M TPS in testing, **Solana's technical supremacy and enterprise partnerships cement its role as the backbone of next-gen payment systems and retail-focused blockchain adoption.**

# Builders are focusing on Solana

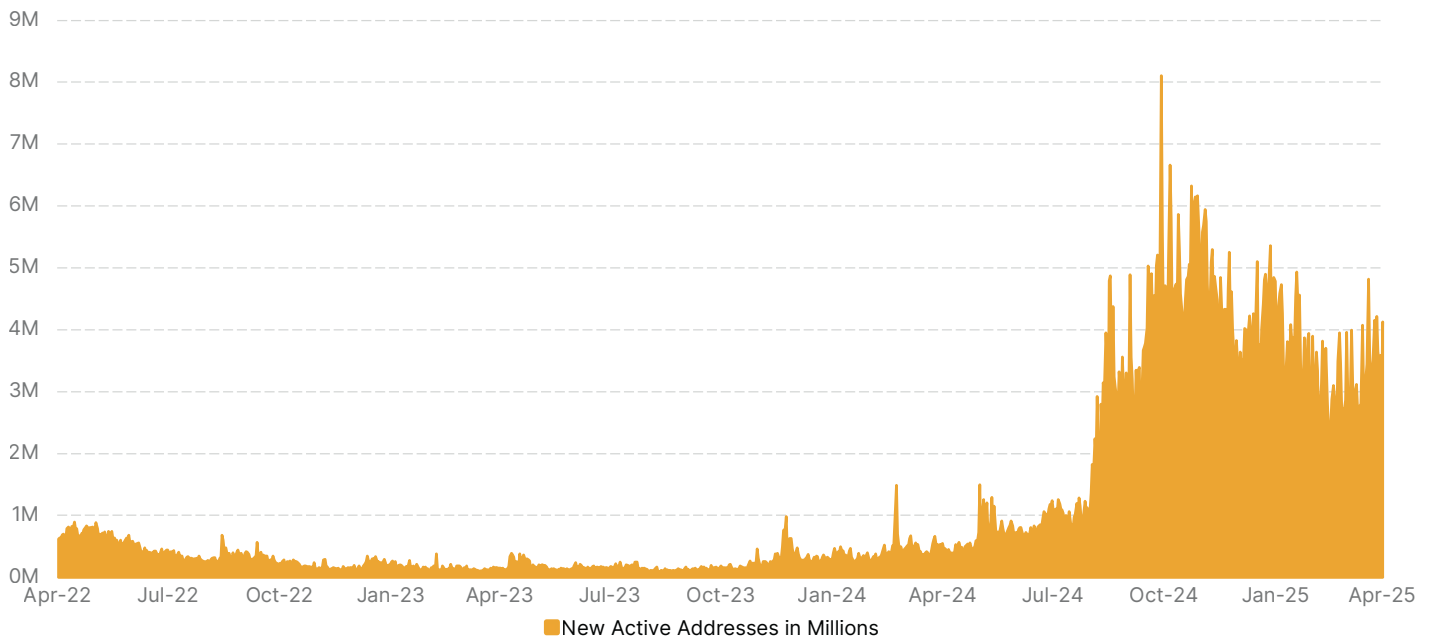
Solana is rapidly becoming the go-to blockchain for emerging sectors, largely driven by an unprecedented talent influx and high-performance infrastructure. **For the first time ever, Ethereum has been surpassed in new developer growth**, with Solana's developer base expanding **83%** in the past year. This wave of builders is fueling breakthrough innovations in DePIN and AI, two sectors that demand high-speed, low-cost networks for frequent real-time interactions. All in all, the ecosystem is positioned to dominate infrastructure-focused Web3 sectors through its combination of developer momentum and institutional-grade performance.

Figure 6 – New developers exploring Ethereum, Solana, and other ecosystems



Source: 21Shares, developer report by ElectricCapital

Figure 7 – Tracking Solana's adoption: surge in new wallet creation



Source: 21Shares, Artemis, Dune, Data as of April 24, 2025

## UX/UI that feels like home

To complement the growing adoption across both traditional institutions and crypto-native sectors, **Solana is prioritizing user experience through intuitive design and technical advancements.** By making blockchain interactions as seamless as Web2 applications, Solana is eliminating barriers to entry and driving greater accessibility for new users.

For starters, **Solana Blinks** enables seamless blockchain transactions on social media, allowing users to engage effortlessly in a familiar setting—without even realizing they're interacting with blockchain technology. As another example, the **Solana Saga & Sleeker** smartphones integrate Web3 functionality directly into handheld devices, bringing blockchain technology quite literally to users' fingertips. By reducing friction and enhancing usability, **Solana is setting the gold standard for mainstream crypto adoption**—which is as shown by Figure 7, clearly accelerating across the vast ecosystem it boasts, which will now be explored in more detail.



# Solana's ecosystem

Figure 8 – the Solana ecosystem

## DeFi

### DEXs & Aggregators



A decentralized exchange (DEX) enables direct crypto-to trading via smart contracts, while aggregators find optimal rates across multiple DEXs.

### Liquid Staking & Restaking



Liquid staking allows crypto holders to earn staking rewards while maintaining liquidity through tradable tokens, while restaking enables them to reuse already-staked assets to secure additional protocols and earn compounded rewards.

### Payments



Protocols and traditional companies that are leveraging crypto's railways to streamline payments.

### Lending



Money market protocols that allows users to borrow and lend assets without intermediaries.

### RWAs (Tokenization)



Protocols that convert ownership rights of traditional assets into tradable digital tokens to enhance their liquidity and accessibility.

### Yield



Protocols that aggregate yield from a variety of other applications and who pay users a reward for being liquidity providers on their platform.

## Infrastructure

### Oracles



Tools connecting blockchains to external data sources, enabling smart contracts to interact with real-world information.

## Decentralized Physical Infrastructure (DePIN)

---

### DePIN



Blockchain-based systems that decentralize the ownership, operation, and management of physical infrastructure by incentivizing individuals and organizations to contribute resources through token rewards.

## AI & Data Solutions

---

### AI & AI Agents



Decentralized frameworks that enable the development, training, and deployment of AI models on blockchains, while agents are autonomous entities that leverage AI capabilities to perform tasks, make decisions, and interact with blockchain systems without constant human oversight.

## Social

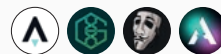
---

### Memecoins



Memecoins are culturally-driven tokens rooted in internet community. Their significance isn't purely financial, many begin as speculative plays with little intrinsic value. However, the most impactful memecoins evolve into symbols of digital culture and belonging, laying the groundwork for the next generation of social currencies.

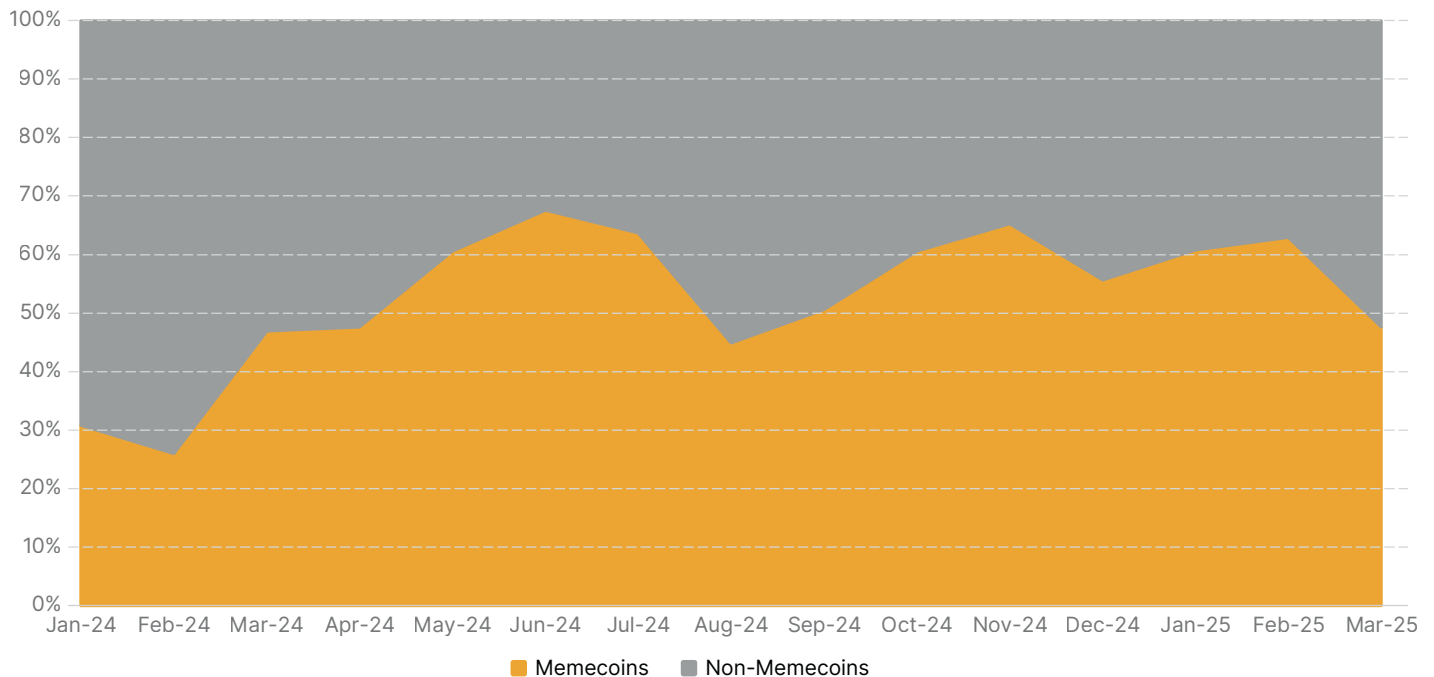
### Gaming



Decentralized frameworks that define rules and standards for creating, managing, and interacting with blockchain games, enabling features like asset ownership, interoperability, and play-to-earn mechanics.

# Memecoins: A key growth catalyst and an ultimate blockchain stress-test

Figure 9 – Memecoin volume dominance on Solana



Source: 21Shares, BlockWorks. Data as of March 31, 2025

**Memecoins and their associated dApps, such as DEXs, have been the driving force behind Solana's growth**, fueling record on-chain activity and revenue. Throughout much of the past year, memecoin swap volumes surpassed all other asset classes combined, cementing their dominance in Solana's DeFi ecosystem with around half the market share. This speculative fervor has turbocharged network adoption, attracting unprecedented liquidity and reinforcing Solana's reputation as the blockchain of choice for high-throughput trading. The trend peaked when President Trump's \$TRUMP token ignited a 48-hour frenzy, generating \$30B in DEX volume and driving explosive user growth, momentarily pushing Solana's weekend trading throughput to levels comparable to NASDAQ.

However, the rapid proliferation of memecoins also introduced some blowbacks, with questionable token launches, and a recent slowdown in activity dampening sentiment. **Despite these challenges, memecoins remain central to Solana's ecosystem vitality, sustaining transactional momentum into 2025.** Beyond speculation, they act as the ultimate blockchain stress test, revealing scalability limits and security vulnerabilities more effectively than simulated load tests, offering critical data for network optimization. While Solana dominated memecoin settlements last year, the network's role is expanding, increasingly supporting diverse sectors.

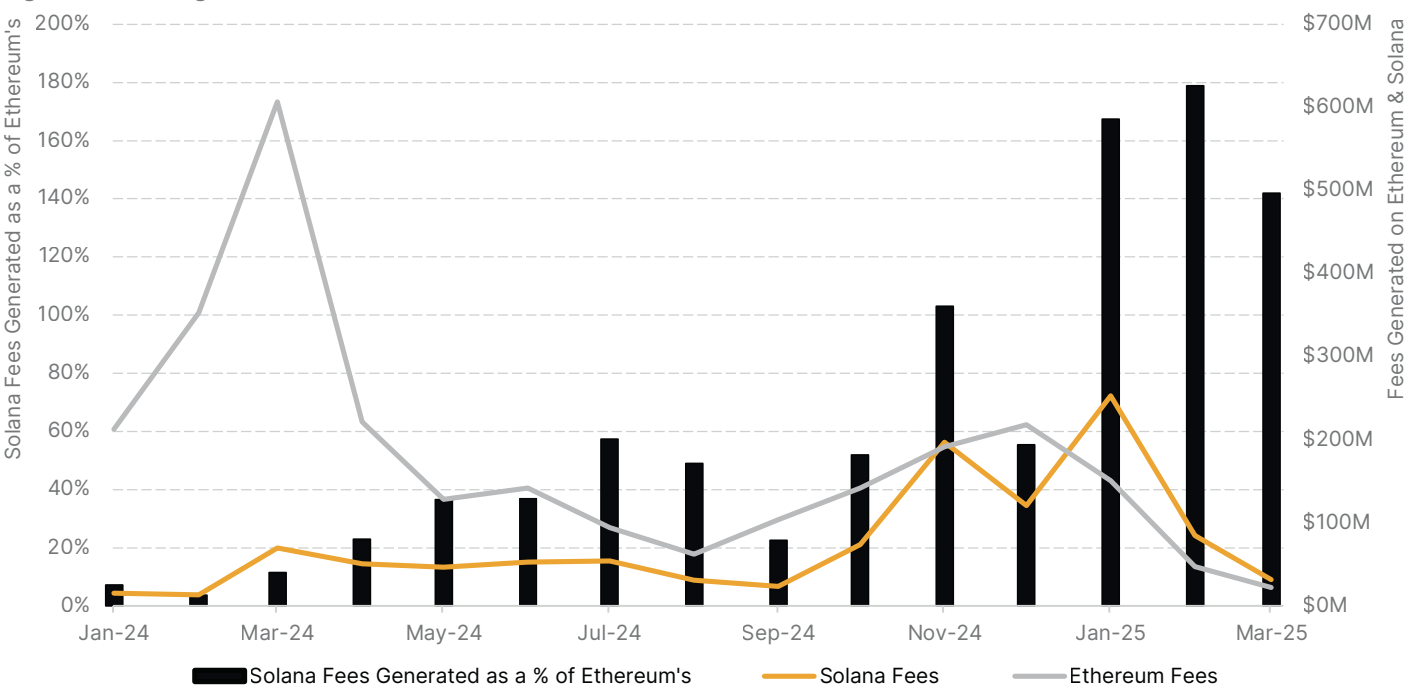
# DeFi: An increasingly vital sector

For example, Solana's DeFi ecosystem emerged as a dominant market force by Q1 2025, achieving three landmark milestones:

- With around \$8B in TVL and over 100% year-on-year growth, Solana has steadily gained ground, capturing roughly 16% of Ethereum's market share. The TVL gap, which stood at 20:1 last year, has now narrowed to 5:1, signaling a significant shift.
- Solana's DEX dominance continues to grow, with peak volumes surging 300% above Ethereum during viral asset rallies and consistently leading in monthly DEX volume for the past six months.
- \$13B of USDC inflows in 2025 so far, and strategic partnerships like Shopify and Stripe cement Solana as the #3 stablecoin hub by total market cap.

The network now hosts 3 of the top 10 DeFi exchanges by volume and ranks second in annual net flows industry-wide. This momentum is driven by protocol innovation, including Jito's liquid staking, Raydium and Meteora's liquidity engines, and Jupiter's perpetuals platform, all accelerating value creation at a pace outstripping Ethereum's ecosystem. Solana's technical stack has achieved clear product-market fit, evolving beyond an 'Ethereum competitor' to become benchmark-setting infrastructure in DeFi.

Figure 10 – Fees generated on Solana vs. Ethereum



Source: 21Shares, TokenTerminal. Data as of March 31, 2025

# Beyond Crypto:

## How Solana is reshaping real-world Infrastructure with DePIN

While the spotlight is currently on meme-coins and the rise of DeFi, one particularly promising and fundamentally strong emerging subsector is Decentralized Physical Infrastructure (DePIN). DePIN leverages blockchain to enable communities to collectively build, own, and manage real-world infrastructure—ranging from wireless networks to energy grids and cloud computing—with contributors earning rewards for providing hardware or services. Some standout examples include:

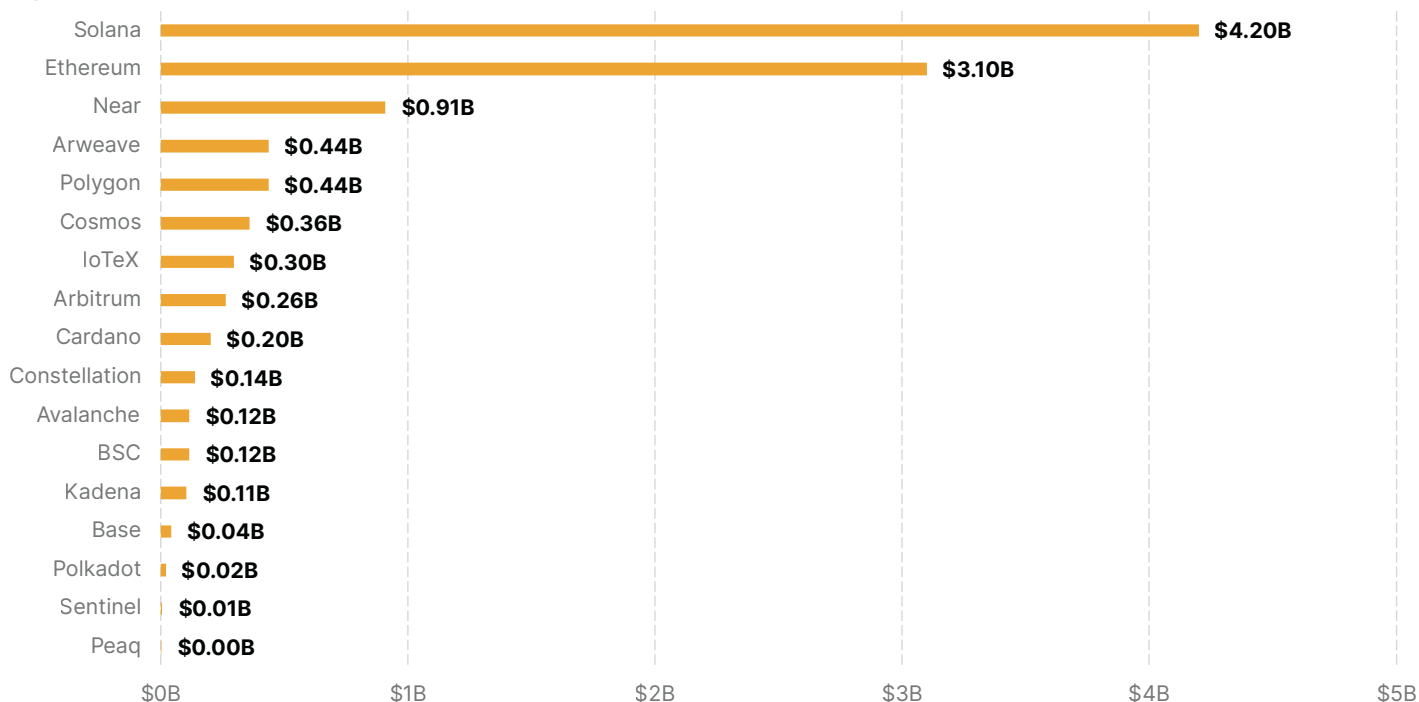
- **Helium** has scaled rapidly, growing to **186K subscribers and more than 370K** active hotspots in just **16 months—a 24x surge**—while offering affordable IoT, 5G, and mobile services to over **600K** daily users. **AT&T** also just partnered with Helium in April 2025, to bring community-powered Wi-Fi to its subscribers nationwide.
- **Hivemapper** has mapped 32% of the world's roads in just two years, 5x faster than Google Street View,

through its drive-to-earn model, powered by a network of more than **160K** contributors.

- **Render Network** migrated from Ethereum to Solana to leverage its ultra-low-cost infrastructure, enabling scalable, decentralized GPU rendering that relies on frequent microtransactions.
- **Grass Protocol** supports AI training by facilitating public data scraping from thousands of nodes, collecting more than 1500 terabytes (TB) on a daily basis, while its newly introduced **VALID** dataset provides 30M multimedia clips for AI model development.
- **Io.net** delivers decentralized GPU services at prices up to **90%** lower than AWS and **50%** cheaper than its closest Web2 competitor.

Together, these projects highlight DePIN's accelerating momentum, proving that decentralized infrastructure can out-compete traditional models in efficiency, cost, and scale.

Figure 11 – DePIN market capitalization by chain



Source: 21Shares, depinhub.io, Data from April 25, 2025



# Solana’s speed meets AI in the new frontier of smart agents

Solana is rapidly becoming the leading platform for AI agent experimentation and crypto-AI integration, with AI agent tokens surpassing 10% of the network’s DEX volume by late last year. Its ecosystem fosters AI-driven innovation through developer-focused tools like the Solana Agent Kit and AI Hackathons, which have attracted hundreds of projects. These initiatives support AI-powered trading bots, DeFi automation tools, market sentiment analysis, and collaborative agent training for real-time automation and decision-making. As a result, Solana currently hosts 5 of the most active AI agent protocols by GitHub commits. Here are some exciting projects:

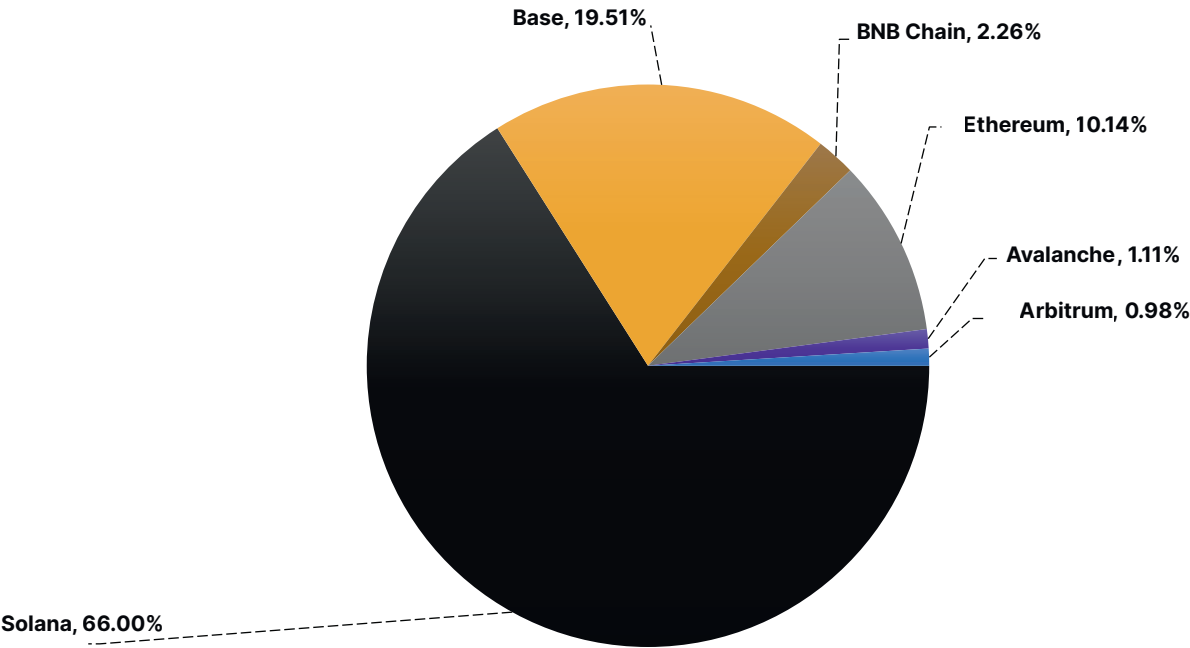
- **Eliza** is the home of ElizaOS (Ai16Z), the leading AI agent framework. The protocol has amassed over 15,200 GitHub stars and 5,000 forks, contributing to the development of a number of AI-driven projects.
- **Arc** is the second-largest AI agent

framework after Eliza. It enables developers to build AI tools ten times faster on Solana while keeping costs ultra-low.

- **WHISP** is an AI agent that seamlessly integrates crypto with Solana’s Saga device. It allows users to perform real-time AI-driven financial operations directly from their phones.
- **AskTheHive** is an ecosystem of modular AI agents designed to simplify complex DeFi operations such as staking and lending into intuitive chat-based commands. It won \$60K in Solana’s official hackathon.

As AI integration in crypto accelerates, Solana is emerging as the premier infrastructure, delivering the speed, scalability, and cost efficiency required for these types of applications.

Figure 12 – AI agents mindshare by chain



Source: 21Shares, Cookie.fun. Data as of April 25, 2025

# Solana's challenges & risks in the road ahead

The Challenge	Explanation	Mitigation Strategy
<b>Rising Competition from Layer 1s and Layer 2s</b>	Layer 2 solutions like Base and newer Layer 1 networks such as Sui, TON, and Monad present growing competition due to their strong technical performance and growing adoption.	Solana is accelerating the FireDancer upgrade, which will boost TPS to 1M, significantly enhancing performance and ensuring sticker ecosystem adoption to mitigate competitive risks.
<b>Decentralization and Security Risks</b>	Despite having more validators than most networks, Solana's decentralization remains lower than Ethereum's, posing potential security risks in the longer-term.	To improve decentralization, Solana may reduce the cost of onboarding validators, potentially through foundation subsidies, making it easier for more participants to secure the network.
<b>Heavy Reliance on Speculative Trading</b>	Around half of Solana's activity in the last year has been driven by speculative memecoin trading, increasing reputational risks and ecosystem volatility.	To diversify network usage and reduce reliance on speculative trading, the foundation and related venture capital firms are investing in more fundamentally sound sectors, such as DePIN and AI.
<b>Validator Client Centralization</b>	Solana's validator ecosystem lacks sufficient client diversity, creating single points of failure. A flaw in the dominant client software could disrupt the entire network.	Although network outages have significantly decreased, further resilience can be achieved by accelerating the development and adoption of alternative validator clients, such as FireDancer.
<b>Inflationary Pressure on the Network</b>	Following the implementation of SIMD 0096, Solana's inflation rate is expected to rise in the coming weeks, which may impact long-term tokenomics.	Solana community is actively contemplating various proposals to reduce the network's inflation.

# Solana is a tech-play & portfolio diversifier

Figure 13 – Bitcoin & Solana correlation across traditional asset classes

	U.S. Equity	Emerging Equity	U.S. Long-Term Treasury	Real Estate	Gold	U.S. Tech Equity	Bitcoin	Solana
U.S. Equity	100%							
Emerging Equity	65%	100%						
U.S. Long-Term Treasury	32%	29%	100%					
Real Estate	75%	53%	52%	100%				
Gold	18%	37%	24%	27%	100%			
U.S. Tech Equity	78%	58%	33%	61%	9%	100%		
Bitcoin	34%	16%	9%	24%	14%	37%	100%	
Solana	27%	17%	14%	30%	9%	34%	55%	100%
Average Correlation	47%	39%	28%	46%	38%	44%	27%	27%

Source: 21Shares, Data from Bloomberg and Yahoo Finance. Correlation calculated on a **2-week rolling return window** from April 1, 2021 to March 31, 2025.

Color Description: Yellow denotes high correlation across assets, grey denotes low or negative correlation across assets.

**Asset correlations is one of the most important considerations when introducing new assets to a portfolio**, as it helps investors identify assets with asymmetric return opportunities. Solana exhibits an extremely low correlation with traditional asset classes, at an average of around **27%**.

As a platform for innovation, Solana can be considered an alternative technology investment. While its fundamental value derives from providing high-performance infrastructure, its low correlation with traditional tech equities, at **34%** suggests that allocations to Solana could come from a technology sleeve without significantly increasing exposure to broader market risks.

On top of this, Solana and Bitcoin exhibit a moderate correlation of just **55%**, highlighting their distinct roles. Bitcoin is emerging as a store of value, while Solana represents a high-growth tech play. As Solana's ecosystem expands and new use cases emerge, and as the broader cryptoasset industry matures, this correlation is likely to diverge further, strengthening the case for both assets as complementary holdings within a diversified portfolio.

# Solana is a tech-play & portfolio diversifier

Figure 14 – Solana's role in a diversified portfolio

	Benchmark Monthly Rebalance	5% SOL Daily Rebalance	5% SOL Weekly Rebalance	5% SOL Monthly Rebalance	5% SOL Quarterly Rebalance	5% SOL Annual Rebalance	5% SOL No Rebalance
Cumulative Return	25.11%	53.73%	56.14%	61.31%	74.13%	127.70%	53.29%
Annualized Return	5.76%	11.35%	11.78%	12.70%	14.87%	22.84%	11.27%
Annualized Volatility	8.90%	10.85%	10.80%	11.01%	12.10%	15.26%	19.95%
Sharpe Ratio	0.22	0.53	0.55	0.60	0.66	0.86	0.35
Sortino Ratio	0.16	0.62	0.66	0.74	0.85	1.22	0.44
Max Drawdown	-20.76%	-25.56%	-25.77%	-25.89%	-26.08%	-33.55%	-47.86%
Max Relative Drawdown	-	-4.80%	-5.02%	-5.13%	-5.32%	-12.79%	-27.11%

Source: 21Shares, Data from Bloomberg and Yahoo Finance. Date from April 1, 2021 to March 31, 2025.  
Benchmark Portfolio: 60% U.S. Equities & 40% U.S. Bonds

To thoroughly evaluate Solana's role in a standard growth portfolio such as 60% U.S. Equities, 40% U.S. Bonds, we tested six rebalancing strategies, each incorporating a 5% SOL allocation.

This injection significantly improved the portfolio's Sharpe ratio across all rebalancing strategies, demonstrating its ability to enhance returns without a proportional increase in risk, reinforcing the findings from our correlation analysis. Annualized returns and the Sharpe Ratio doubling at the minimum from the benchmark portfolio, indicating a meaningfully stronger risk-adjusted performance.

- **No rebalancing** came with substantially higher volatility and far more pronounced drawdowns, affecting the portfolio's long-term returns, making rebalancing critical for traditional investors.
- **More frequent rebalancing** (daily/weekly/monthly) dampened drawdowns and reduced volatility but also capped Solana's upside potential.
- **Less frequent rebalancing** (quarterly/annually) allowed Solana to outgrow its allocation, leading to a higher-growth portfolio while maintaining a balanced risk profile.

Among the strategies tested, annual rebalancing struck the best balance, offering the strongest risk-adjusted returns while managing drawdowns effectively. In conclusion, Solana's low correlation and high growth potential make it a powerful diversification tool, but ensuring exposure remains aligned with risk tolerance through strategic rebalancing is crucial.

# Solana’s valuation as a massive revenue generating platform

As demonstrated throughout the report, Solana serves as a platform for innovation and facilitates billions in transactions. As activity scales, so does the revenue it generates. As a result, from a validator's perspective, SOL can be likened to a dividend-paying stock:

- **Network Issuance:** New SOL issued to validators for securing the network.
- **Transaction Fees:** Users pay fees in SOL, which is also distributed to validators.

In 2024, Solana generated about \$1.44B in net rewards. Impressively, this year the network has already matched half of that, hinting at a potential 2.5x YoY

surge. However, as network activity stabilizes and SIMD-0096 ends the burning of half of Solana's transaction fees—driving higher network inflation—we adopt a more measured 100% growth projection. The network can therefore be assessed through a DCF model based on the economic activity it produces. We propose:

- **Three-Stage Growth Model:** Aggressive early growth, followed by a slow-down, and eventual stabilization.
- **20-Year Lifespan:** Mirroring standard equity valuation frameworks.
- **Dual Discount Rates:** 11.02% (QQQ long-term returns) & 22.09% (Fama-French Three-Factor Model)

At the lower rate, the model projects a potential 1080% upside, while even at the higher rate, SOL's fair value remains more than 3x its current \$153 price. Though based on TradFi valuation principles, which may not fully translate to crypto, this approach underscores Solana's intrinsic value through real revenue generation. As Solana drives new business models and expands on-chain activity, its valuation will rely increasingly on the economic output it generates rather than market speculation.

Figure 15 – Solana’s discounted cash flow

Discount Rate			NPV (Market Cap)		Price per SOL	
11.02%			\$927,028,714,747.57		\$1,809.58	
22.09%			\$266,216,731,125.71		\$519.66	

Year	Annual Growth	Revenues	Year	Annual Growth	Revenues
2026	80%	\$2,744,008,673.42	2036	30%	\$166,234,754,004.86
2027	80%	\$4,939,215,612.15	2037	30%	\$216,105,180,206.31
2028	80%	\$8,890,588,101.87	2038	20%	\$259,326,216,247.57
2029	80%	\$16,003,058,583.37	2039	20%	\$311,191,459,497.09
2030	60%	\$25,604,893,733.39	2040	15%	\$357,870,178,421.65
2031	40%	\$35,846,851,226.74	2041	15%	\$411,550,705,184.90
2032	40%	\$50,185,591,717.44	2042	15%	\$473,283,310,962.63
2033	40%	\$70,259,828,404.42	2043	15%	\$544,275,807,607.03
2034	40%	\$98,363,759,766.19	2044	10%	\$598,703,388,367.73
2035	30%	\$127,872,887,696.04	2045	10%	\$658,573,727,204.51

Source: 21Shares, Coingecko, Dune. Data as of March 31, 2025



# Conclusion: Could Solana be potentially undervalued?

After evaluating Solana's intrinsic valuation, it's also worth comparing it to its closest competitor—Ethereum. **While we don't anticipate a full "flipping" anytime soon, Solana's steady growth has brought its market cap to almost 34% of Ethereum's current value.** While Ethereum isn't expected to shrink in size or adoption, Solana's faster growth rate across the several sectors explored, does suggest it will continue making inroads into Ethereum's dominance.

**If Solana reaches just 50% of Ethereum's market capitalization, its price would jump to \$205.** While this projection is contingent on Solana maintaining its current trajectory, the network's accelerating adoption as we head into the latter stage of the bull market and strong developer community that are building the next wave of applications make this a plausible scenario.

By continuing to execute on its strengths—speed, cost, and real-world adoption—Solana has the potential to cement itself as a leading blockchain. The coming year will be crucial in determining how much market share it can capture in the long run, but the trajectory is clear: **Solana is a high-growth asset poised to play an increasingly significant role in the crypto economy.**

---

Figure 16 – Projected SOL price at various % of Ethereum's market cap

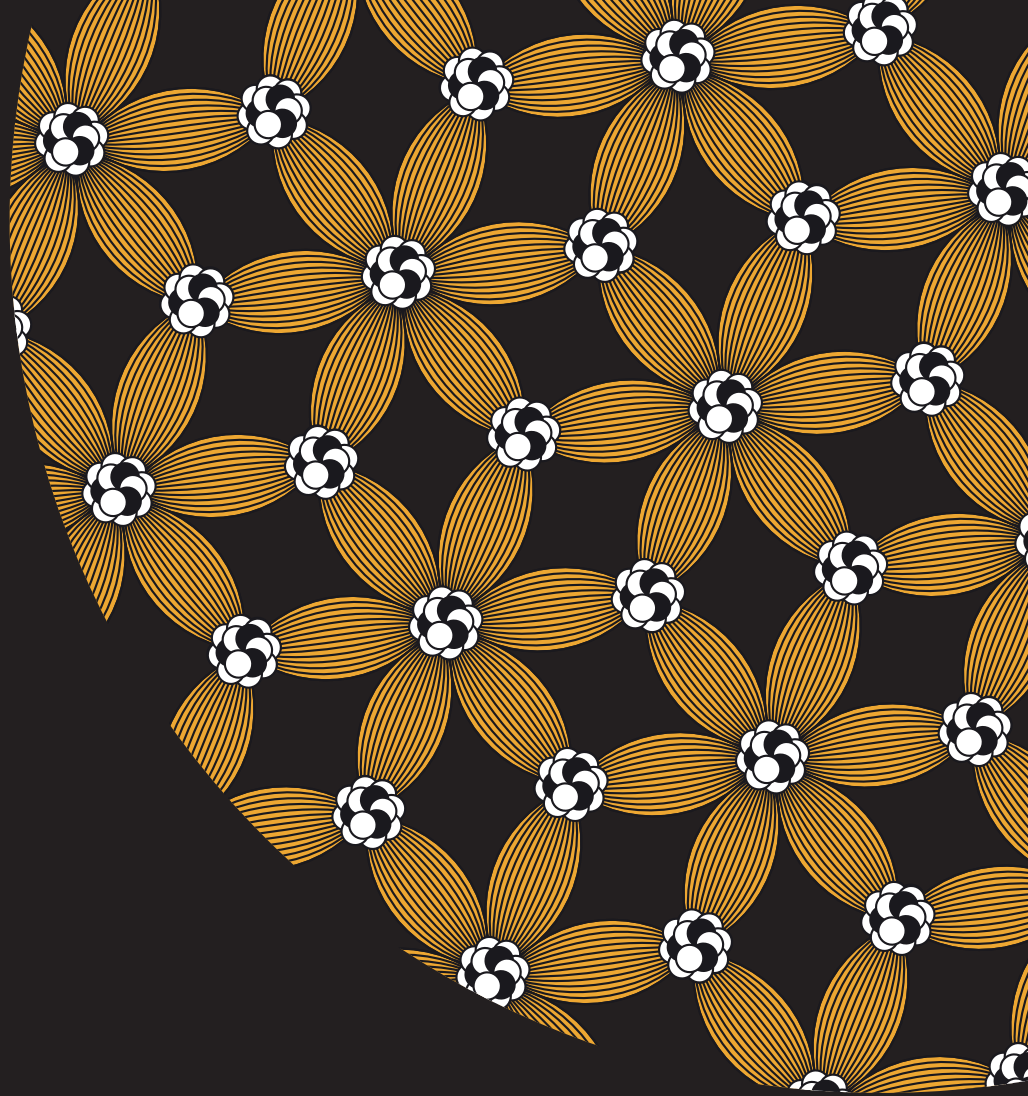
Source: 21Shares, Coingecko. Data as of April 24, 2025

## Authors

Adrian	Head of Research
Karim	Senior Associate, Research
Leena	Senior Associate, Marketing
Matt	Associate, Research
Max	Associate, Research

## Contact

[research@21shares.com](mailto:research@21shares.com)



## Disclaimer

This report has been prepared and issued by 21Shares AG for publication globally. All information used in the publication of this report has been compiled from publicly available sources that are believed to be reliable, however we do not guarantee the accuracy or completeness of this report. Crypto asset trading involves a high degree of risk. The crypto asset market is new to many and unproven and may have the potential to not grow as expected.

Currently, there is relatively small use of crypto assets in the retail and commercial marketplace in comparison to relatively large use by speculators, thus contributing to price volatility that could adversely affect an investment in crypto assets. In order to participate in the trading of crypto assets, you should be capable of evaluating the merits and risks of the investment and be able to bear the economic risk of losing your entire investment.

Nothing in this email does or should be considered as an offer by 21Shares AG and/or its affiliates to sell or solicitation by 21Shares AG or its parent of any offer to buy bitcoin or other crypto assets or derivatives. This report is provided for information and research purposes only and should not be construed or presented as an offer or solicitation for any investment. The information provided does not constitute a prospectus or any offering and does not contain or constitute an offer to sell or solicit an offer to invest in any jurisdiction.

Readers are cautioned that any such forward-looking statements are not guarantees of future performance and involve risks and uncertainties, and that actual results may differ materially from those in the forward-looking statements as a result of various factors. The information contained herein may not be considered as economic, legal, tax, or other advice and users are cautioned against basing investment decisions or other decisions solely on the content hereof.

Scan Me!



21shares®