State of Stablecoins

Contributors









































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111 Overview



Executive Summary

This presentation is both a primer on stablecoins and a forward-looking view of where the ecosystem is heading. We cover the growth of the sector, its role in capital markets, and its adoption across a few major categories:

Cross-border
Payments

Payments & Dollar Access & Financial Inclusion

Tokenized Money
Market Funds

Stablecoins at the Frontier

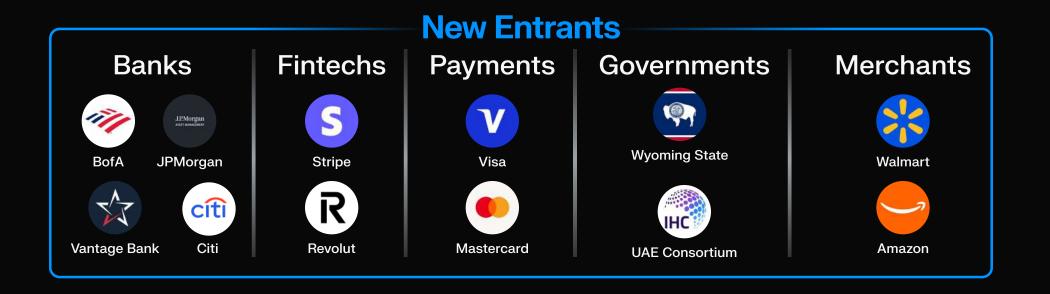
Our primary observation is that despite different starting points, TradFi and cryptonative companies are racing toward a similar outcome: a more open, instant, and interoperable global financial system. Parties from each background bring their own unique strengths, and cooperation between them will likely be necessary to achieve the most robust version of this outcome.

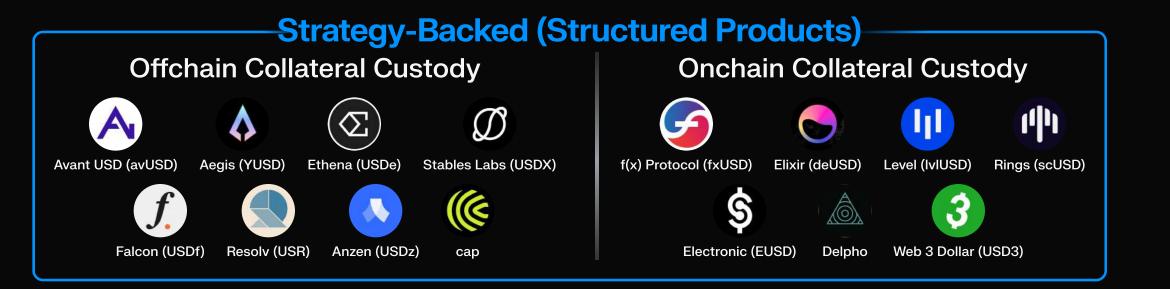
Our report highlights how money across borders and networks is becoming more fungible. This stitching and unification of money across geographies, institutions, and technologies is no longer a fringe experiment. It is a quietly accelerating shift that will ultimately support more commerce and basic financial services for everyone.

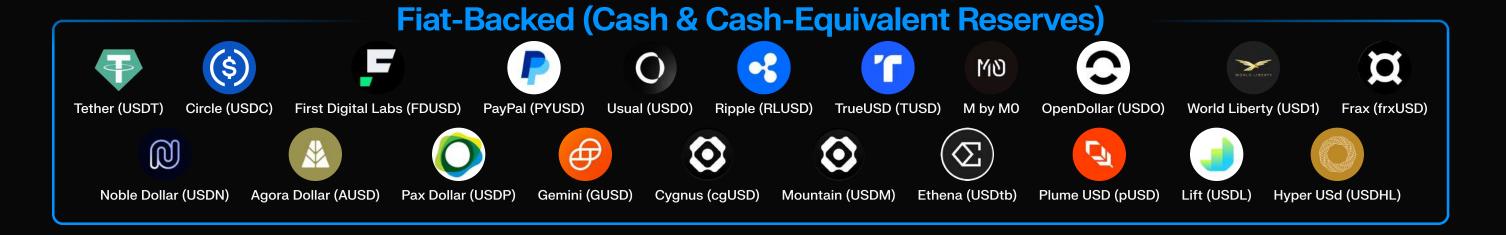
Thank you to our contributing authors for the unique data and insights they added to this report.

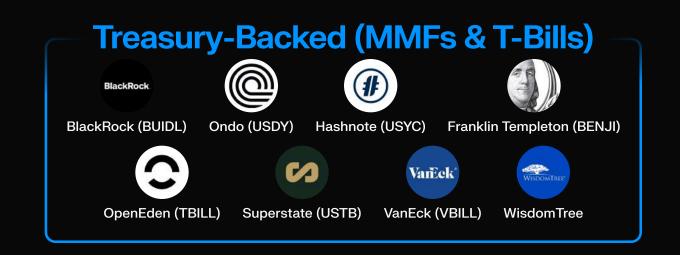
A non-exhaustive stablecoin ecosystem map

Inclusive of both existing and rumored new entrants, protocols, and startups



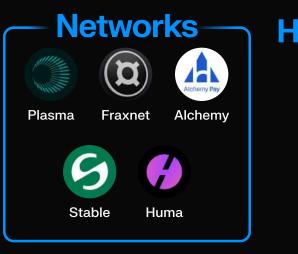












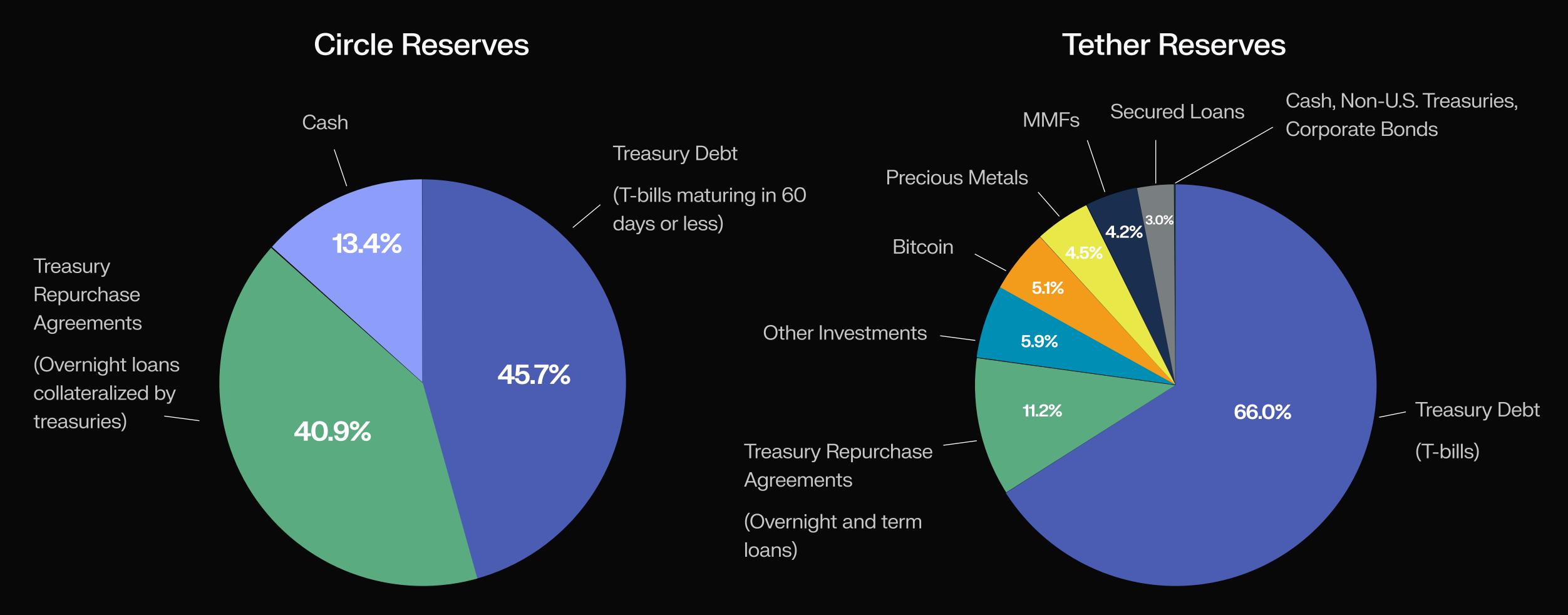




What's in a stablecoin?

Stablecoins are dollar-pegged digital assets typically backed 1:1 by short-term treasuries and cash equivalents

Tether's backing contains a moderate mix of riskier assets like Bitcoin, Gold, and corporate bonds







Regulatory clarity means new entrants are coming in droves. Now everyone needs a stablecoin strategy.



The melding of traditional payment and crypto rails is occurring through both stablecoin-linked cards and new internet-native platforms.



Stablecoin transaction volumes are now on the same level as major payment networks. They are no longer just margin collateral on centralized exchanges (CEXs).



Stablecoins are expanding access to capital and credit for underserved people and businesses globally.



Stablecoins are now impacting major traditional markets. Government officials are acknowledging the role they can play in extending dollar dominance abroad.

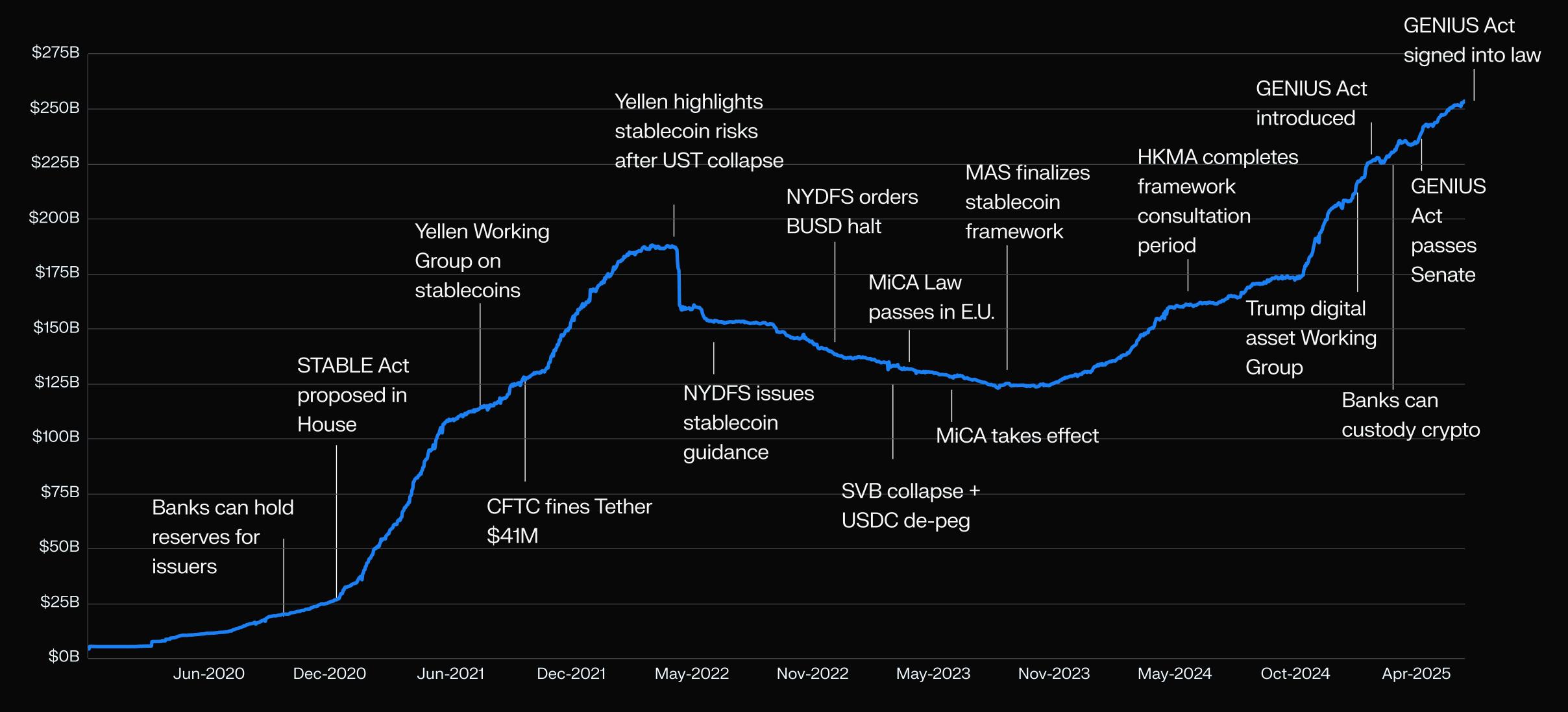


Issuers are looking to get into payments and vice versa. There will be widespread competition to create the most popular financial super-app (trading, savings, payment, credit, insurance, etc.).



Stablecoin total market capitalization breached \$250 billion on the back of sharpening regulatory clarity

Total stablecoin market capitalization with major headlines

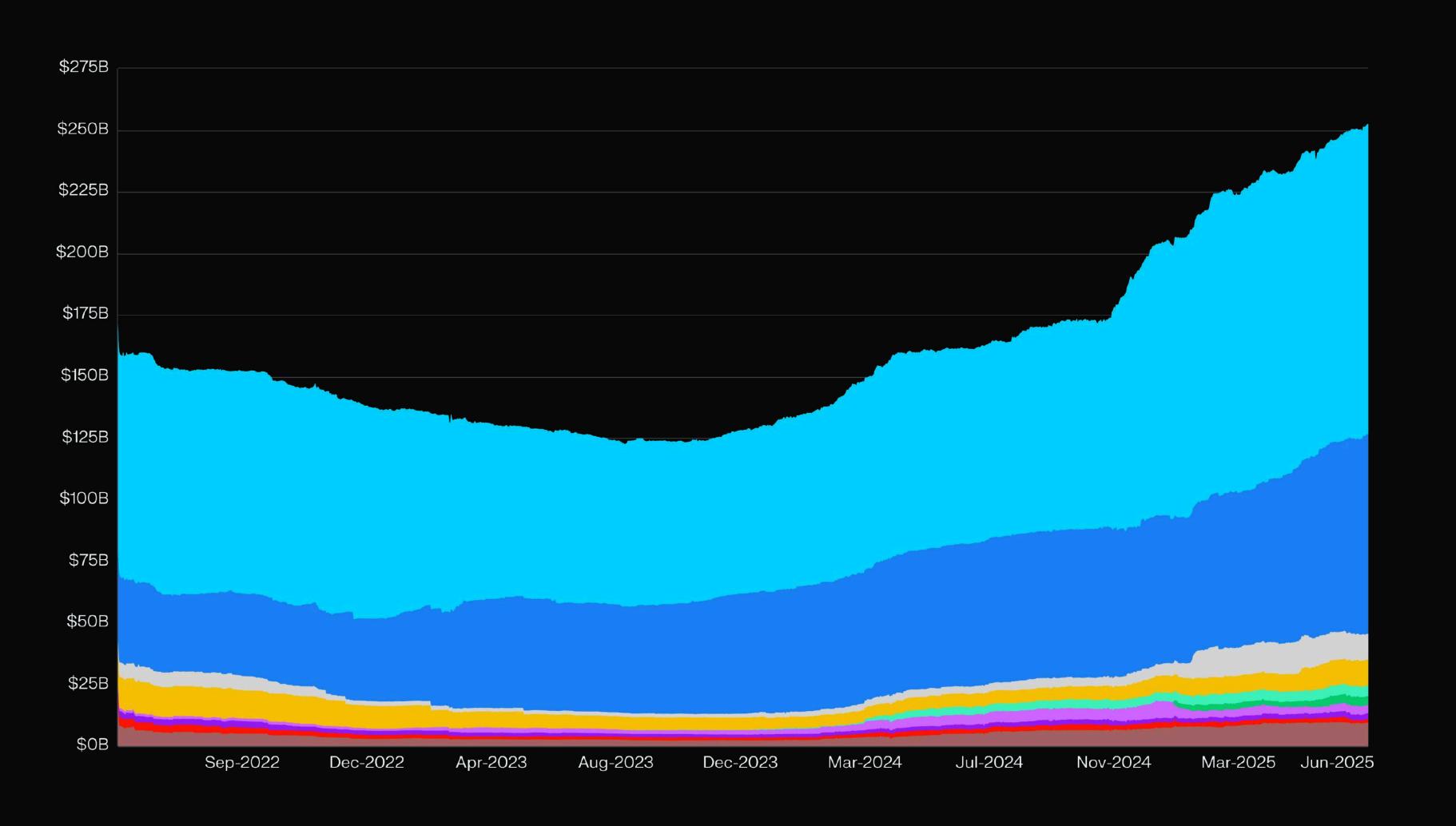


Source: DefiLlama

Data as of: June 30, 2025

Ethereum and TRON maintained their relative market share during this growth phase

Total stablecoin market capitalization by network

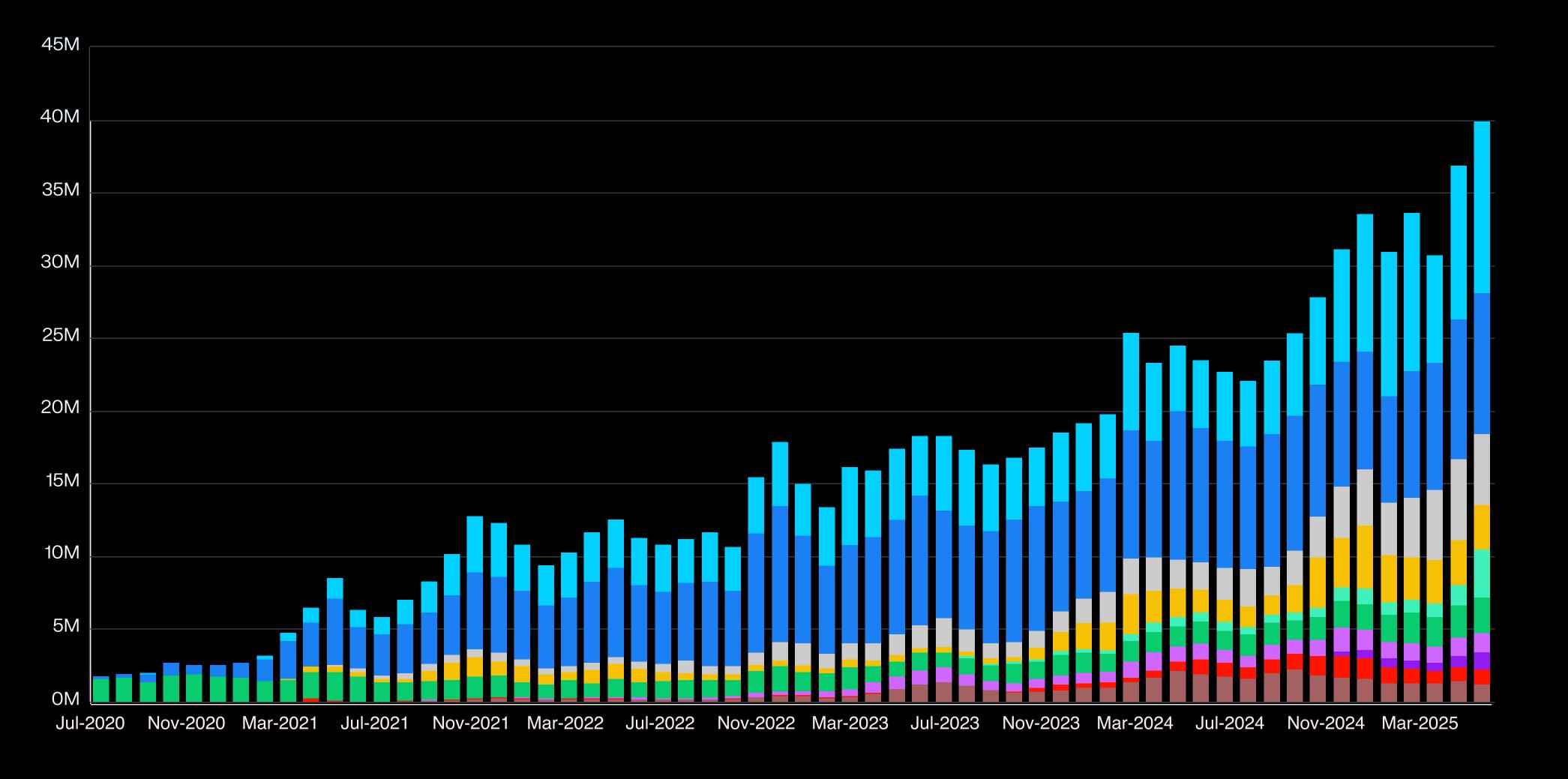


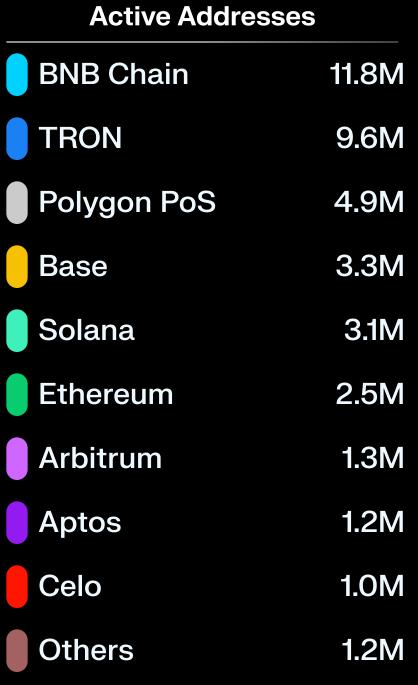
Stablecoin Market Cap			
Ethereum	hereum \$125.9E		
TRON	\$81.1B		
BSC	\$10.5B		
Solana	\$10.5B		
Base	\$4.2B		
Hyperliquid L1	\$3.7B		
Arbitrum	\$3.3B		
Polygon	\$2.4B		
Avalanche	\$1.4B		
Others	\$9.5B		

Source: DefiLlama Data as of: June, 30, 2025

Beyond market cap share, BNB Chain and TRON dominated stablecoin usage by active addresses

Monthly unique addresses interacting with a stablecoin by network





Source: Artemis

Data as of: June 30, 2025

2025 has already seen a deluge of new issuers (or possible ones) as the technology goes mainstream

New Global Dollar Stablecoin Backed by Robinhood, Kraken, Paxos and Other Societe Generale becomes first major bank to launch dollar-pegged stablecoin

Crypto Heavies

Meta Is Looking to Enter Red-Hot Stablecoin Market: Fortune

The tech giant reportedly also hired a vice president of product with crypto experience to help with the stablecoin efforts.

Big Banks Explore Venturing Into Crypto World Together With Joint Stablecoin

The discussions involve payments companies co-owned by JPMorgan Chase, other large banks

Revolut Joins PayPal In The Stable Of Stablecoins

By <u>David G.W. Birch</u>, Contributor. ① David Birch is a London-based advisor on...

Published Sep 19, 2024, 11:16am EDT, Updated Oct 17, 2024, 04:57am EDT

Apple, X, and Airbnb among growing number of Big Tech firms exploring crypto adoption

Walmart and Amazon Are Exploring Issuing Their Own Stablecoins

Corporate coins could take payments activity away from banks and the

traditional financial system

Stripe rolls out stablecoin accounts in 101 countries, as Bridge launches USDB

JPMorgan moves further into crypto with stablecoin-like token JPMD

Uber Considers Using Stablecoins for Cross-Border Money Transfers

BY **PYMNTS** | JUNE 5, 2025



New entrants are looking to integrate stablecoins across multiple use cases

Announcements by companies in the past six months across different categories

Global Payments & Payouts

Stablecoins provide faster settlement for cross-border transactions, reducing delays tied to traditional banking infrastructure.

Lower FX and transaction costs, especially for emerging markets and high-volume flows.

Examples: Ramp, Visa, Mastercard.

Merchant Checkout

Stablecoins enable low-cost, instant payments, unlocking new earning opportunities for creators and merchants.

Cuts payment processing fees, reduces chargeback risk, and simplifies global checkout by removing FX complexity.

Examples: Stripe, Shopify, Grab.

Tokenized Deposits

TDs bring regulated bank money onchain, enabling instant, low-cost settlement, crossborder liquidity management, and real-time transparency.

For J.P. Morgan, this initially enables institutional clients exclusively to send and receive money securely onchain.

Examples: JPMorgan, Citigroup

Bypass Card Networks

Allows merchants to settle payments directly with customers, avoiding card network fees and delays.

Reduces costs and gives merchants greater control over their payment systems.

Examples: Amazon, Walmart

Intra-company payments

Allows companies to move funds instantly between global entities, cutting costs, simplifying cash management, and avoiding banking delays.

Provides dollar stability for internal transfers across borders without needing physical USD accounts or relying on banking hours.

Examples: Scale AI, SpaceX

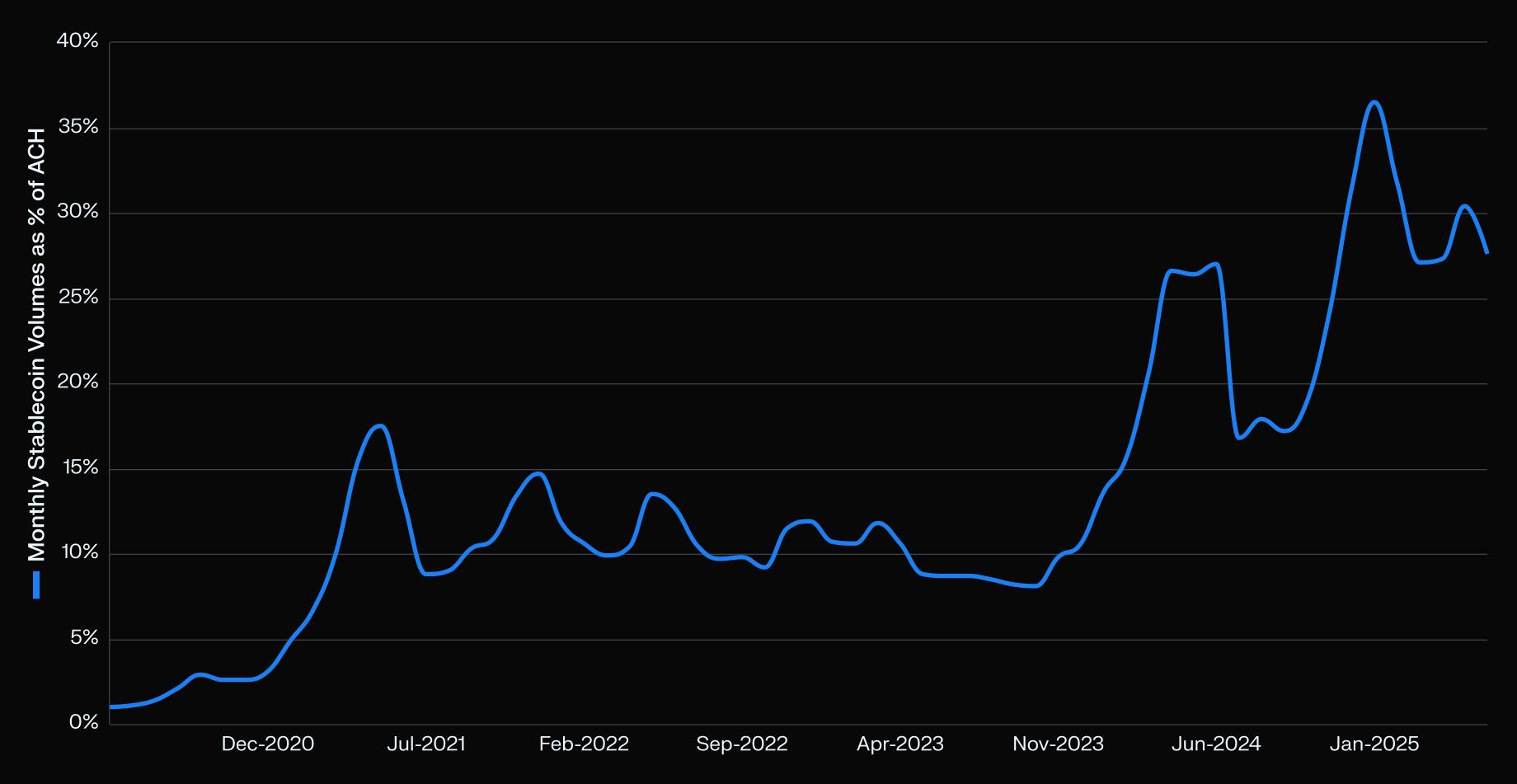


Stablecoin transaction volumes are now rivaling legacy payment networks like ACH, Visa, and PayPal

Adjusted volumes excluding MEV and internal CEX transfers as a % of ACH volumes

Automated Clearing House (ACH) is the electronic payment system used to transfer funds between U.S. bank accounts. Settlement time is usually 1-2 business days, although same-day transfers are available. The additional cost for same-day settlement can be prohibitive for large businesses processing thousands or millions of payments per day.

Stablecoin transaction volumes are on the heels of this large, legacy system. Monthly volumes have already surpassed those of other payment networks like PayPal & Visa.



Data as of: June 30, 2025

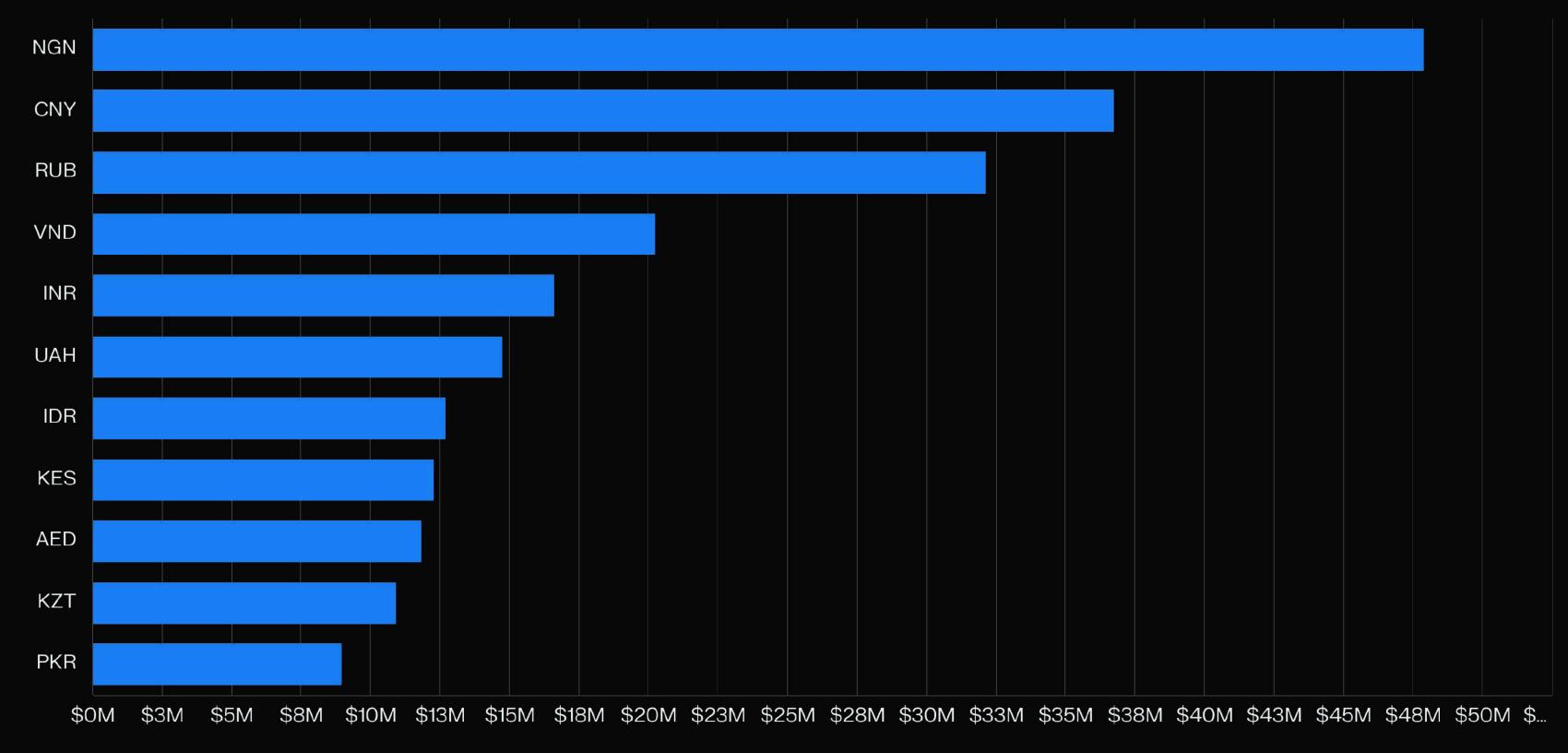
Source: Artemis



Some of this transfer volume is taking place through P2P marketplaces on CEXs

24HR P2P transaction volume for stablecoin-to-fiat conversions across major CEXs for top EM currencies

The latest peer-to-peer (P2P) market data shows strong sell-side activity for fiat currencies on centralized exchanges, with volume heavily concentrated in emerging markets. This reflects both arbitrage opportunities driven by FX restrictions and the growing use of P2P stablecoin rails for faster, lower-cost cross-border payments. High volumes in currencies like the Nigerian Naira and Russian Ruble highlight P2P markets' role as both trading venues and informal remittance infrastructure.



24HR P2P Transaction Volume (in millions of USD)

Note: Volumes are averages across major CEXs, with Bybit and Binance posting the highest volumes

Data as of: June 26, 2025

Source: P2P Army



P2P markets allow emerging market users to more easily swap into local currencies vs. traditional rails

Flow chart of process for converting stablecoins like USDT and USDC to local fiat through P2P markets on CEXs

Deposit USDT/USDC to CEX

User deposits
stablecoins (e.g., USDT or USDC) into CEXs,
such as Binance, Bybit,
or OKX, to make them
available for P2P
transactions.

Access P2P Market

User enters the P2P platform on the exchange to browse available buy/sell offers for local currencies.

Select Local Currency & Exchange Rate

User selects the desired local currency (e.g., NGN, PKR, EUR) and chooses an offer based on the preferred exchange rate and payment method.

Provide Local Bank Details

User provides local bank account details to the exchange. The information is saved for future transactions when using the same payment method.

Wait for Buyer to Send Local Currency

The buyer transfers the agreed amount in local currency directly to the user's bank account or wallet through offchain payment rails.

User verifies that the funds have been received in full before proceeding to release stablecoins.

Release USDT/USDC from Escrow

Once payment is confirmed, the user releases stablecoins held in escrow on the exchange, finalizing the transaction.

Transaction Completed

The stablecoin-to-local currency conversion is complete. The user receives local currency with minimal fees and near-instant settlement.



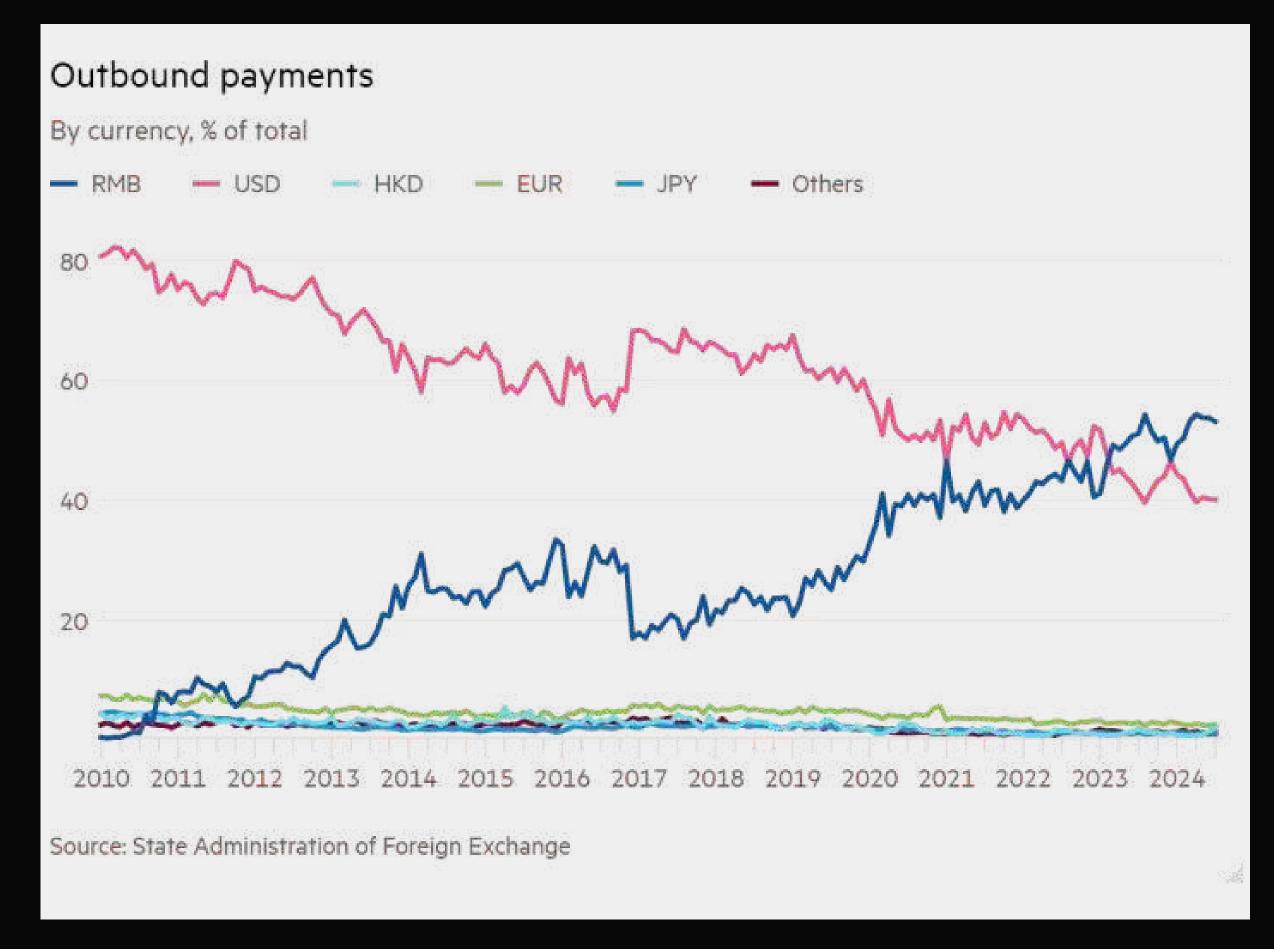
Dollar access abroad is not the only story - stablecoins could be a counter-balance to dedollarization trends in emerging markets

China's Belt and Road Initiative aims to supplant the dollar with the e-RMB in trade

China's plan of increasing RMB-based trade settlement while bypassing dollar-dependent SWIFT networks is a long-term game towards dollar erosion.

David Krause, Finance Professor at Marquette
University, highlighted these shifts in a recent paper:
"Pilot programs with Hong Kong and ASEAN nations
under the Regional Comprehensive Economic
Partnership (RCEP) aim to establish regional payment
corridors, targeting a 20% reduction in dollar reliance for
Asian trade by 2030."

"The Trump administration's promotion of dollar-backed stablecoins represents a strategic effort to reinforce the dollar's global role amid increasing discussions on dedollarization."



Source: The FT



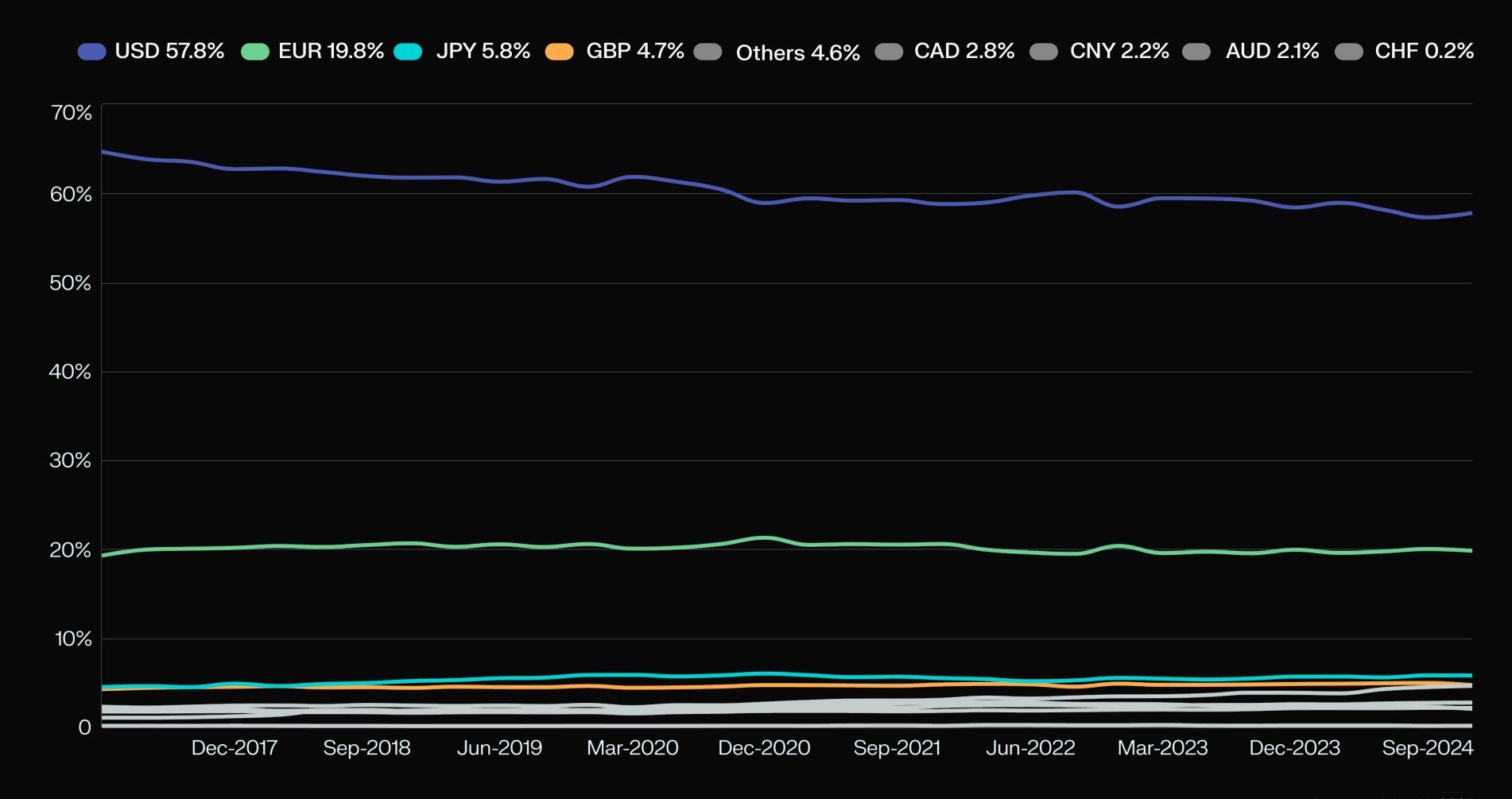
Beyond EM trade trends, there has been a meaningful de-dollarization trend in global central bank reserves

Percentage share of allocated FX reserves over time

Is there a dollar dominance problem? The dollar's share of central bank FX reserves has been eroding slowly. Its weight is the lowest since the euro's launch over two decades ago.

While still dominant, the dollar may be at risk from several different angles. A June 2025 World Gold Council survey found that 76% of central banks expected their gold holdings to be higher in the coming years, while 75% expected their dollar holdings to be lower.

While small, some energy deals are beginning to be priced in CNY or Gulf currencies. Various emerging markets (like the ASEAN region) are also looking to avoid dollar rails through new payments systems for cross-border transactions.



Data as of: April 1, 2025 Source: IMF COFER, Reuters



It is no surprise then that the new administration is looking at stablecoins as an important tool for the dollar

Stablecoins could lock in dollar dominance

Treasury Secretary Bessent

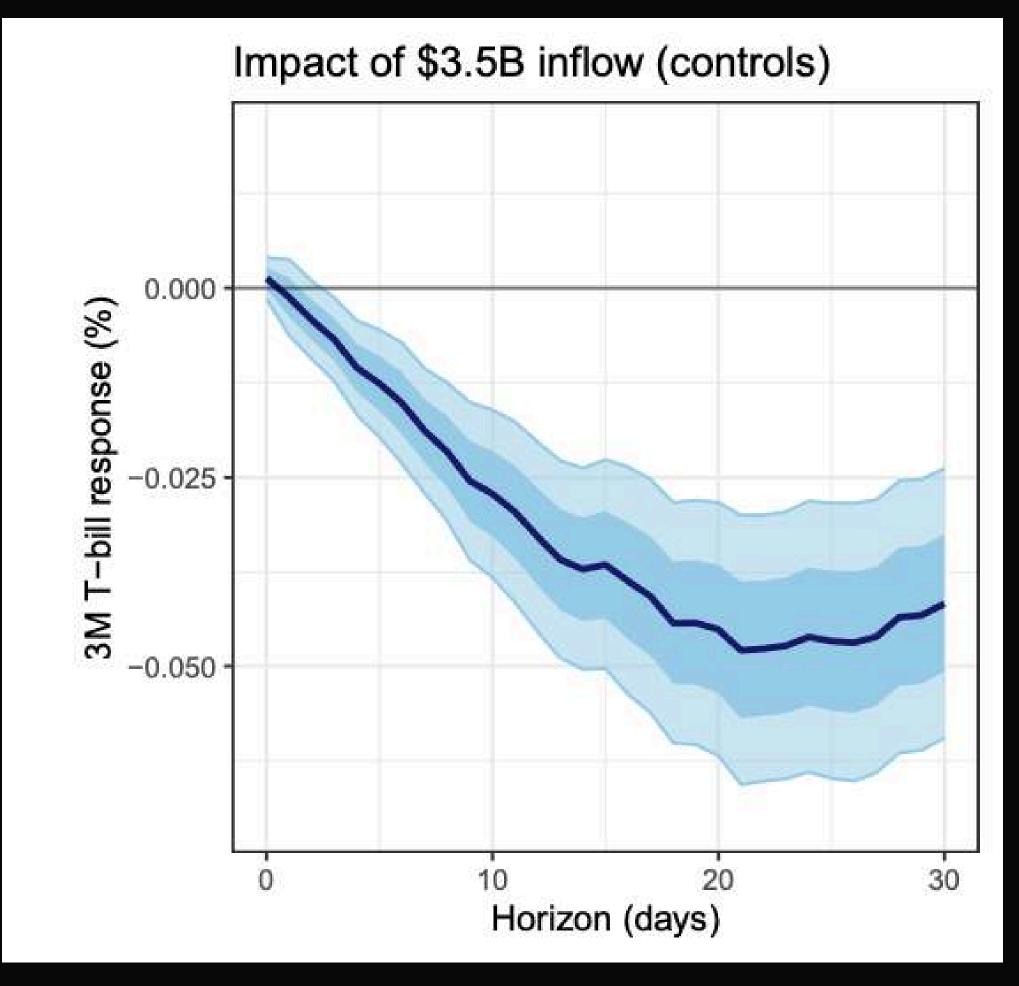
I also want to express my strong support for the efforts of lawmakers in Congress as they work on bills to provide regulatory certainty for dollar-backed stablecoins and the digital assets market

President Trump



Source: Axios, Bloomberg

Stablecoin flows are already having a direct impact on short-term treasury markets



Source: BIS Working Papers No. 1270

According to research from the Bank for International Settlements, a multi-billion dollar weekly inflow into stablecoins is linked with a ~2.5 bp drop in 3-month treasury bill yields after 10 days, and upwards of ~5 bps reduction after 20 days.

This effect is "comparable to that of small-scale quantitative easing on long-term yields."

Equivalent outflows have a greater effect, raising yields ~6-8bps within 10 days.



Stablecoins may be used for as a strategic lever in Treasury financing



Treasury Secretary Scott Bess... 🗳 📵 @SecScottBess... 🕟 Jun 17 🧭 🚥





Recent reporting projects that stablecoins could grow into a \$3.7 trillion market by the end of the decade. That scenario becomes more likely with passage of the GENIUS Act.

A thriving stablecoin ecosystem will drive demand from the private sector for US Treasuries, which back stablecoins. This newfound demand could lower government borrowing costs and help rein in the national debt. It could also onramp millions of new users—across the globe—to the dollarbased digital asset economy.

It's a win-win-win for everyone involved:

- The private sector
- The Treasury
- Consumers

These are the fruits of smart, pro-innovation legislation.

While Bessent and Miran (Chair of the Council of Economic Advisers) have previously criticized Janet Yellen's inclination toward funding the Treasury through short-dated securities, this approach appears likely to continue. Bessent has explicitly noted that the Treasury currently has little appetite to "term out the debt" by issuing more long-dated bonds at existing interest rates. This stance represents a sustained shift away from the Treasury's traditional "regular and predictable" issuance strategy, toward one that is notably more tactical and opportunistic. Stablecoins, as persistent buyers of short-dated treasuries, now serve as an additional tool for the Treasury to factor into its issuance calculations.

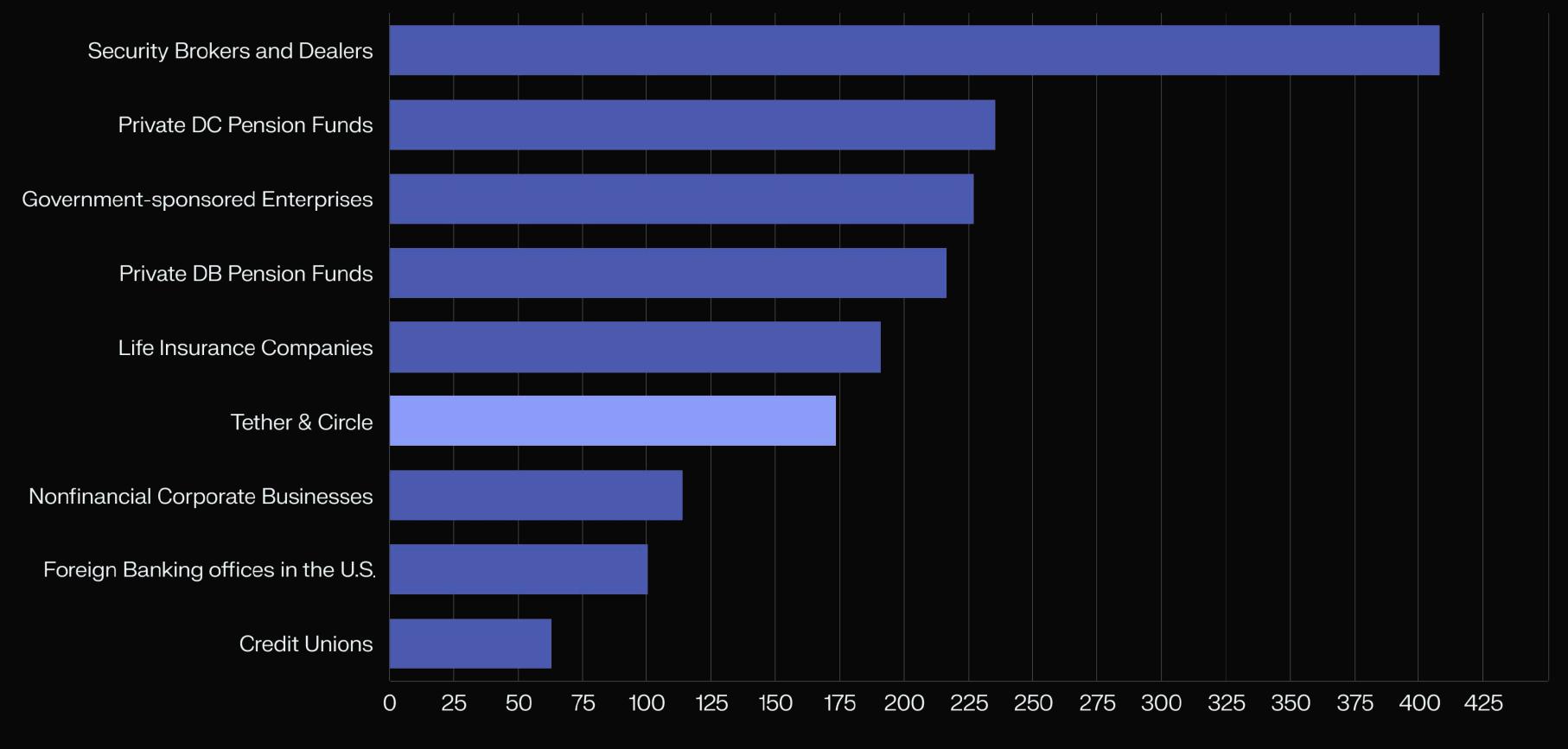


Tether & Circle treasury holdings already rank among largest funds & financial entities

Comparing treasury holdings size across major entities

The two largest stablecoins are backed by billions of dollars of short-term treasuries, repurchase agreements, and cash equivalents.

Tether's U.S. treasury holdings have been primarily custodied by Cantor Fitzgerald since 2021. Meanwhile, Circle's holdings have been managed by BlackRock and custodied by The Bank of New York Mellon.



Treasury Security Holdings (in Billions of USD)

Data as of: May 1, 2025

Source: Tether, BlackRock, The Federal Reserve

Note: Other entity holding data as of Q4 2024; Treasury repos included in calculations

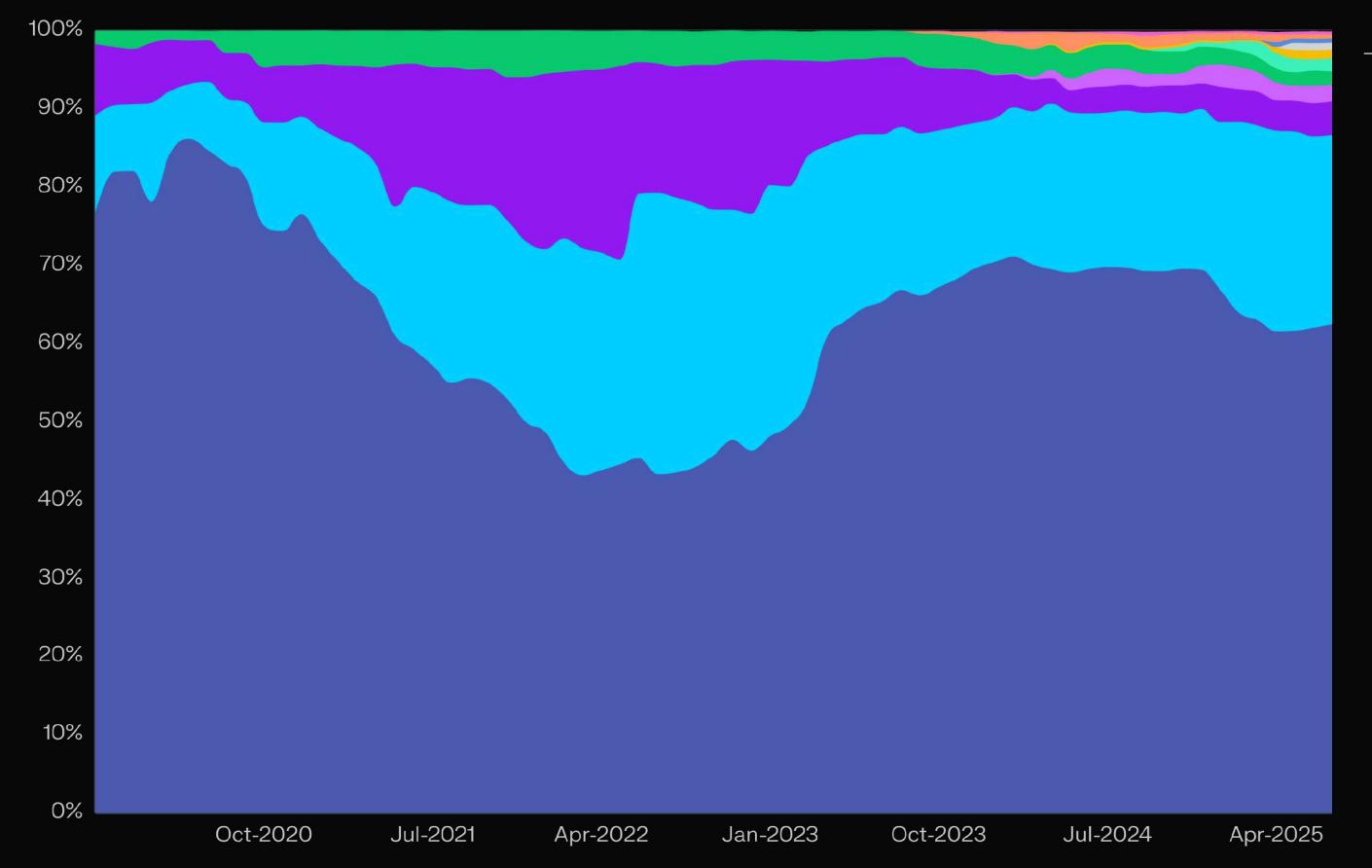


Tether & Circle still maintain a combined 85% market share

Dominance by market capitalization across stablecoins

As total stablecoin market capitalization has trended up past \$250 billion, market share has shifted back and forth among the top players. Circle has eaten into Tether's once 80% market share since 2020. Decentralized stablecoins and other alternatives gained some relative traction while there were larger net stablecoin outflows in 2022; however, those gains have not been sustained.

The major new contenders in the top ten have primarily been Ethena's USDe and BlackRock's tokenized money market fund BUIDL. FDUSD garnered share as a replacement for BUSD as a spot trading pair on Binance. PayPal's PYUSD shot to a billion in circulating market cap in the summer of 2024 and recently reclaimed that mark after drawing down more than 50%.



Market Cap Dominance USDT 62.51% USDC 24.18% **Others** 4.33% USDe 2.09% DAI 1.69% **USDS** 1.67% **BUIDL** 1.13% USD1 0.87% **USDTB** 0.58% **FDUSD** 0.48%

Data as of: June 30, 2025

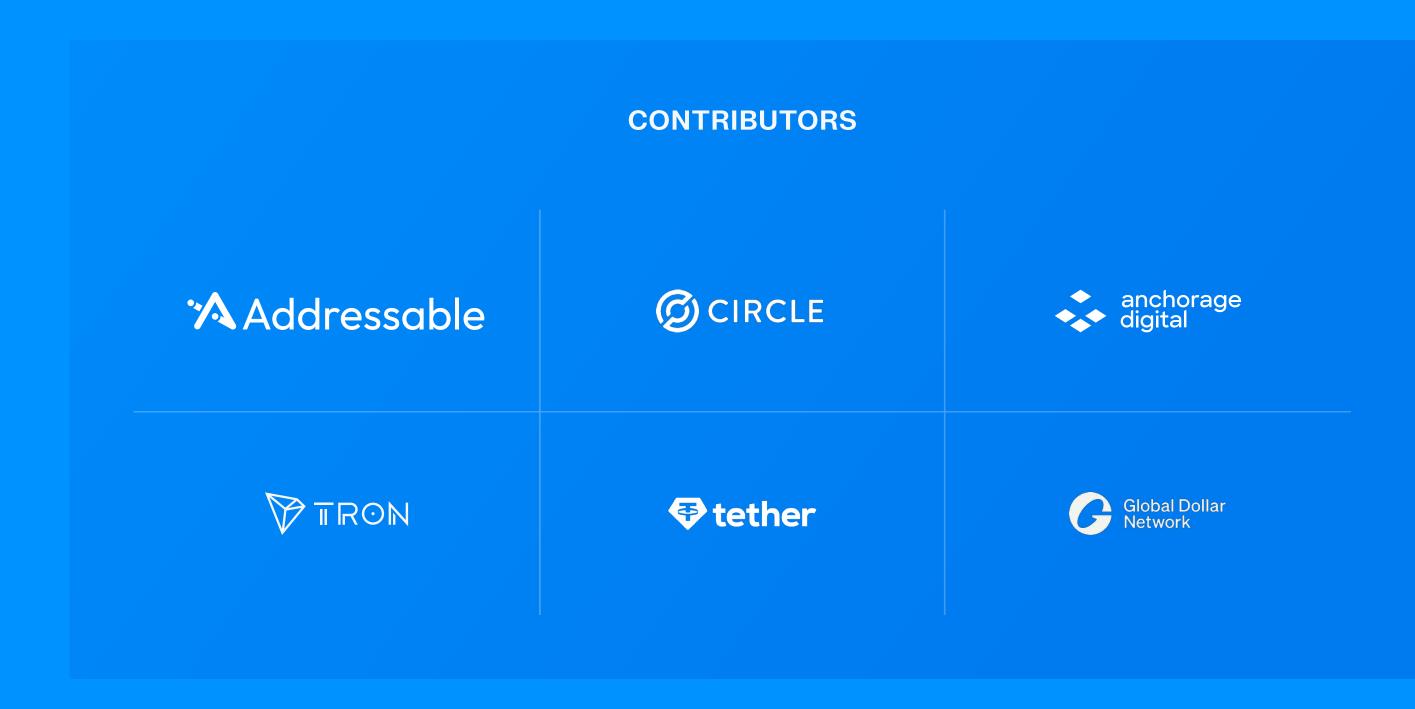
Source: DefiLlama

0.38%



PYUSD

Tether & Circle vs. the Field

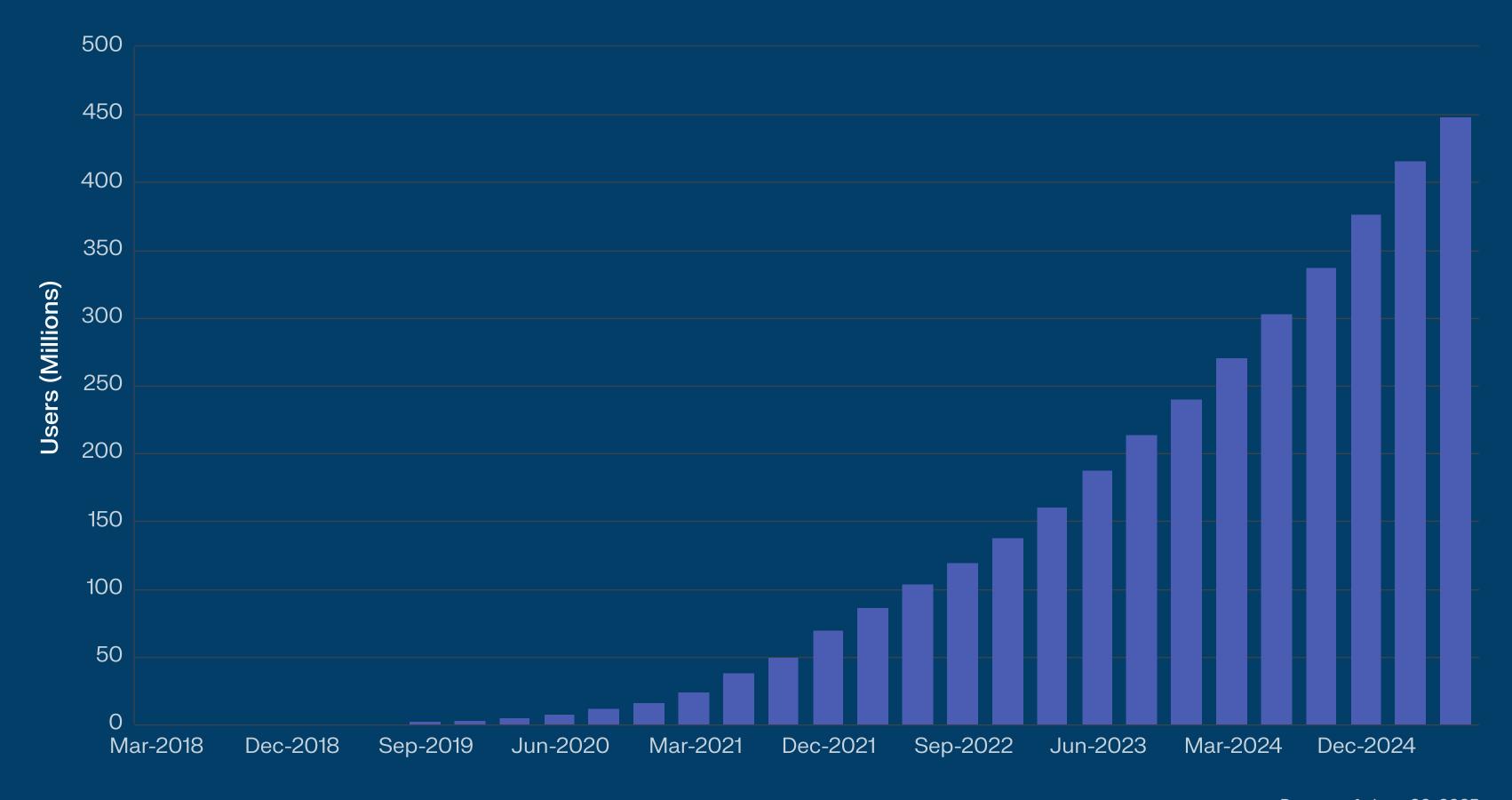


Total USDT users globally has reached over 400 million

Quarterly USDT users

Since launching the first dollar-pegged stablecoin in 2014, USDT became the default "cash" on centralized exchanges, then integrated with inexpensive networks like TRON to move at sub-dollar fees. Those advantages let traders, remittance senders, and informal money-changers across the world bypass scarce dollars and capital controls.

Today, USDT is quoted against almost every liquid crypto asset, settles on more than 30 blockchain networks, and funds debit cards, merchant checkouts and P2P marketplaces from Buenos Aires to Bangkok. By embedding itself wherever dollars are hard to reach, Tether turned alternative and offshore dollar rails into a consumer brand.



Data as of: June 30, 2025 Source: Tether, https://usdt.network/



Tether still dominates in terms of accessibility and liquidity as a trading pair

Number of spot markets, asset networks, and liquidity across largest stablecoins

USDT sowed its network effect by being the easiest dollar-based collateral on centralized exchanges. Binance launched its dedicated USDT markets in August of 2017; prior to this, currency pairs were mostly quoted against BTC. Other offshore CEXs like OKX, Huobi, and Bitfinex followed shortly.

Once the bulk of liquidity and depth moved to USDT pairs, listing new coins directly against USDT maximized volume and discoverability, reinforcing the standard.

While USDC has plenty of spot trading pairs across CeFi and DeFi markets & networks, most USDT pairs have unrivaled depth.

Stablecoin	# of Spot Markets	Asset Networks	+2% Depth	-2% Depth
USDT	39,410	34	\$44.1M	\$20.8M
USDC	14,059	38	\$14.1M	\$10.1M
USDS	151	3	N/A	N/A
FDUSD	266	4	\$12.3M	\$8.9M
USDe	51	6	\$1.2M	\$1.4M
PYUSD	162	2	\$2.4M	\$1.2M

Data as of: June 30, 2025

Source: Messari, Coingecko

Note: Depth is point-in-time on highest volume BTC/stable pair

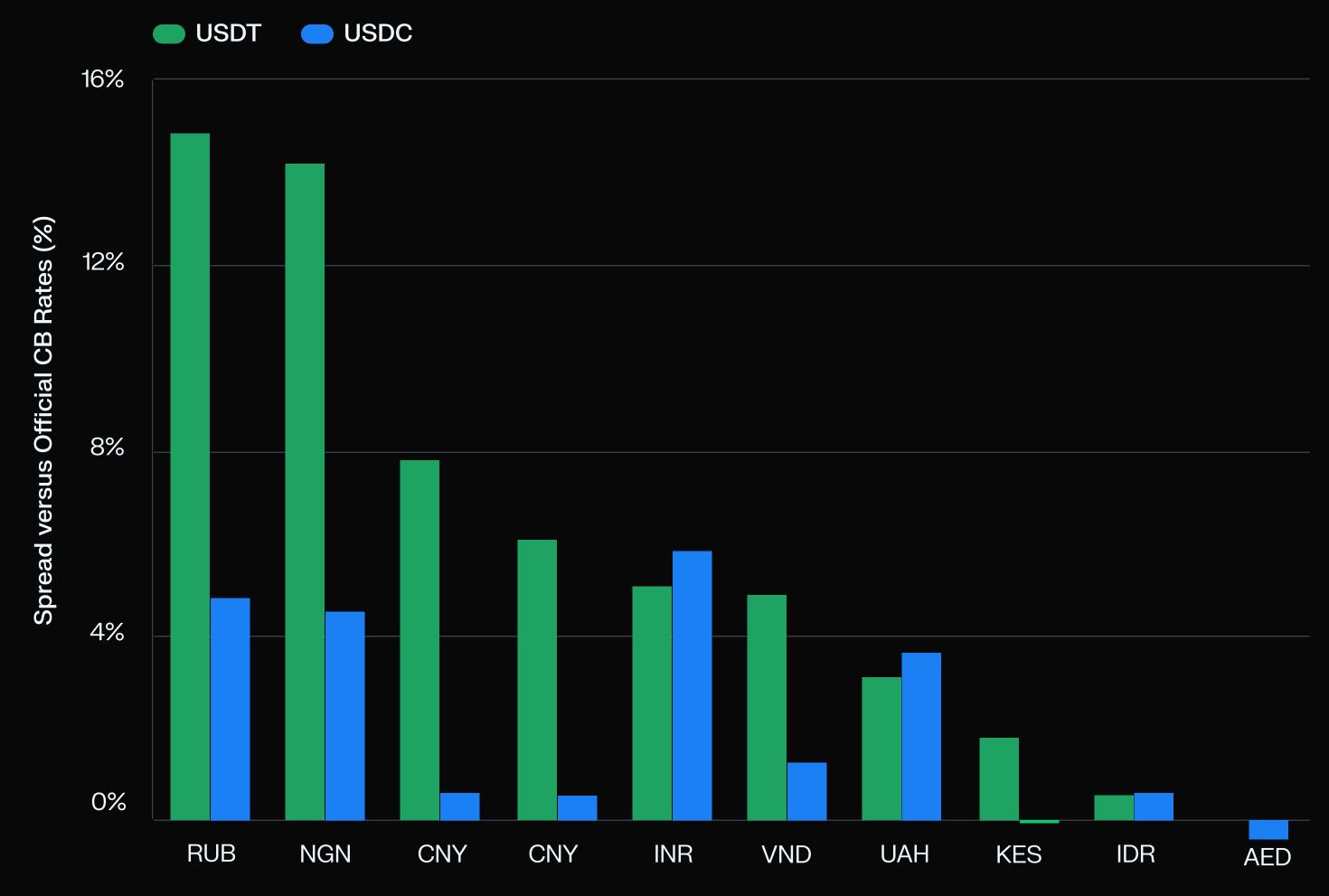


USDT overshadows USDC in P2P currency marketplaces on CEXs in both volumes and pricing

P2P sell rates for USDT and USDC vs. official central bank rates across major fiat currencies, highlighting price premiums in P2P markets

P2P market spreads reflect the price premium at which stablecoins like USDT and USDC trade relative to official central bank rates, driven by FX restrictions, capital controls, and local currency volatility. Traders actively exploit these spreads by converting stablecoins to fiat on P2P platforms at rates above the official benchmark, creating opportunities for arbitrage. Across most emerging markets, USDT consistently commands higher P2P rates than USDC due to its larger market share, deeper liquidity, and broader usability.

This trend is most pronounced in Russia and Nigeria, where the Ruble (RUB) and Naira (NGN) show some of the highest stablecoin premiums, fueled by currency depreciation, capital flight, and FX controls. In these regions, P2P platforms have become an unofficial remittance rail, enabling individuals to access foreign currency and transfer value across borders at attractive rates.



Data as of: June 30, 2025

Source: P2P Army

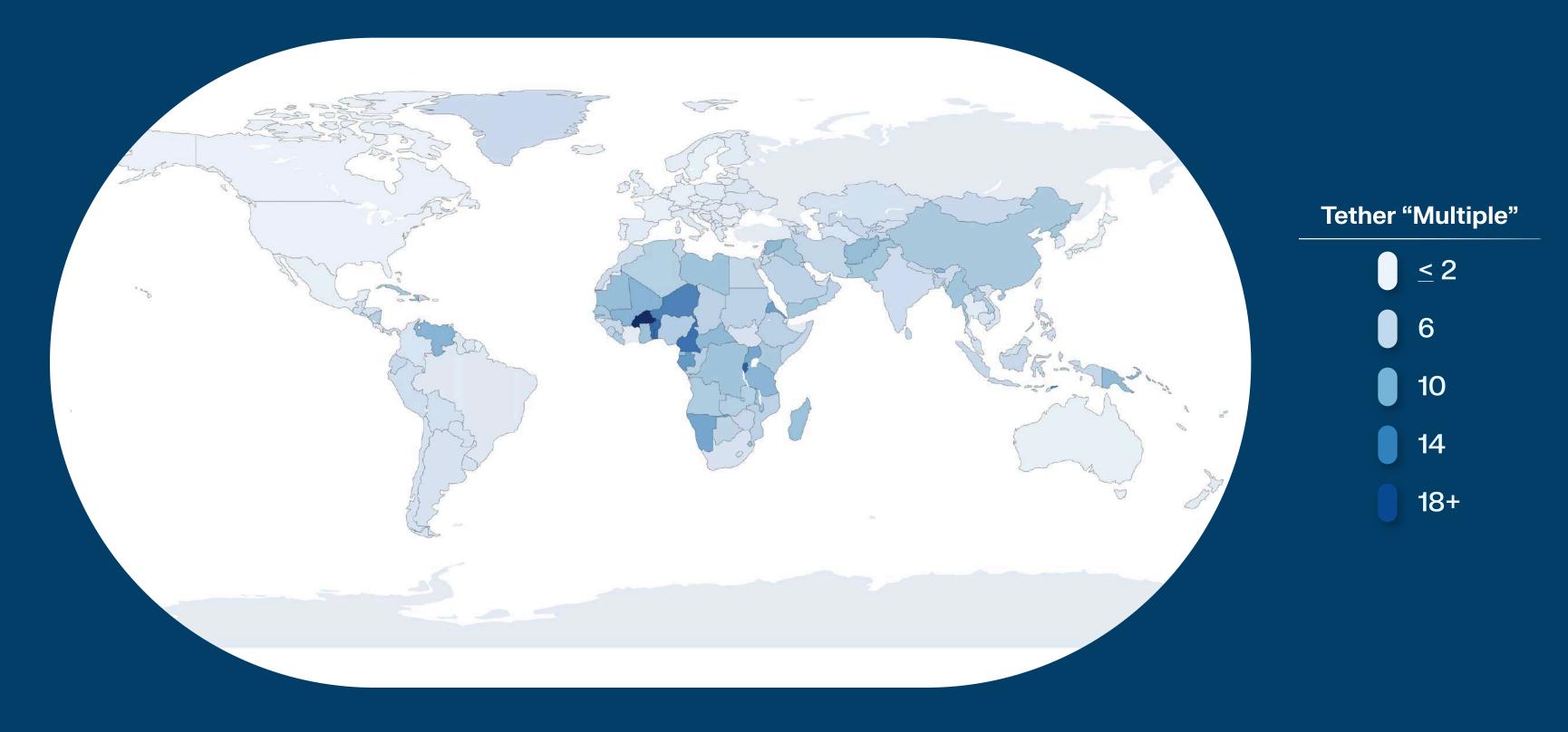


USDT dominance in EMs is apparent when comparing tagged USDT and USDC wallets globally

Ratio of tagged USDT to USDC user accounts from Addressable

Addressable is an intelligence platform that links 23 million wallets to social profiles, and tracks metrics like website traffic and onchain conversions.

Based on this data, we can see USDT user accounts drastically outpace USDC accounts (based on the ratio of tagged USDT to USDC wallets, or Tether multiple) in most of Africa as well as Asia. Europe and the Americas are more balanced in USDC versus USDT usage. The average Tether multiple across all countries covered was 5.4. The highest multiple countries were mainly those in West Africa and the Caribbean.



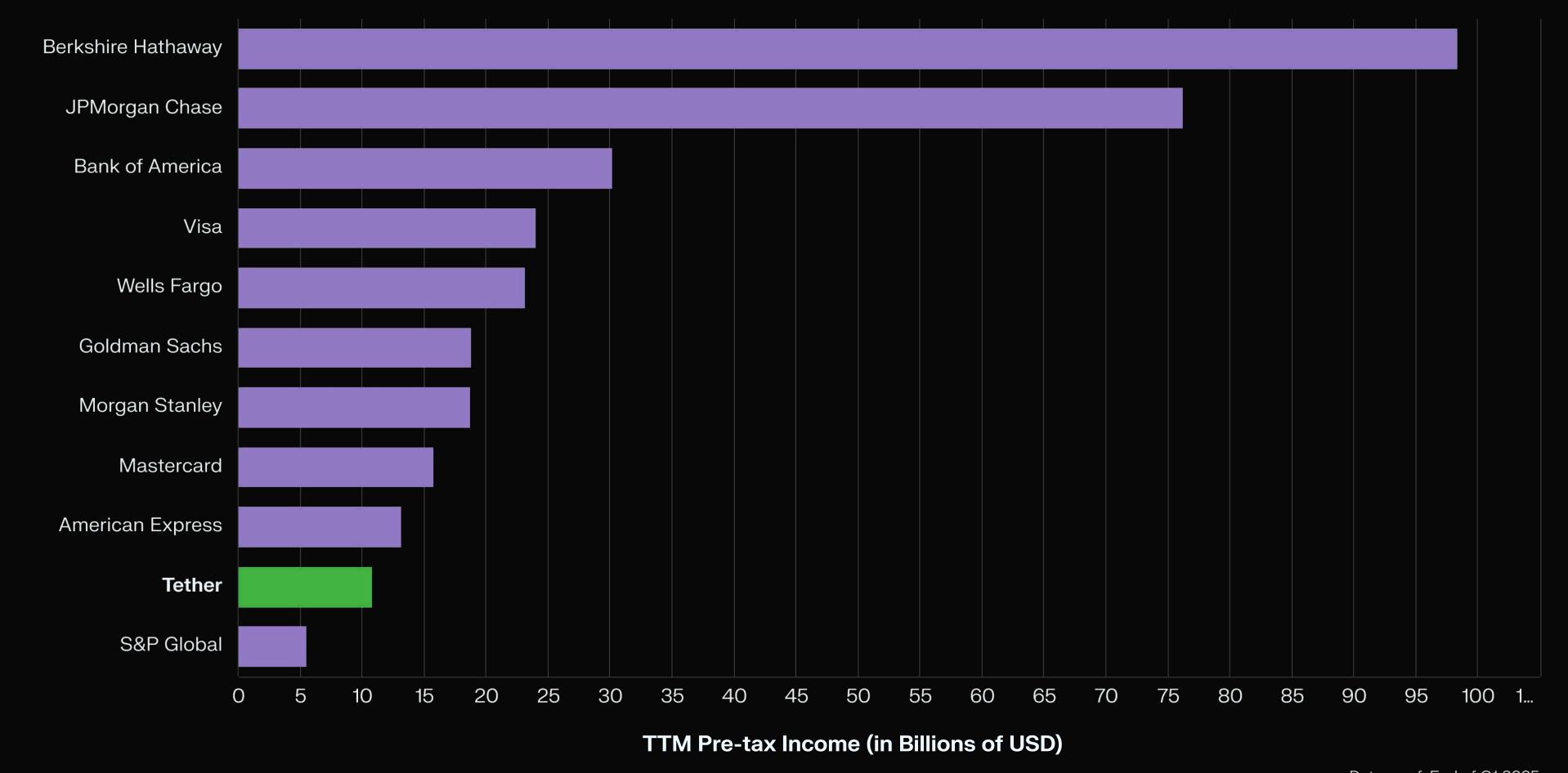
Data as of: June 30, 2025 Source: Addressable

Messari × \Lambda Addressable

Tether's network effect in CEX collateral & EM transfer volumes has led to immense profitability

Comparing pre-tax income to the top 10 holdings in the XLF ETF

The most recent rate hike cycle, starting in 2022, sent short-term rates from 0% to more than 5%.
Tether's yield on reserve holdings sky-rocketed accordingly. With Tether's circulating market capitalization almost doubling in the past two years, this has been a potent combination for the company's bottom-line.



Data as of: End of Q1 2025 Source: Yahoo Finance, Tether

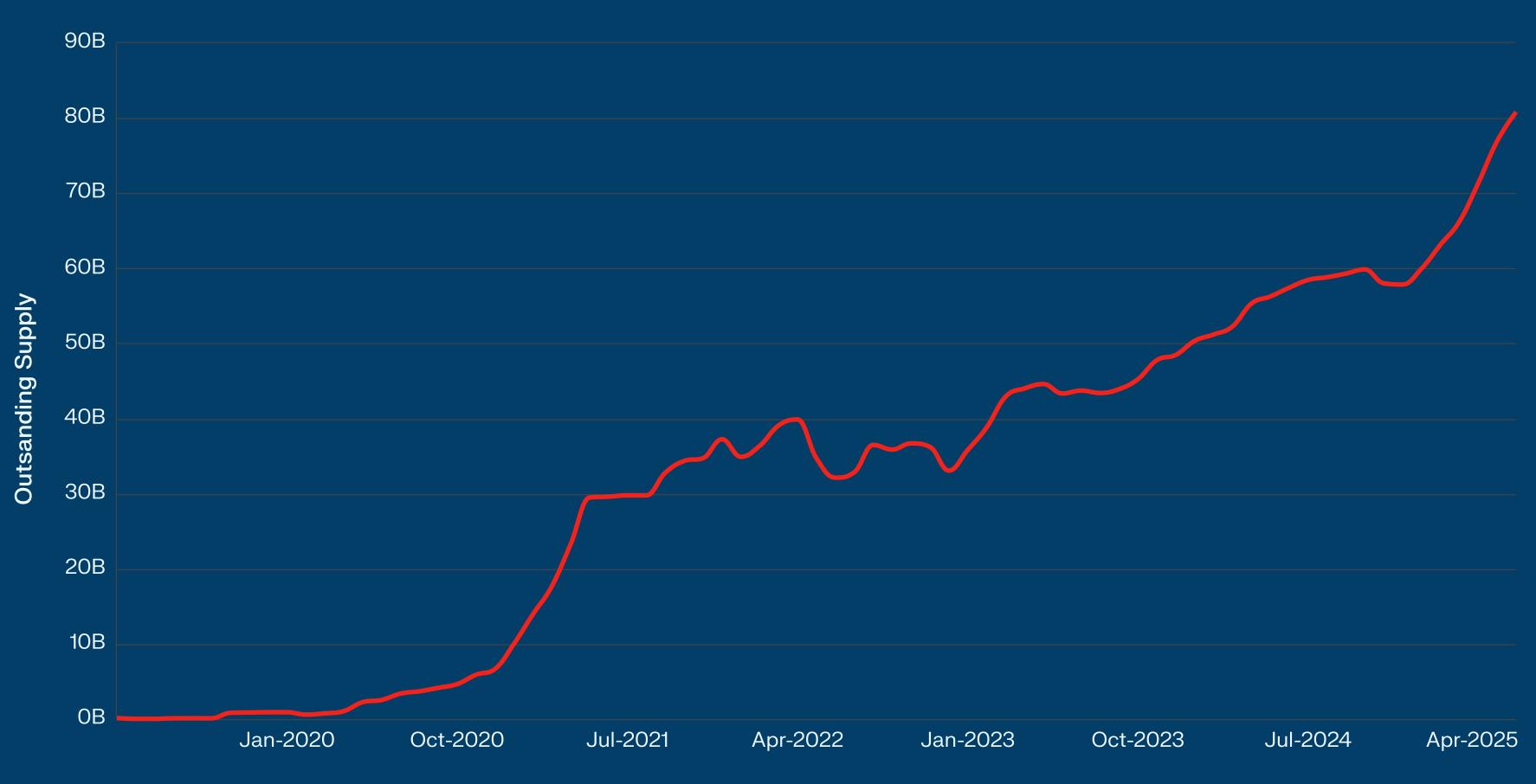


Supply of USDT on TRON alone has grown by around \$20B YTD

Outstanding supply of USDT on TRON

USDT holds over 63% of the global stablecoin market and exceeds \$155 billion in circulation. Over half that supply is issued on TRON.

According to Artemis, "TRON dominates as the primary blockchain for stablecoin settlement, especially in Colombia, Ecuador, and Brazil, where it accounts for the vast majority of observed activity." It also dominates in Africa and Asia.



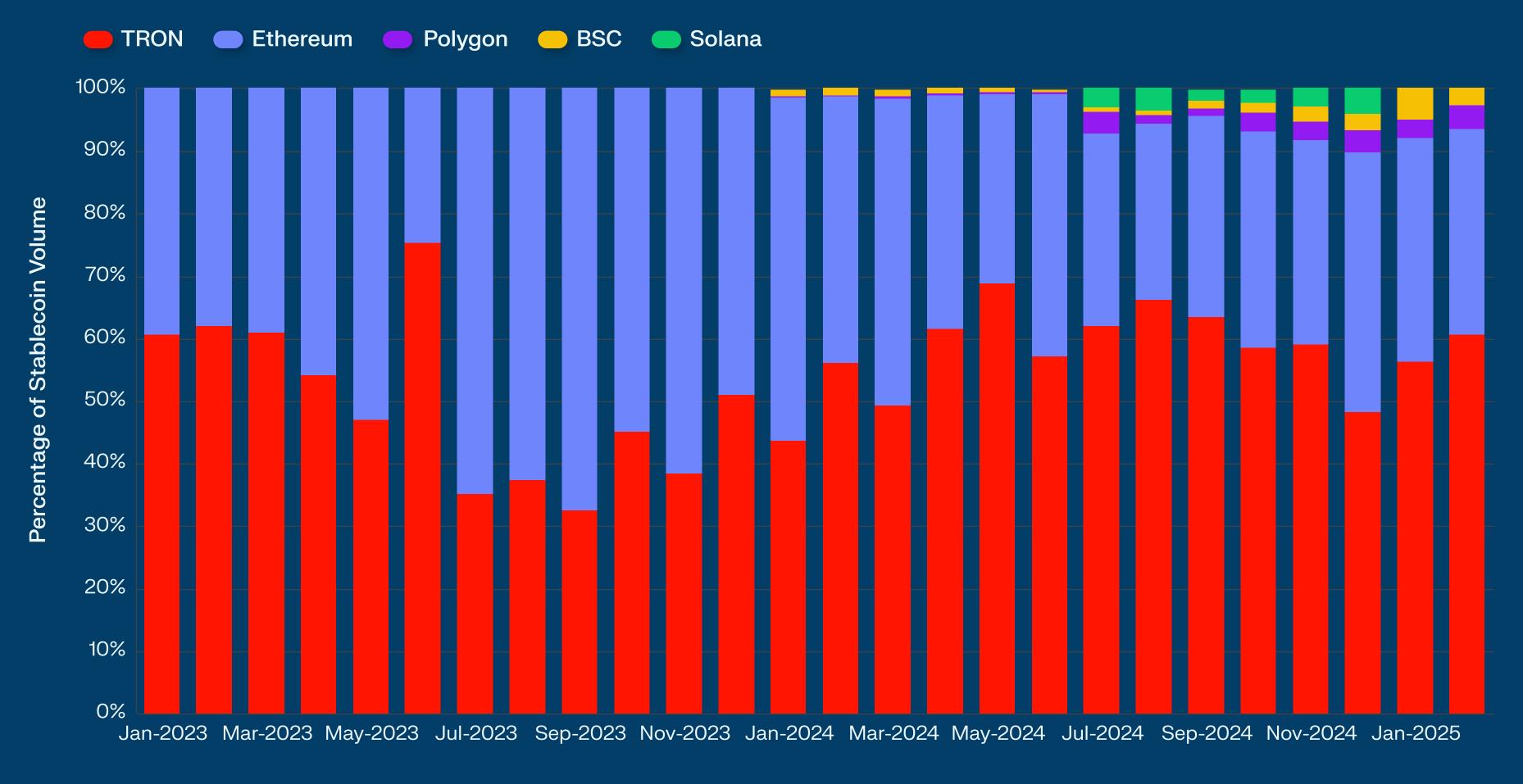
Data as of: June 30, 2025 Source: Token Terminal

TRON has established itself as the preferred settlement network for stablecoins, particularly USDT

Percentage of total stablecoin volume by network

The TRON network facilitates an average of \$21.5 billion in daily USDT transfers. TRON is a leader in active stablecoin wallet usage, representing ~26% of global active addresses.

Much of TRON's entrenchment may be linked back to early partnerships with companies with large distribution and global user bases like Binance. Early subsidization of USDT transfers on TRON on Binance likely created sticky user behavior for EM users on centralized exchanges.



Data as of: February 2025 Source: Artemis, TRON



After hitting record profits in 2024 and 2025, Tether has been making aggressive investments across a host of adjacent markets:

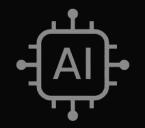
Tether's Future



Invested further in sustainable BTC mining operations in Uruguay, with the stated goal of becoming the largest mining operator by hashrate.



Teamed up with SoftBank and Bitfinex to launch a BTC-acquisition vehicle called Twenty One, which went public via merger with a SPAC called CEP; the entity holds around \$4 billion worth of Bitcoin, with additional subscription agreements with investors.



Began developing a P2P network called QuantumVerse Automatic Computer (QVAC) that is designed to run Al agents that can transact in USDT or BTC, directly on user devices.



Launched its tokenized gold product (XAUt) and also bought a sizable stake in a gold-focused investment company as part of its "dual pillar strategy."



Took a 70% stake in an agriculture and energy company called Adecoagro in Latin America; Tether ultimately seeks to integrate USDT into commodity trading and financing.



Along with Bitfinex and Founders Fund, backed Plasma, a Layer-1 blockchain with zero fee USDT transfers; Plasma raised \$1B in stablecoin deposits in just 30 minutes in June.



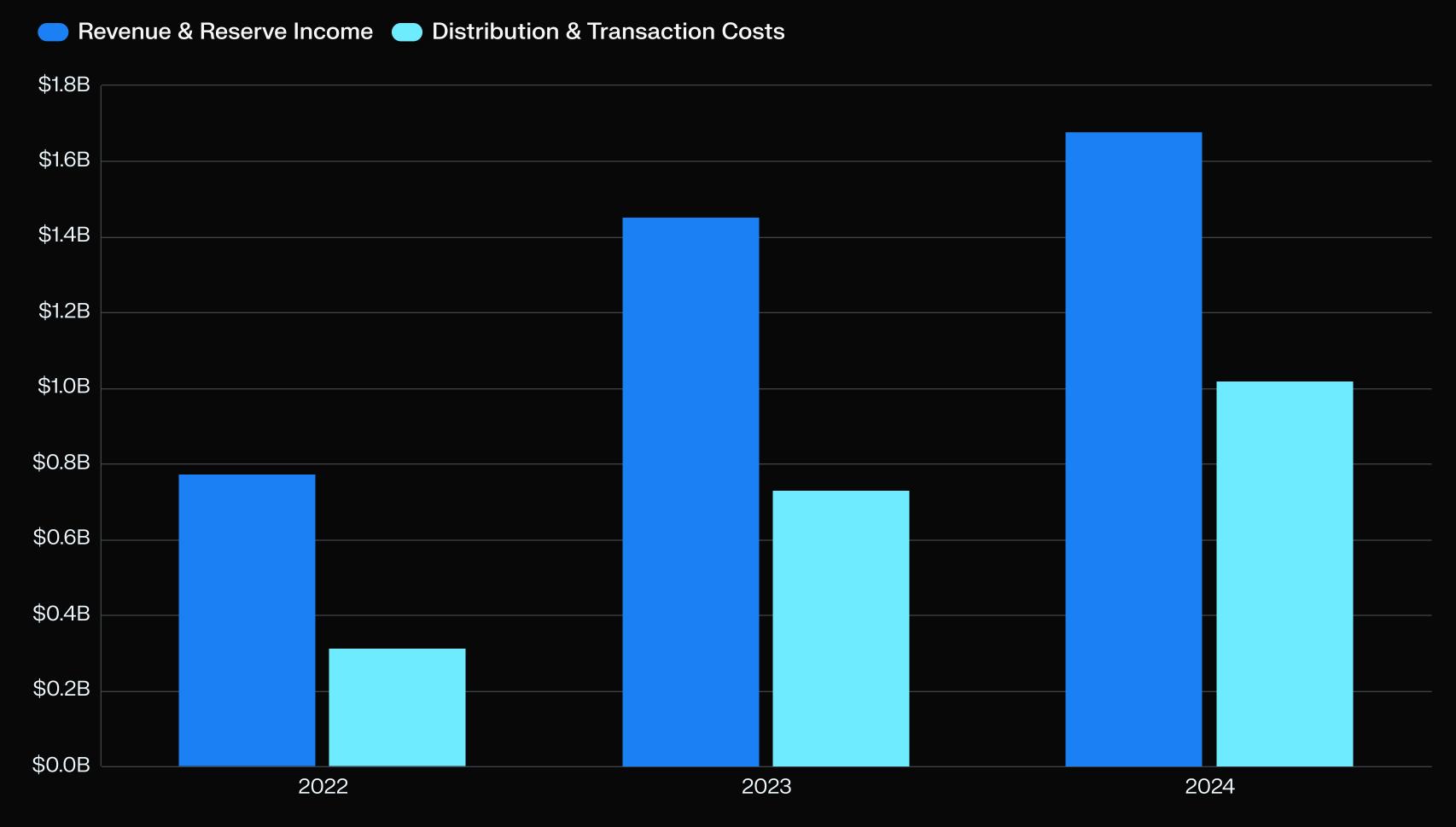
Circle's revenue has also grown significantly, but distribution costs have as well

Yearly revenue and distribution costs since 2022

USDC in circulation has almost doubled 2024. Combined with higher rates, Circle's interest on reserves has grown significantly since 2022; however, distribution costs through partners like Coinbase have risen as a percentage of revenue as well.

If we use CRCL's FY24 EPS of \$0.30, at \$200 the stock is trading at a multiple of more than 600. According to Yahoo Finance, this would likely make CRCL the most expensive stock out of the entire S&P 500 on a P/E basis.

As Circle will face incoming competition from new issuers, it will have to rapidly take share in the broader payments space in order to grow into its valuation.



Data as of: End of Q1 2025

Source: Circle S-1

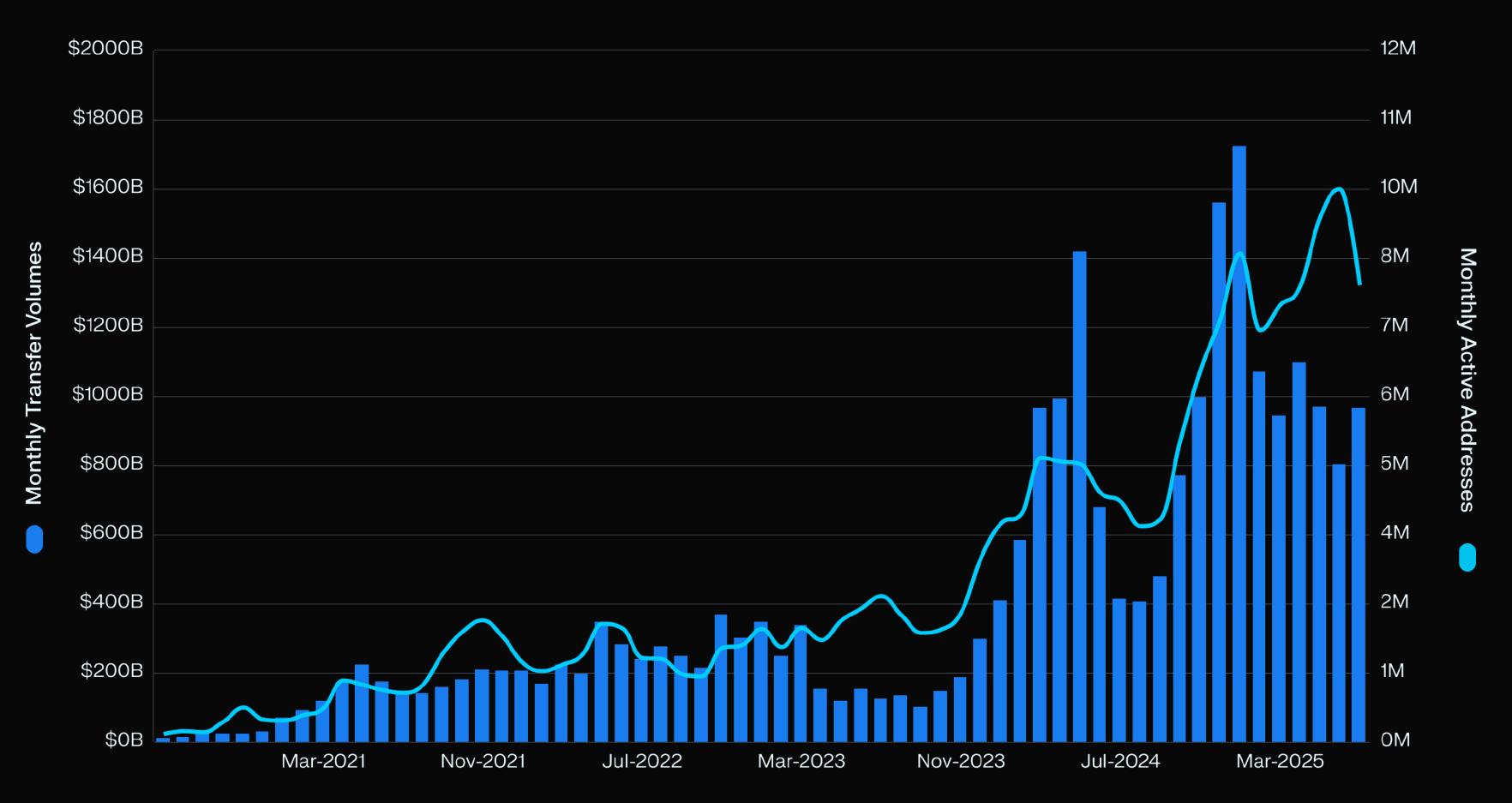


Other metrics for USDC adoption are also tracking higher

Adjusted monthly transaction volume & active addresses

Outside of simple circulating market capitalization, USDC has been gaining traction in terms of monthly transfer volumes. This adjusted data from Artemis excludes internal CEX transfers and MEV transactions. This metric breached \$1T in May of 2024 and has been hovering around that level for most of 2025.

Active addresses have seen even more growth, with a significant ramp up towards the beginning of this year.



Data as of: June 30, 2025

Source: Artemis

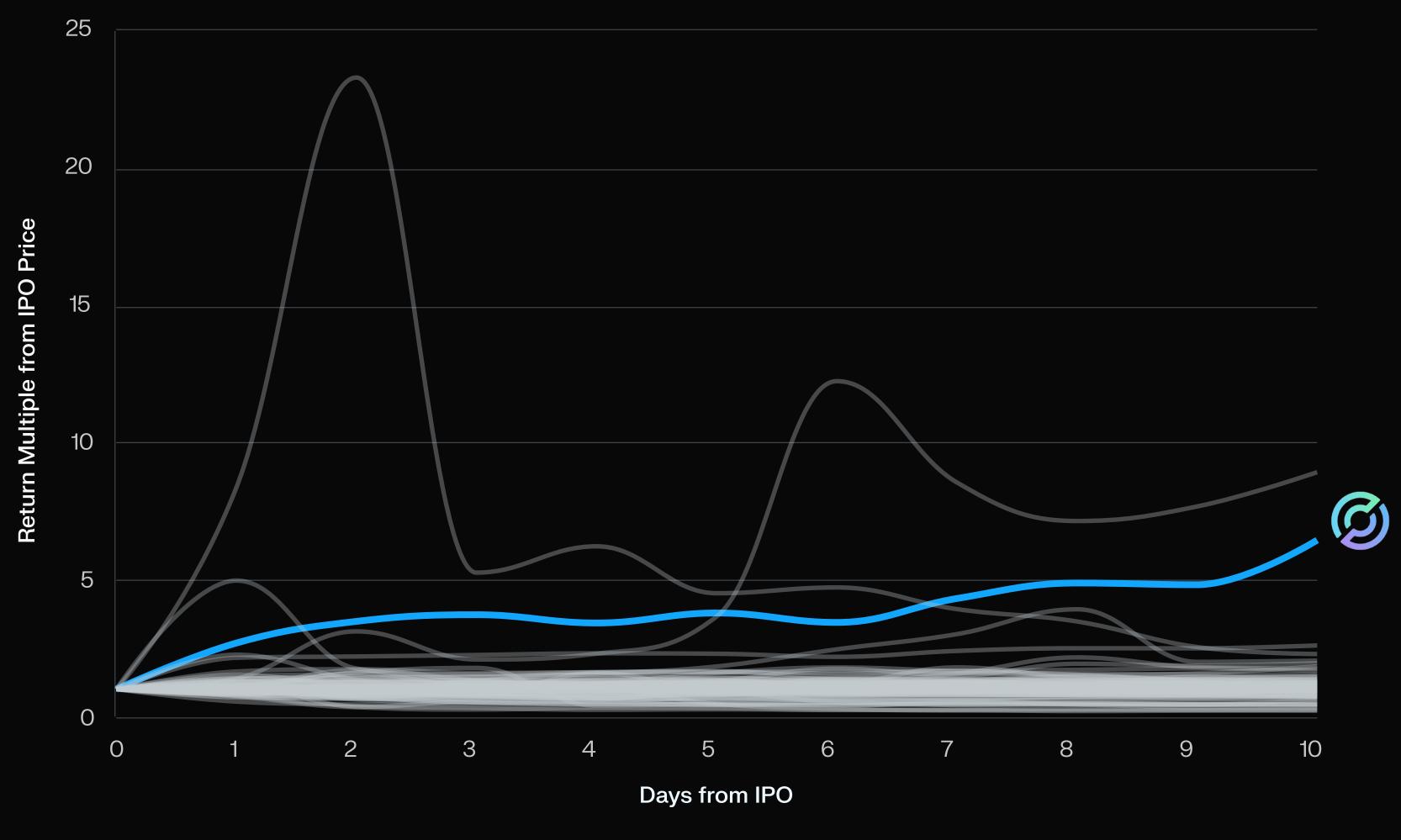


Circle's blistering post-IPO performance reflects heavy demand for stablecoin exposure in equities

CRCL 10-day post-IPO performance vs 2025 IPOs

Out of 93 IPOs in 2025, CRCL had the second highest ten-day performance out of the gate, returning more than 540% from its IPO price of \$31. This was second only to NewsMax (NMAX).

The stock jumped another 33% on the day the GENIUS Bill passed in the Senate. While most token prices suffered in June, crypto proxy stocks like CRCL, HOOD, and COIN have been performing strongly versus the broader market.



Note: Data excludes acquisition companies and companies with fewer than 10 days of trading history

Source: Yahoo Finance



Circle's plan to build the world's largest stablecoin network rests on three pillars

The Circle team says it "is focused on delivering our full-stack financial platform that powers the world's largest stablecoin network - built on trust, programmability, and interoperability. The Circle platform is anchored by our regulated digital assets, global banking and multichain infrastructure, and Circle Payments Network - all working together to transform money movement and enable internetnative finance for frictionless value exchange."

Grow the supply of cornerstone products in regulated dollar stablecoins, euro stablecoins, and tokenized funds







2 Expand core infrastructure across banks, chains, and protocols globally

Institutional on/off-ramps with Circle Mint

Multichain access (Native USDC and Bridged USDC Standard)

Enhancing crosschain capital efficiency with CCTPV2 and Circle Gateway

3 Scale payment orchestration with CPN across multiple use cases

B2B Supplier Payments

Treasury Management Payroll and Mass Disbursements

Remittances

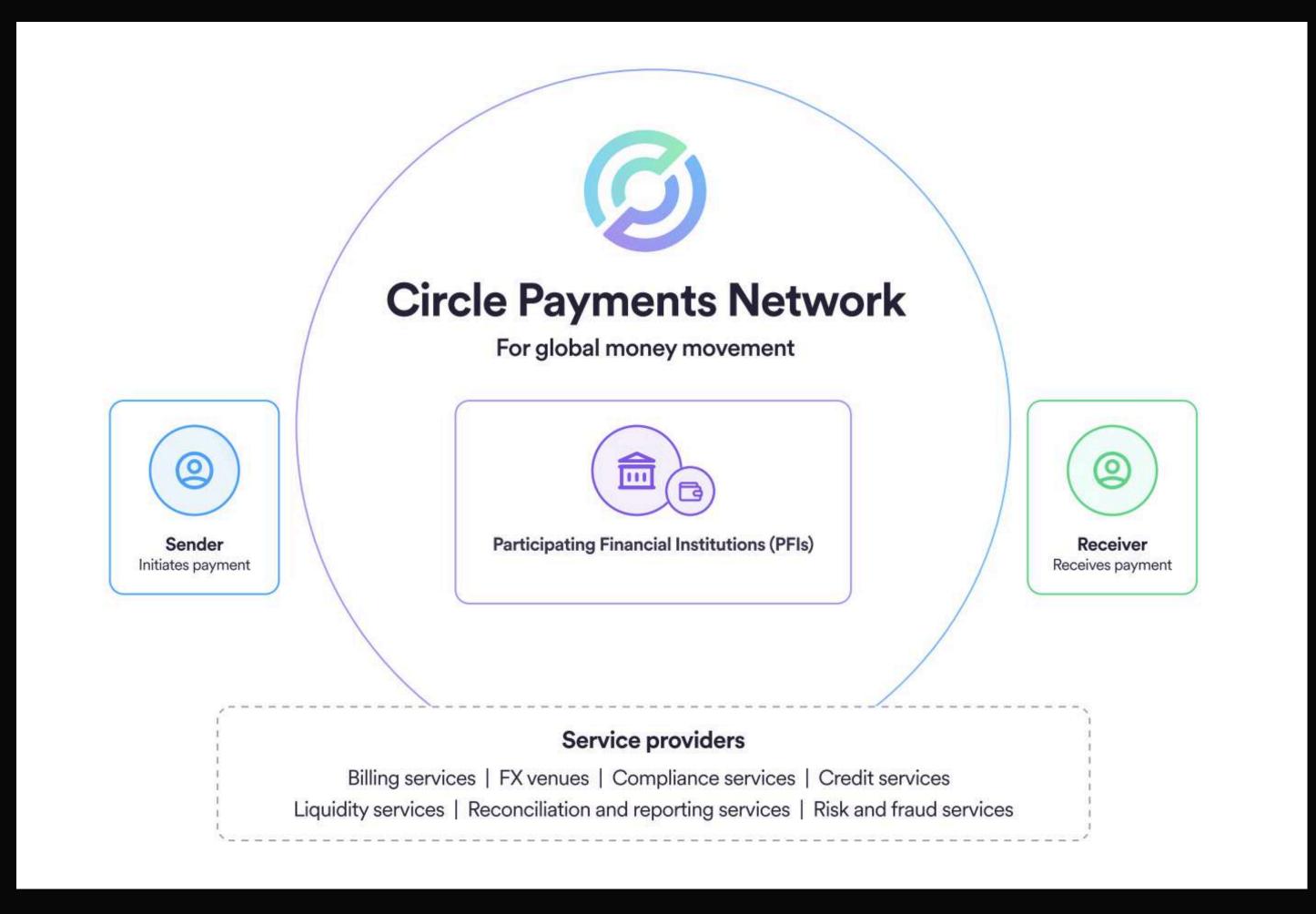
Recurring Enterprise Payments

Through Circle Payments Network, Circle is transitioning from a simple issuer to a payment orchestrator

CPN aims to become a global settlement layer for both retail and B2B payments across borders.

Circle itself will not become a money transmitter, but rather a facilitator & marketplace for money movement between participating financial institutions (PFIs) and their users by:

- Creating global network standards plus credentials for partnering firms.
- Providing the logic for routing payments within a competitive marketplace.
- Maintaining and posting audit trails to transacting PFIs.
- Providing liquidity services through minting and redemption.
- Settling transactions to any supported chain.
- Creating and maintaining the smart contracts, APIs, and SDKs that PFIs use.



CPN White Paper Source: Circle



FX conversions, last-mile payouts, and end-user KYC are left to regulated PFIs in the CPN workflow

Simplified flow diagram for cross-border payment on the CPN

Sender

Sender requests crossborder payment and gets a quote (local currency / USDC) from a BFI through the CPN.

Sender confirms transaction and shares beneficiary details.

Originating FI (OFI)

OFI creates transaction request and sends to CPN.

After approval, OFI requests onchain transaction packet for signing.

OFI signs onchain transaction.

CPN

CPN gets quotes from BFIs.

Sends transaction requests to BFIs for approval and relays decision to OFI.

Creates onchain transaction for signing and then brodcasts it to the blockchain.

Beneficiary FI (BFI)

BFI initially quotes transaction and wins among other BFIs.

BFI later receives USDC onchain from OFI wallet.

Sends local currency to Receiver.

Sends payment confirmation back to CPN to relay to OFI.

Receiver

Receiver gets their local currency through the BFI.

Source: CPN Whitepaper



CPN model aims to compresses the number of intermediaries and layered fees

Comparing hypothetical percentage costs on a \$200 remittance

As we explain later, the World Bank estimates remittance fees worldwide average around 6.3%. Around 4% of this is a transfer fee charged by the initiating bank. Around 2% is a markup charged on FX conversion. But more hidden, and usually excluded from most statistics, are flat fees charged by intermediary or correspondent banks.

Correspondent banks connect banks who do not manage partner accounts with each other across the massive SWIFT network. These banks usually charge a flat fee (anywhere from \$15-30) for assisting with a payment, which greatly raises the cost of a \$200 payment.

CPN seeks to eliminate such intermediary payments. It also hopes to compress FX markups by using a competitive marketplace for conversion. A flat payout fee charged by the beneficiary financial institute, as well as a small network fee could compress total fees down to sub 2% depending on pricing.



Data as of: Q1 2024 Note: Hypothetical CPN pilot fees Source: World Bank, Extravelmoney, Circle

Circle's Future

After USDC hit record highs in market capitalization and Circle's substantial post-IPO performance, the company will likely focus on expanding distribution through CPN partners. Initial active CPN partners open up USDC for payments across multiple corridors:



Alfred Pay covers LatAm and enables stablecoin to fiat off-ramps through PIX (real-time payment system by Central Bank of Brazil) and SPEI (equivalent for Mexico) as a BFI.



Tazapay, also a BFI, covers Hong Kong and thus allows businesses in NA and LatAm to easily settle payments into Asia.



RedotPay will primarily operate as an OFI, initiating USDC payments into Brazil.



Conduit will also act as an OFI, on-ramping fiat into USDC in the U.S. and Europe.

Source: Circle

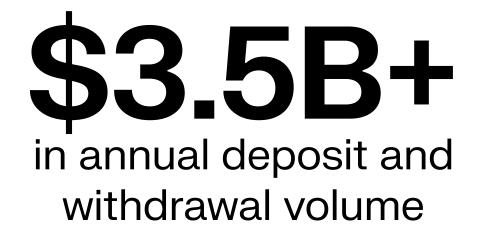
Paxos & Competing Stablecoins

Beyond Tether & Circle, other issuers are competing for wide distribution.

Paxos is a New York-chartered trust company that furnishes regulated blockchain rails for enterprises and issues PayPal USD (PYUSD), Pax Dollar (USDP), Global Dollar (USDG), Lift Dollar (USDL) and gold-backed PAXG under NYDFS, MAS, and ADGM oversight.







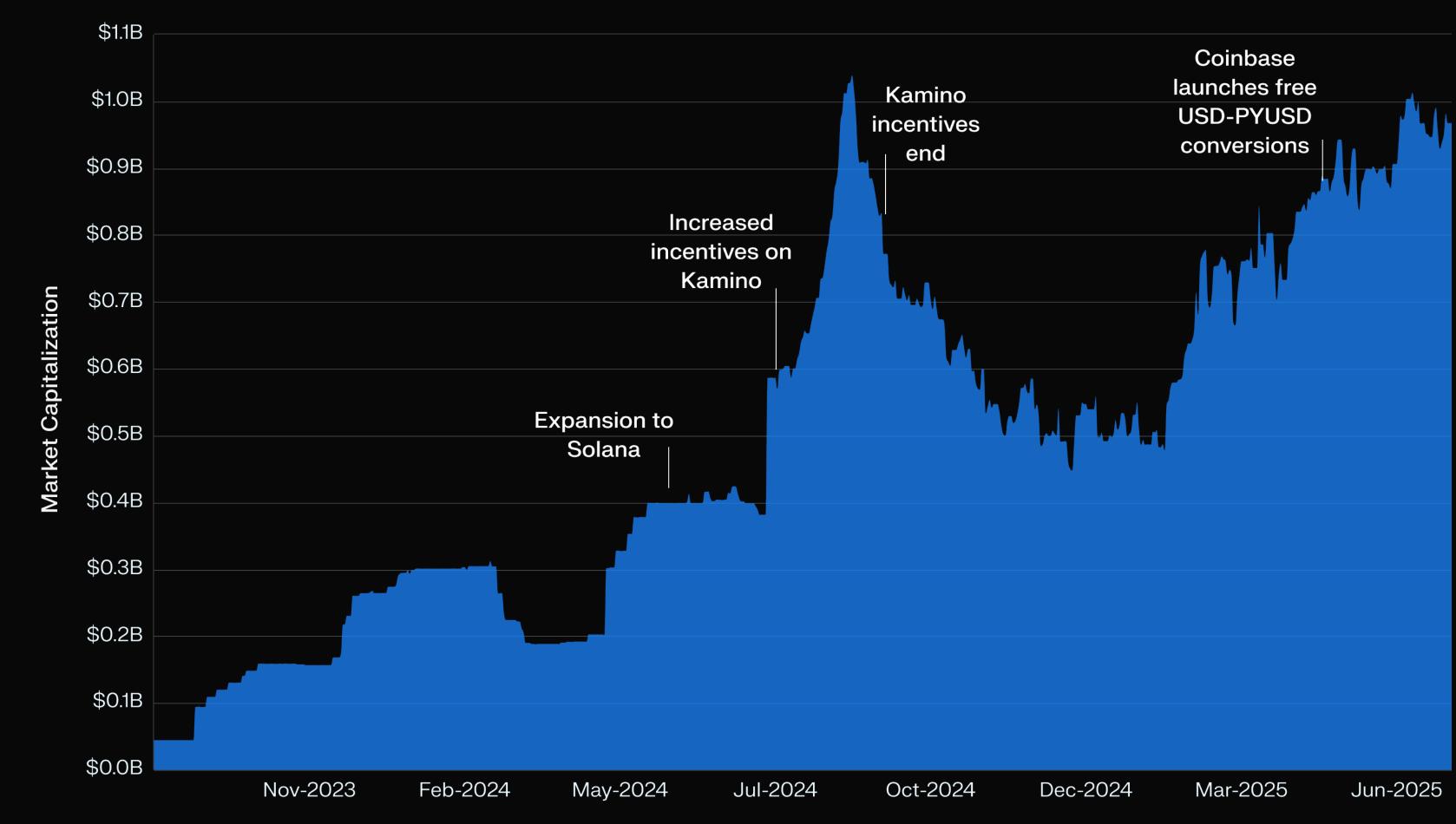
Source: Paxos

Paxos-issued PYUSD has had some success with different distribution strategies

PYUSD market capitalization over time

PayPal USD (PYUSD) expanded to the Solana blockchain on May 29, 2024. This move marked a significant step for PYUSD, as it was initially launched on Ethereum in August 2023. The expansion to Solana led to rapid adoption and integration with various Solana-based DeFi protocols, driving substantial growth in PYUSD's supply and usage on the network.

Paying for increased rewards on Kamino led to a short-lived increase in PYUSD supply, as DeFi farmers sought high double-digit yields on the platform; however, this mostly reversed once incentives dried up. Recently, PayPal partnered with Coinbase for free PYUSD-USD conversions, which may have had a moderate impact on PYUSD adoption. Further distribution and integration with other apps will likely be necessary to scale.



Data as of: June 30, 2025

Source: Messari

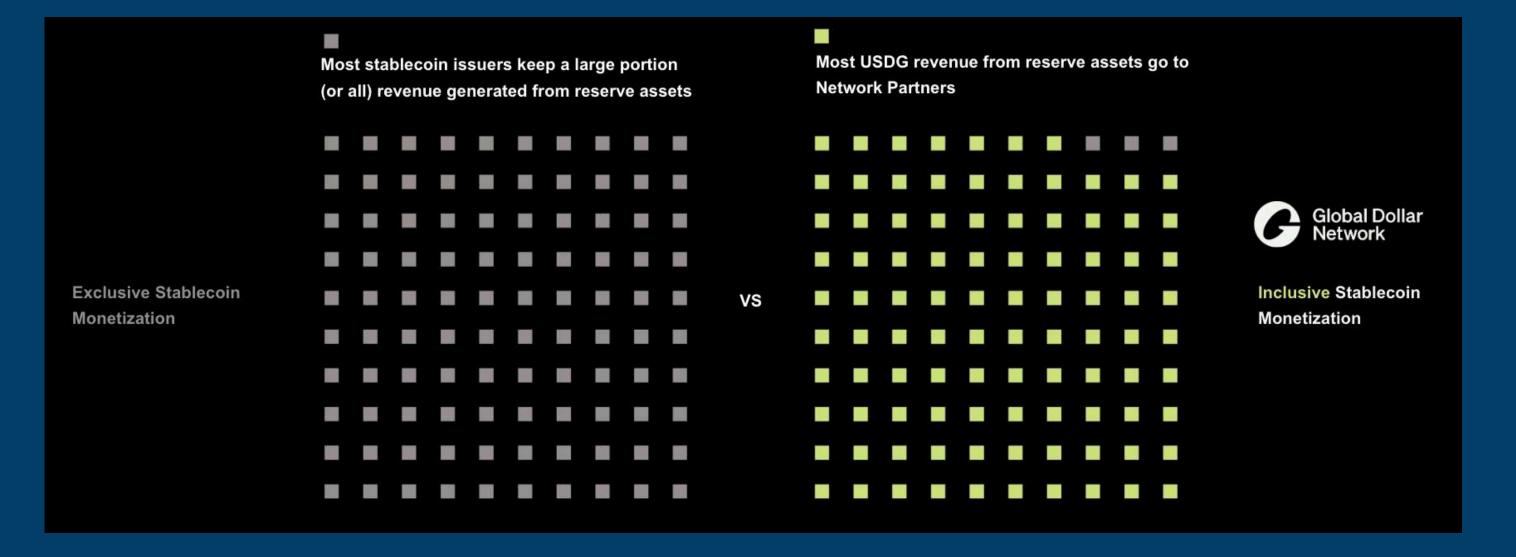


USDG aims to flip the Tether model on its head by paying out most income to network partners

"A more equitable model is needed to continue growing the stablecoin ecosystem"

The USDG Global Dollar Network (GDN) is an open, multi-partner consortium founded in November 2024 by Paxos together with Anchorage Digital, Bullish, Galaxy Digital, Kraken, Nuvei, and Robinhood to promote USD stablecoin use at enterprise scale. At its core is Global Dollar (USDG), a fully-redeemable, 1-for-1 U.S.-dollar-pegged token issued from Singapore and designed to comply with the Monetary Authority of Singapore's stablecoin rules (as well as Europe's MiCA); reserves are held in cash and short-term U.S. Treasuries with DBS Bank as primary custodian. The network's differentiator is an income-sharing model that returns about 97% of reserve interest to participating exchanges, custodians, fintechs, and merchants.

USDG powers rewards for Kraken+ users as well those on Kamino.



Source: USDG



More than 40 companies have joined the GDN, supporting USDG's adoption

USDG is now among the top 10 global stablecoins since its launch in November 2024

Global Dollar Network partners actively participate in growing USDG's ecosystem, and are incentivized to use USDG to increase its scale and liquidity.

Each partner enables use cases that are true to their business model. For example, Toku is a platform that enables compliant, cross-border payroll (following tax withholdings and local laws across many jurisdictions). Toku recently partnered with Rain, a card-issuing and payments platform for stablecoins, to streamline their onchain infrastructure. Both companies expand USDG's distribution across their respective use cases in payroll and card payments, while the companies benefit from stablecoin rewards for participating in the network.

Other partners are focused on retail adoption, or building use cases such as remittances, decentralized finance, and more.



Source: Anchorage Digital

Other competitors may differ slightly in their distribution strategy versus Circle & Tether

Highlighting some other larger fiat-backed competitors



Agora follows a strategy similar to USDG's, where yield on the underlying collateral is paid out to ecosystem partners, such as exchanges and apps that list AUSD or support liquidity across venues.

Agora's "Instant Liquidity" provides seamless + free minting of AUSD against USDC & USDT.

While still somewhat small, AUSD is already available across 50 networks as it seeks maximal distribution.

F FDUSD

FDUSD is a HK-issued fiat-backed stablecoin launched in 2023, primarily to replace BUSD post shutdownorder.

Binance specifically promotes FDUSD as a quote asset for majors like BTC and ETH with zero maker fees.

For Binance, this restored a native USD liquidity hub without the regulatory overhang + benefits from yieldsharing.

FDUSD recently depegged on April 2nd after TRON's Justin Sun alleged their issuer was insolvent.



Ethena's USDtb is primarily backed by BlackRock's BUIDL along with a reserve fund.

Holders have no rights against any income generated by collateralbacking, but Ethena subsidises gas, redemptions, and ecosystem incentives.

Ethena has experimented with various incentive mechanisms with CEXs like Bybit, where users can use their USDtb as margin collateral and receive a 6% APY.



(\$) Usual USDO

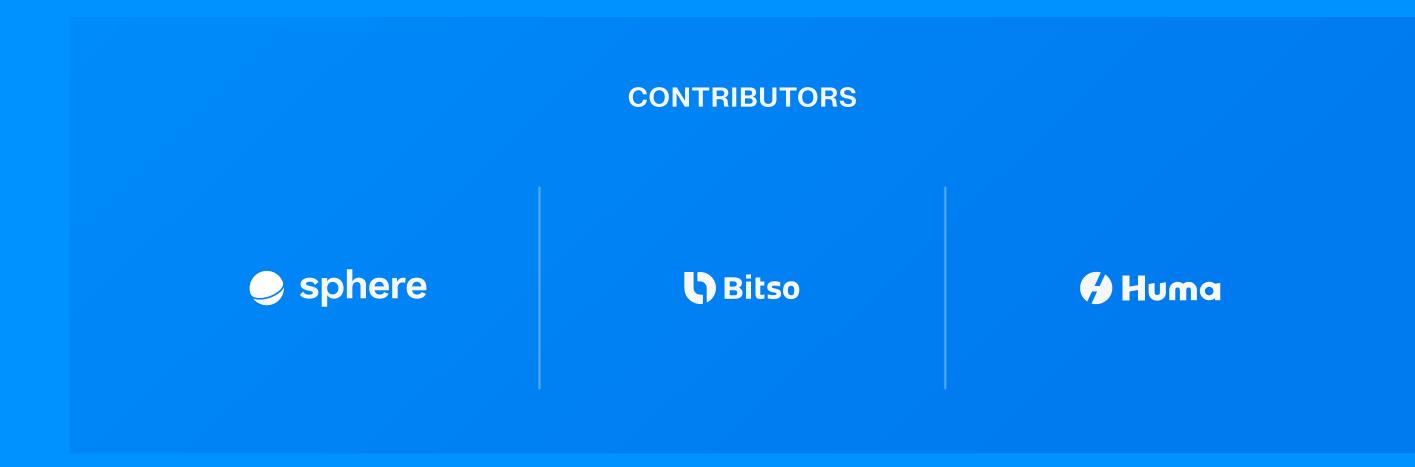
USDO claimed 1-for-1 Tbill backing while USD0+ + staked the same collateral for extra yield (future USUAL tokens), blurring the line between cash and speculative savings.

On Jan 2025, governance required holders to forfeit accrued rewards or accept a sub-par exit price, shattering the 1:1 promise and triggering a mass sell-off.

Liquidity and market cap have since dried up, showing how mutable terms and opaque yield can topple an otherwise fully-collateralized stablecoin.

July 22, 2025

Cross-border Payments



July 22, 2025

Traditional cross-border payments are still too expensive

Change in costs of various categories from 2023 to 2024

The Financial Stability Board is an international standard-setting and coordination body meant to guide regulation and give recommendations for improving the global financial system. According to the FSB, no key performance indicators for global payments actually improved from 2023 to 2024.

The FSB currently has a goal of reducing the global average cost of payments to 1% by 2027. Based on their retail dataset (which includes API calls, mystery shopping, and other methods to test cost and speed), no use case met the cost target of 1%.

Payment Category	2023	2024	Change
Average cost of B2B cross-border payment	1.5%	1.6%	+0.1%
Average cost of B2P cross-border payment	1.7%	2.0%	+0.3%
Average cost of P2B cross-border payment	2.0%	2.0%	+0.0%
Average cost of P2P cross-border payment (non-remittance)	2.5%	2.6%	+0.1%
Percentage of corridors with costs higher than 3%	23.7%	24.1%	+0.4%

Source: Financial Stability Board



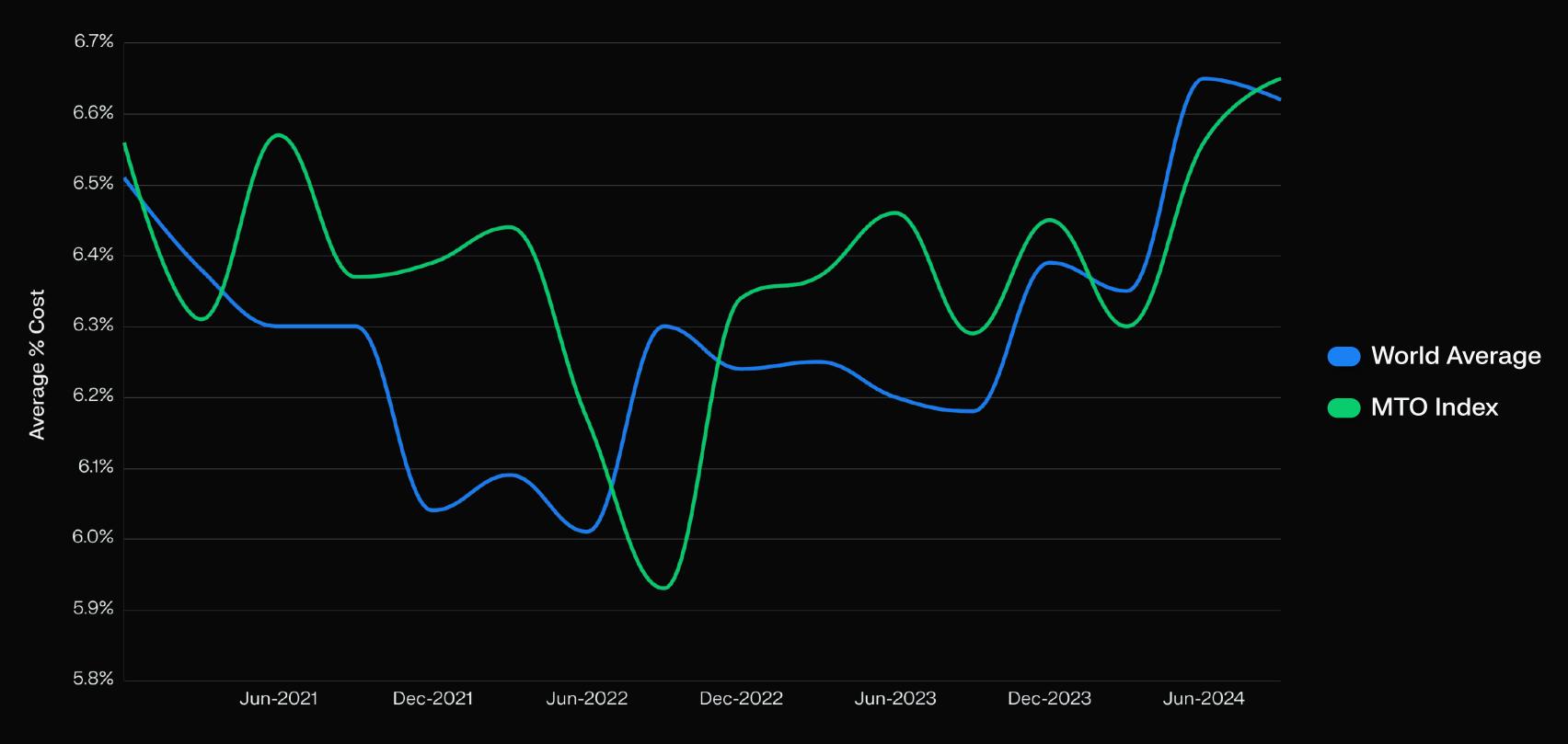
Similarly, remittance payment fees remain stubbornly high

Average % cost to send a \$200 remittance

Remittances are usually small-value, person-toperson flows. They are most often wages sent by migrants to family in another country and are a subset of cross-border payments.

The World Bank tracks the average percentage cost to send a \$200 remittance, which has hovered around 6% to 6.5% for the past few years. The Money Transfer Operator (MTO) Index is a pricing benchmark based on a global sample of dedicated remittance providers. It offers a more focused view of fees charged by money transfer operators, excluding banks and mobile-money services. The MTO Index is a subset of the broader Global Average, which includes those additional provider types.

Banks typically charge the most aggressive explicit transfer fees + mark-ups, while mobilemoney services charge the lowest.



Source: World Bank

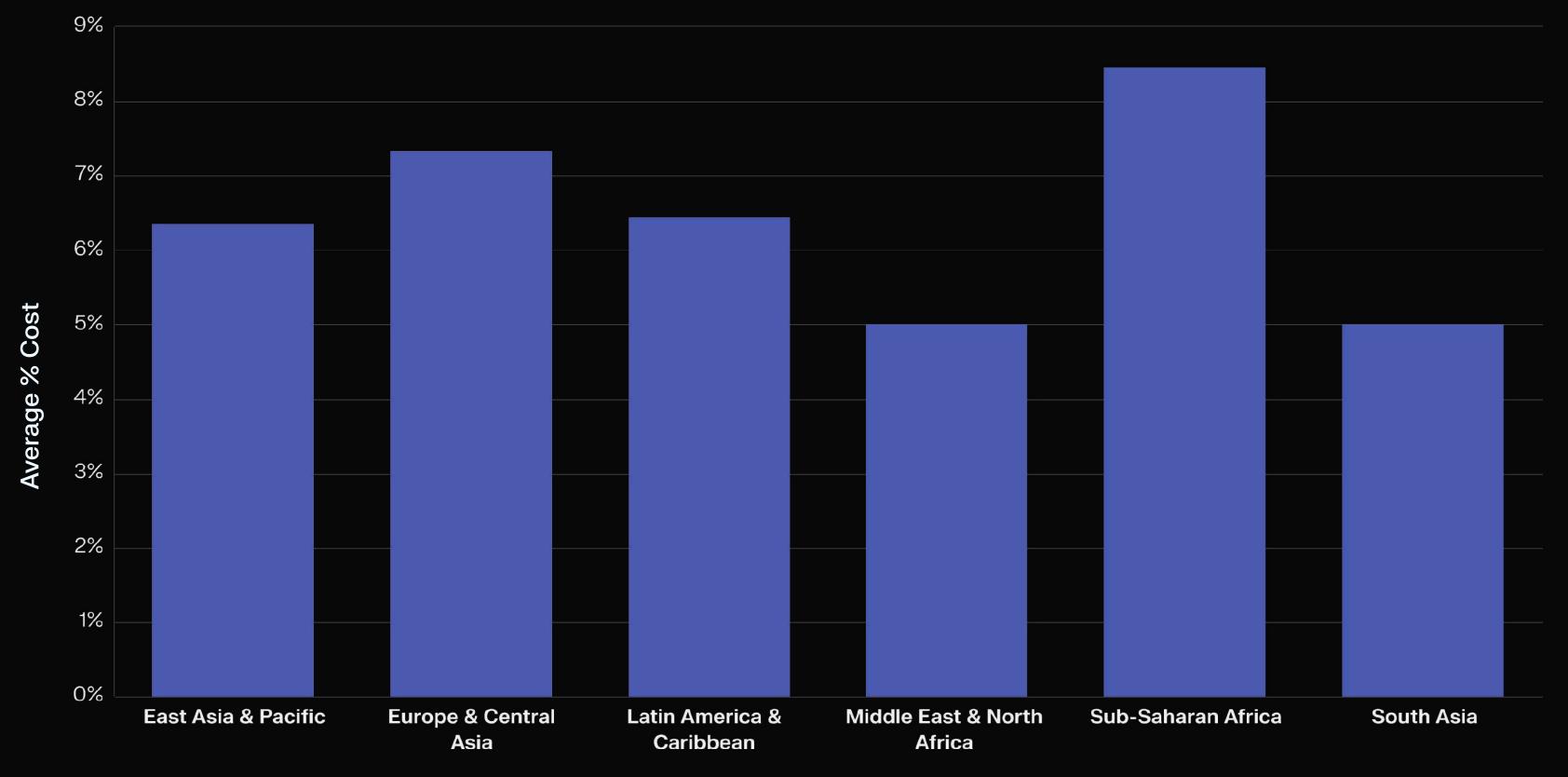


Costs for a remittance can also vary widely by geographical region

Average % cost of remittances by region

Sub-Saharan Africa has generally been the most expensive region for remittances, and thus has the most to gain from the adoption of both stablecoins and digital money services more generally.

Versus 2023, Sub-Saharan Africa saw the biggest increase in this average cost (+1.06%), while the biggest decrease (-0.68%) occurred in the Latin America & Caribbean region.



Source: World Bank



Besides excessive cost, cross-border payments are often slow

Change in settlement time metrics from 2023 to 2024

Across a broad sample of payment service providers, the FSB found a small deterioration in the speed of cross-border payments across the one hour and one day intervals. While this may be partly due to sample composition changes, we note that payment speeds are very far from the FSB's goal of having 75% of cross-border retail payments credit recipients within one hour.

The near-instant finality of stablecoin transfers becomes increasingly attractive considering some region-to-region transfers take multiple days to settle.

Speed Category	2023	2024	Change
Percentage of cross-border retail payments services that credit recipients within one hour of initiation	34.2%	33.5%	-0.7%
Percentage of cross-border retail payments services that credit recipients within one business day of initiation	74%	69%	-5.0%

Source: Financial Stability Board

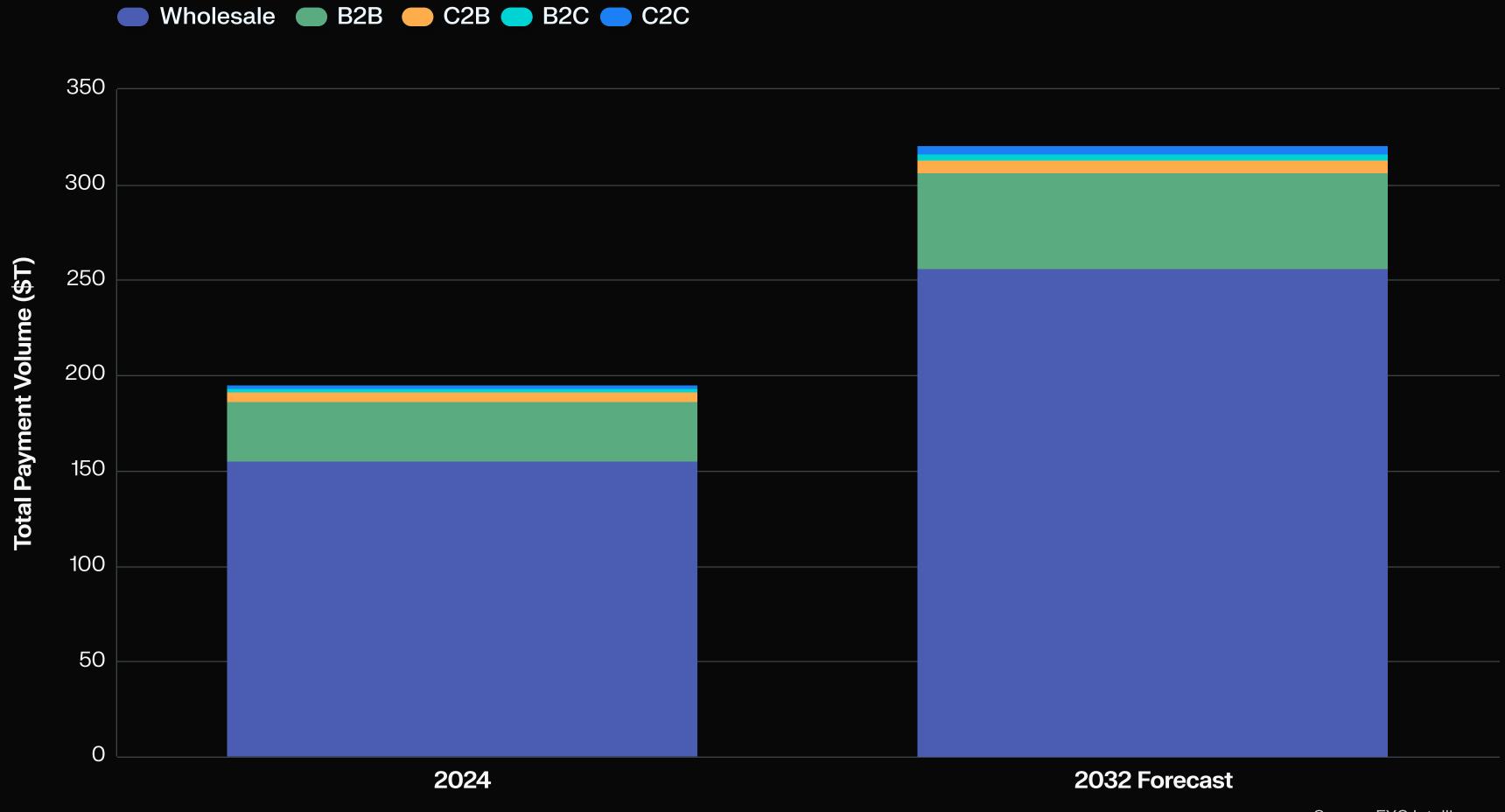


Despite inefficiencies, cross-border payment flows are expected to grow to more than \$320T by 2032

Market sizing and forecast across payment categories

Cross-border payment flows are massive. While dominated by wholesale or interbank flows (for liquidity management, FX trades & hedges, securities settlement, etc.), non-wholesale payment flows are estimated to be growing at a 6.2% CAGR over the next eight years.

While relatively small at \$1.9T, B2C crossborder payments is the fastest growing segment, expected to grow at a 11.1% CAGR. This growth is likely due the steady expansion of the gig economy, especially for payouts to creators on social media platforms.



Source: FXC Intelligence



CBP companies overview

Many companies are making strides in tackling the speed & cost inefficiencies within the cross-border payment market using stablecoins:



















Conduit

Conduit is reshaping cross-border payment and global payout flows. By connecting local payment rails, banks, and crypto rails, Conduit is accelerating settlement times, expanding dollar access, and reducing friction for businesses with global partners and employees.

In June 2025, the firm closed a \$36 million Series A led by Dragonfly Capital, bringing total funding to \$53 million and helping it grow to over 5,000 merchant and platform clients who now push more than \$10 billion in annual volume through its APIs. Instead of charging separate FX and processing fees, Conduit bundles both into a single, transparent rate and captures revenue from a slim FX spread, while its stablecoin rails settle transactions in minutes.

16X transaction volumes from 2023 to 2024

\$55N+
in client fees saved
versus traditional
methods

2500 days in settlement time saved across clients

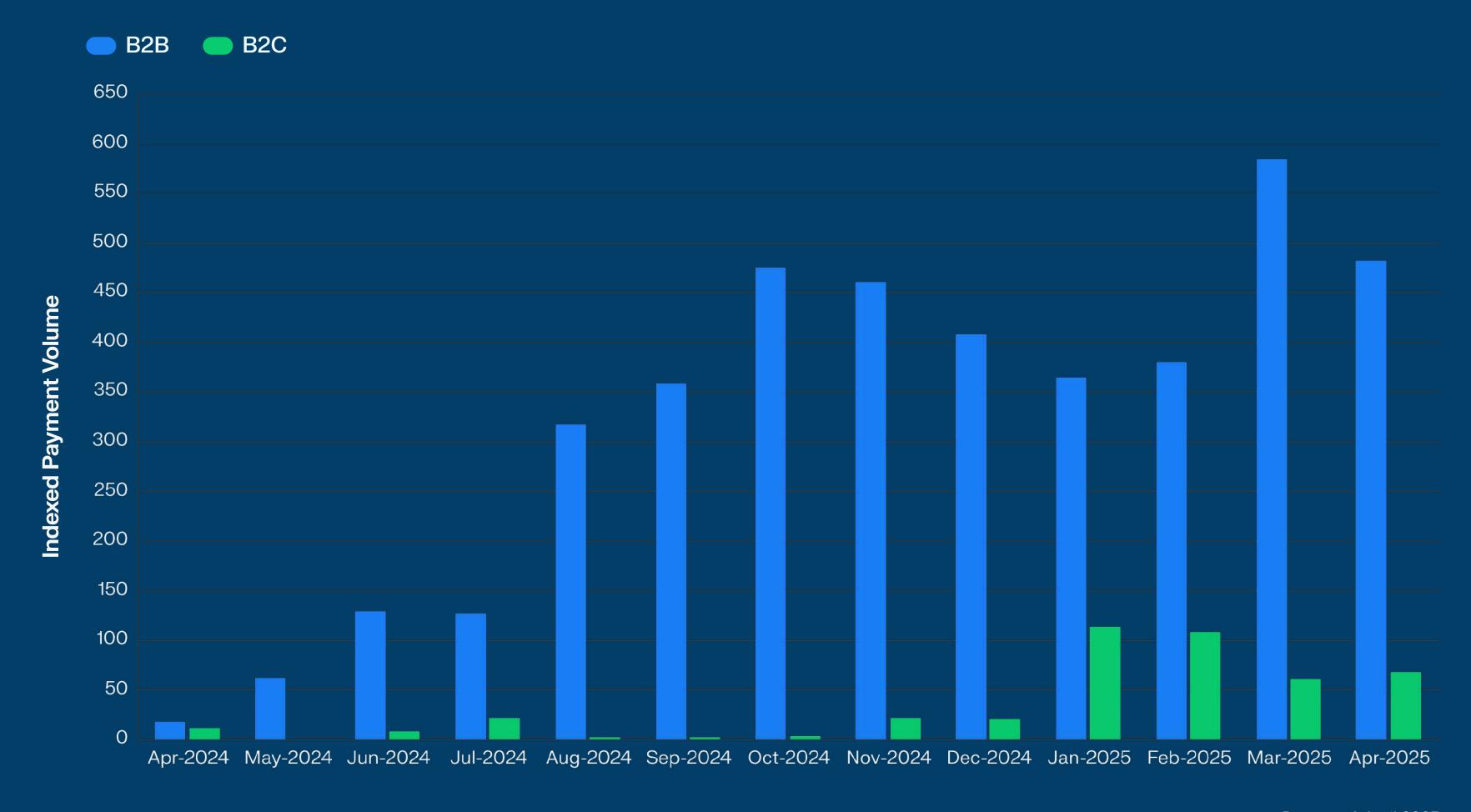
Source: Condui-

Sphere Labs internal volume data also confirms growing enterprise adoption within payments

Growth of total volumes for B2B vs. B2C flows (indexed)*

Sphere Labs is a payments-infrastructure startup that lets fintechs, marketplaces, and merchants move money across borders by providing a "stablecoin sandwich" flow: a payer's local currency is auto-swapped into a USD-pegged stablecoin, transmitted in seconds over public chains, and redeemed into the beneficiary's local currency. This process skips the expensive correspondent bank FX leg.

Sphere believes too much weight has been placed on the P2P and speculative use cases for stablecoins, while actual traction with enterprises is the real story hiding in plain sight.



Data as of: April 2025 Source: Sphere Labs

^{*}Note: Volumes are indexed from April 2024 to showcase growth



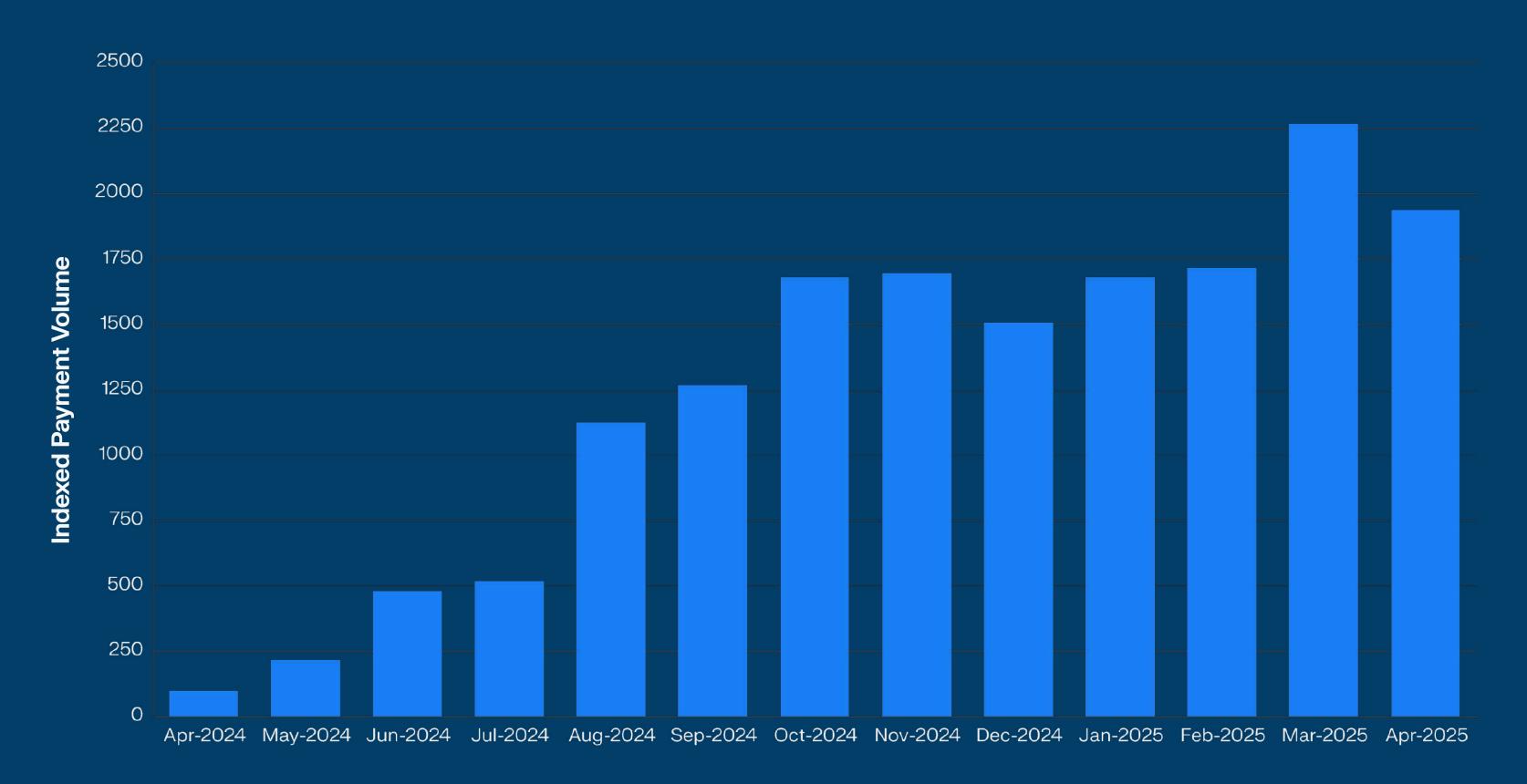
Real value in stablecoin payments is likely in the long-tail where legacy rails never worked or are still too difficult & expensive to access

Growth of total volumes for long-tail markets (BR, MX, CO, AR, CL currencies, indexed)*

Sphere Labs has experienced 20x year-over-year growth in long-tail market payment volume. The company has focused on these underserved and high-inflation markets (e-commerce sellers, payroll platforms and gig-economy apps in Mexico, Brazil, Colombia, and Argentina) where instant, dollar-denominated settlement lowers FX spreads and chargeback risk.

The firm says, "We're focused on building partnerships with regulators in non-G10 markets, where demand for modern payment infrastructure is high and governments are turning to crypto-native firms to help deliver it."

Sphere raised a \$5 million seed round in December 2024 from investors, including Coinbase and Kraken Ventures, to scale these cross-border stablecoin rails.



Data as of: April 2025
Source: Sphere Labs



^{*}Note: Volumes are indexed from April 2024 to showcase growth

Companies like BVNK provide licensed infrastructure for payment service providers & other fintechs to easily launch stablecoin products or accept stablecoin payments

BVNK holds VASP, EMI, and money-transmitter licenses across the U.S., U.K., and E.U., with more than 25 additional licenses pending.

The company has more than 10 global banking partners that allow it to bridge crypto and traditional rails for its clients.

It provides a single API that gives businesses access to EUR/GBP/USD virtual accounts, stablecoin wallets, and built-in FX + crypto conversion.

dLocal, a payment service provider for EM treasury management, recently partnered to use BVNK infrastructure to enable its global merchants to fund CBPs using stablecoins instead of wire transfers.

BVNK will in turn tap into dLocal's local fiat payout network across LatAm, EMEA, and APAC for easier stablecoin-to-fiat conversions in those regions.

\$12B+
in payments processed

O.1S average API response time

8X potential savings versus using SWIFT

Source: BVNK

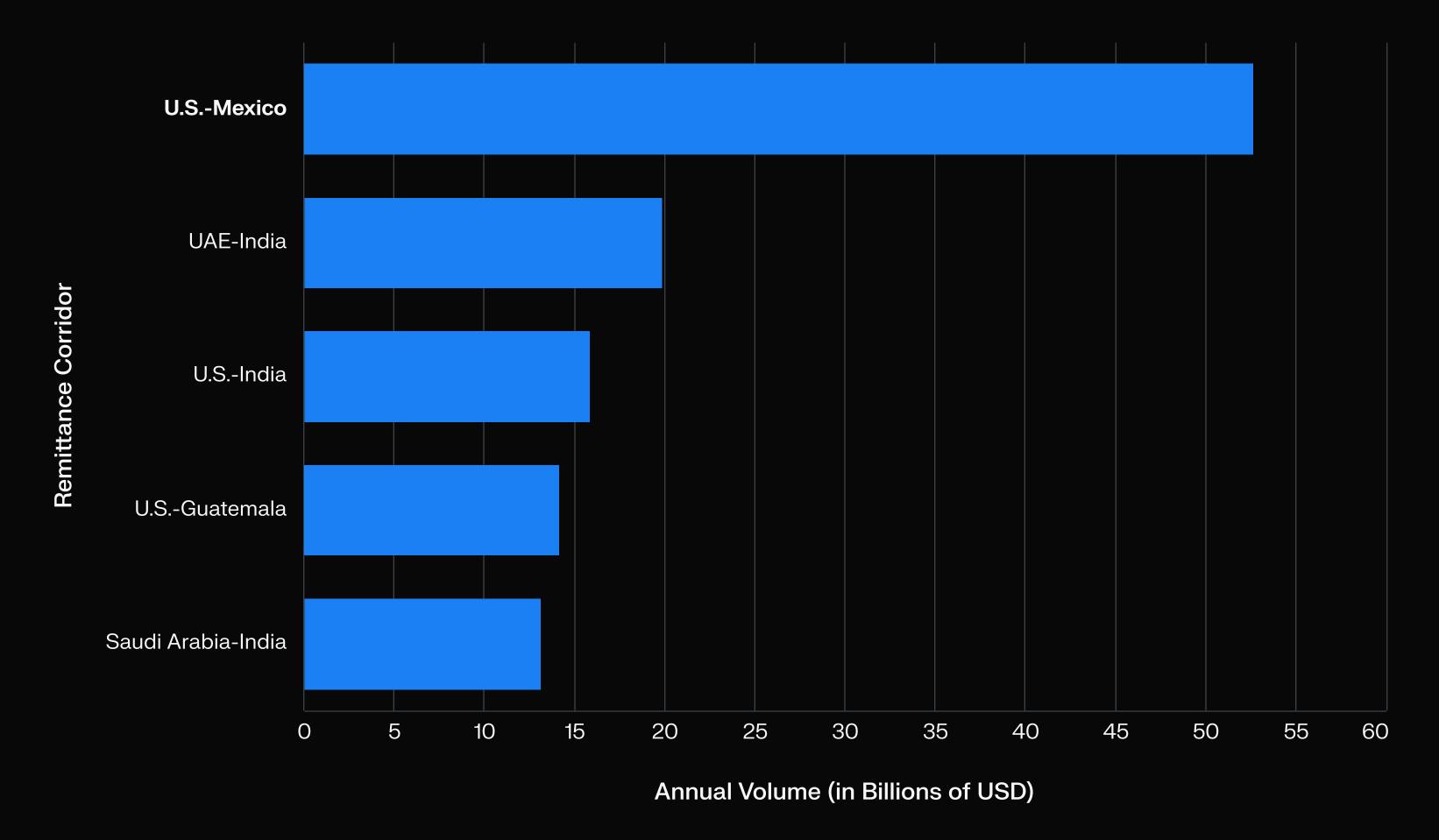


On the remittance front, volumes are highest across the U.S. to Mexico corridor

Annual payment volume from sender country to receiving country

More than \$50 billion is sent from the U.S. to Mexico each year (as of 2021). Remittance flow data across all corridors is difficult to acquire, but according to Banxico, the U.S.-Mexico flow has grown to more than \$64 billion. This represents around 4% of Mexico's GDP.

Bitso Business, the development unit of LatAm crypto exchange Bitso, recently helped facilitate over 10% of the remittances in this corridor, which has been the largest in the world. Workers in the U.S. are using crypto and stablecoins to send money back to their families in Mexico.



Data as of: 2021

Source: KNOMAD, Banxico, Bitso Business



Bitso Business is focused on enabling global companies to expand operations into LatAm by streamlining cross-border payments for businesses through stablecoins

Bitso Business offers solutions leveraging stablecoins and other digital assets to enable faster, more transparent, and cost-effective CBPs for businesses of all sizes.

Companies can streamline international transactions, manage multicurrency operations, and reduce fees associated with conventional banking systems.

Bitso Business offers robust APIs enabling seamless integration of crypto-powered payments into existing workflows.

Innovation within Bitso Business, such as the development of fiat-backed stablecoins like MXNB (a Mexico stablecoin issued by subsidiary Juno) exemplifies the company's commitment to providing tailored solutions for specific regional needs like efficient on & off-ramps for local currencies.

Stablecoin adoption & remittance costs in Latin America Stablecoin sdoption Remittance inflows Average remittance Country (% of small transactions) (2023, USD) fee (%) Venezuela 47% \$2.8 billion 6% High Argentina \$1.2 billion 6% Growing \$61 billion 5% Mexico \$4.6 billion 7% Brazil Moderate \$9.4 billion 5% Colombia Increasing

Source: Bitso Business

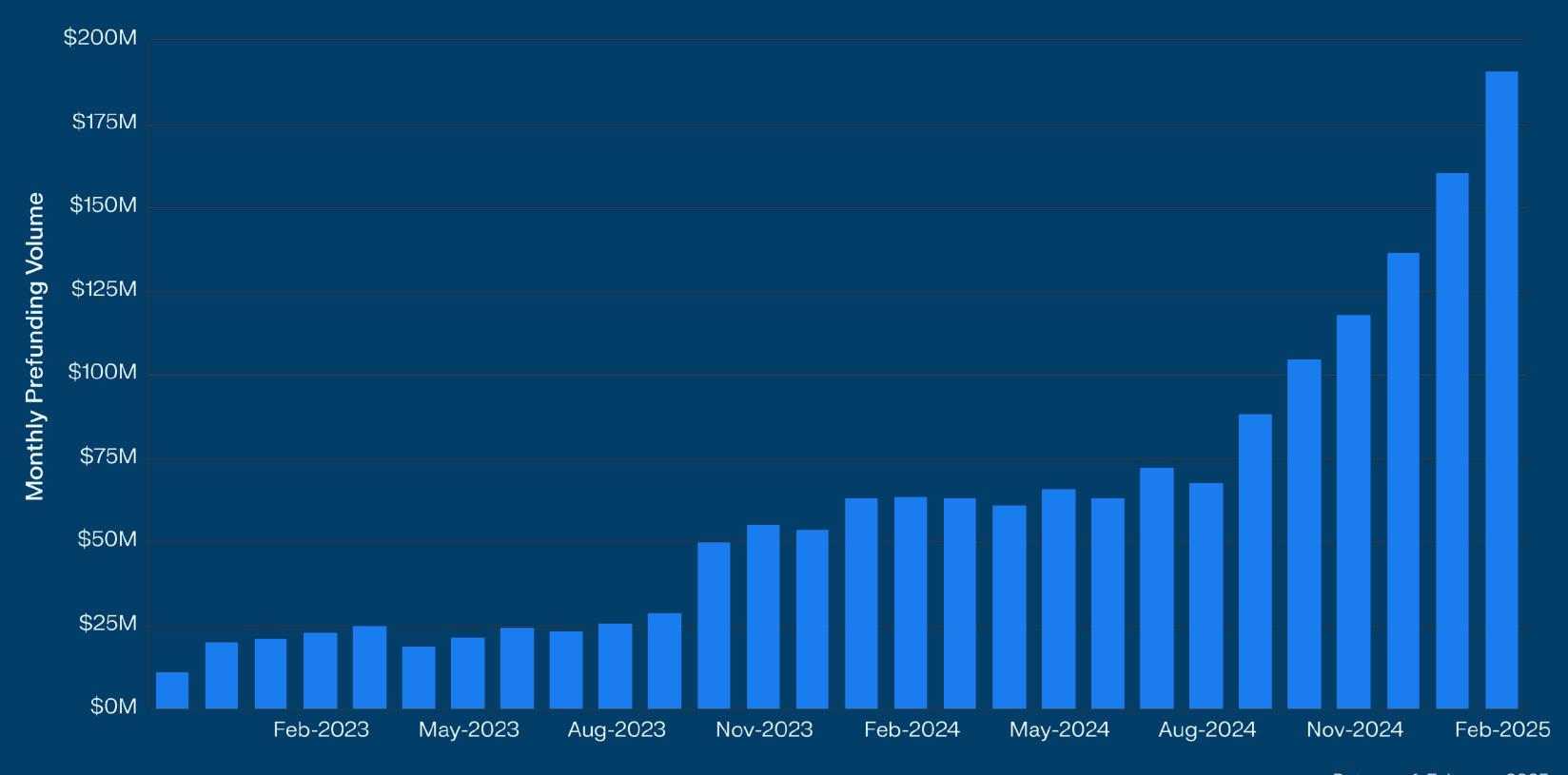


Platforms like Huma (through Arf) enable prefunded cross-border payments and supplier payouts

Monthly stablecoin prefunding volumes

"Prefunding" means a sending bank (or its payment processor) parks its own money in a nostro account held at a correspondent in the destination country before any customer transaction occurs. When a cross-border payment instruction arrives, the correspondent simply debits that parked balance and credits the beneficiary. Final settlement happens later between the two banks' ledgers. Banks do this because ACH & wire rails settle only at fixed cutoff times and FX legs can take days. Having cash on hand lets the correspondent pay out instantly while taking zero credit risk. The downside is working capital gets immobilized.

Huma (through Arf) provides on-demand liquidity using stablecoins, replacing the need for fiat prefunding. Because the stablecoin liquidity sits on a public blockchain, it can be re-allocated or withdrawn in minutes and is visible to every counter-party.



Data as of: February 2025

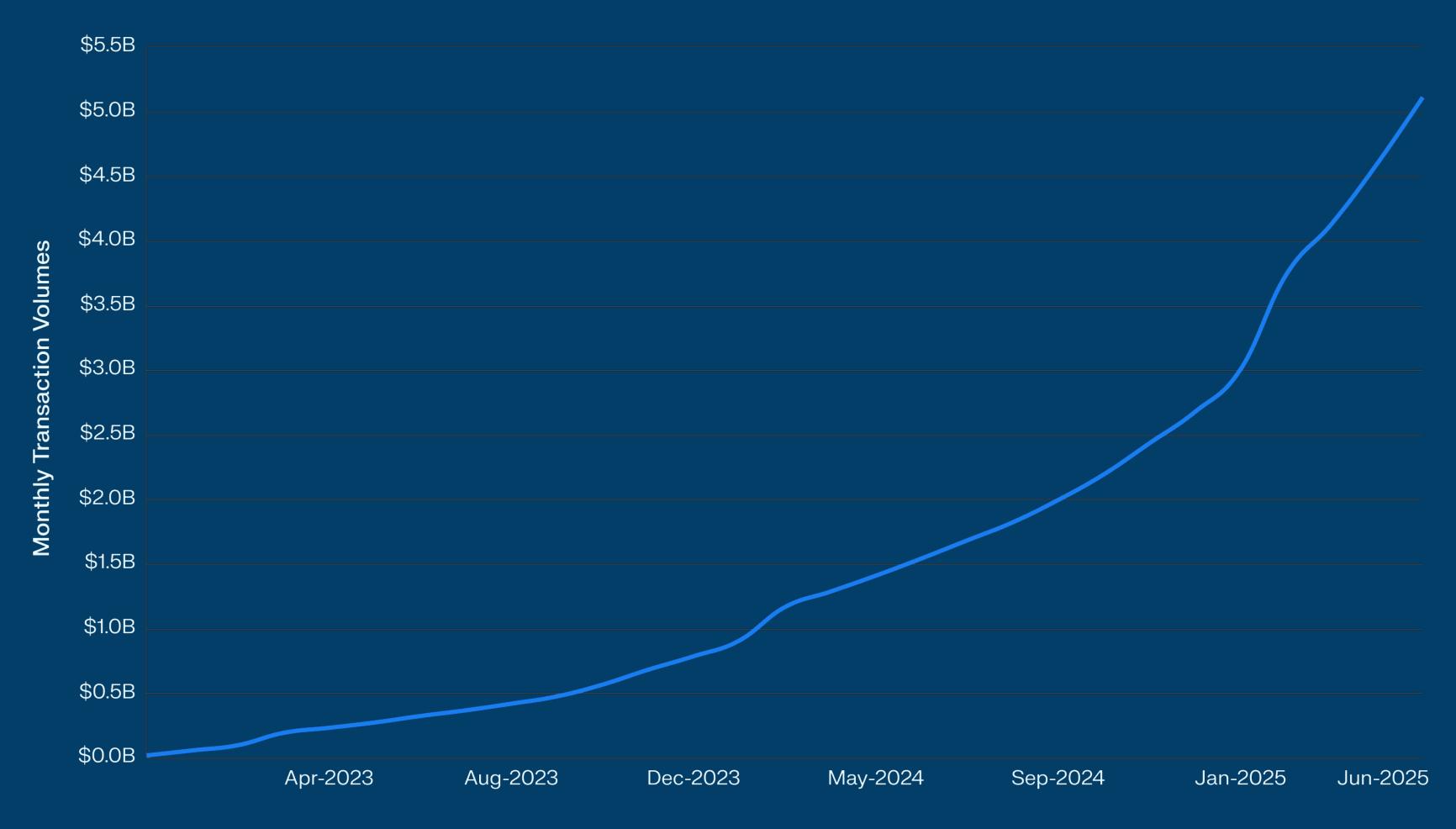
Source: Artemis, Huma

Huma is targeting \$10B in transaction volumes by the end of 2025

Total transaction volume over time

Since rolling out its "PayFi" liquidity network two years ago, Huma Finance has scaled from zero to more than \$5 billion in cumulative origination-plus-repayment volume. It crossed the \$5 billion mark in June 2025, with growth accelerating after the launch of "Huma 2.0" on Solana. The ramp has been steep: after merging with cross-border liquidity provider Arf and expanding to Solana in late 2024, Huma processed around \$2 billion of flow in 2024 with zero credit defaults, and has been adding roughly \$500 million per month in 2025.

On this growth trajectory, the protocol says it is "on track" to hit \$10 billion in total transaction volume by year-end 2025. Investors have reinforced this target with a \$38 million funding round led by Distributed Global last year.



Data as of: June 30, 2025 Source: Dune (@huma-finance), Huma

Payments & E-commerce



July 22, 2025

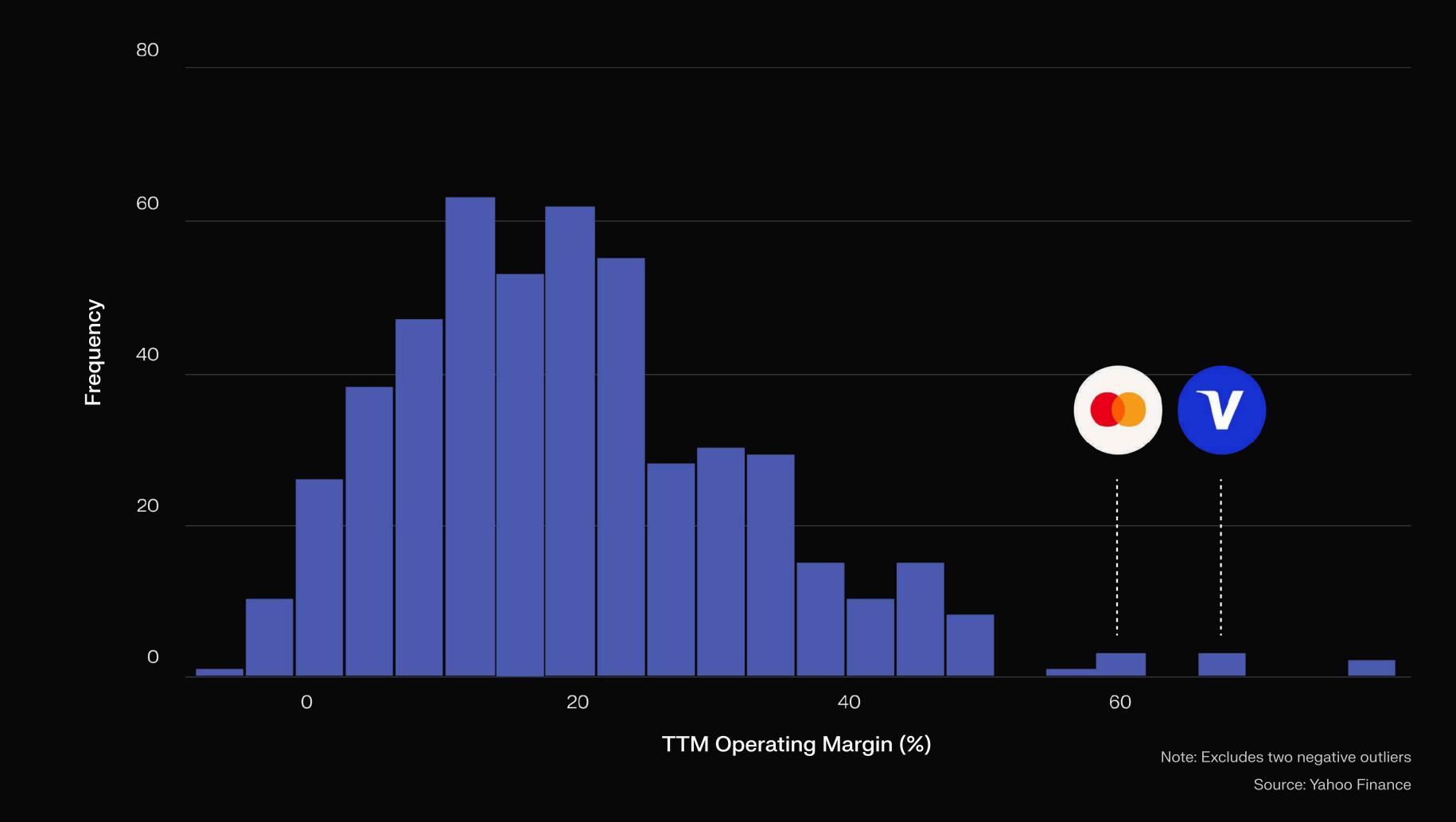
"Your margin is my opportunity"

TTM operating margin distribution of S&P 500 companies

Card payment networks have been very profitable historically, with trailing twelvementh operating margins fluctuating between 55-70%. This is top decile profitability among S&P 500 companies.

Part of the opportunity for stablecoins is to eat into these excess margins that have been maintained for years through strong network effects.

Of course, both Mastercard and Visa are now closely involved in their own stablecoin initiatives. Stripe itself is tapping into Visa's merchant network to issue stablecoin-backed virtual cards. Meanwhile, Mastercard is working with Circle so that merchants can receive USDC regardless of how customers choose to pay.





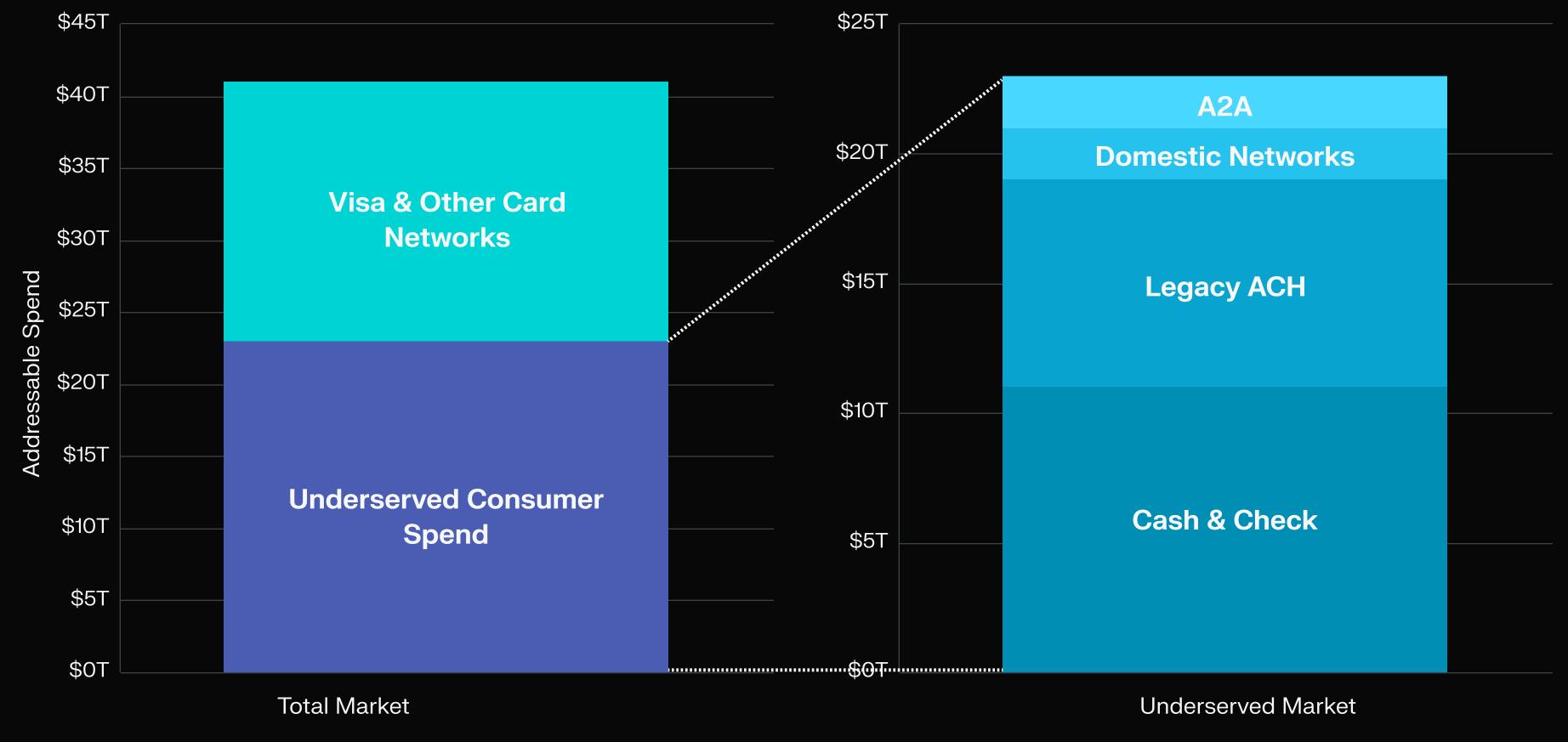
Potential stablecoin consumer spend TAM could be as large as \$41T

Sizing market segments in trillions of dollars of spend each year

Visa estimates the total addressable consumer payment market to be at least \$41T. Around \$18T of that is already served by Visa and other card networks.

There is another \$23T of annual spend through other mediums that could be met. This includes nearly \$11T of cash & check spend, \$8T in ACH payments, and \$2T each of account-to-account & local debit card payments.

Cards remain attractive thanks to embedded credit, global reach, strong buyer protection, and rich loyalty economics. Stablecoins will ultimately compete on cost (no 1.5-3% interchange fee), global accessibility, and near-instant settlement.



Data as of: 2023

Note: Excludes China & Russia markets

Source: Visa



The use of crypto & stablecoins for payments among small and medium businesses is rapidly expanding Survey results from Coinbase's State of Crypto Report

Among Fortune 500 companies surveyed by GLG Research, Payments & Settlement was the top type of onchain initiative in progress. 89% of U.S.-based SMBs saw at least one benefit in using stablecoins.

% of SMBs	2024	2025	Change
Currently use crypto in their business	17%	34%	+17%
Currently use stablecoins in their business	8%	18%	+10%
Have paid or accepted a payment in cryptocurrency	16%	32%	+16%

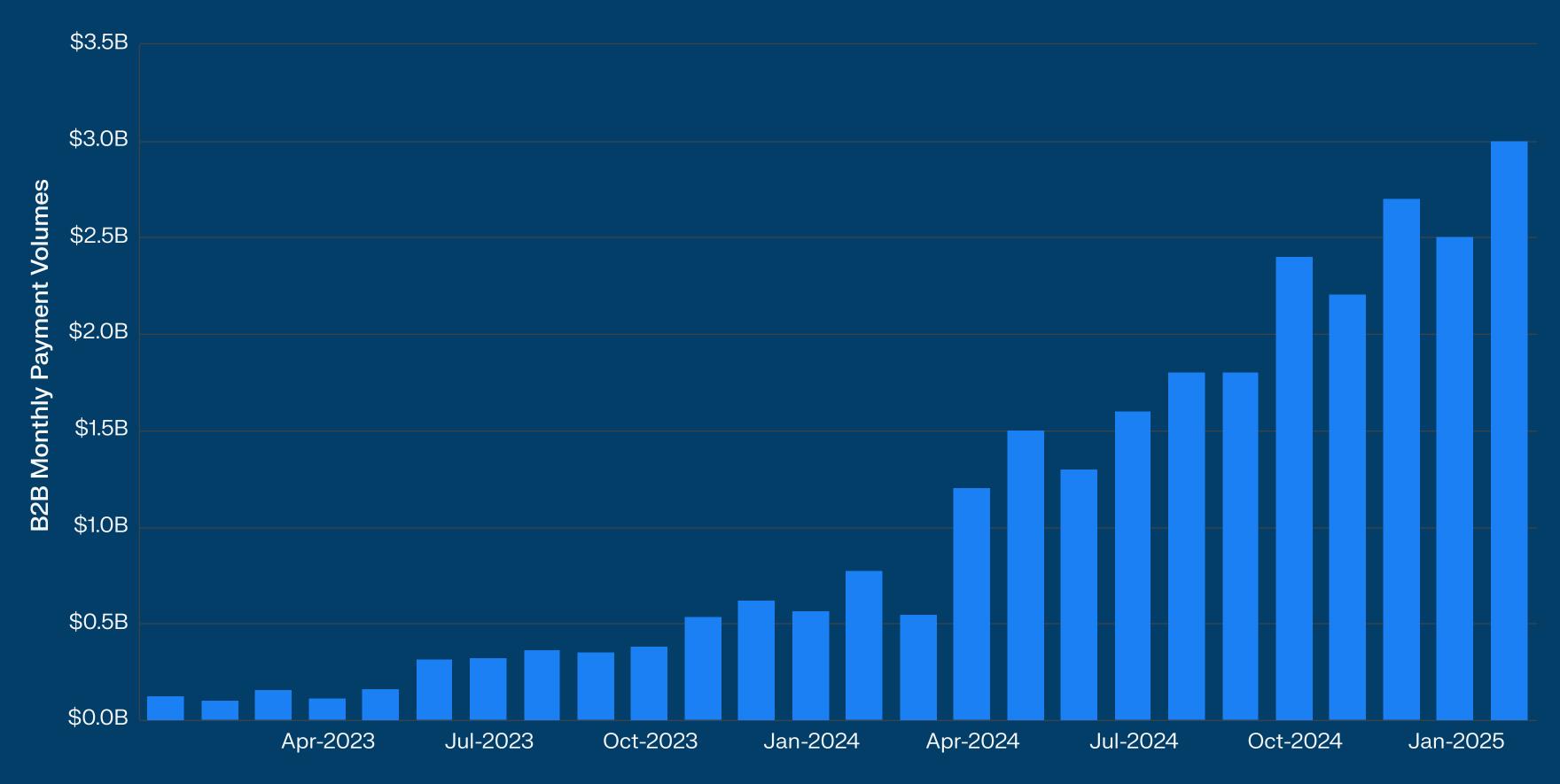
Source: Coinbase, NRG Research

The rapid growth of B2B payments using stablecoins shows real-world usage by SMBs in EMs

B2B stablecoin payment volumes from surveyed firms

B2B stablecoin volumes have grown from under \$100 million in monthly volume at the start of 2023 to over \$3 billion by 2025, representing ~30x growth and over \$36 billion in run-rate volumes due to better UX and lower costs.

Data sourced from a bottom-up analysis by Artemis, in collaboration with Dragonfly & Castle Island Ventures.



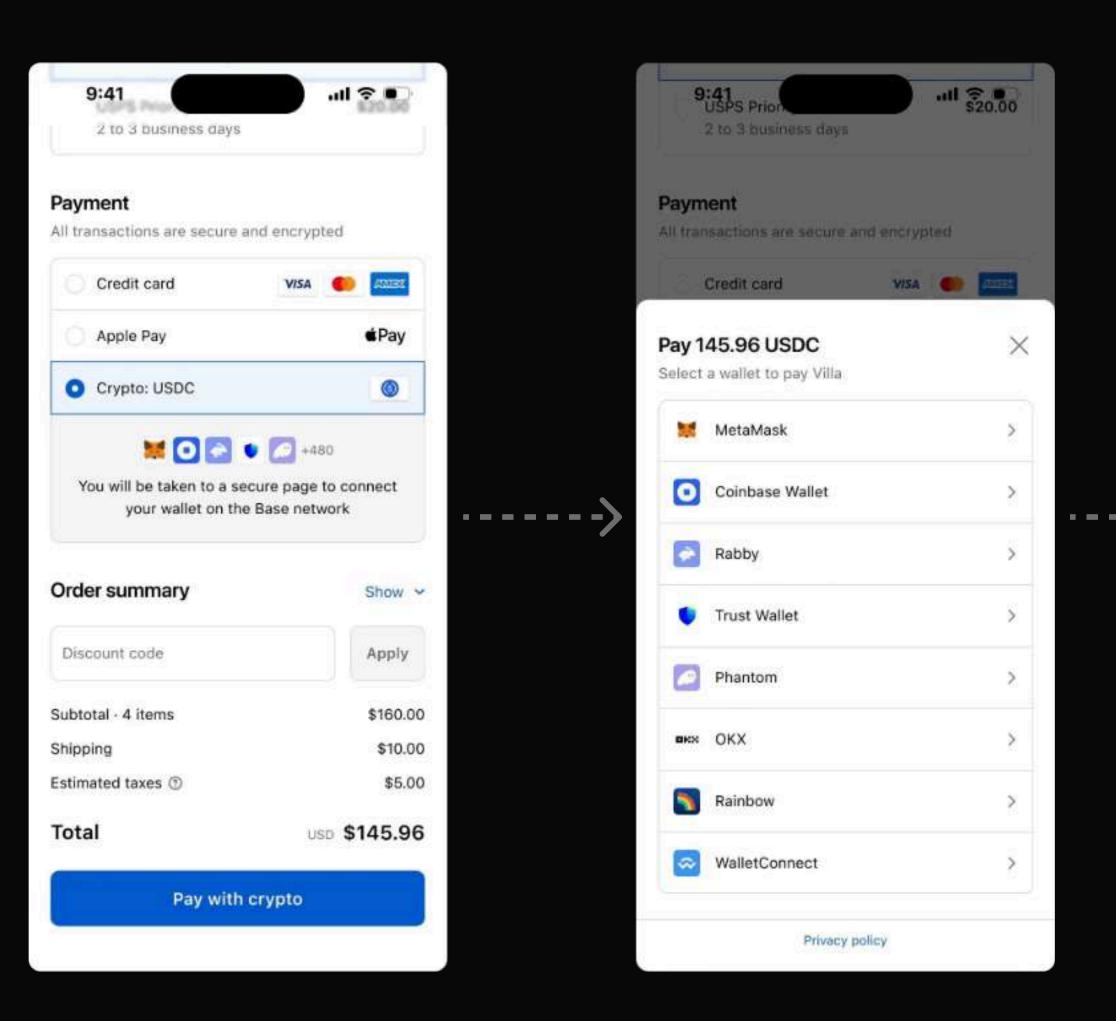
Data as of: February 2025 Source: Artemis, Dragonfly

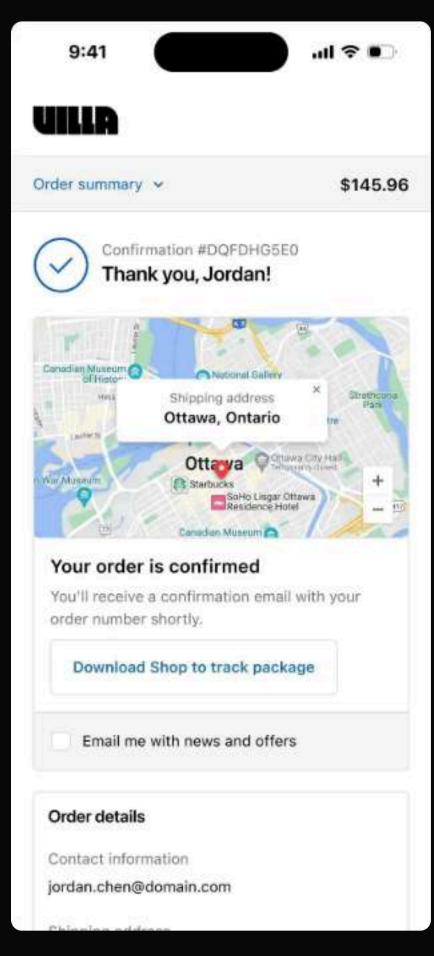
On the C2B side, non-crypto-native firms like Shopify are leading the charge on integrating stablecoins

Thanks to partnerships with both
Coinbase and Stripe, merchants can now
accept USDC from global customers on
Base. On the backend, merchants will
receive their local currency with no FX or
exchange fees - or, if they so choose, they
can keep funds in USDC in their own
wallet.

Shopify highlighted Base's cheap fees (typically around a penny) and near instant settlement as attractive components for merchants.

According to PYMNTS, 3/4 of small businesses say two-day lags in settlement times can visibly disrupt operations & cash flow. Stablecoins are now a viable option for merchants seeking more predictable cash flow.



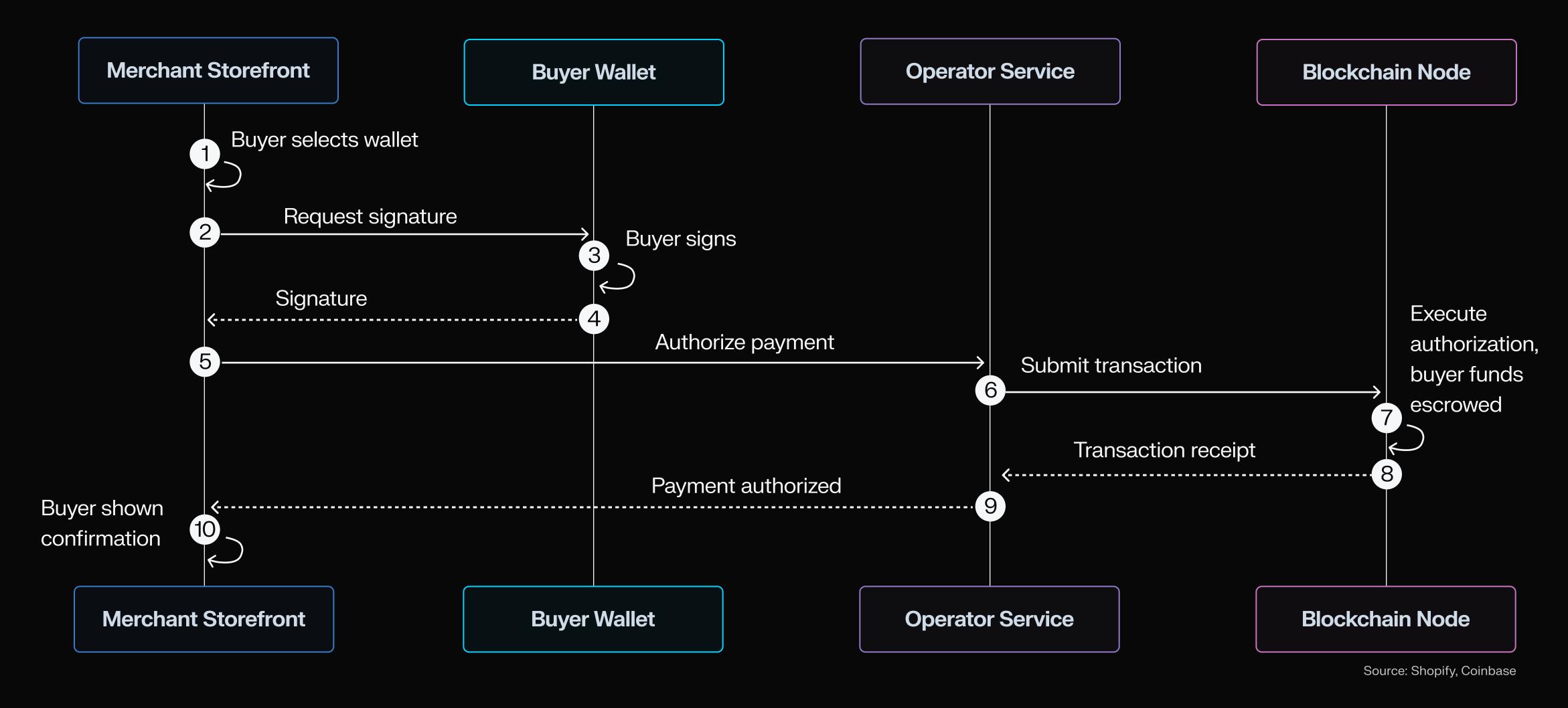


Source: Shopify



Shopify stablecoin payment flow through Commerce Payments Protocol

With Coinbase, Shopify launched an entirely new protocol to handle real-world commerce. The protocol introduces "operators" to facilitate payment flow between payee and payer. It is designed to handle real-world complexity in payments including race conditions between checkout & settlement, inventory sellouts, canceling partial or full orders, and refund payments. This design integrates the standard "authorize & capture" process with blockchain rails.

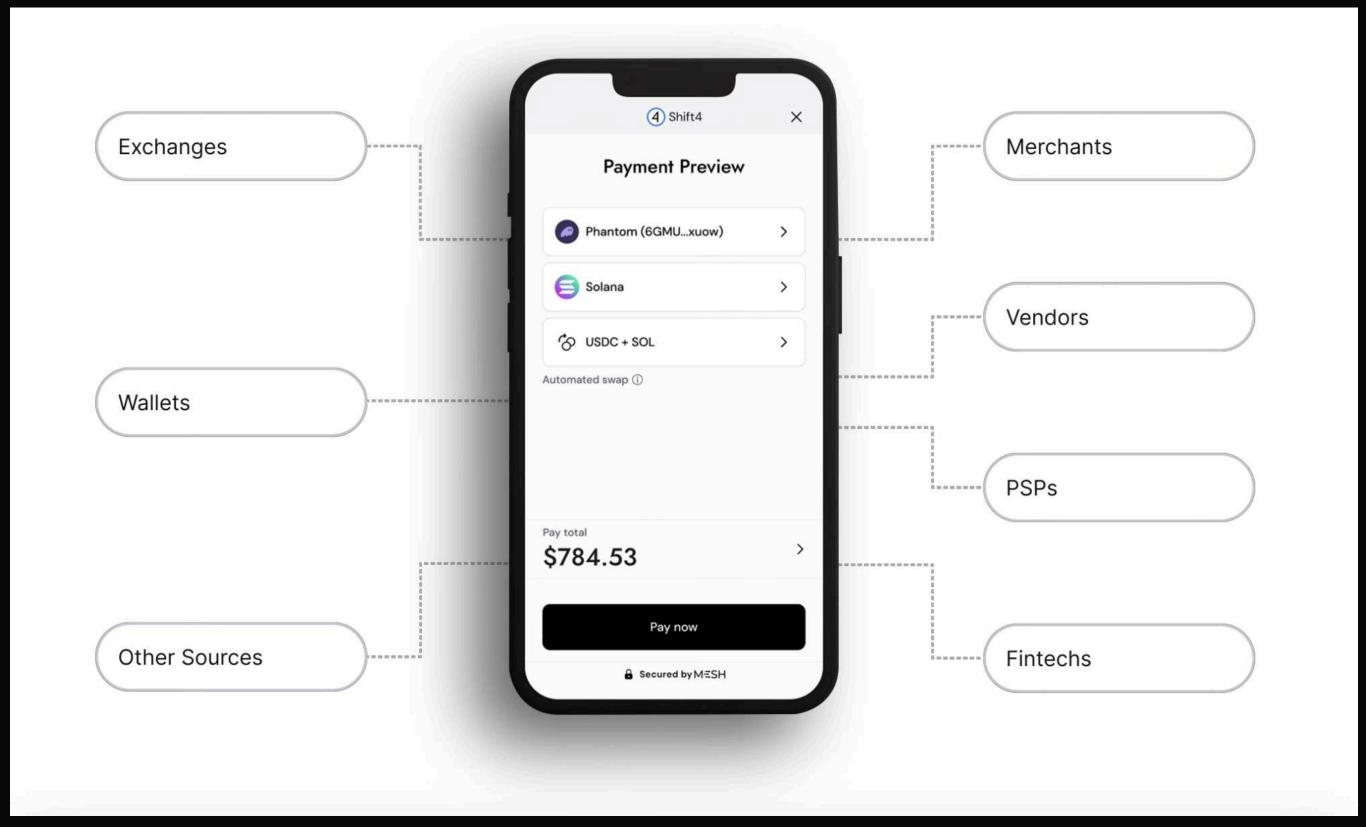


Shopify's app store also features integrations with payment companies like Mesh, which allow Shopify merchants to easily accept crypto payments

Mesh Connect is building one of the first global cryptopayments network, linking more than 300 wallets, exchanges, and payment service providers into a single rail.

Through its SmartFunding engine, users can pay with any onchain asset while merchants receive instant, low-cost settlement in the stablecoin of their choice, extending 24/7, volatility-free payments to around 400 million users in over 100 countries.

Mesh launched its Shopify integration in March 2025 and its Apple Pay integration in May.



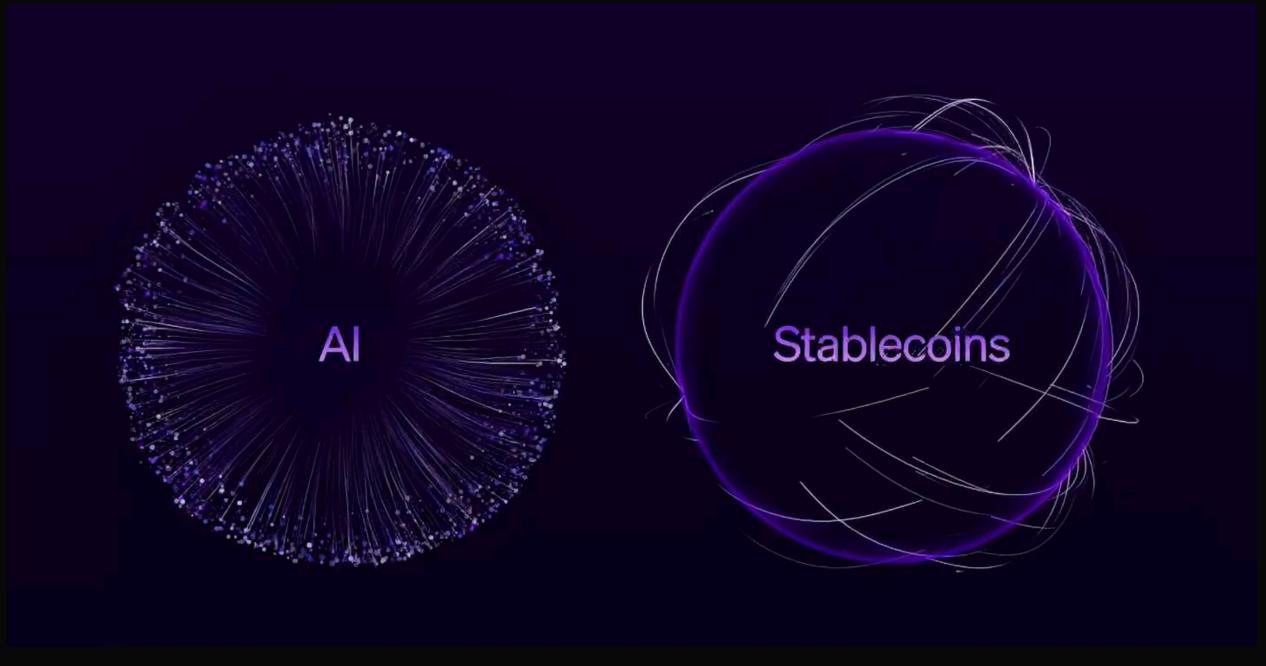
Source: Mesh Connect



Similarly, companies like Stripe have fully committed to stablecoin infrastructure and its potential to revolutionize the payments space - perhaps as much as Al

When you step back and think about it, stablecoins are really just the ultimate RTP [real-time payment]. They're fast. They're cheap. But unlike other RTPs, they're global. And businesses on Stripe that accept stablecoin payments sell into twice as many countries, and they see three times higher average order values on stablecoin transactions.

Stripe's President of Product & Business, Will Gaybrick

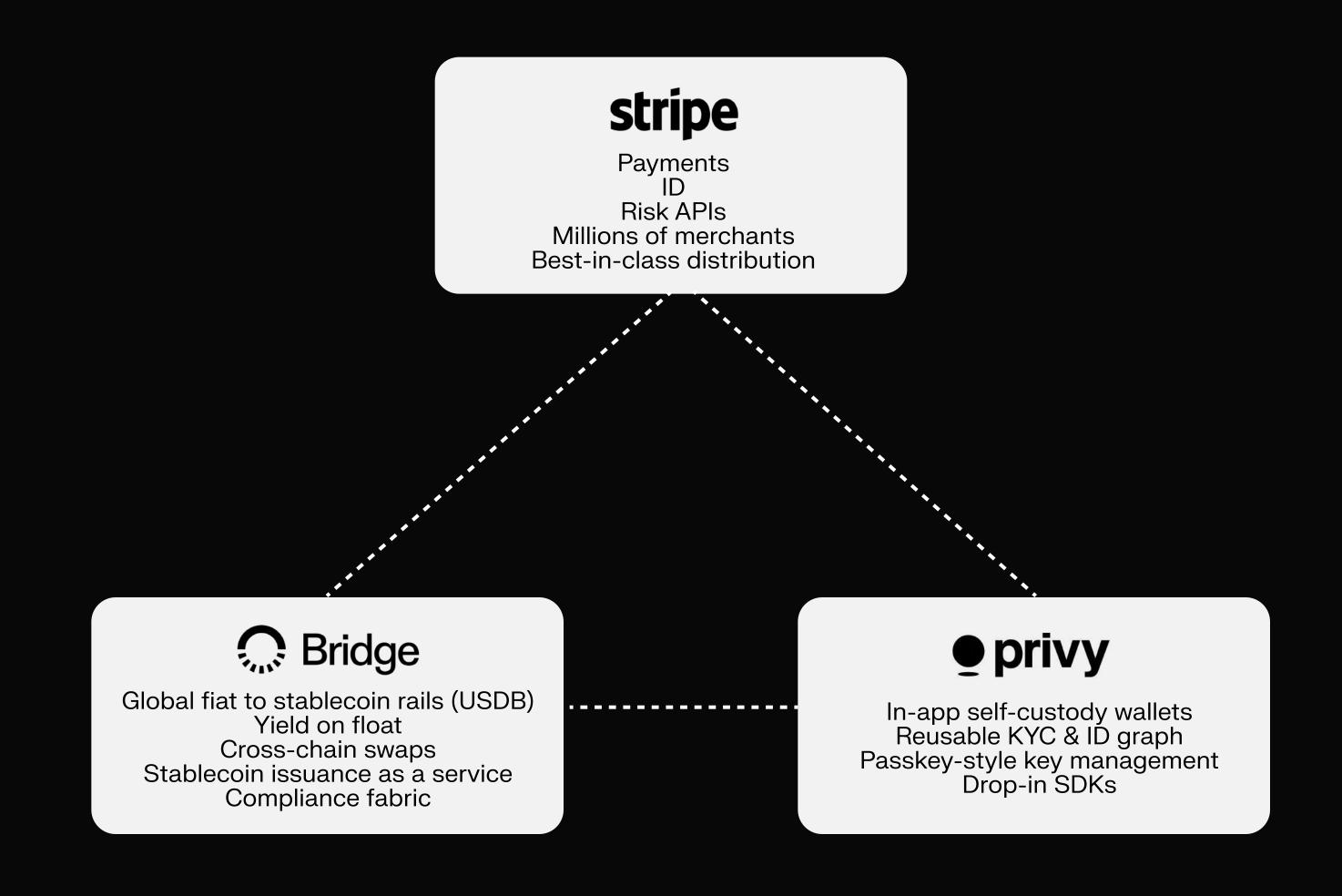


Source: Stripe Sessions

Stripe's Bridge and Privy acquisitions allow it to own the entire stack, bypassing the need for CEX on-ramps

The same stablecoin infrastructure used by Shopify is available to all Stripe Connect merchants. Stripe has millions of businesses moving over 50,000 transactions every minute.

Thanks to Stripe's Bridge acquisition in 2024, these merchants now have easy access to stablecoins. With Privy, those same merchants can spin up seedless, in-app wallets for every customer, letting users buy, hold, and spend stablecoins inside the checkout flow without ever touching a CEX or external wallet.





Stripe and other companies like Rain are making it simple to tap into Visa's merchant network through stablecoin-backed cards

Rain's settlement stack allows for card transactions on the Visa network to be interoperable with stablecoins on multiple chains, 24/7.

As a Visa principal member, Rain is a regulated issuing partner. Rain provides the issuing stack (KYC, spend controls, settlement, and compliance) while clients can brand the card and then use it physically or virtually at wherever Visa is accepted.

Users can tap into their onchain assets without off-ramping, and merchants can receive funds even on weekends and holidays. Use cases among clients have ranged from B2B corporate cards, creator economy payments, and payroll for remote workers in LatAm.



Source: Rain.xyz



Cards are providing real-world usage for fintechs building with & supporting stablecoins

Card stablecoin payment volumes from surveyed firms

Through fintech issuers and crypto-native platforms, stablecoin-linked cards finally allow users globally to save in stablecoins and spend digital dollars locally in real-world settings. Stablecoin card transactions have quietly grown from just \$230 million in monthly volume at the start of 2023 to over \$1.1 billion by February 2025, representing ~3.7x growth.

Data sourced from a bottom-up analysis by Artemis, in collaboration with Dragonfly & Castle Island Ventures.



Data as of: February 2025 Source: Artemis, Dragonfly

Merchants becoming issuers themselves could have a huge impact on payment incumbents

- Retailers want to get around the \$148B they pay in interchange fees each year
- Merchants would receive payments more quickly, freeing up working capital
- Some of those savings could theoretically be passed down to consumers to further compete on cost

- A specific merchant-issued* stablecoin could also be a means of:
 - New types of consumer incentivization (e.g., programmable coupons)
 - Behavioral data tracking
 - Control of payments across an ecosystem of suppliers and distributors
 - Additional revenue stream on float

*Note: A merchant would have to issue a stablecoin under a licensed subsidiary or financial partner under the GENIUS Act

Walmart and Amazon Are Exploring Issuing Their Own Stablecoins

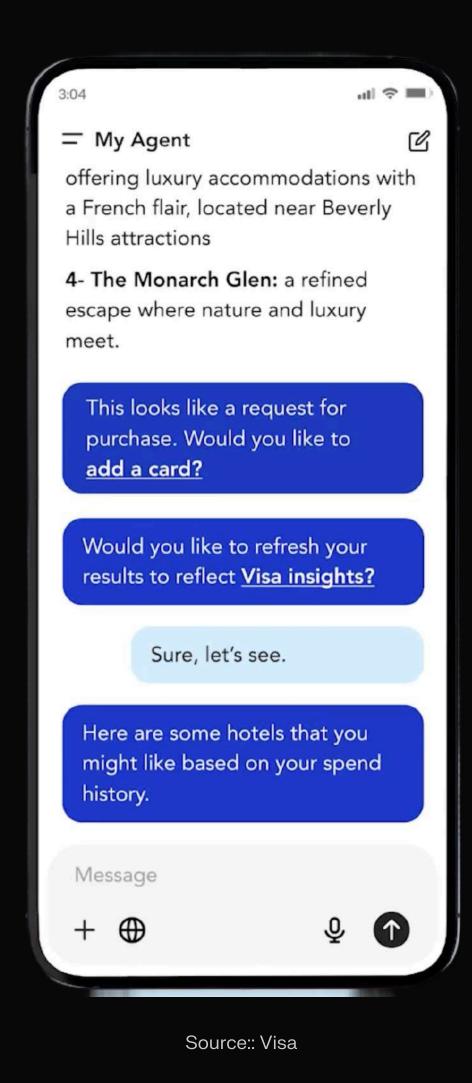
Corporate coins could take payments activity away from banks and the traditional financial system

Visa and Mastercard shares slide on stablecoin fears — but is the selloff too harsh?

Source: WSJ, MarketWatch



What else does the future hold for payments and stablecoins?



Soon people will have Al agents browse, select, purchase and manage on their behalf. These agents will need to be trusted with payments, not only by users, but by banks and sellers as well.

Visa's Chief Product and Strategy Officer Jack Forestell



It's very early days, but Al is seeping into the consumer spend flow:

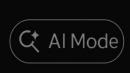
Agentic Commerce breakdown



Agentic commerce is the concept of autonomous agents that can decide, negotiate, and pay for goods & services after a user sets preferences and spend limits; they're akin to always-on buyers or employees with their own wallets who can spend pro-actively.



Right now, traditional payment rails (e.g., Visa, Mastercard, PayPal) have adapted to this concept through agentic tokens that bind a payment credential to a verified agent; every purchase is checked against registered spend limits and authenticated with a passkey.



Al companies themselves are rolling out new Uls and infrastructure for agentic transactions (Google's Al Mode, ChatGPT's Operator, Perplexity Pro) for "in-flow" or async shopping.



This shift will likely completely change product discovery and traditional search; product listings and the post-purchase journey will have to be re-designed for agents working on our behalf, and likely be treated as an entirely new marketing channel.



However, some argue that current payment infrastructure won't be able to handle a future in which billions of agents are making decisions.



Some combination of stablecoins and separate transaction layers (featuring crypto rails) may be better suited to a future in which more than at least 15% of day-to-day work decisions are made autonomously (source: Gartner).



Radius is one such company creating a transaction layer for agents using stablecoins

The shift to agents making rapid-fire, autonomous, real-time payments requires certain infrastructure characteristics:

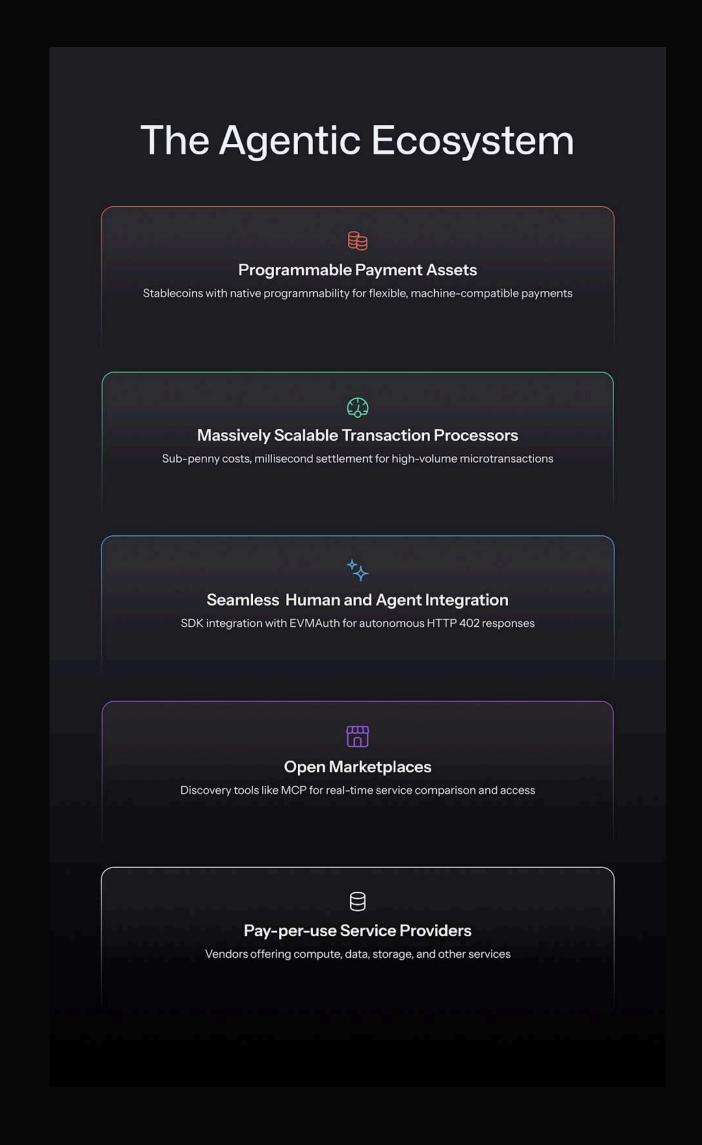
Stablecoins, sub-penny transaction costs, specific SDKs, and pay-per-use service models will allow agents to easily tap into markets for data access, inference, and compute on a per-use basis.

Radius argues that today, those markets' models are too unwieldy and inflexible for agent use in this style. They are designed with long-term contracts and humans in-the-loop in mind. But the shift to agentic commerce requires better microtransaction infrastructure, enabling agents to pay for goods and services quickly and without external decision-makers.

Radius is creating a scalable smart contract processing engine to settle millions of transactions per second in real-time.

The team believes that creating new payment infrastructure for agents will lead to powerful downstream effects:

- 1. Boost market efficiency agents will be able to switch service providers instantly if it is rational to do so, which creates massive competitive pressure on pricing and quality.
- 2. Unbundle digital services new infrastructure will enable economically-viable microtransactions and most likely new specialized service markets altogether.
- 3. Improve company incentives only the best service providers will maintain their agentic user-base, so providers will stop optimizing for just user lock-in.





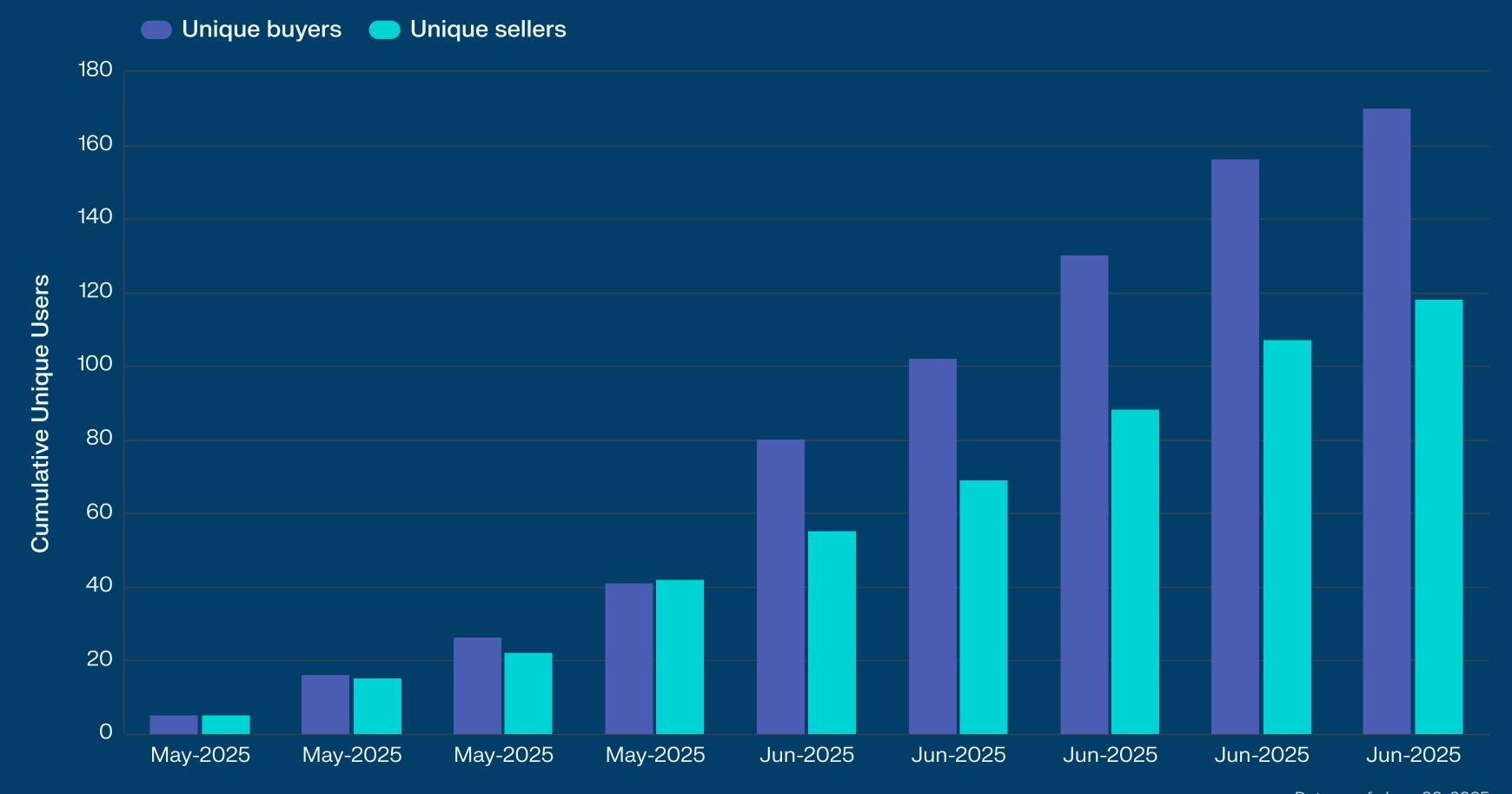
Coinbase's x402 open payment protocol is also built with Al agents in mind

Weekly cumulative unique users transacting with x402

The x402 protocol turns the old "402 Payment Required" web error into a plugand-play checkout system for the internet.

When an API or webpage wants to charge for data, it responds with 402 plus a payment request. The caller, whether a browser, backend script, or AI agent, pays that invoice onchain. The x402 packages handle watching the blockchain, settling the transfer, and automatically delivering the paid content.

Because x402 relies on familiar web standards (HTTP, JSON, JWTs) and handles wallets and receipts behind the scenes, developers can drop it into any stack and start selling API calls, GPU time, or digital files on a pay-per-use basis. This is an ideal setup for agents who need to pay for external resources to complete their tasks.



Data as of: June 30, 2025 Source: Dune (@lifewillbeokay), x402

Dolar Access & Financial Inclusion



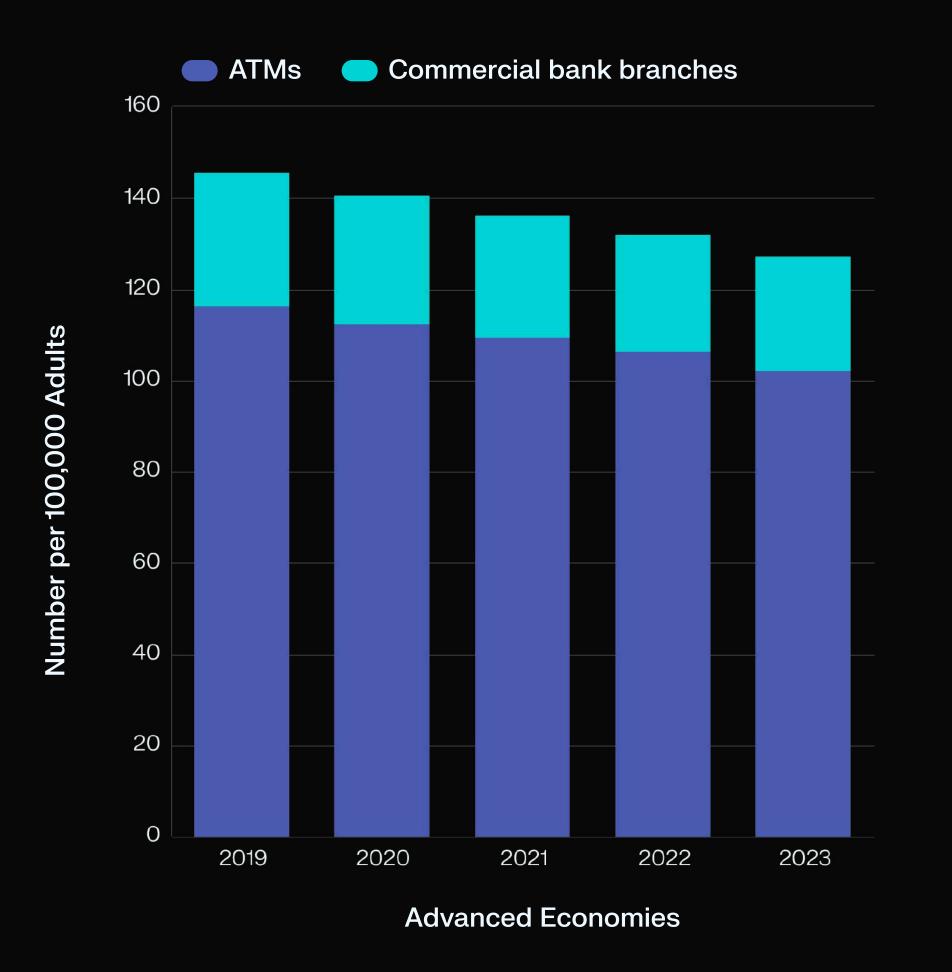
Traditional banking access is highly limited in developing economies

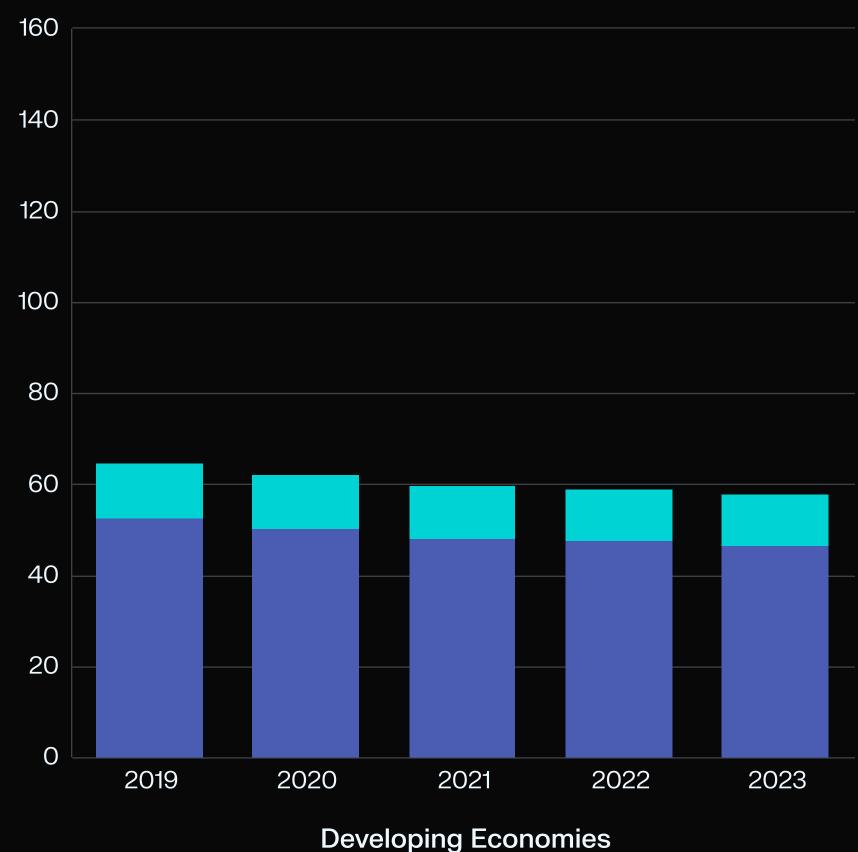
Comparing number of ATMs and bank branches per 100,000 adults in advanced and developing countries

Financial inclusion is the ability of individuals and businesses to access affordable financial services (savings, payments, credit, and insurance) in a timely way from formal providers.

By many metrics of traditional access, developing economies fall far behind advanced economies. ATMs and bank branches may be few in number or are too far from rural homes to be of use.

Stablecoins can help bridge this gap by letting anyone with a smartphone and basic internet access send, receive, and hold value without needing a nearby bank or ATM.





Note: Data represents weighted averages for countries with data in the given years

Source: IMF Financial Access Survey

Developing economies have adapted through the use of mobile money and retail agent outlets

Comparing number of MMAOs and RAOs per 100,000 adults in different developing economies

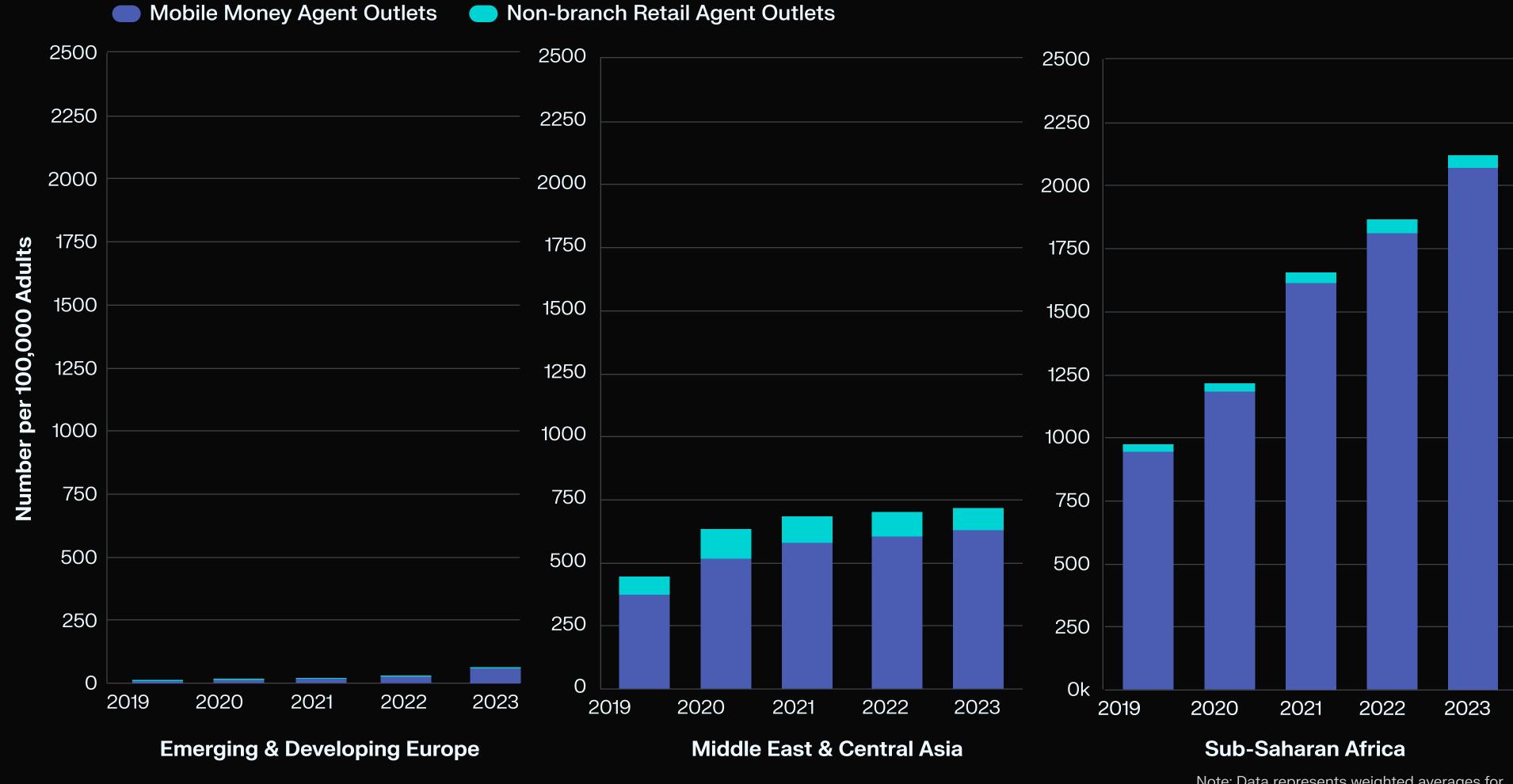
Mobile money agent outlets (MMAOs)

are often small shops or kiosks where customers can convert cash to e-money (and vice versa) on their mobile wallets. These are phone-based accounts that allow users to bypass traditional banking.

Non-branch retail agent outlets (RAOs) are similar, but they may sell groceries or mobile airtime and also offer basic banking tasks (deposits, withdrawals, bill

banking tasks (deposits, withdrawals, payments) on behalf of a financial provider.

MMAOs and RAOs have bridged a gap in financial inclusion in developing areas like Sub-Saharan Africa, but availability across other developing regions varies greatly. This creates a massive opportunity for stablecoins.



Note: Data represents weighted averages for countries with data in the given years

Source: IMF Financial Access Survey

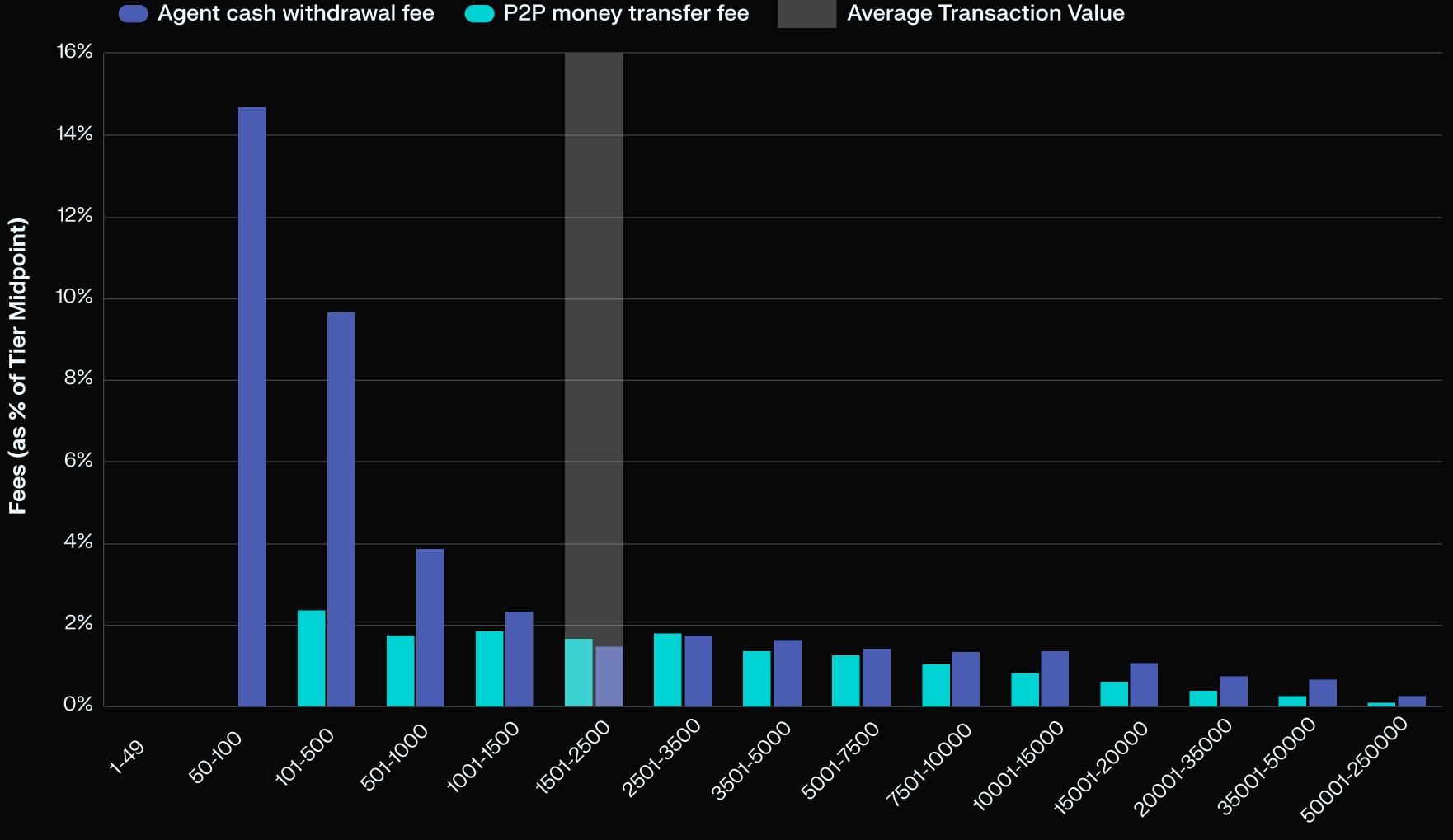


Mobile money services like M-PESA are cheaper than banks but still charge non-immaterial fees

Comparing % costs for money transfers and agent cash withdrawals

M-PESA is the most popular mobile money provider in Kenya. It processed billions of transactions worth trillions of KSH in the past few years. While a boon for the unbanked in Kenya, fees are not insignificant - especially as a % value for smaller transaction tiers.

In FY 2023, the average transaction amount was around 1705 KSH (~13 USD). Users would pay around 33 KSH (~0.23 USD) on transfers, or around 1.5%. Agent cash withdrawals can also be fairly expensive for small amounts. Comparatively, the average transaction fee on Solana costs around \$0.004.



Transaction Amount Tier (in KSH)

Source: M-PESA



Even Fed governors are acknowledging the role that stablecoins can play in expanding dollar access and banking services

Today, around 99 percent of stablecoin market capitalization is denominated in U.S. dollars, and the vast majority of digital asset trades are priced in U.S. dollars. This is no surprise given the primacy of the U.S. dollar in global finance and trade, and I believe that stablecoins have the potential to maintain and extend the role of the dollar internationally. U.S. dollar stablecoins could be particularly appealing to those in high inflation countries or to those without easy or affordable access to dollar cash or banking services.

Fed Governor Waller



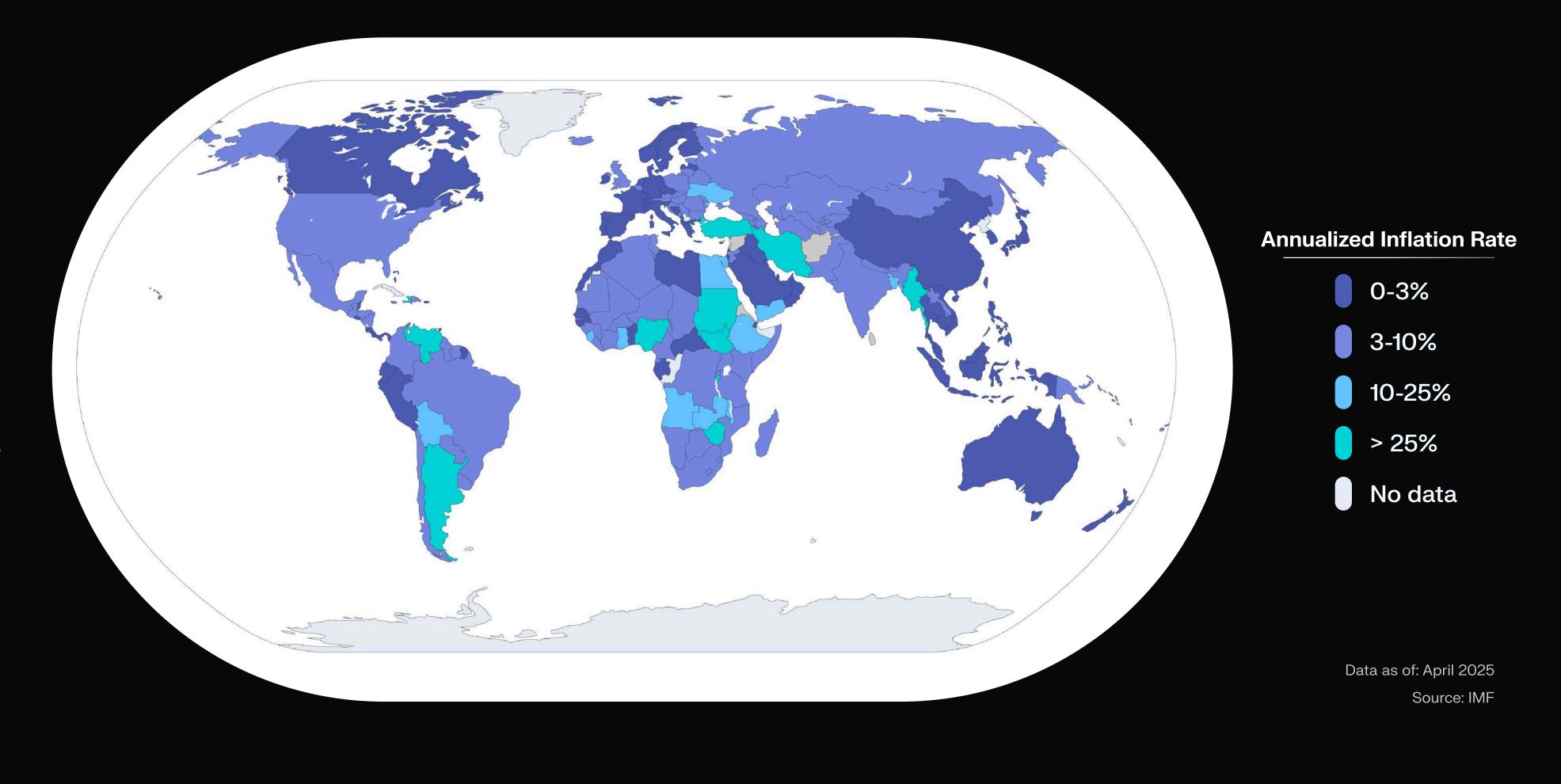
Dollar-pegged stablecoins provide a stable savings vehicle for inflation-ridden countries

Annualized inflation rate by country

More than twenty-two countries have inflation rates higher than 10%.

Developing economy currencies can be highly volatile and are often prone to massive debasement.

Argentina, Venezuela, Turkey, and Nigeria have had notoriously high inflation rates. It's perhaps unsurprising then that Turkey had the largest purchases of stablecoins relative to its GDP in 2024 (source: Chainalysis).



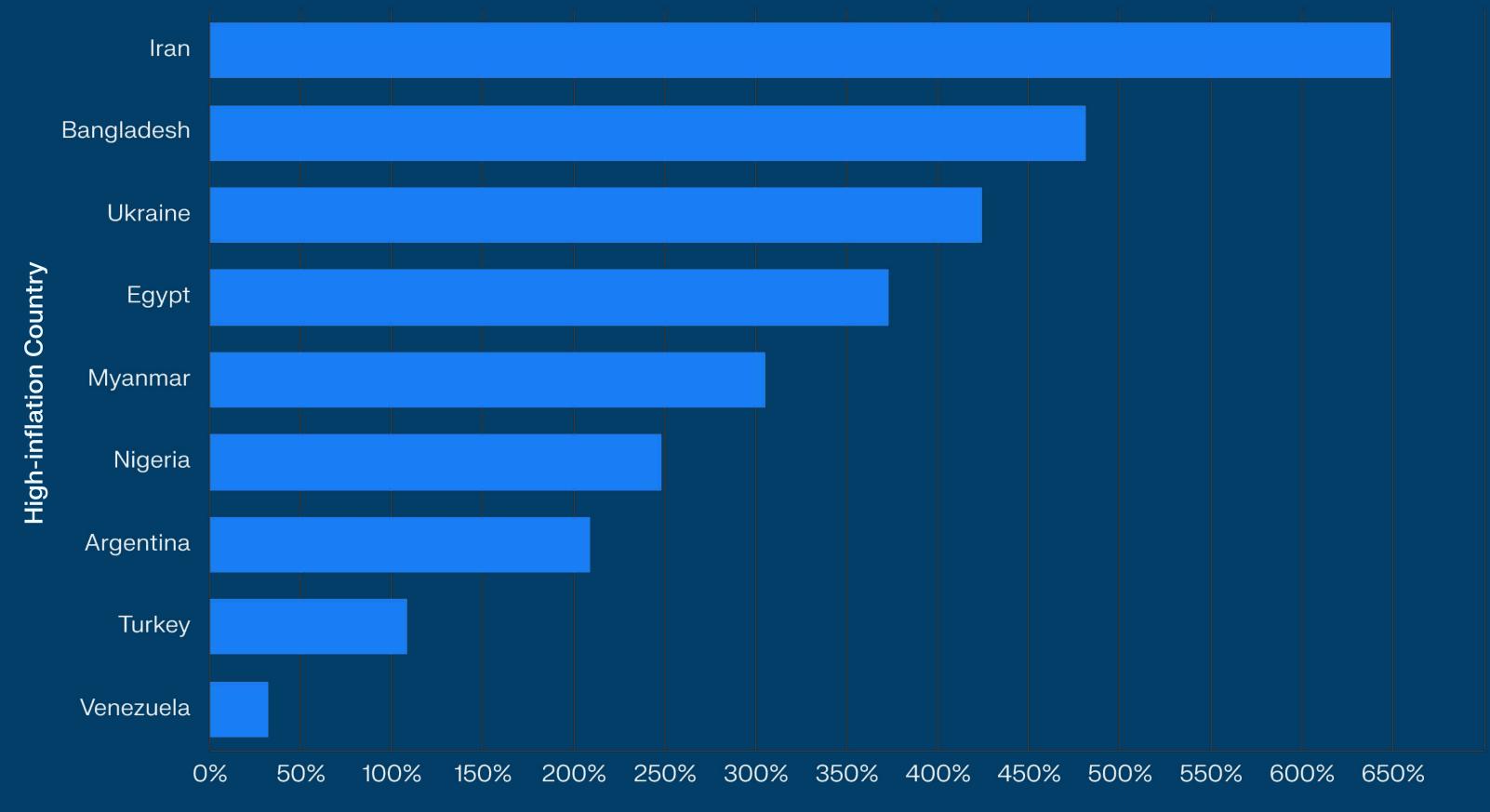


Many high-inflation countries grew stablecoin transaction volumes by multiples from last year

Transaction growth for tagged USDC/USDT accounts from June 2024 to June 2025

For some of the highest-inflation countries we noted in the previous slide, we have seen a correspondent surge in the use of both USDT and USDC.

Addressable data shows that the number of transactions from tagged wallets that hold USDC or USDT (across seven blockchain networks) for these countries often grew by multiples over the last year. The average growth among available countries with high inflation was around 300%.



YoY Growth Rate in Stablecoin Transactions

Data as of: June 2025

Source: Addressable

Stablecoins also act as a safe haven and accessible money transfer vehicle during times of war Cost of 1 USDT in Ukrainian Hryvnia (UAH)

When Russia invaded Ukraine in February 2022, the National Bank of Ukraine announced it fixed the exchange rate of the UAH, limited cash withdrawals at banks, and suspended new electronic money issuance. With both massive volatility in UAH and capital controls implemented, citizens fled to convert UAH into USDT.

Both Binance Ukraine and Kuna (a now defunct Ukrainian CEX) had the USDT pair trading at a premium in excess of 10% at one point. Even at a premium to the official exchange rate, this was quite valuable as an accessible offramp to people fleeing the country at the time. The USDT/UAH pair continued to trade significantly more volume for the rest of 2022.

According to a report by Elliptic, Ukraine also received millions of dollars worth of donations in USDT.



Source: TradingView

New stablecoin user growth in war-torn countries like Ukraine have hit escape velocity

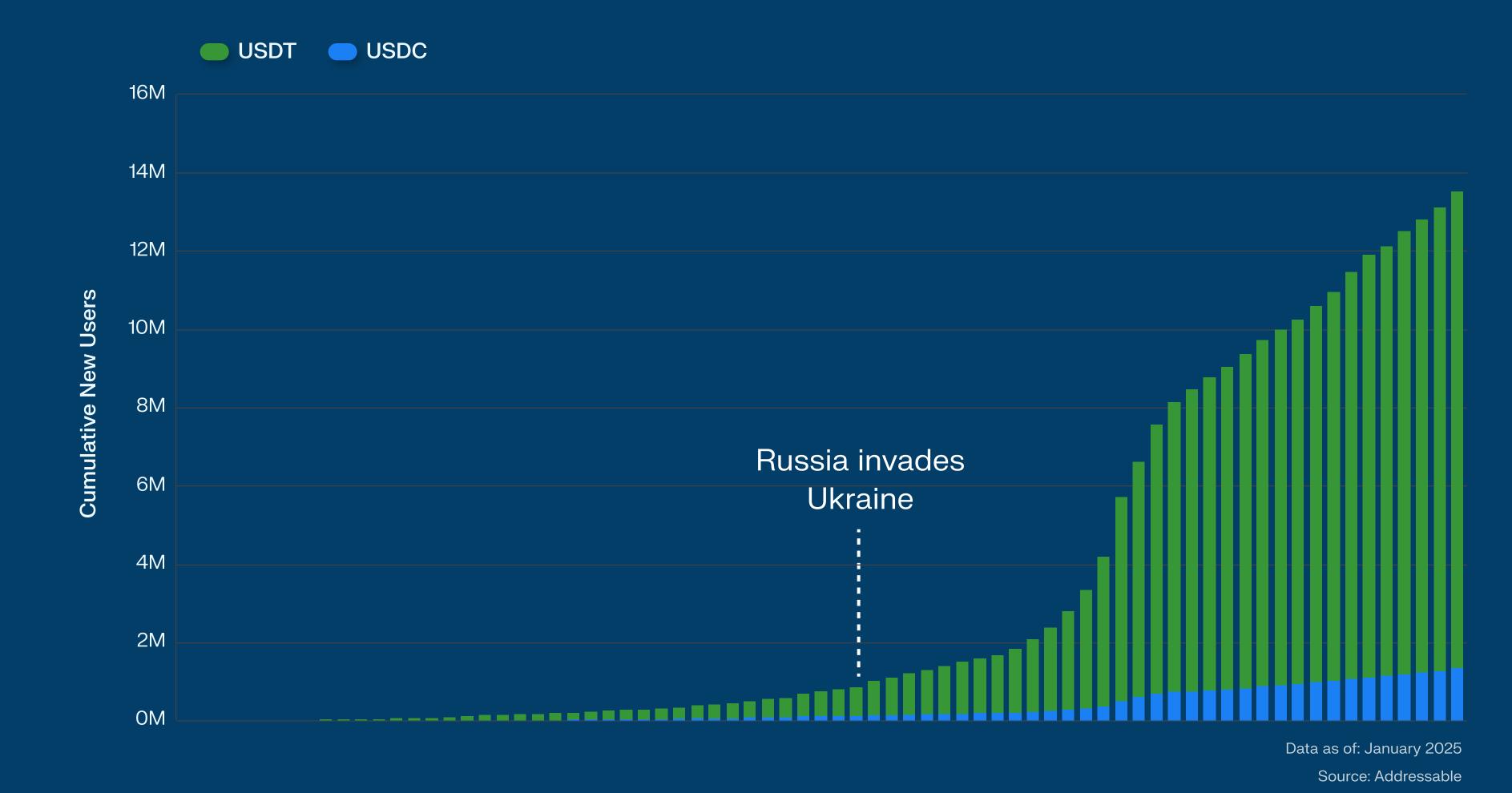
Cumulative new USDC & USDT tagged wallets in Ukraine

According to data from Addressable, new user growth in Ukraine has increased rapidly since the war began in February 2022. Average monthly stablecoin user growth across recent years:

• 2021: 43,475

2022: 115,861

• 2023: 635,089



Messari × 🔥 Addressable

Tether data confirms that more and more users are flocking to USDT as a savings vehicle

Percentage of USDT market capitalization by holder type*

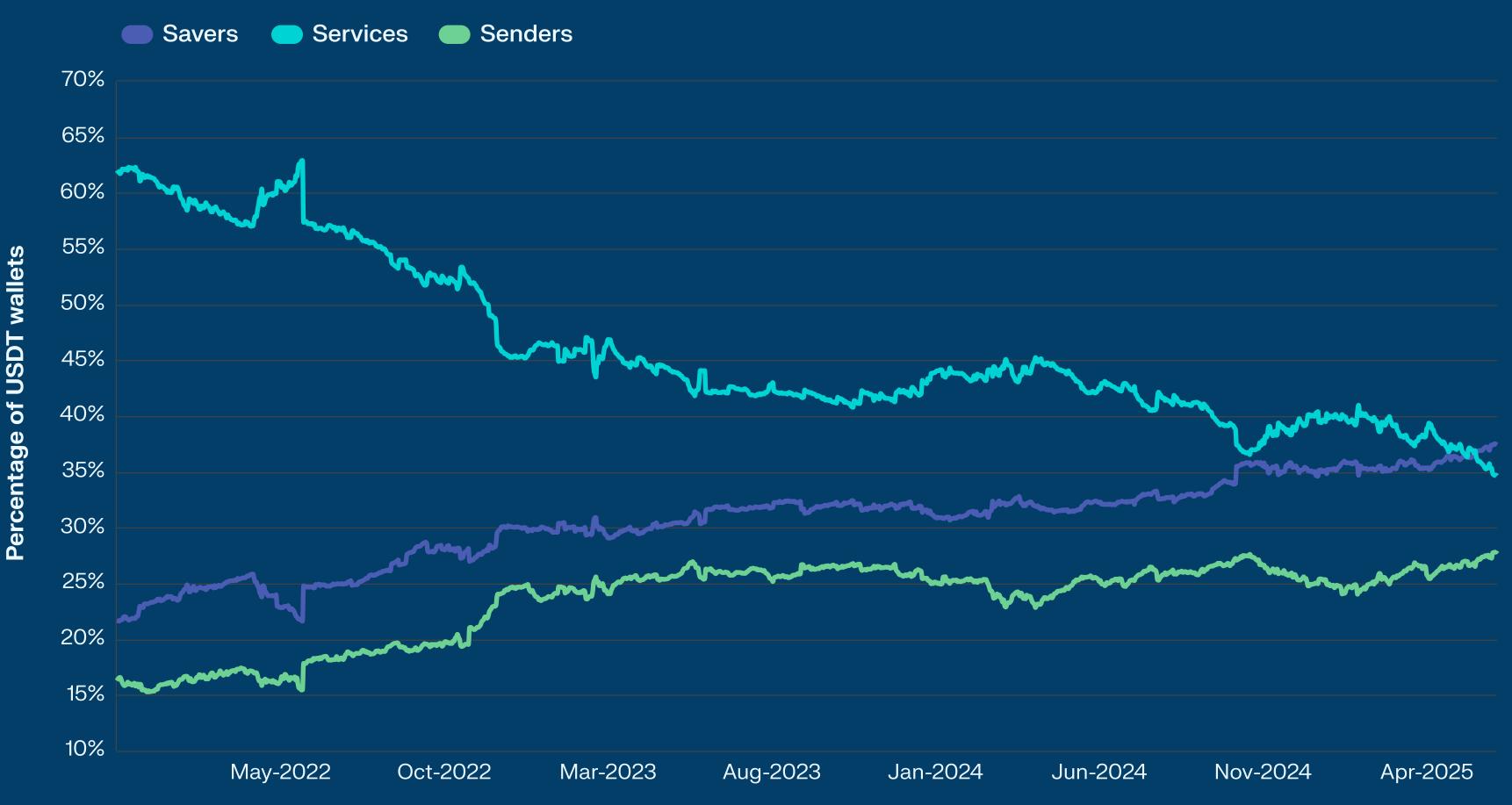
Services in this context are businesses that accept crypto, typically exchanges, with their wallet addresses identified by Chainalysis.

Savers and senders are wallets not identified as services, typically self-custody wallets.

Savers are such wallets that on average hold two thirds or more of the USDT they receive, while senders are such wallets that on average hold less than two thirds of the USDT they receive.

The percentage of market capitalization held by users identified as savers recently flipped the other two categories, indicating that more users are simply holding USDT to maintain capital for the long term.

*Note: Holder types are tracked across Ethereum, TRON, BSC, Solana, Avalanche, TON, Polygon, Arbitrum, Celo, Optimism, & Kaia



Data as of: June 10, 2025

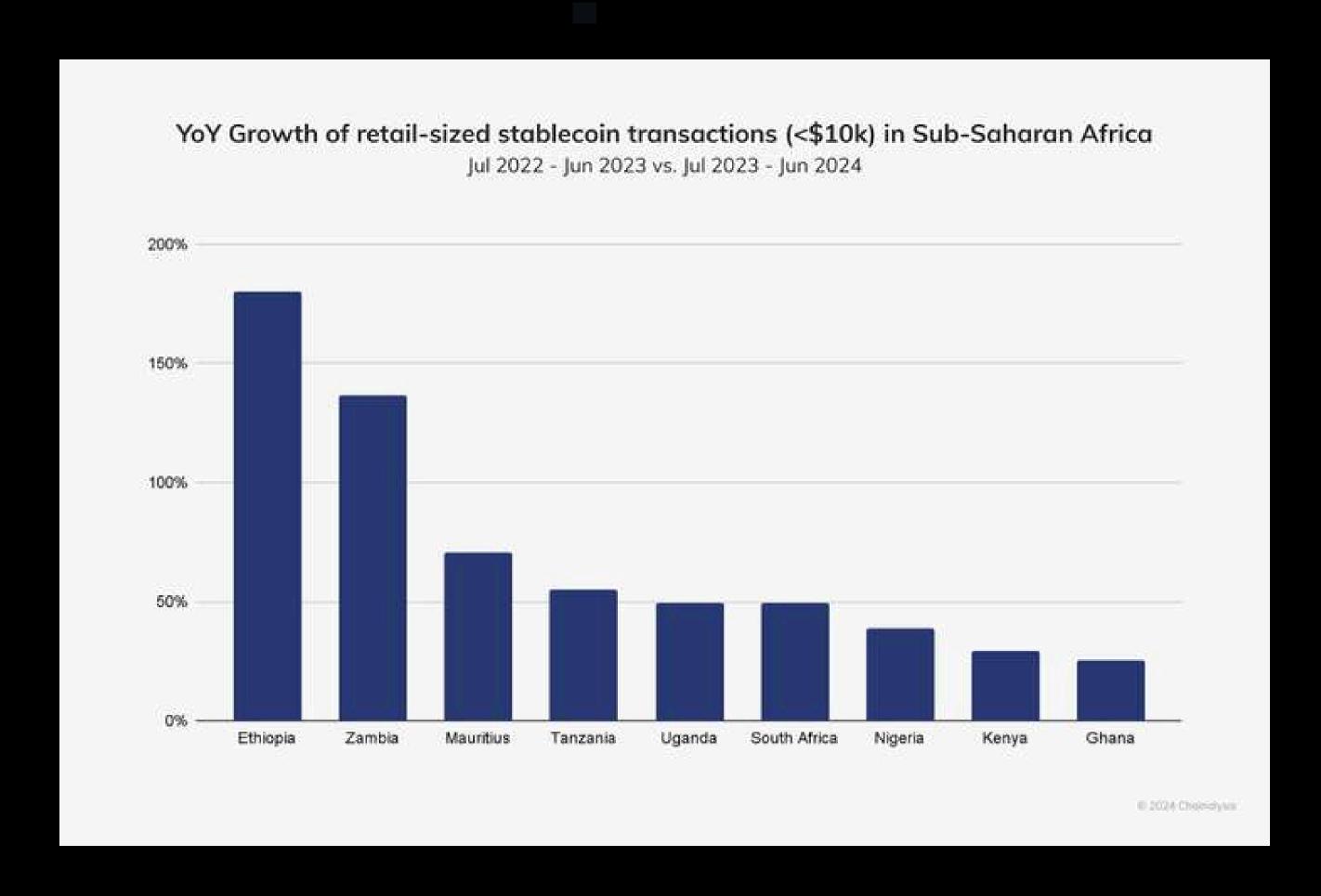
Source: Tether analysis based on Chainalysis & Artemis data; off-chain user estimates based on partner-reported data.



Stablecoin adoption across the world's least-banked countries continues to grow - for saving and spending YoY growth in retail stablecoin activity by countries in Sub-Saharan Africa

Sub-Saharan Africa may still account for just 2.7% of global onchain activity, but usage is accelerating. The region moved an estimated \$125 billion in crypto between July 2023 and June 2024, with Nigeria surging to #2 worldwide in Chainalysis' adoption index. Ethiopia, Kenya, and South Africa all cracked the global top 30.

Stablecoins now account for roughly 43% of regional volume because they give households and businesses a dollar proxy that sidesteps local currency volatility and capital controls.



Source: Chainanalysis



Yellow Card is one company helping accelerate this shift to stablecoins across Africa

The company enables cross-border payments, treasury management, and financial inclusion through stablecoin solutions

Yellow Card relaunched in Lagos in 2019 with a mobile and agency network that let customers swap naira for bitcoin, USDT, and later USDC using bank transfers and cash deposits. After rolling out to additional markets in 2022, the company now offers a full-fledged, stablecoin-based financial services stack:

Consumer app & Yellow Pay – buy/sell crypto, dollar-denominated savings, and feefree cross-border transfers.

Treasury & invoice settlement for SMBs – bulk USDC/USDT payouts, FX hedging, local-currency collections.

Payment APIs & widgets – whitelabel on-/off-ramps for wallets and neobanks.

Network liquidity desks – OTC services that source stablecoin float and manage real-time FX using in-house algo pricing

\$6B+

transaction volume across 20 African countries

99%

transactions are stablecoin-based

30,000

business utilized Yellow Card for financial operations

Source: CVVC



IIII Regulation & Policy



U.S. policymakers are positioning well-regulated, dollarbacked stablecoins as a cornerstone of U.S. financial leadership in the digital age

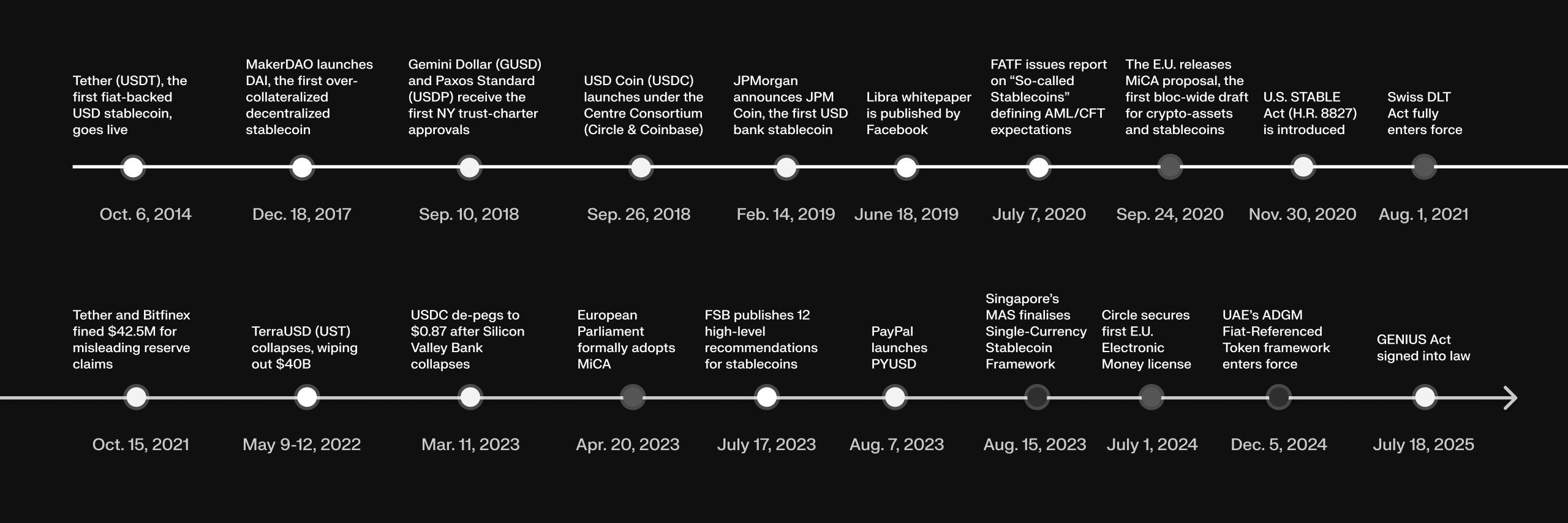
This bill will cement U.S.-dollar dominance, protect customers, increase demand for U.S. Treasuries, and ensure that innovation in the digital-asset space is in the hands of the United States of America, not our adversaries.

Sen. Bill Hagerty, primary sponsor of the GENIUS Act



Policy in both the U.S. and abroad has evolved significantly, especially in the last two years

A non-exhaustive recounting of stablecoin history and regulation



■ U.S. ■ E.U. ■ APAC ■ Global



GENIUS Act

A summary of U.S. stablecoin regulatory framework GENIUS Act



Permitted issuers – Only insured banks, OCC-chartered non-banks, or Treasury-certified state issuers with ≤ \$10B outstanding may mint payment stablecoins. Above that cap, a federal charter becomes mandatory.



Reserves & custody – Each token must be 1-for-1 backed by Fed balances, cash, or \leq 93-day Treasuries, parked with a federally-supervised custodian, and rehypothecation is forbidden.



Redemption & disclosure – Issuers must offer prompt par redemption and publish CPA-audited reserve reports every month (plus an annual audit), while misbranding coins as legal-tender or FDIC-insured is unlawful.



Governance & AML – Officers must pass competence-and-integrity checks with no relevant felonies, and issuers must be able to freeze tokens on lawful BSA/AML orders.



Scope limits – Interest-bearing stablecoins are excluded from the payment category. Treasury must deliver an 18-month study on algorithmic coins, and foreign tokens need a "comparable" home regime plus OCC registration.



Pre-emption & penalties – Federal licensing overrides state moneytransmitter laws, and unauthorized issuance can draw fines up to \$1 million per day plus five-year prison terms.



GENIUS Act's impact on yield-bearing stablecoins

Payment stablecoin-only bill, tokens paying interest will require separate legislation or another regulatory regime

Yield-bearing Model	Likely Post-GENIUS Treatment	Immediate Compliance Gaps
T-Bill wrappers (e.g., USDY, USD++)	Treated as tokenized securities or funds under 1940 Act; must use Reg D/Reg S or SEC-registered trust	Prospectus, transfer-agent, broker-dealer rails
Staking-backed (sFRAX, crvUSD- stETH loop)	Investment contract under Howey	KYC on U.S. users; restrict secondary trading
Delta-neutral synthetics (USDe, USR)	CFTC/SEC oversight of derivatives + possible securities label	Reserve composition, licensed issuer entity
Rebase interest (XAUD, cAMPL)	Likely security; subject to periodic reporting	Investor accreditation, transfer restrictions

Operational Consequences for Protocols

- License/geofence or face \$100K daily fines after 3 years
- "Stablecoin" label barred for yield tokens
- Liquidity migrates to zero-yield, T-billbacked stablecoins



- Dual-token: onshore payment + offshore yield
- Reg A/Reg D security token with whitelisted holders
- Shift staking/points offchain
- Stay offshore; forfeit U.S. market



Individual states are also proposing their own frameworks

Highlighting stablecoin provisions across U.S. state regulatory frameworks



New York (NYDFS Guidance 2022): Requires 1-to-1 Treasuries / MMFs, T+2 redemption and monthly CPA attestations for any dollar-backed coin issued by BitLicense.



California (DFAL AB 39/SB 401): Starting July 1, 2026, a DFPI license is mandatory to issue or store stablecoins; issuers must be a bank, trust, or DFPI licensee with 100% liquid reserves.



Texas (Supervisory Memo 1037, 2025): Classifies fully-backed USD tokens as "money," obliging issuers/hosts to hold a money-transmitter license and maintain matching reserves.



Nebraska (Financial Innovation Act 2024): Creates Digital Asset Depository banks that may issue stablecoins but bars fractional lending and enforces full AML/BSA compliance.



Wyoming (Stable Token Act + SPDI): State can mint WYST tokens backed solely by short-dated Treasuries, while SPDI banks may issue or custody fully-reserved private stablecoins.



Illinois (Digital Assets & Consumer Protection Act 2025):
Pending House passage, would require stablecoin issuers to register with IDFPR and follow stringent asset-safekeeping and disclosure rules.



Beyond the U.S., other countries already have more developed regulatory frameworks

Highlighting stablecoin provisions across nation-wide regulatory frameworks



E.U. (MiCA): Since June 30, 2024, Titles III–IV obliges every asset-referenced or e-money token issuer to obtain authorization, publish a white paper, and keep fully liquid 1-to-1 reserves across the Union.



U.K. (FSMA 2023): From August 29, 2023, "payment stablecoins" are inside the FCA/Bank of England perimeter for issuance, custody, and payments.



Japan (Revised Payment Services Act): Effective June 1, 2023, only banks, trust banks, or licensed fund-transfer firms may issue yen-pegged coins, each fully backed and registered.



Singapore (MAS Stablecoin Framework): Finalized August 15, 2023, SGD/G10 coins must hold high-quality 1-to-1 reserves, meet capital buffers, and redeem at par within five business days.



Hong Kong (Stablecoin Ordinance 2025): Starting August 1, 2025, fiat-referenced issuers need an HKMA license, 100% reserves, and ongoing governance oversight.



Canada (OSFI Crypto Guideline): Issued February 20, 2025, it tags fully-backed stablecoins as low-risk Group 1b and caps all other crypto exposures at 1% of a bank's Tier 1 capital.



International stablecoin regulatory frameworks

Highlighting stablecoin provisions across international regulatory frameworks

FSB High-Level Recommendations (July 2023):

Global stablecoins must hold high-quality 1-to-1 reserves, allow at-par redemption, and publish ongoing reserve and recovery disclosures before G20 launch.

CPMI-IOSCO PFMI Application (July 2022):

Any systemically important stablecoin must satisfy every PFMI standard, full governance, risk, finality, and liquid-asset backing, equating it with payment and settlement systems.

IOSCO Crypto-Asset Policy (November 2023):

Eighteen conduct rules demand granular reserve reports, independent audits, and strict client-asset segregation for all stablecoin issuers and intermediaries.





IIII Tokenized Money Market Funds

CONTRIBUTORS

© Ondo Finance

Stellar

July 22, 2025

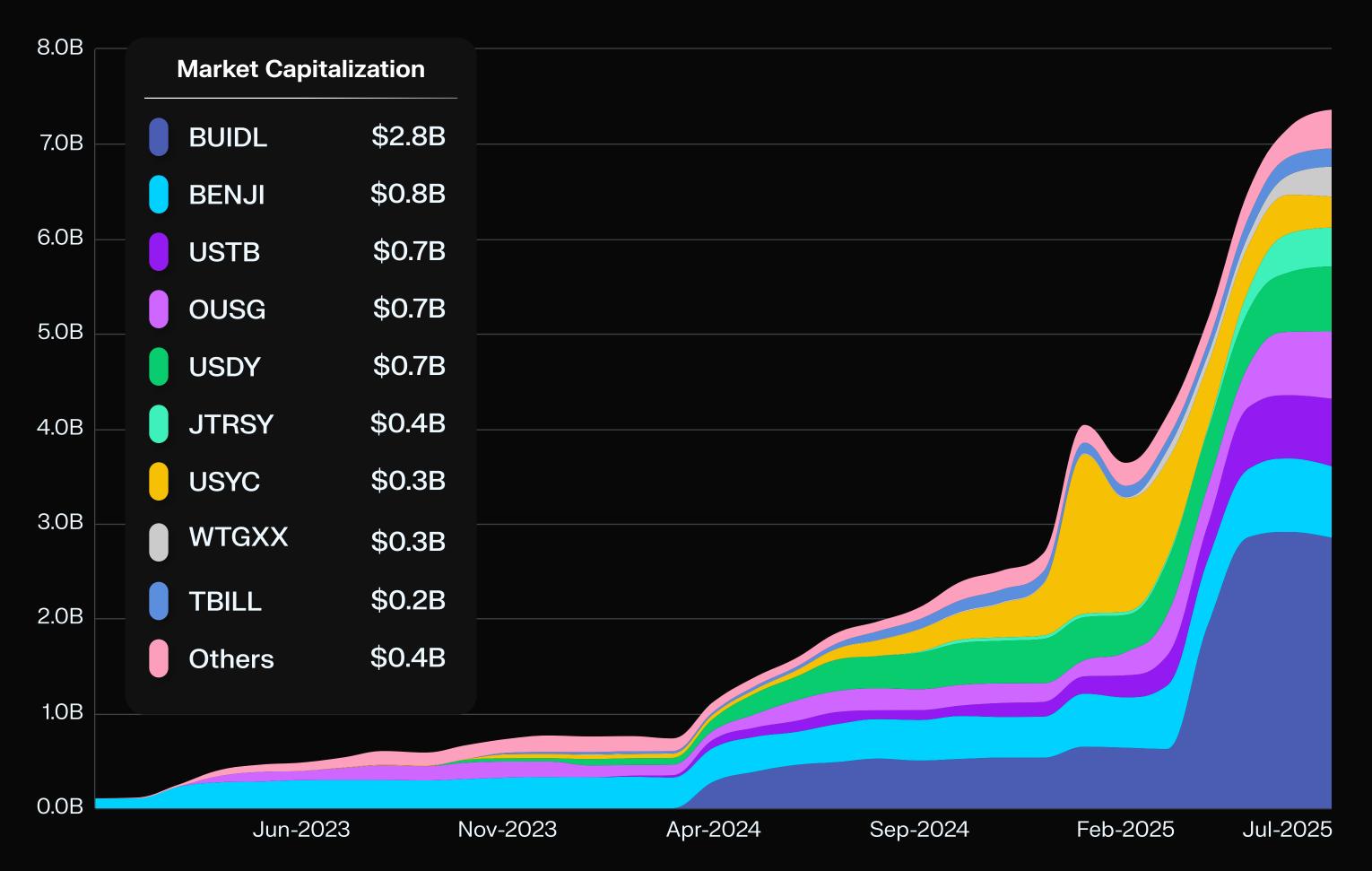
Tokenized Treasury funds have surged in popularity in 2025

Market capitalization of top tokenized treasury funds since 2023

Tokenized money market funds are effectively regulated, yield-bearing stablecoins that started reaching escape velocity in 2024. Franklin Templeton was first to establish a legal template for TMMFs back in 2021 with their fund FOBXX on Stellar. This was the first U.S. 1940 Act fund with share ownership recorded onchain. We note that transfer agents are the bridge between legacy frameworks and tokenized assets. Legally, U.S. '40-Act funds must keep a single, authoritative register of who owns each share. The transfer agent fulfills that duty. It onboards

investors (KYC/AML), issues new fund tokens at NAV when cash wires arrive, and retires tokens when investors redeem. Transfer agent records generally take precedence in case of disputes.

BlackRock perhaps ignited more momentum in the vertical with its March 2024 launch of BUIDL on Ethereum via Securitize. Both TradFi firms like WisdomTree and cryptonative firms like Ondo and SuperState have also seen rapid growth in the past two years.



Data as of: June 30, 2025

Source: rwa.xyz

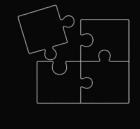


The TMMF pitch

Tokenized money market funds present multiple advantages over their traditional counterparts:



TMMFs provide 24/7 trading and P2P transfers to whitelisted addresses.



Composability within DeFi - users' fund shares can snap into existing DeFi legos for additional yield or leverage.



Near-instant settlement, reducing transactional delays & risks; traditional MMFs generally settle same-day but usually only once or twice per day.



Automated compliance and lower admin fees; smart contracts handle KYC gating, dividend accrual, and transfer rules.



Enhanced capital efficiency as some exchanges accept funds like BUIDL as margin collateral for trading.



Increased transparency and real-time auditing; all transfers and balances sit on public ledgers which may reduce reconciliation work.



The TMMF creation process

Simplified TMMF creation process workflow for BUIDL

Onboard & Whitelist > Fund w. USD/USDC > Token Mint > BlackRock Deploys Cash > Cash & Yield Management

- → User opens a

 Securitize ID, uploads

 KYC/AML documents,

 and registers one or

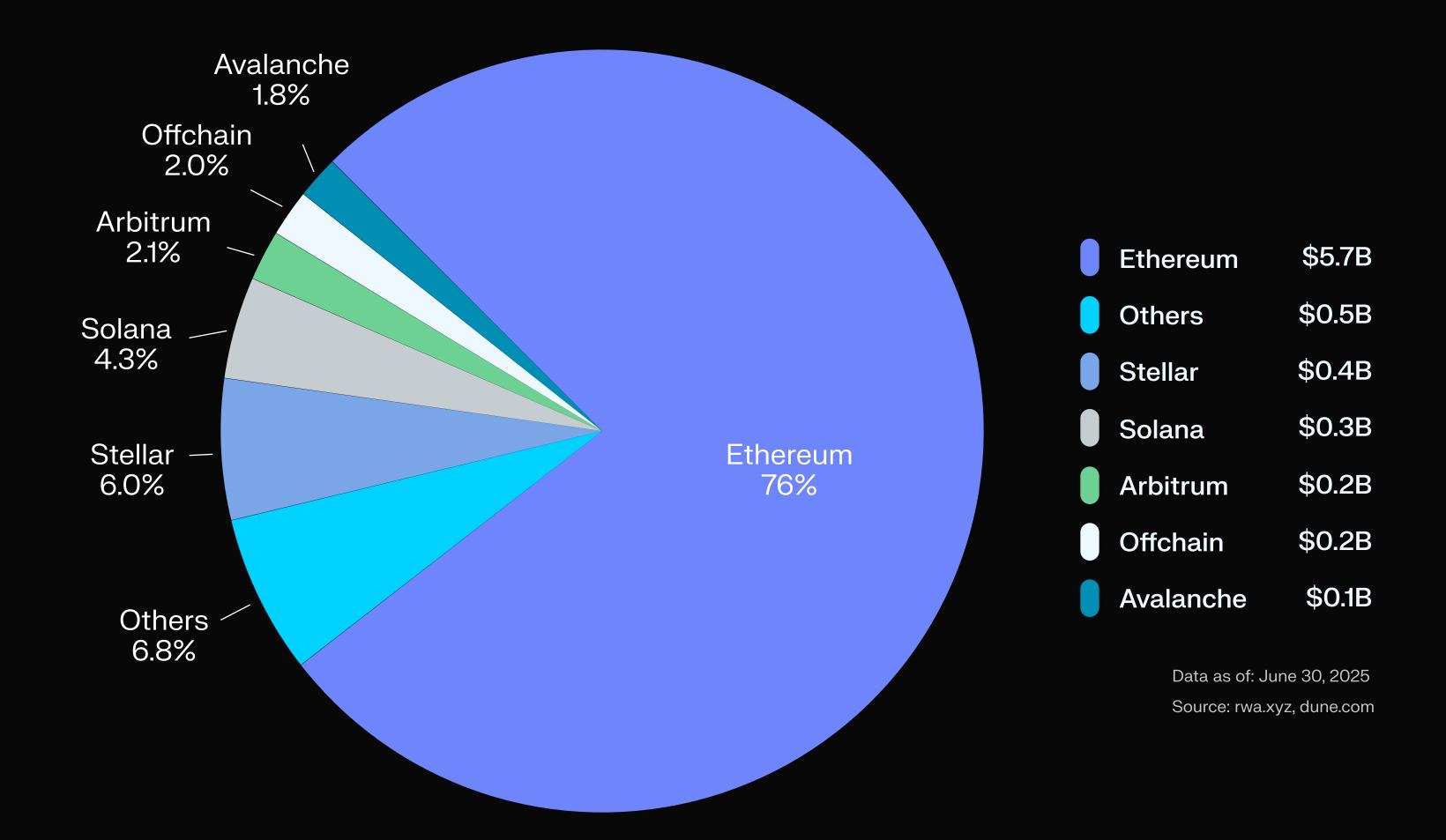
 multiple wallet addresses.
- → User sends USD wire to BNY Mellon before 2:30pm OR
- → User sends USDC to Securitize deposit address, which is then converted to USD by Zero Hash and sent to BNY at the same cutoff time.
- → Upon receipt,
 Securitize calls the BUIDL
 smart contract and mints
 1 ERC-20 share per \$1 to
 the investor's whitelisted
 wallet.
- → Tokens are locked for 24 hours before any future transfer.
- → BlackRock's desk sends orders to primary dealers or tri-party repo market to allocate cash.
- → Trade settlement and custody is handled by BNY Mellon.
- → Yield accrues daily at 3
 PM and is paid out
 monthly as additional
 BUIDL tokens are
 dropped to users' wallets
 (BUIDL price remains
 constant).

Most TMMF market capitalization still sits on Ethereum

Market capitalization of funds across networks

More than 3/4 of TMMFs' total value sits on Ethereum. Despite BUIDL adding compatibility with Aptos, Arbitrum, Solana, and other chains, more than 90% of the fund shares lie on Ethereum.

We believe that Ethereum dominance in this aspect is more a function of the network already maintaining the largest amount of assets onchain (and thus a large user base to tap into for institutions that want to launch these products) rather than an explicit endorsement of Ethereum's greater network security.





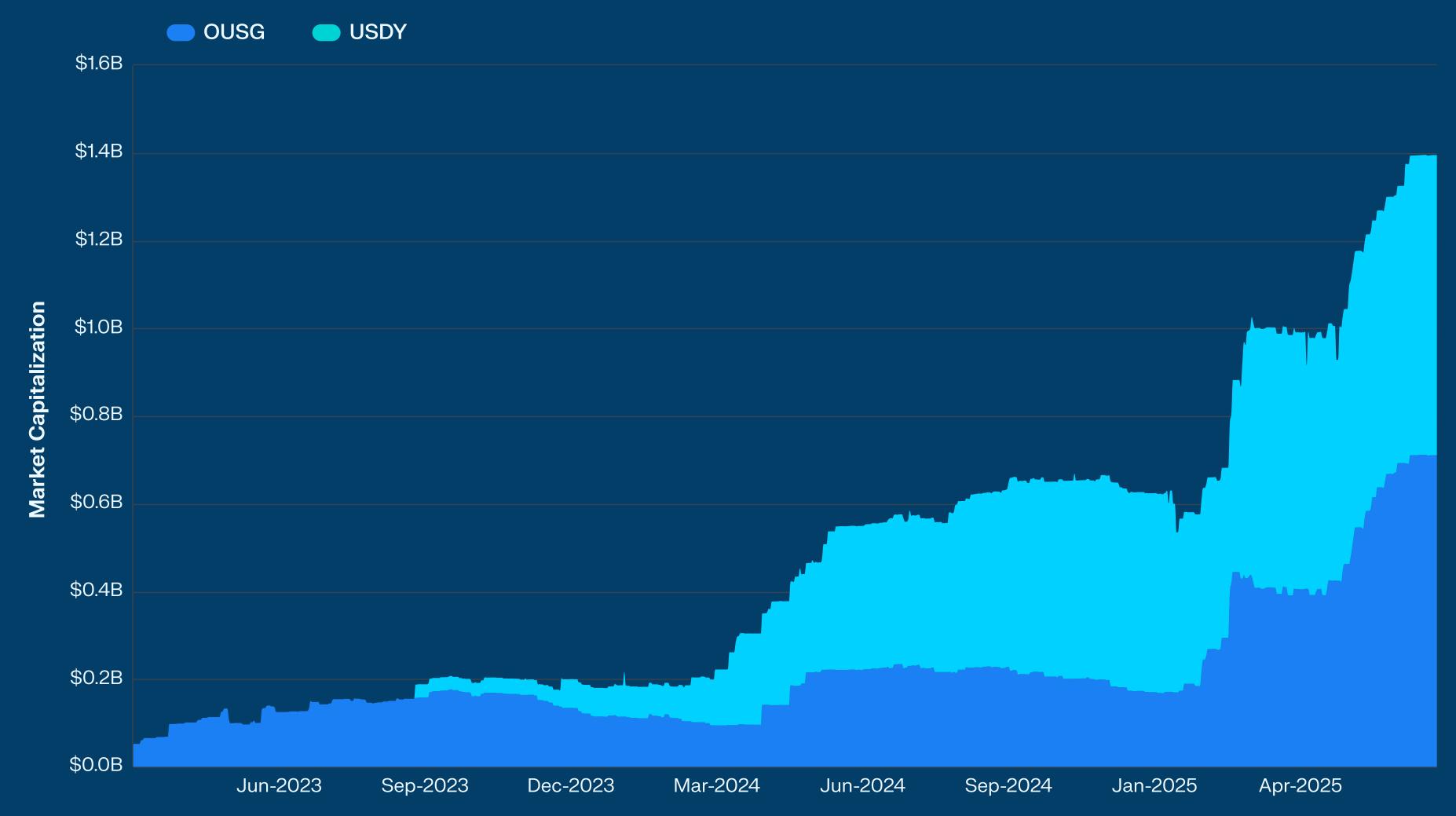
Ondo is designing institutional-grade platforms, assets, and infrastructure to bring markets onchain

Market capitalization of Ondo's tokenized treasury products

Ondo believes that the financial markets of tomorrow should be open, accessible, and composable. Their flagship tokenized U.S. treasuries products have grown to \$1.4B since 2023.

OUSG (Ondo Short-Term U.S. Government Treasuries) is a 24/7 tokenized fund for qualified purchasers (aka passed KYC and AML checks) that mirrors a traditional ultrashort Treasury strategy. Its underlying portfolio holds T-Bills and GSE paper, accrues yield daily, and lets investors mint or redeem the ERC-20 token on multiple chains at net asset value with low fees and sameday settlement.

Meanwhile, USDY (Ondo U.S. Dollar Yield) is structured as a tokenized note available to non-U.S. individuals and institutions; it is backed by a mix of short-dated Treasuries and U.S. bank demand deposits, distributes the coupon as an auto-compounding token that tends to trade slightly above \$1, and becomes freely transferable onchain about 40-50 days after purchase.



Data as of: June 30, 2025 Source: rwa.xyz, Ondo



Stellar is particularly focused on driving more yield-bearing stablecoin usage on their network

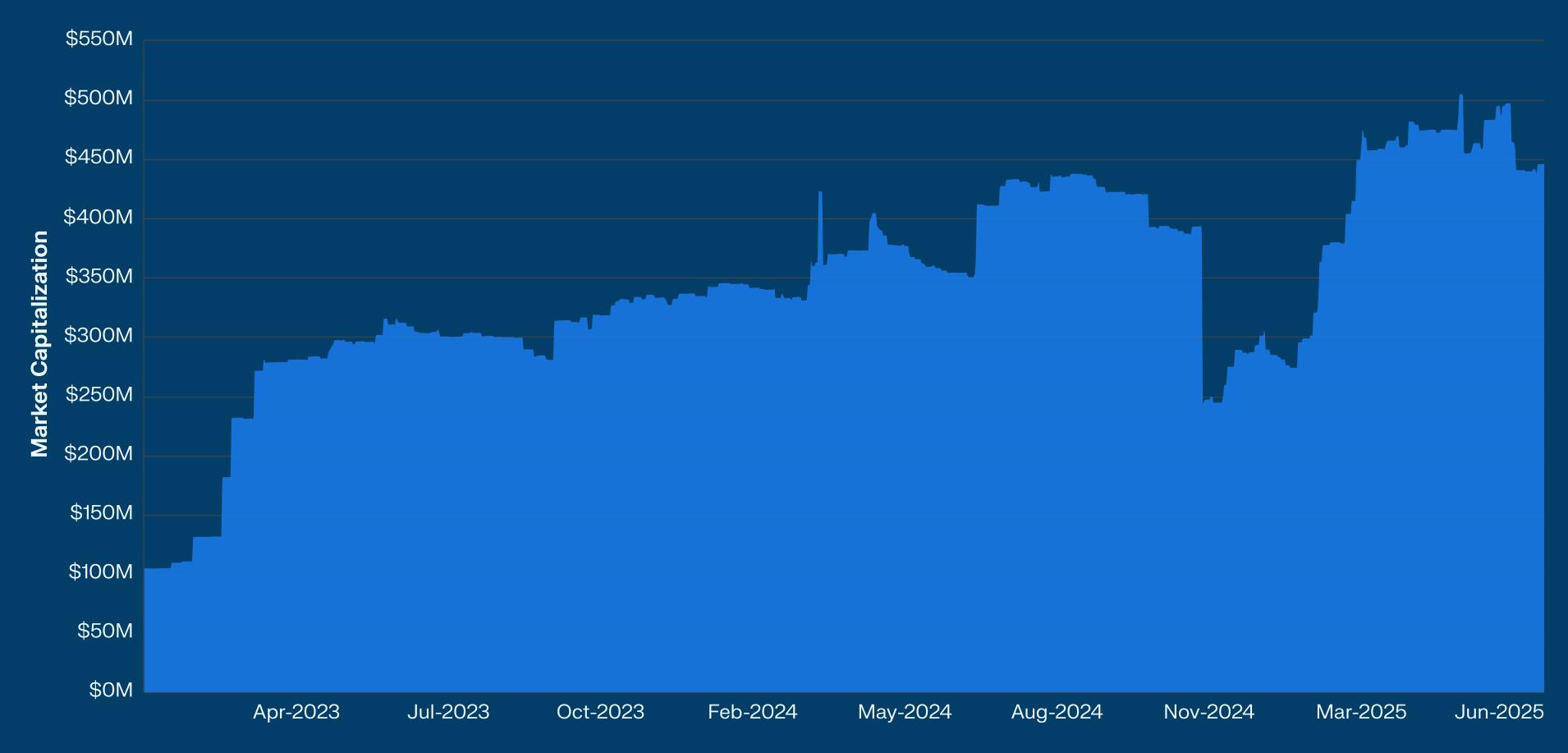
Market capitalization of yield-bearing stablecoins on Stellar

Around \$460 million of Franklin Templeton's BENJI fund is held on the Stellar network. BENJI's launch on Stellar granted institutional investors in Austria, France, Germany, Italy, Spain, and other countries access to this regulated fund after approval by Luxembourg regulators.

For issuers like Franklin Templeton, potential cost savings from tokenization are real.

According to Andrew Crawford at Franklin Templeton Digital Assets, the firm is able to cut its record-keeping costs for every 50,000 transactions from \$50,000 to \$120.

Franklin Templeton also reduced the initial investment required for the onchain fund to \$20, greatly improving financial access.



Source: Stellar, Coindesk, rwa.xyz

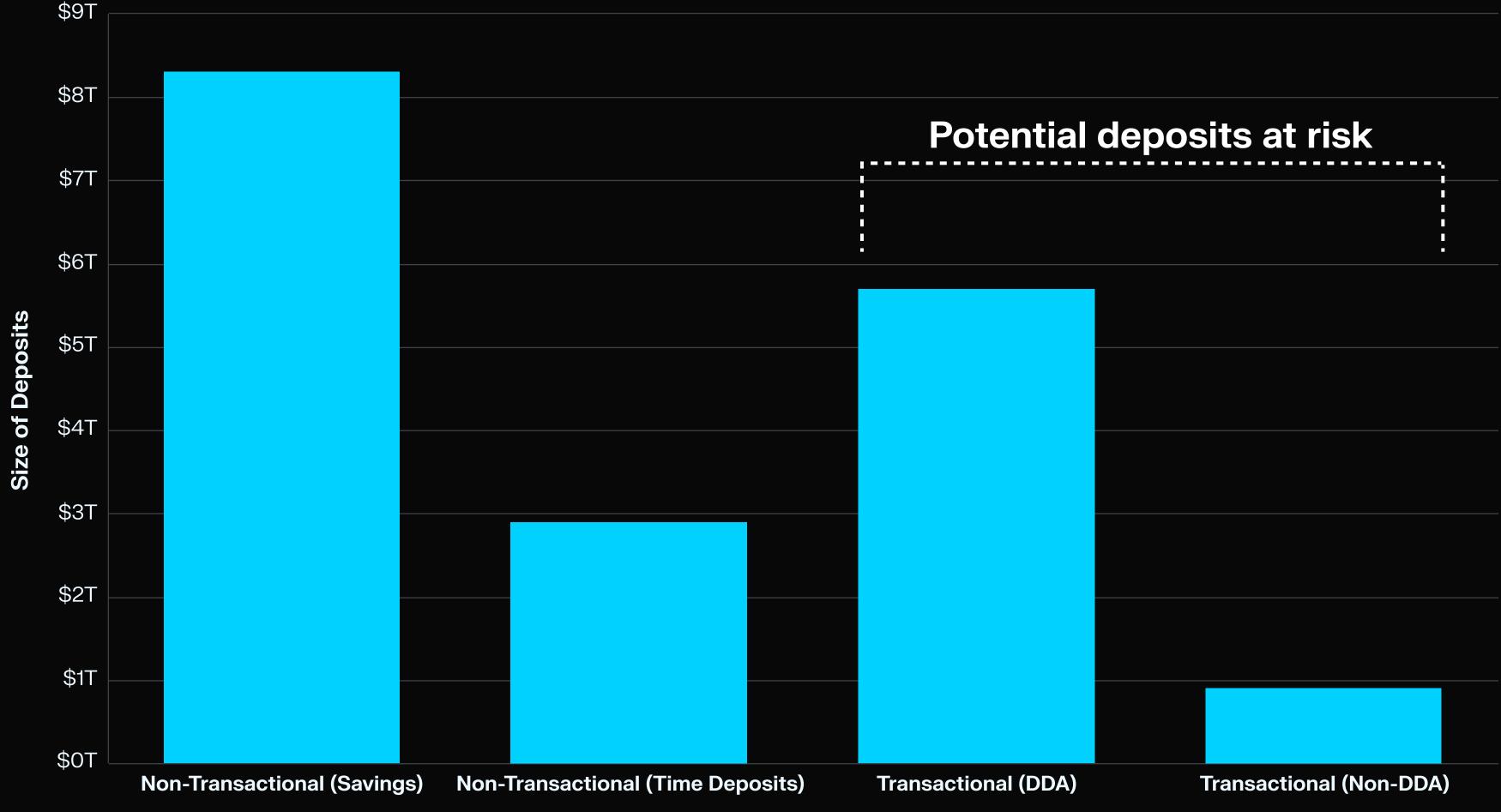
Data as of: June 30, 2025

As TMMFs and tokenized assets grow, the U.S. Treasury has highlighted that traditional bank deposits could be at risk

Total U.S. bank deposits by type

The U.S. Treasury's latest TBAC briefing frames tokenized MMFs and stablecoins as a direct competitor to traditional bank funding: if digital dollars pay yield or offer superior payment functions, deposits (especially interest-sensitive savings and transaction balances) could migrate off the balance sheet.

Both demand-deposit accounts (DDAs) and other non-DDA checking accounts already pay little or no interest, so if a payment-ready digital dollar (stablecoin or TMMF) offers equal utility and even a modest yield or fee advantage, the stickiness of these funds could erode quickly. In a higher-rate world, uninsured balances in savings and time deposits also become mobile, but the Treasury thinks the day-to-day transaction bucket is the immediate pressure point, especially for corporates and fintech treasuries that want 24/7 settlement.

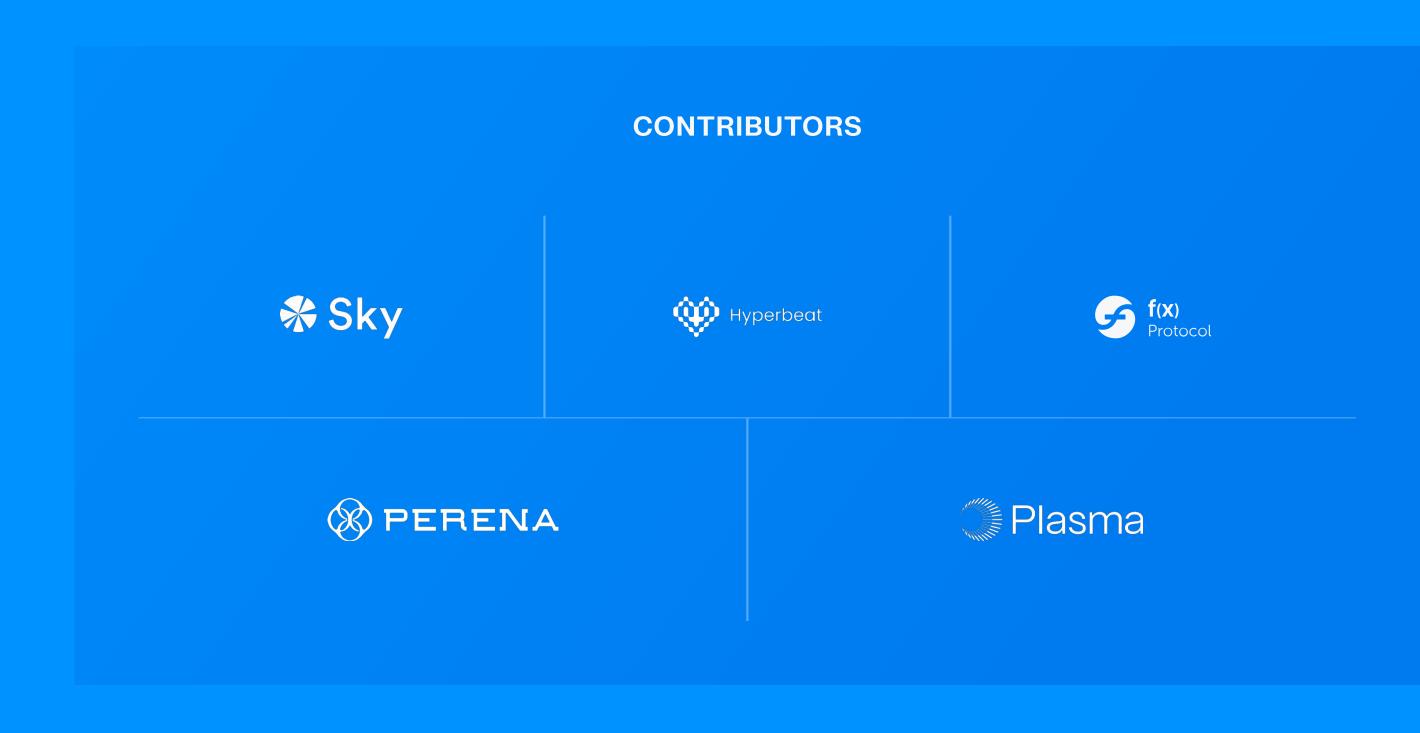


Data as of: Q4'24

Source: treasury.gov



Stablecoins at the Frontier



July 22, 2025

Even as fiat-backed stablecoins dominate, experimental ones proliferate

Market capitalization of the top experimental stablecoins

Luna's UST collapse failed to curb the appetite for "experimental" stablecoins. Digital dollars on the frontier now total \$20.7 billion, up 85% since June 2024. Growth in this subsector has primarily come from two types of products.

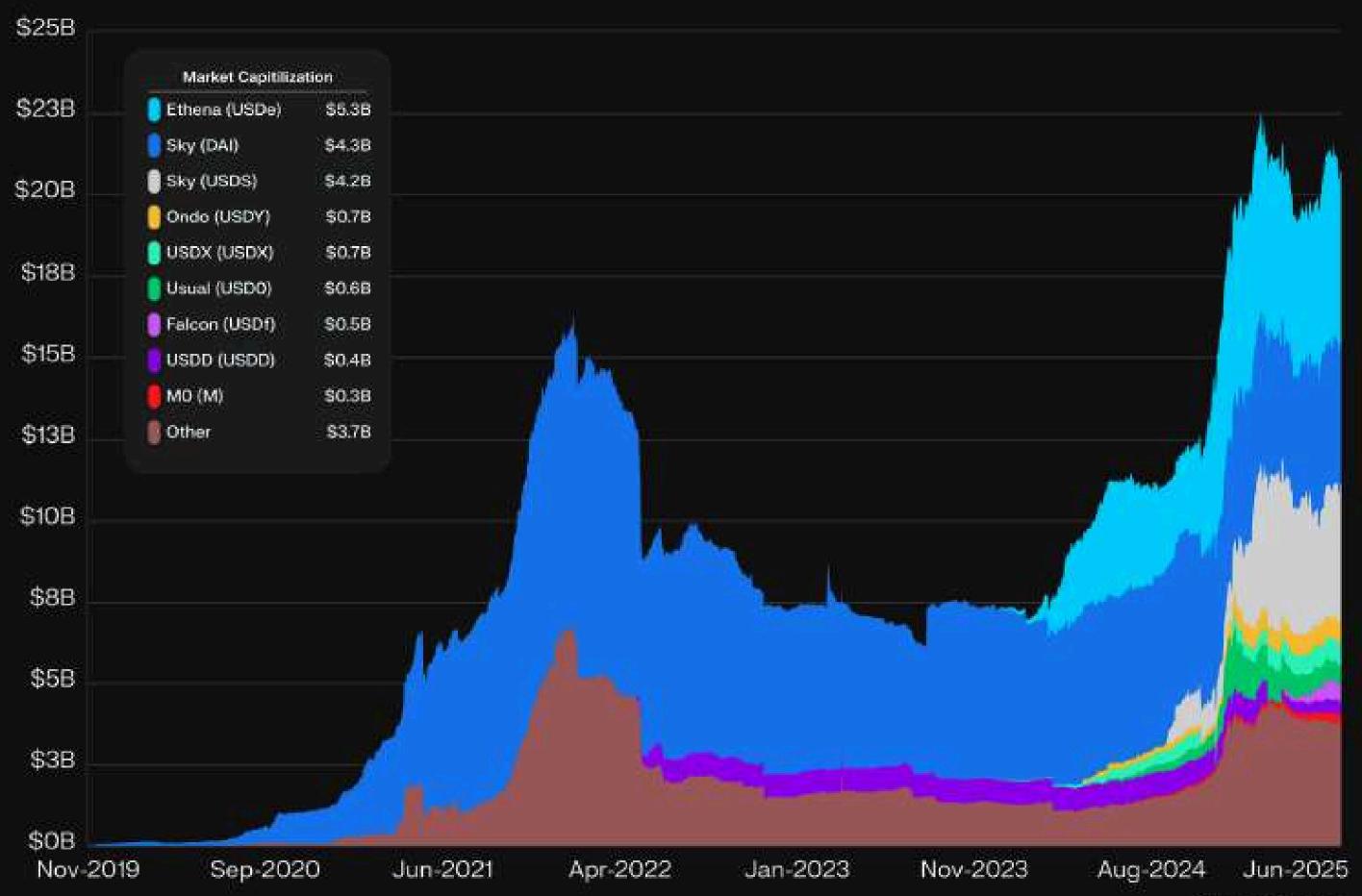
The first is yield-bearing stablecoins, which distribute reserve-generated yield directly to holders onchain.

These yields typically come from two sources:

- U.S. Treasuries (e.g., USDY) and
- Non-volatile investment strategies such as liquidity provision, lending, or funding rate arbitrage (e.g., USDe/sUSDe).

The second growth category is onchain lending-backed stablecoins, which follow a collateralized debt position (CDP) model. In this structure, users deposit crypto into a smart contract and mint a stable asset against their collateral.

These two categories often overlap.
For instance, BOLD, Liquity's CDPbased stablecoin, can be staked to
receive sBOLD, a yield-bearing token
that earns returns from the Stability
Pool through liquidity provision.



Source: DefiLlama

Data as of: June 30, 2025

Note: Includes experimental stablecoins above \$25 million market cap



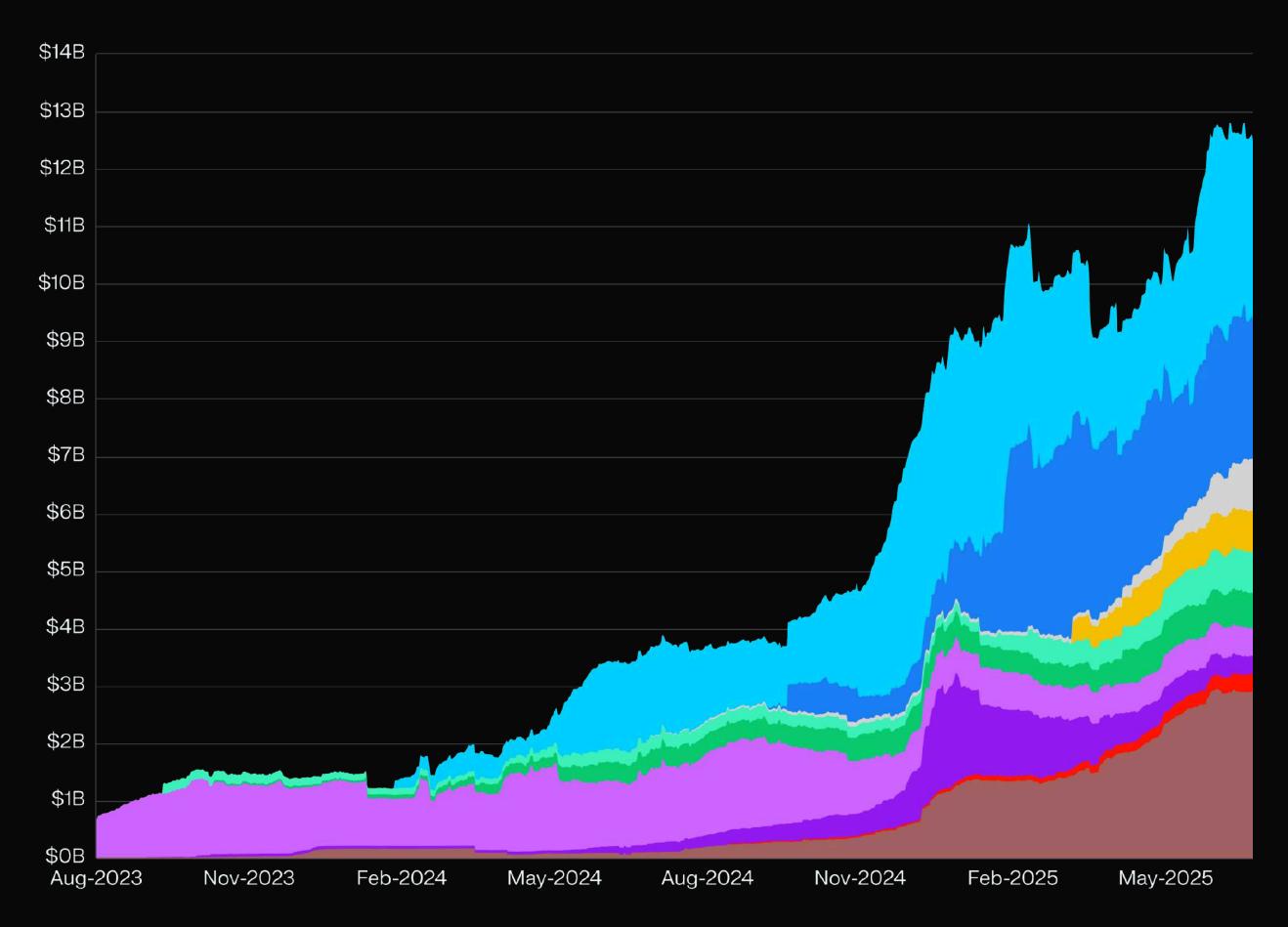
Total market cap of yield-bearing stablecoins rose 45% in 1H 2025 to \$12.4B

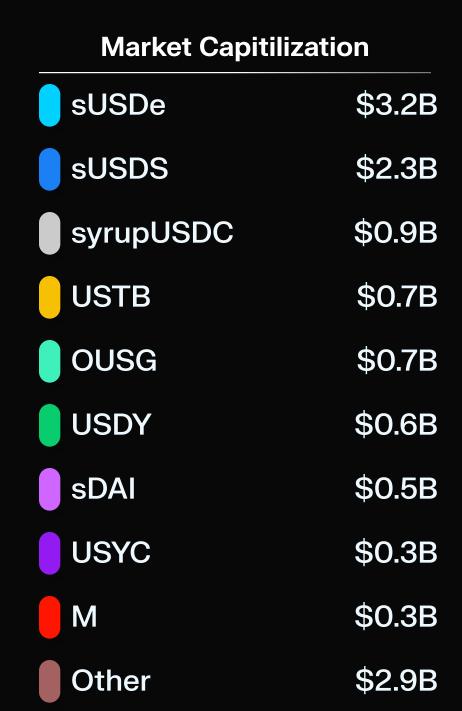
Total yield-bearing stablecoin market capitalization by stablecoin

Circle and Tether's profit margins revealed a simple truth: stablecoins can generate meaningful income from low-risk reserves. However, users have been unable to access the profits of Circle and Tether. A new category of stablecoins has emerged to change that.

Yield-bearing stablecoins let users earn a share of reserve yield by staking their tokens. Unlike locked savings products, these stablecoins remain liquid. Users can move in and out freely while collecting yield in the background.

According to Stablewatch, yield-bearing stablecoins have collectively paid out over \$665.6 million to users since August 2023.





Source: stablewatch.io



How Ethena captures yield from perpetual futures

Ethena is a synthetic dollar protocol built on Ethereum. Unlike fiat-backed stablecoins, USDe is a "synthetic dollar" that maintains its value through a delta-neutral hedging strategy rather than traditional bank reserves.

How USDe works

USDe is backed by a delta-neutral position constructed from spot and perpetual futures.

Users mint USDe by depositing assets such as USDT, ETH, or stETH.

The protocol converts this into a delta-neutral position rather than holding reserves directly.

Slippage and execution costs are embedded in the mint and redeem • This neutralizes directional price.

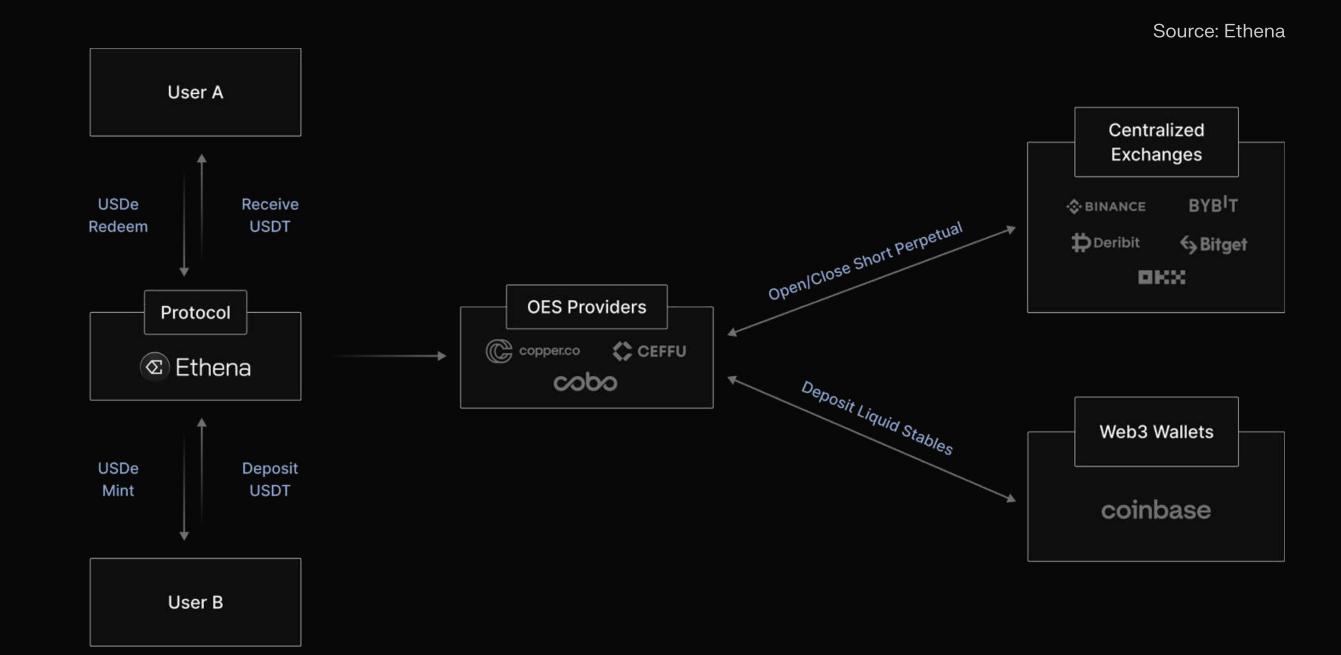
Delta-Neutral Hedging

Ethena uses a long spot and short • Users can stake and lock perp strategy to maintain price stability.

- Ethena takes the deposited collateral and buys spot ETH, BTC, or liquid staking tokens (LSTs) like stETH.
- It opens a matching short position in perpetual futures on a centralized exchange.
- price exposure and creates a synthetic dollar.
- Peg stability relies on the integrity of this hedged position, not traditional reserves.

sUSDe and Protocol Yield

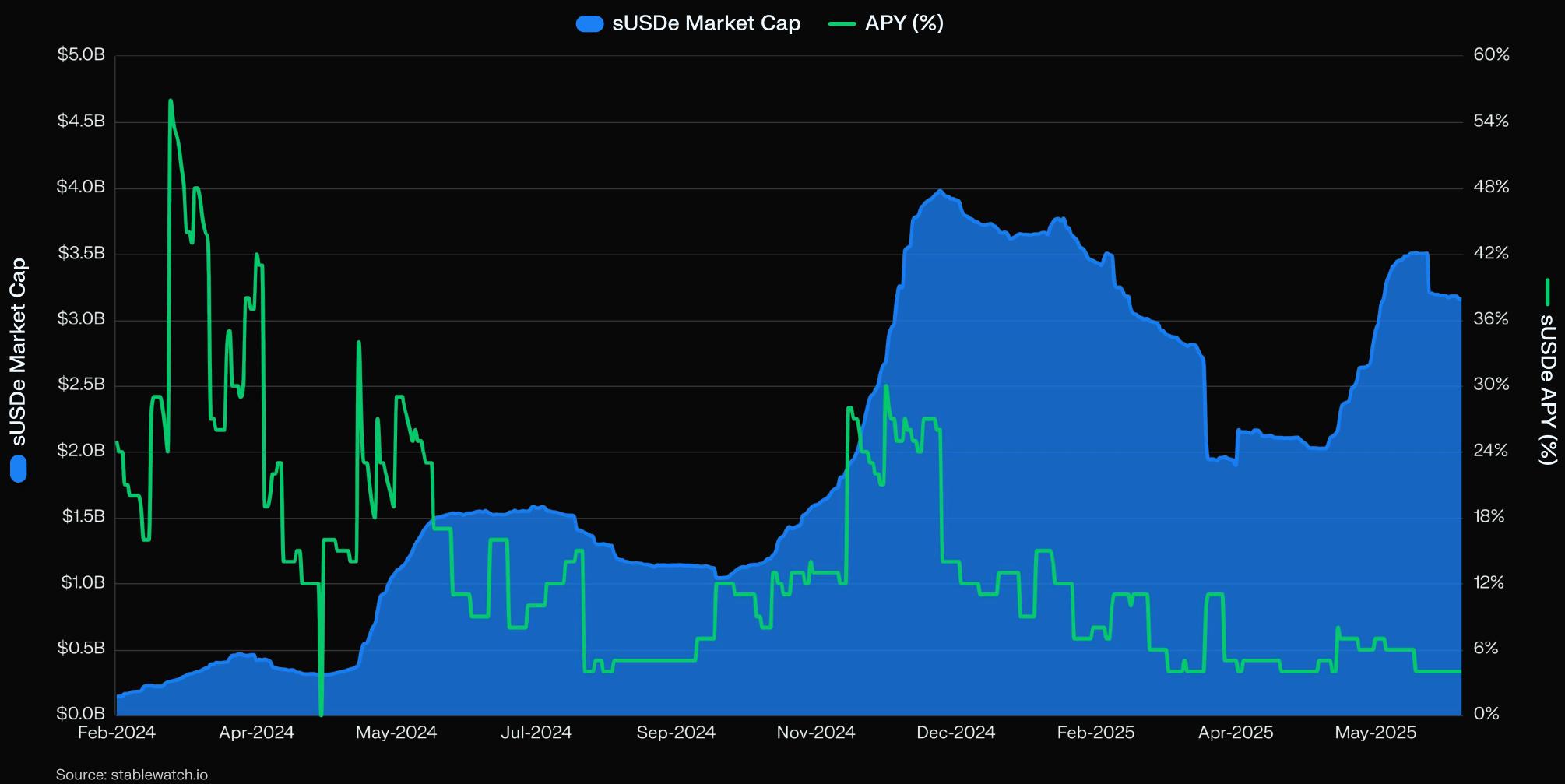
- USDe to mint sUSDe and earn protocol rewards.
- Yield comes primarily from funding rates collected on short perp positions.
- Rewards accrue automatically while holding sUSDe.





Ethena's sUSDe leads as the largest yield-bearing stablecoin at \$3.2B market cap

Ethena sUSDe market capitalization and APY (%)



Source: stablewatch.io

Data as of: June 30, 2025

Sky's sUSDS and Ethena's sUSDe alternated as the largest yield-bearing stablecoin in 1H 2025

USDS and sUSDS market capitalization

As 3-month Treasury yields peaked near 5% in 2023, stablecoin issuers rushed to bring that return onchain. MakerDAO moved early, allocating \$2 billion to short-term U.S. Treasuries in 2023 after signaling its intent the year prior.

In 2024, MakerDAO rebranded to Sky and transitioned DAI into USDS. The protocol also introduced sUSDS, a yield-bearing variant powered by the Sky Savings Rate. Unlike pure Treasury-backed stablecoins, sUSDS combines offchain revenue from U.S. government debt with yield from lending, liquidity provision, and RWAs.

sUSDS led the category for much of 1H 2025 but now ranks second behind Ethena's sUSDe. Still, Sky has broader plans.

"We are focused on establishing USDS as the global standard for stablecoin-based savings," the team says. "We're targeting \$8 billion in deposits as we absorb the DAI migration and activate a new wave of product creation through our Stars program."

"The industry should prioritize data on protocols generating real, sustainable revenue. Profitability, not hype, is the foundation for long-term value creation in crypto."



Source: Messari

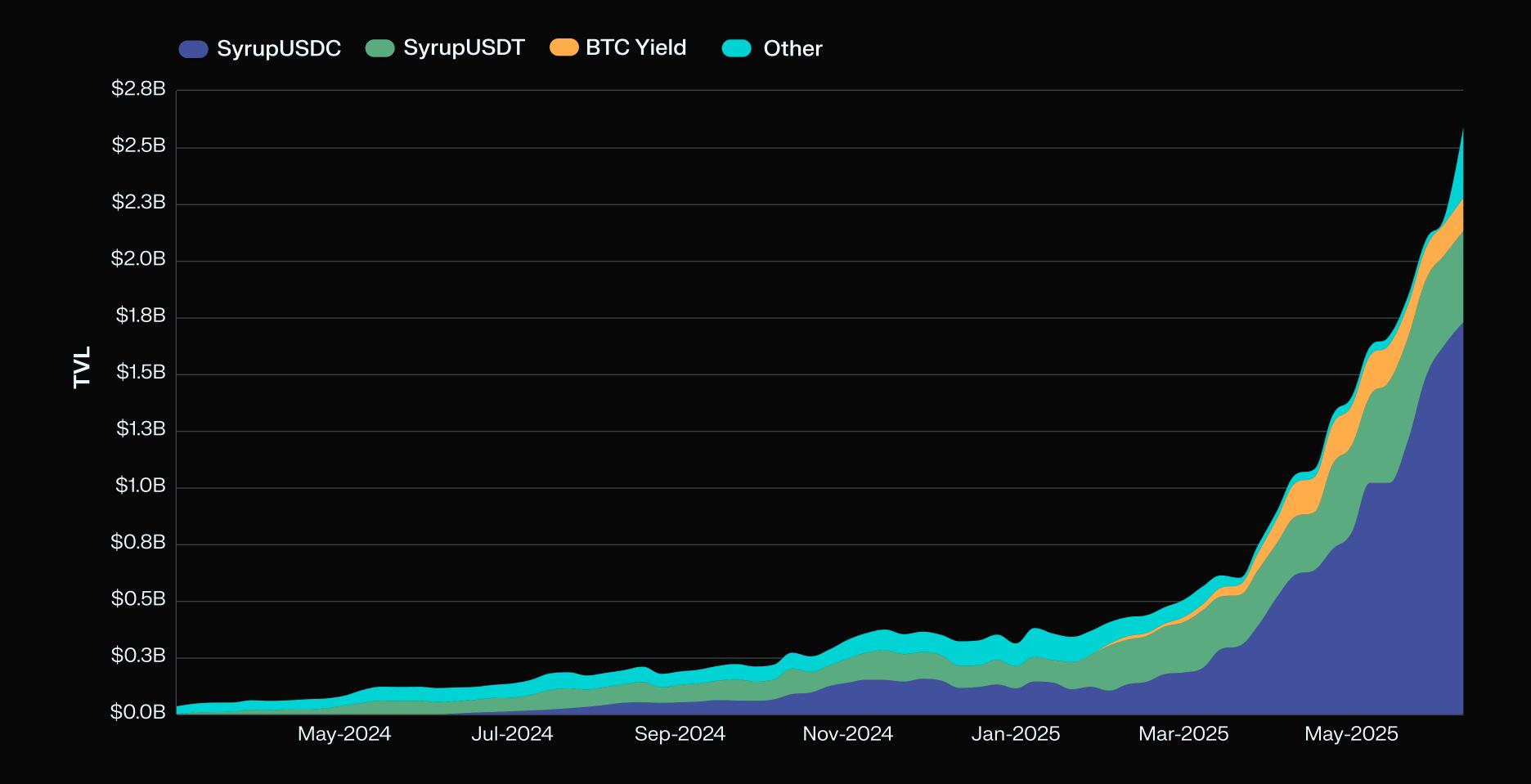
SyrupUSDC ranked third in size as Maple Finance's retail-focused liquidity pools attracted substantial TVL

TVL across Maple Finance products

Institutional lending protocol Maple Finance launched its syrupUSDC product in May of 2024, but the product's TVL started ramping up significantly in the past few months.

Maple's syrupUSDC/USDT products essentially extend institutional lending products to retail investors through accessible LPs. Returns on loans made through these deposits feed back into user rewards through "Drips" or additional yield in the form of SYRUP tokens. With auto-staking for compounding and 20% of protocol revenue being allocated to buybacks, SYRUP's recent outperformance in recent months makes sense.

Just as PYUSD incentives on Kamino drove very strong market capitalization growth for that stablecoin last year, syrupUSDC's integration with both Kamino and Euler Finance as collateral (plus incentive budgets) will likely continue to drive TVL and revenue growth for Maple, feeding into its token flywheel.



Note: Other includes Secured Lending, Altcoin Lending, HY Secured Lending, and Corporate USDC/WETH

Source: Dune (@maple-finance)



New platforms like Neutrl go beyond traditional institutional lending to deliver yield with an OTC arbitrage trading strategy

Ethena enabled onchain users to access yield from a delta-neutral basis arbitrage strategy traditionally used by institutions. Neutrl builds on this foundation by offering a broader set of institutional-grade, fully hedged trading strategies through its own synthetic stablecoin architecture.

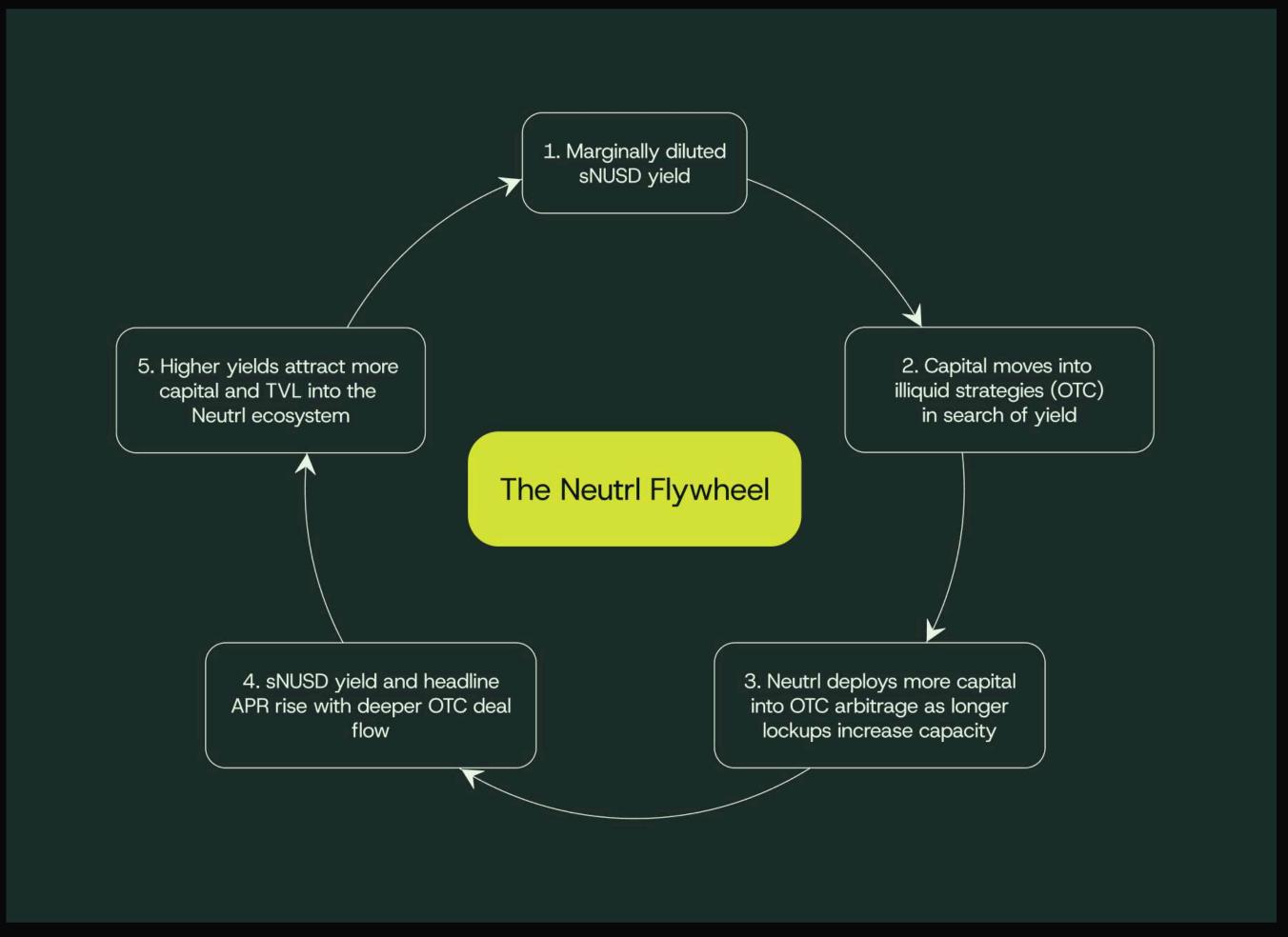
Neutrl will deliver yield from:

- 1. OTC arbitrage, where crypto assets are acquired at a discount via overthe-counter deals and hedged using perpetual futures. Profit is derived from the price delta captured during hedging.
- 2. Funding rate arbitrage similar to Ethena, where profits are earned from funding payments received by holding short perpetual positions against spot exposure.

Synthetic stablecoins are attractive because they avoid the need to hold traditional dollar reserves, which can introduce custodial and counterparty risk. Instead, they maintain their peg through hedged exposure to crypto native assets.

Synthetic yield-bearing stablecoins like Neutrl's NUSD adds additional value by "tokenizing" complex trading strategies and distributing profits in the form of native stablecoin yield, offsetting diminishing purchasing power.

Neutrl democratizes strategies typically reserved for hedge funds, OTC desks, and high-net-worth fund wallets.



Source: Neutrl documentation



Outside of yield-bearing stablecoins, top decentralized stablecoins grew 60% in 1H 2025

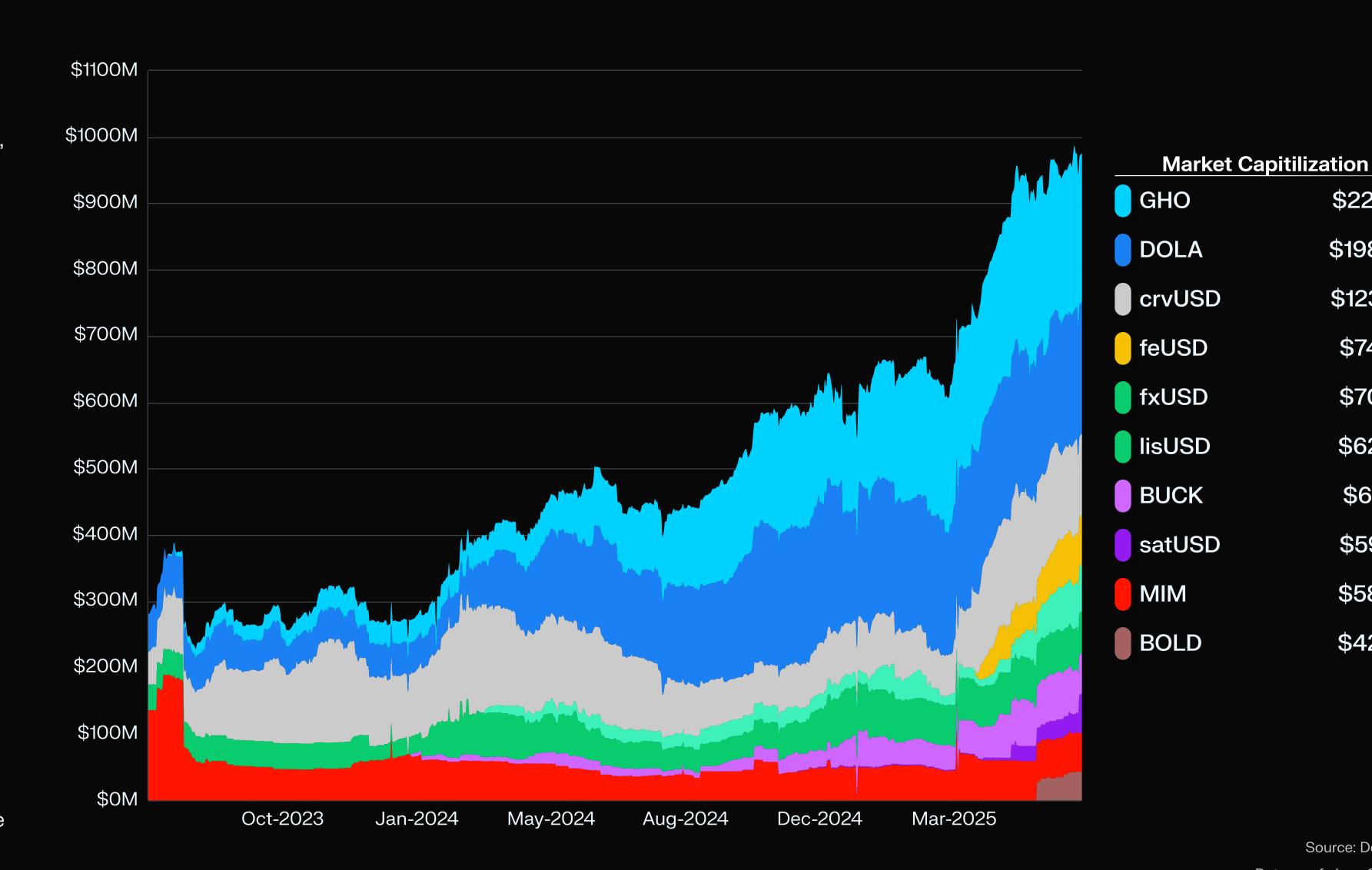
Market capitalization of top 10 decentralized stablecoins

Decentralized stablecoins remain a small share of the overall stablecoin market, but growth has accelerated in recent months. The top ten decentralized stablecoins, including GHO, crvUSD, and DOLA, increased their combined market cap by 60% in the first half of 2025, reaching \$932 million.

Most decentralized stablecoins rely on a collateralized debt position (CDP) model. Users deposit assets such as ETH or WBTC into smart contracts and mint stablecoins against that collateral. These systems typically require overcollateralization and may include interest charges, stability fees, or automated rebalancing mechanisms.

Unlike fiat or RWA-backed stablecoins, these protocols do not depend on offchain assets or custodians. They enforce peg stability through liquidation mechanisms, arbitrage incentives, and governance-controlled parameters.

Although smaller in scale, decentralized stablecoins continue to attract users and builders focused on composability and onchain transparency. The group includes established projects like GHO and DOLA, as well as newer experiments like fxUSD that are testing alternative onchain structures.



Source: DefiLlama

\$224.1M

\$198.8M

\$123.3M

\$74.0M

\$70.3M

\$62.8M

\$61.4M

\$59.3M

\$58.4M

\$42.9M

f(X) Protocol: decentralized stablecoin and leverage on Ethereum

f(x) Protocol is a decentralized platform on Ethereum that offers native stablecoin and leverage features. fxUSD is overcollateralized and uses a peg stability mechanism to keep its value anchored. A built-in liquidation buffer allows for greater capital efficiency than is typical in DeFi

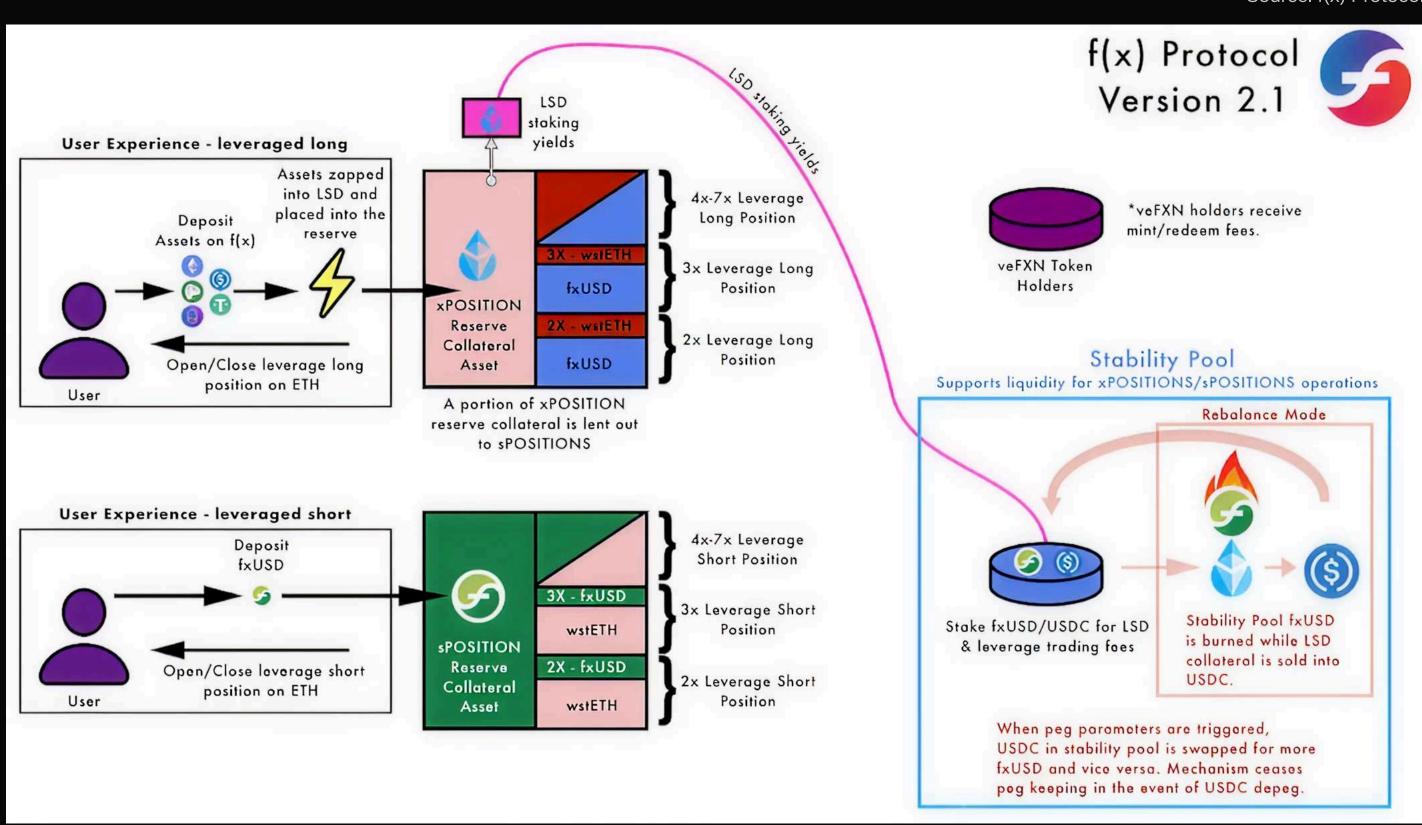
Source: f(x) Protocol

How fxUSD works

- Users deposit stETH or other supported assets as collateral.
- Instead of paying a fluctuating borrowing cost, the users only pay a one-time opening and closing fee.
- The protocol uses a flashloan to boost the users deposit (e.g. deposit 1 ETH, borrow 9 ETH via flashloan for 10x leverage).
- The combined collateral is split:
 - fxUSD: a decentralized stablecoin.
 - xPOSITION: a leveraged nonfungible position that absorbs price volatility of the whole backing.
- The protocol automatically mints the required fxUSD and uses it to repay the flashloan in the same transaction.

Stability and Yield

- fxUSD's peg is maintained by a Stability Pool. Users can deposit stablecoins to earn staking rewards and protocol fees, while the pool absorbs volatility and supports peg stability.
- If collateral value drops,
 xPOSITIONs absorb losses first,
 which protects fxUSD holders.
- Liquidations are minimized through a mechanism called the liquidation brake, which avoids full position liquidations by only selling a small portion of at-risk collateral. This allows users to retain most of their market exposure.





fxSAVE delivers consistent yield as f(x) Protocol expands fxUSD

fxUSD market capitalization and fxSAVE APY % (7D Avg)

f(x) Protocol powers a fully onchain leverage and stable yield system built on ETH and BTC. xPOSITIONs offer up to 7x fixed leverage with no funding fees. Positions include a built-in liquidation protection mechanism, which allow users to hold long exposure without active management.

fxUSD is the protocol's decentralized stablecoin. It is issued when users open xPOSITIONs and remains fully backed by the reserve. In June 2025, fxUSD market cap grew 35% MoM to \$70 million.

fxSAVE is the protocol's passive yield strategy. It holds fxUSD and USDC in a stability pool that earns real yield from stETH staking rewards and leverage trading fees. Since launch, fxSAVE has averaged a 9.8% annual yield. Yield is onchain and sourced entirely from protocol revenue.

f(x) Protocol has generated over \$5.74 million in cumulative revenue since November 2023.



Source: Messari, stablewatch.io

Data as of: June 30, 2025



Liquity is another long-standing protocol that recently upgraded its design

Liquity V2 is a decentralized borrowing protocol on Ethereum that lets users mint the USD-pegged stablecoin BOLD by collateralizing ETH and liquid staking tokens. BOLD maintains its peg through user-driven interest rates, multiple collateral pools, and a market-based redemption mechanism.

How Liquity V2 Works

Users deposit ETH or liquid staking tokens (LSTs) such as wstETH or rETH as collateral.

Users borrow the stablecoin BOLD against their collateral.

Borrowers can set their own interest rates, choosing the cost they want to pay for the loan.

Multiple loans per address are allowed, and loans are transferable.

Users can leverage their positions with 1-click multiply, borrowing BOLD to buy more collateral automatically.

BOLD is an over-collateralized, crypto-backed stablecoin pegged to USD, with improved peg stability and real yield for holders.

Stability and Peg Maintenance

Liquity V2 uses Stability
Pools where users deposit BOLD
to earn rewards and protocol fees.

Stability Pools absorb liquidation losses, protecting BOLD holders and maintaining peg stability.

The protocol features a marketdriven redemption mechanism:

When BOLD trades below peg, users can redeem BOLD for collateral at face value.

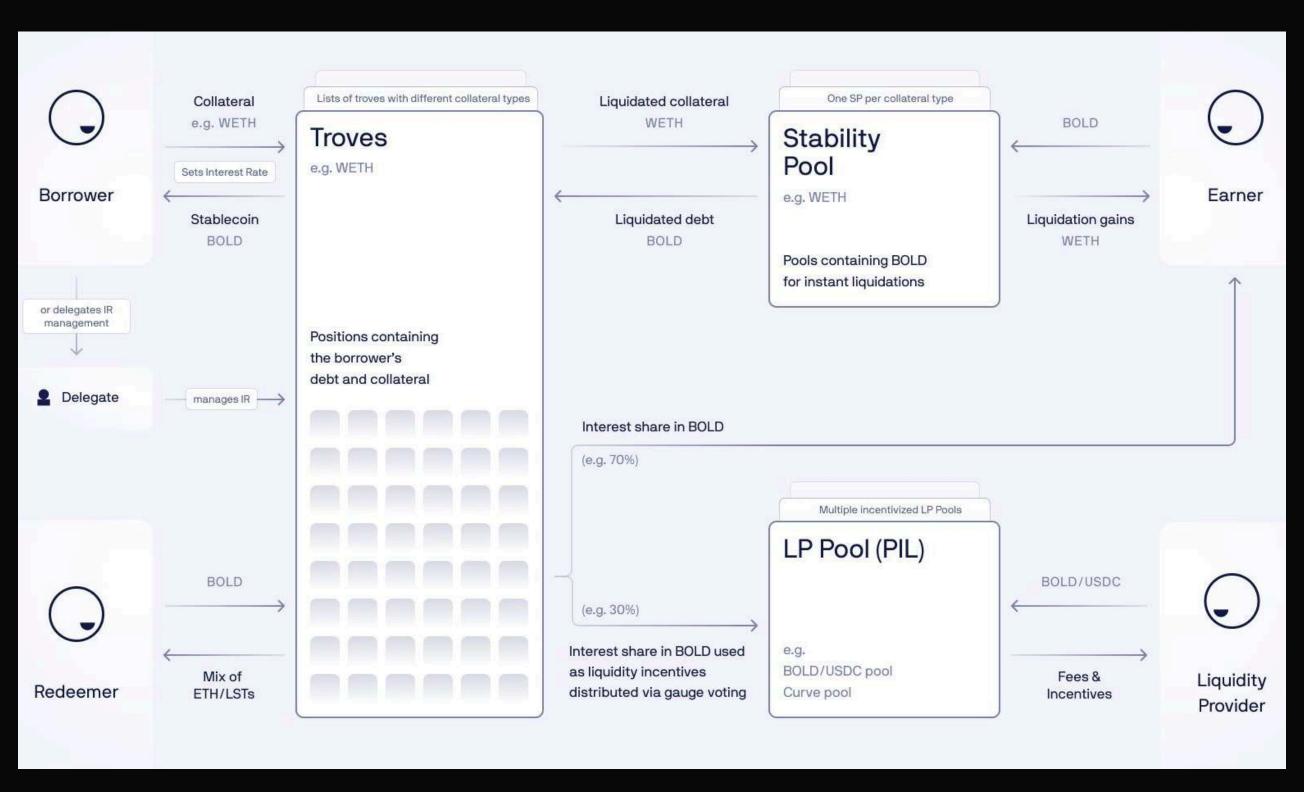
This enables risk-free arbitrage, stimulating demand and restoring the peg.

Liquidations are minimized by improved collateral risk management and interest rate incentives.

Liquity V2 Friendly Fork Program

Liquity V2 is licensed to enable "friendly forks," where independent teams can launch their own stablecoins and protocols using the Liquity V2 codebase across EVM-compatible network, with over 15 forks already committed or live.

Each fork agrees to reward early BOLD users and liquidity providers with incentives such as exclusive yield opportunities and token rewards.



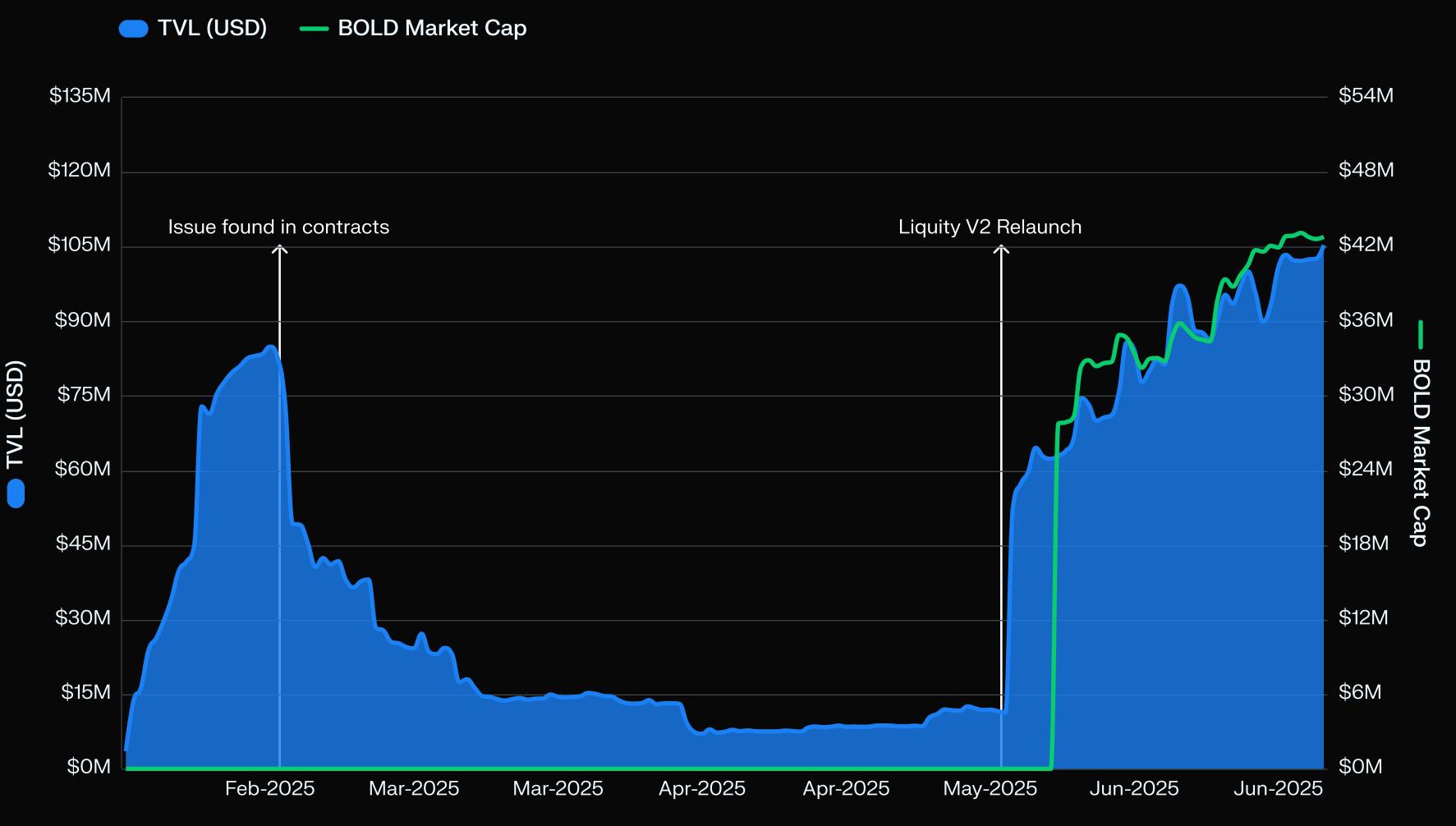
Source: Liquity



Liquity V2 relaunched with user-defined rates and Ethereum-native yield

TVL of Liquity V2 and market capitalization of BOLD

Early adoption remains modest, but V2 repositions Liquity to compete with newer CDP protocols by offering greater customization and protocol-native yield without relying on offchain reserves.



Source: DefiLlama Data as of: June 30, 2025



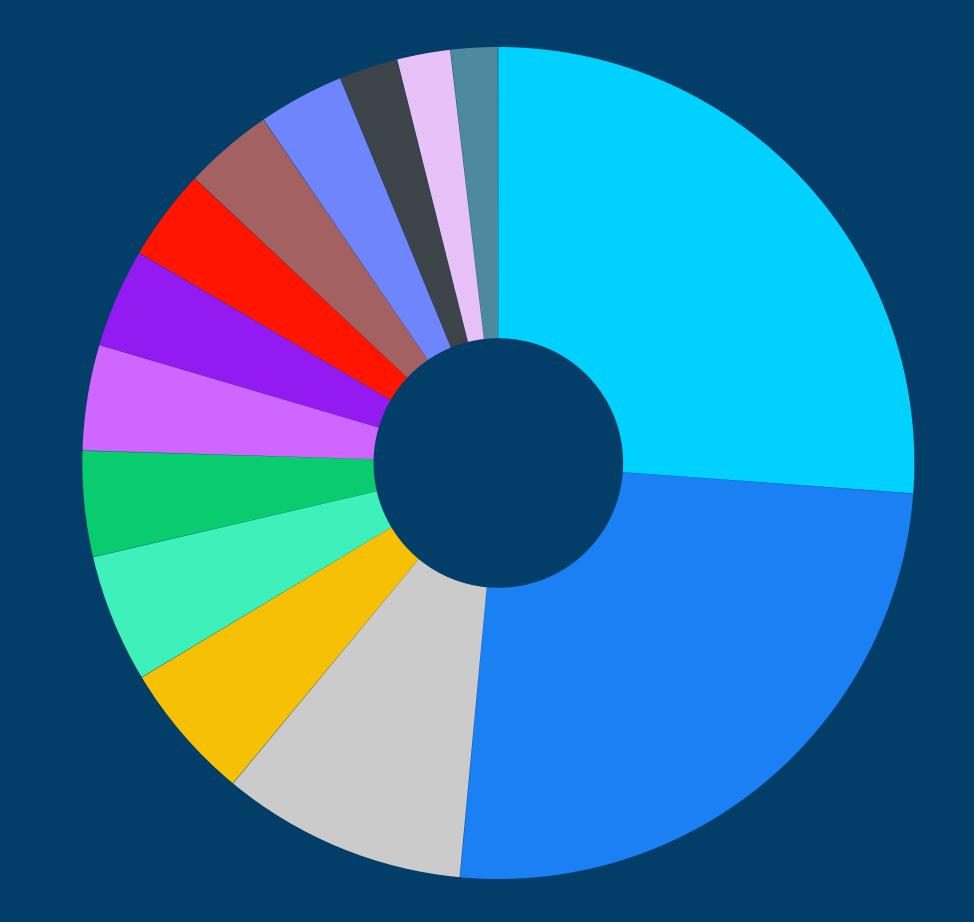
Perena is looking to bring all of these stablecoin experiments together in a unified liquidity layer

Stablecoin pairs by swap volume on Perena's Numeraire product

Perena is building a "stablebank" powered by a cross-chain liquidity layer, a yield engine that taps into DeFi & CeFi, and an ecosystem of stablecoin projects supported with distribution, underwriting, and liquidity bootstrapping.

On Perena, users can provide liquidity in various stablecoins (like USDC, USDT, and PYUSD) to receive an LP token (USD*). USD* is paired with other smaller stablecoins in "Growth Pools" where users can earn a percentage of the swap fees as well as underlying rewards for USD* itself.

Their Numeraire product is a stableswap AMM that allows for easy swaps between USD* and any other partner stablecoin. This model both unifies liquidity in a fragmented market and helps new issuers with bootstrapping. While USDC <=> USDT volumes dominate, PYUSD and Sky's USDS also conduct notable volumes.



Numeraire Pair Volumes	
USDC to USDT	\$595M
USDT to USDC	\$575M
Other pairs	\$216M
USD* to USDC	\$122M
USDC to USD*	\$113M
USDC to PYUSD	\$93M
USDS to USD*	\$93M
USD* to USDT	\$87M
USD* to USDS	\$81M
USDT to USD*	\$78.9M
PYUSD to USDC	\$75.8M
USDT to PYUSD	\$52.2M
PYUSD to USDT	\$47.2M
sUSD to USD*	\$41.6M

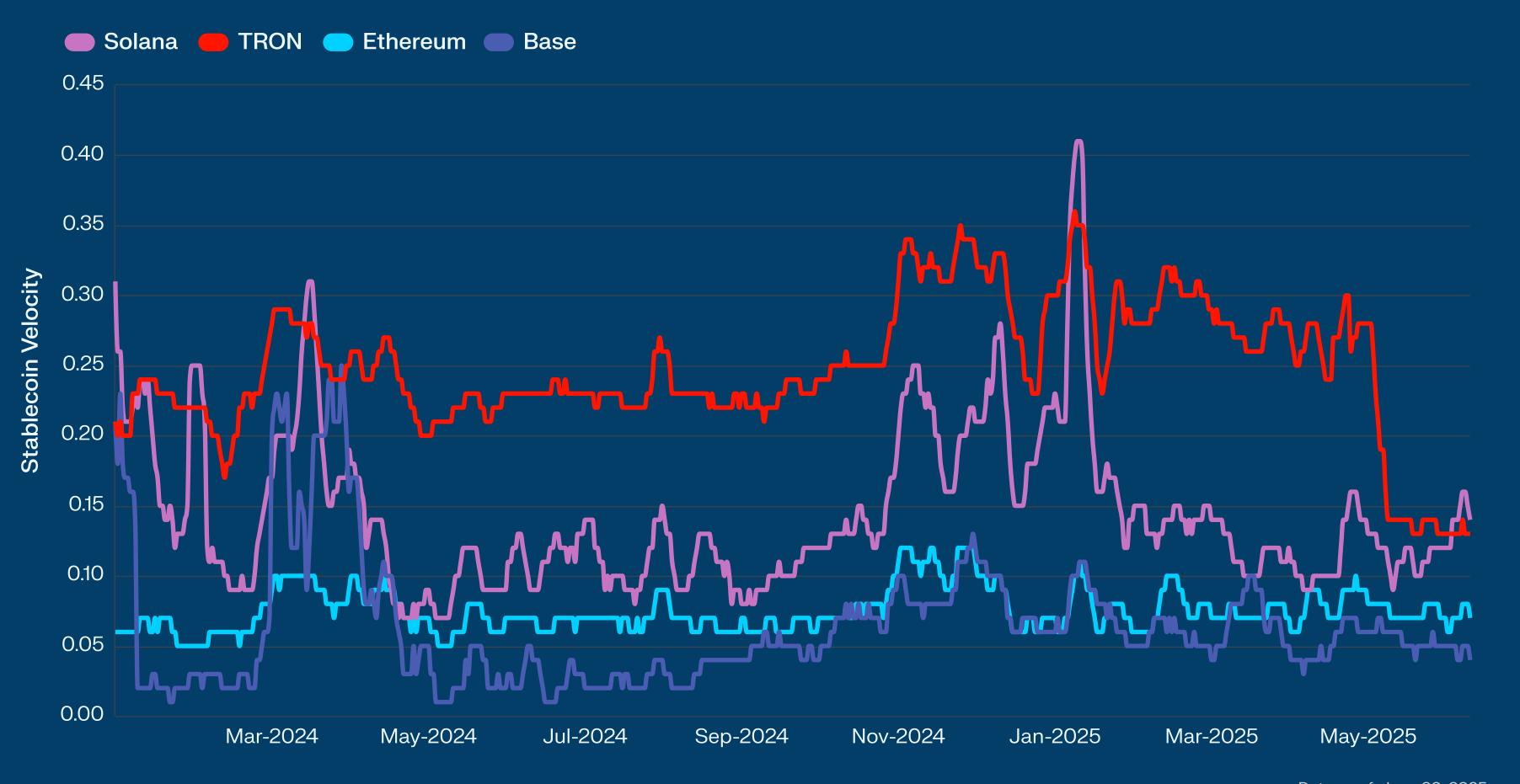
Data as of: June 7, 2025 Source: Dune (@teamjo), Perena

By aggregating liquidity, Perena is aiming to accelerate stablecoin velocity on Solana

24HR P2P transaction volume for stablecoin-to-fiat conversions across major centralized exchanges

Perena is launching a suite of programmable vaults that offer users access to yield from DeFi, CeFi, and TradFi. The goal is to accelerate stablecoin velocity on Solana through upgraded cross-chain liquidity, institutional partnerships for real-world use cases, and a growing ecosystem of stablecoin projects built on Perena's infrastructure.

While a volatile metric, stablecoin velocity has recently been highest on Solana, possibly indicating more "medium-of-exchange" usage on the network (enabled by lower fees).



Data as of: June 30, 2025 Source: Artemis, Perena



Beyond new stablecoin designs, this year is bringing new architectures designed around stablecoins

Plasma is a new L1 blockchain designed specifically for stablecoin payments, with features general-purpose chains lack

Features:

Allows users to pay gas fees in USDT or BTC, eliminating the need to hold a separate native token. These payments are automatically converted to the native fee token at market rates using oracle data, so the process remains seamless for users.

Zero-fee USDT transfers for simple transactions, which are handled in a separate block layer to prevent network congestion.

Built-in safeguards like rate limits and transaction replacement help prevent spam.

Confidential transactions are also in development to let users hide transaction details while preserving security and compliance.

Plasma is closing a public funding round with over \$1 billion in deposits, ensuring USDT liquidity will be available on the chain from day one.



Source: Plasma.to

Stable is another stablecoin-focused network that combines settlement, privacy, and native payment infrastructure

Stable is a high-throughput Layer-1 network designed to be an asset issue and settlement layer for USDT

USDTO-Specific Features

Stable treats USDT as the native gas token, enabling gasfree USDTO transfers and unwraps without needing a secondary asset.

Transfer Aggregator

The USDT Transfer Aggregator on Stable processes USDTO transfers in parallel, bundling transactions for efficient execution without impacting the broader transaction pipeline.

Confidential Transfer with ZK proofs

Confidential transfers hide transaction details like the value of the transfer by leveraging zero-knowledge (ZK) cryptography. Sender and recipient addresses remain publicly visible to ensure compliance with financial regulations.

User locks USDT on Ethereum or burns USDTO on Arbitrum LayerZero acts as the messaging protocol between Ethereum and Stable

USDTO is minted on Stable

USDTO can be wrapped to gasUSDT to spend on non-USDT transactions













Source: Stable



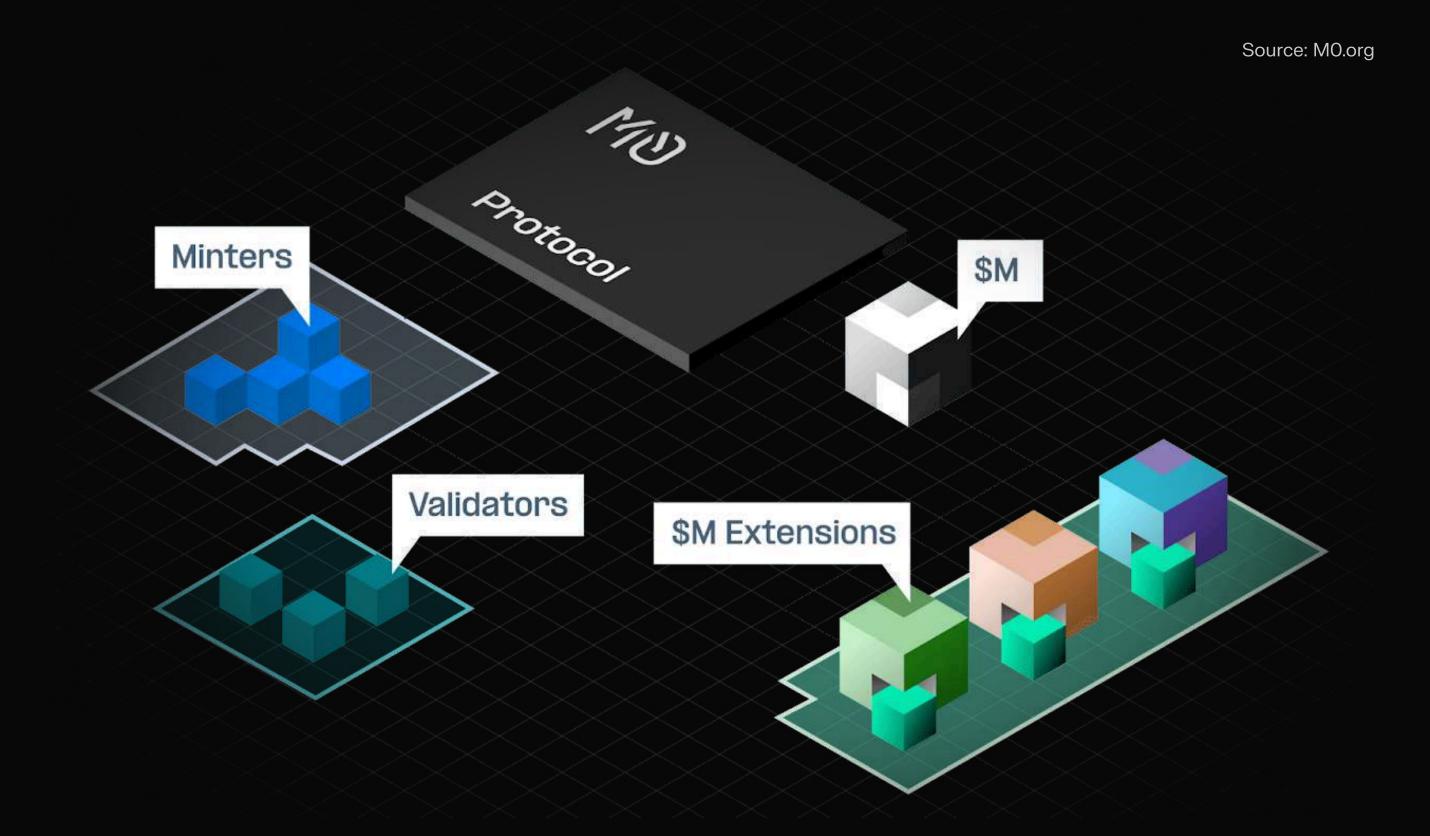
Other infrastructure like M0 allow for issuing stablecoins that inherit shared collateral backing but remain fully programmable and governed onchain

M is a base stablecoin backed by short-term, risk-free collateral. Developers and institutions can wrap M in their own contracts to create stablecoins with custom rules around access, compliance, and value flows, without managing reserves themselves.

These wrapped contracts are called extensions. Each one defines how the stablecoin behaves, while relying on the underlying M for collateral security and issuance mechanics.

Extensions can be upgradeable or immutable, depending on how much flexibility the issuer wants to retain.

USDN, USDO, and USDhl all launched using the MO infrastructure.





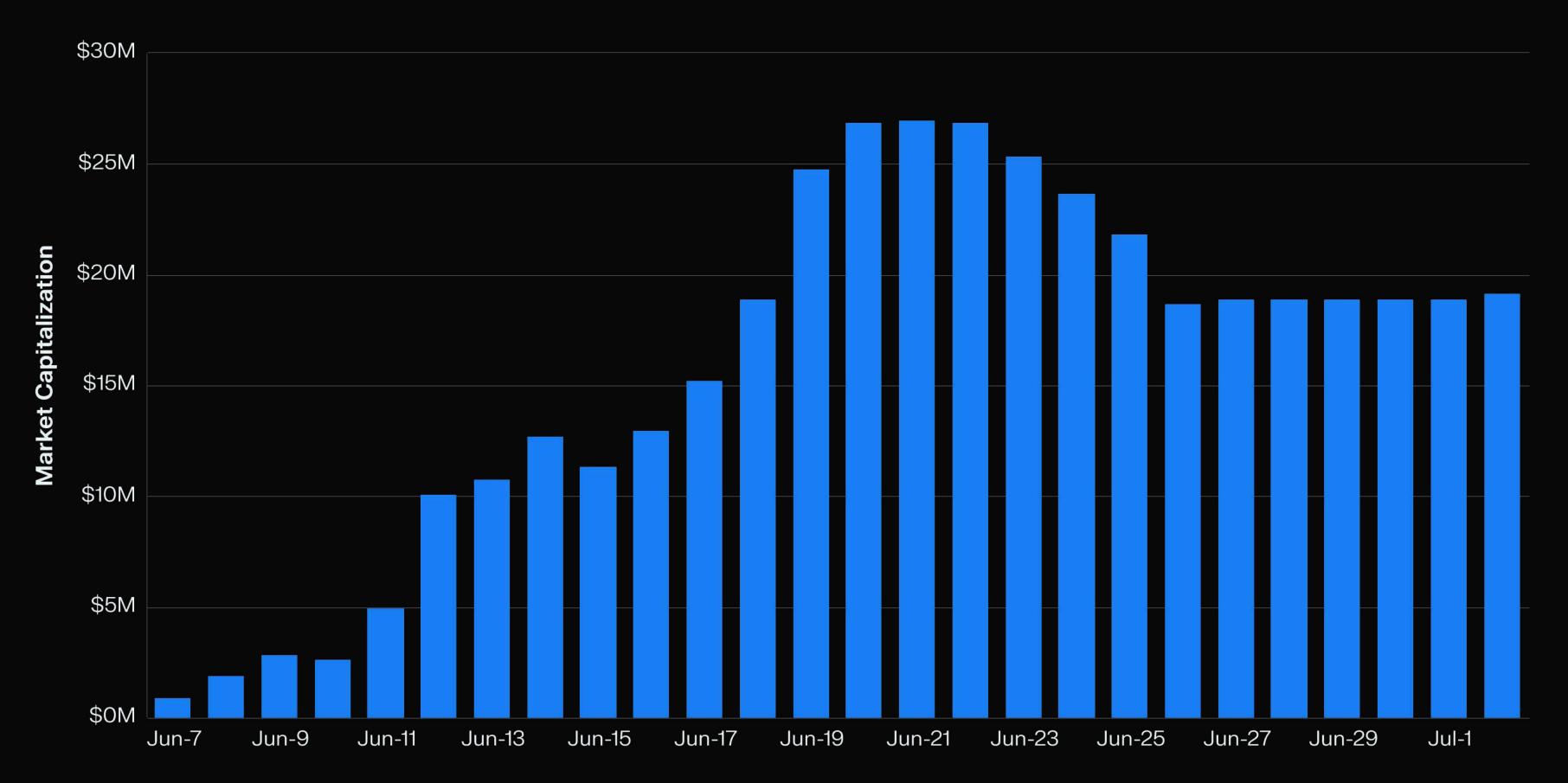
Money Market protocol Felix used M0 to launch its treasury-backed stablecoin, USDhl, on Hyperliquid

Market capitalization of USDhl since launch

M0 infrastructure allowed the Felix team to get to market quickly without having to handle regulatory requirements and technical specifications themselves.

USDhl is driven by the Hyperliquid ethos of bringing value back to core users. As such, revenues earned from the collateral backing are all used to buy HYPE and then distributed to users who support the stablecoin's liquidity across both HyperCore and HyperEVM venues. HYPE rewards are distributed every two weeks.

Spot trading with different quote assets (other than USDC) is live on Hyperliquid testnet. USDhl scaling as a quote asset on HyperCore once live on mainnet would unlock substantial capital efficiency for traders on the platform, as they could earn risk-free yield on their margin collateral.



Source: Felix, MO



DeFi protocols like Hyperbeat are merging onchain balances, native tokenomics, real-world spending, and protocol usage

Hyperbeat is a yield aggregator built on Hyperliquid that will be launching a Visa credit card through Rain:



Direct Pay Mode

Simply deposit USDC or USDT onto your card and spend from those pre-funded balances (no interest or borrowing).

Credit Mode

Credit mode creates a flexible credit line. When you spend beyond prefunded stables, credit is drawn against the value of your Hyperbeat Earn and Hyperliquid portfolios. A user's credit limit is based on the value of their collateral and the applicable LTV.

(Loan-to-Value) ratios on Morphobeat, Hyperbeat's Morpho-powered lending market. When you spend beyond your Direct Pay balance, the system triggers just-in-time borrowing. Users only pay interest on the credit that is used. Liquidation risk alerts are sent through a Telegram bot system in advance.

Cashback

Standard users get 0.5% cashback paid in HYPE, whereas power users may get 1% or more for Hyperbeat Earn usage (with possible additional loyalty tiers in the future).

Source: Hyperbeat

3Jane also represents a melding of onchain accounts with real-world finances

The protocol enables borrowers to access unsecured credit using ZK proofs to verify bank balances, credit scores, and crypto assets.

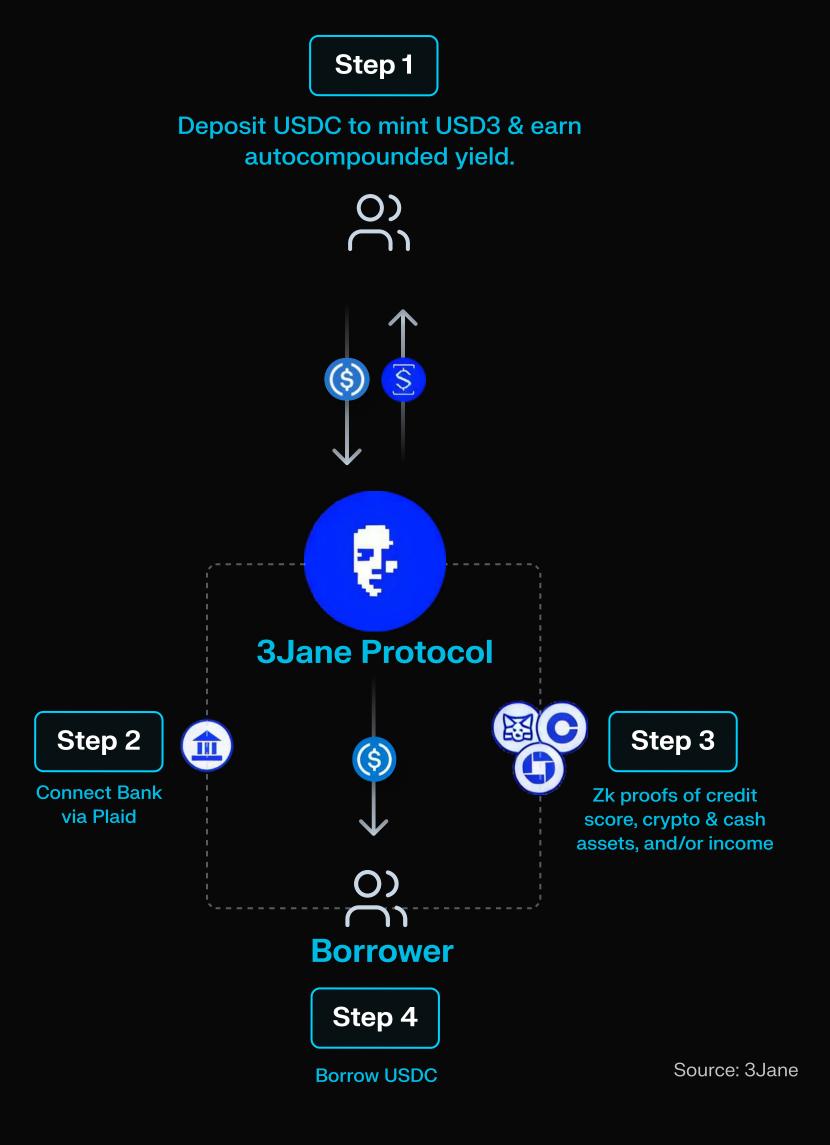
3Jane Lending & Credit Origination Process

- 1. Deposit USDC and Mint USD3 2. Connect Bank and Credit Data 3. Generate Zero-Knowledge
 - a. Lenders supply USDC to the protocol and receive USD3, a yield-bearing ERC-4626 token backed by Aave and active credit lines.
 - b. Depositors can optionally stake USD3 to mint sUSD3, earning leveraged yield in exchange for absorbing first-loss risk in the event of defaults.

- Connect Bank and Credit Data via Plaid
- a. Borrowers link a U.S. bank account using Plaid and authorize read access to balances, cash flows, and account history.
- b. Credit scores are retrieved from Credit Karma and verified using zkTLS, a zero-knowledge proof system that attests to HTTPS-sourced data without exposing personally identifiable information (PII) onchain.

- Generate Zero-Knowledge Proofs for Underwriting
 - a. ZK proofs verify the borrowers credit score, DeFi assets, CEX balances, and income feeding into 3Jane's offchain underwriting algorithm (3CA).
- b. 3CA computes a Jane Score (300-1000), assigns a credit line size, calculates a risk-adjusted interest rate, and sets a minimum repayment schedule.

- 4. Draw Credit and Repay Over Time
 - a. Borrowers receive an unsecured USDC credit line under a Merchant Cash Advance structure enforceable under U.S. law.
- b. Delinquent loans trigger a credit downgrade, penalty redistribution, and, if necessary, a collections auction to U.S.-licensed debt agencies.





Thank You for Reading

Stablecoins now anchor payments, savings, trading, banking, and cross-border dollar access. Adoption will accelerate as the companies and protocols in this report plug stablecoins into existing payment rails. Offchain infrastructure and onchain settlement are finally converging, giving TradFi faster, cheaper rails and crypto users practical, everyday dollar balances. We hope this report clarifies today's landscape and offers a clear look at where the ecosystem is heading.

For more research coverage, visit Messari.io

To learn more about our APIs, visit Messari.io/API

To get started with the Stablecoins API, email <u>api@messari.io</u>