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Stablecoins beyond payments: The onchain lending opportunity

How banks can access emerging credit markets with blockchain infrastructure



Sources

¹ Allium (September 2025). Analysis scoped to USDC, USDT, PYUSD, FDUSD, USDP, USDG and RLUSD on EVM chains and Solana.

²McKinsey & Company. 2025. The stable door opens: How tokenized cash enables next-gen payments. Retrieved from <https://www.mckinsey.com/industries/financial-services/our-insights/the-stable-door-opens-how-tokenized-cash-enables-next-gen-payments>

³Reflexivity Research. 2025, A look into on-chain lending and under-collateralized loans. Retrieved from <https://www.reflexivityresearch.com/all-reports/a-look-into-on-chain-lending-and-under-collateralized-loans>

⁴CoinGecko. 2025 BlackRock USD Institutional Digital Liquidity Fund price today, BUIDL to USD live price, marketcap and chart. Retrieved from <https://www.coingecko.com/en/coins/blackrock-usd-institutional-digital-liquidity-fund>

⁵Allium (September 2025). Analysis scoped to USDC, USDT, PYUSD, FDUSD, USDP, USDG, RLUSD, USDH and USDTB.

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While stablecoins represent a promising innovation in digital currency, users should be aware that their stability, instantaneity, and cross-border transfer capabilities may vary, and they are subject to regulatory restrictions that differ by jurisdiction. Visa does not guarantee universal acceptance or regulatory compliance of stablecoin transactions, and users should consult with their own advisors to understand the risks and implications before engaging in stablecoin activities.

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Allium offers institutions the simplest way to access on-chain data without building data pipelines or using patchwork solutions.

Allium ingests raw blockchain data, normalizes anomalies across chains, and serves it via standardized datasets customers can access via queries, dashboards, APIs, datashares, and streaming feeds. Allium provides broad coverage across 100+ blockchains and enriched datasets tailored to specific use cases like lending and stablecoins, built on SOC 1 & 2 certified pipelines with rigorous accuracy checks.



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Stablecoins have evolved from crypto trading tools to foundational infrastructure powering a new lending space that has grown rapidly in the past year, processing over half a trillion in loans to date.

This paper examines how stablecoins, when connected to smart contract-based lending protocols, can modernize the global lending ecosystem — making it more transparent, efficient and accessible. For banks and financial institutions, this represents both an opportunity and an imperative to understand how programmable money is reshaping credit markets. Through case studies of leading protocols and analysis of onchain data, we demonstrate how onchain lending is moving from experimental technology to institutional-grade infrastructure.



**“The real revolution is not in electronic money;
it is in electronic trust.”**

– Dee Hock, Founder of Visa

Introduction

With the GENIUS Act now signed into law, creating a regulatory framework for stablecoins in the United States, financial institutions both domestically and globally are deepening their exploration of stablecoin products and technologies. Among the key questions we encounter daily are: “What are the use cases?” and “What capabilities do stablecoins offer that traditional fiat currencies cannot?” The natural starting point for this exploration is viewing stablecoins as a new payments infrastructure, evaluating their potential benefits — such as instant, 24/7 settlement — particularly in the context of cross-border payments and remittances.



\$670B

Stablecoin-denominated loans originated over the last five years

What makes stablecoins unique is their position at the intersection of three massive markets: payments, lending and capital markets. While clear opportunities exist for stablecoins within the existing payments ecosystem, they are uniquely positioned to drive even greater transformation in the global modernization and automation of lending and capital markets. As stablecoins enhance cross-border payments, they could become the foundation for a new cross-border lending and global credit ecosystem, where smart contracts connect lenders and borrowers while automating the entire lifecycle of loan agreements between parties worldwide.

While it’s still the early days for integrating stablecoins as “programmable money” into mainstream finance, the underlying smart contract infrastructure is being deployed, battle-tested and scaled publicly through the existing decentralized finance (DeFi) ecosystem.

Given the public nature of blockchain networks, we can observe and track the growth and performance of stablecoin-denominated loans disbursed through smart contracts. For example, over the past five years, **we have witnessed over \$670 billion in stablecoin-denominated loans, with significant year-over-year growth.**¹

At Visa, we are fascinated by the potential of stablecoins as programmable money and how smart contracts could modernize lending while increasing global access to credit. We believe these technologies create significant opportunities for banks to grow their core businesses and better serve customers. Therefore, our goal is to help our network of 15,000+ financial institutions deeply understand this emerging ecosystem and provide them with the necessary infrastructure and capabilities to participate in onchain lending and payments.

Onchain finance basics

Onchain lending reimagines financial services by using smart contracts to automate and facilitate intermediation instead of traditional institutions. When combined with stablecoins, these protocols enable new ways to lend and borrow with automated execution, near-instantaneous settlement and borderless capital flows — essentially creating a global credit market that never closes.

Onchain lending represents a subsection of onchain finance — always-on and automated global credit markets powered by stablecoins.

Here's how onchain lending works with stablecoins:



Stablecoins in onchain lending

First, onchain lending helps ensure capital market efficiency. Smart contracts continuously monitor collateral values and adjust interest rates algorithmically based on supply and demand — when utilization is low, rates decrease; when liquidity tightens, rates increase.

Second, it can create accessible credit markets available 24/7. These global markets never close, run automatically and offer transparent pricing visible to all participants. Anyone with internet access can lend or borrow without permission from a central authority.

Third, stablecoins provide the dependable backbone. They offer fiat currency-denominated stability that lenders and borrowers can both utilize, combined with the flexibility and efficiency of programmable money.

A new risk model

Onchain lending fundamentally shifts how risk is managed. Traditional lending typically assesses counterparty risk through credit checks and legal agreements. Onchain lending can reduce this specific risk through automated liquidation — the protocol doesn't need to trust the borrower's willingness to repay, but trusts the smart contract's code to enforce loan terms instead.

This does not eliminate risk but transforms it. Counterparty risk can be managed through smart contracts. Other risks include the technology itself. Instead of analyzing balance sheets, liquidity providers must analyze protocol security audits, governance structures and data source reliability.

Key data and insights

The global onchain lending market is rapidly expanding, reaching \$51.7 billion in monthly volume with 81,000+ active borrowers, demonstrating both the scale and acceleration of stablecoin-powered credit markets.

1.1M

Unique borrowers

\$76K

Average loan size

8.8M

Total loans

427K

Monthly loans
Aug 2025

\$14.8B

Average active loans

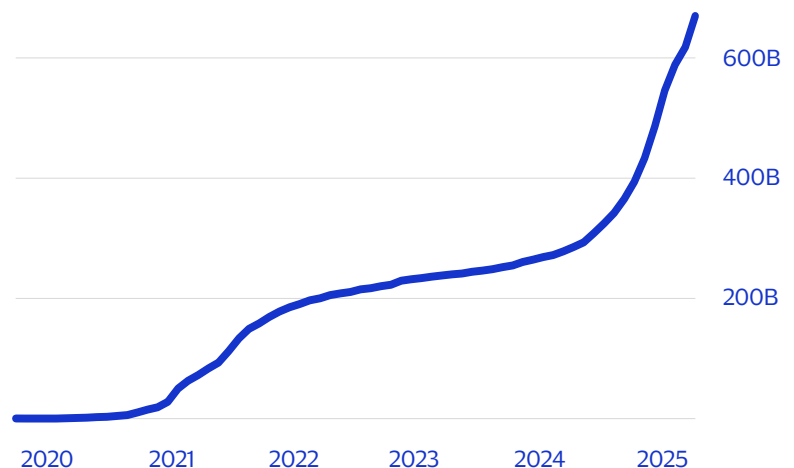
6.7%

Average borrow APR
Sept 2024 - Aug 2025

Source: Allium (September 2025)

\$670B

Total stablecoin loans
originated in the last five years

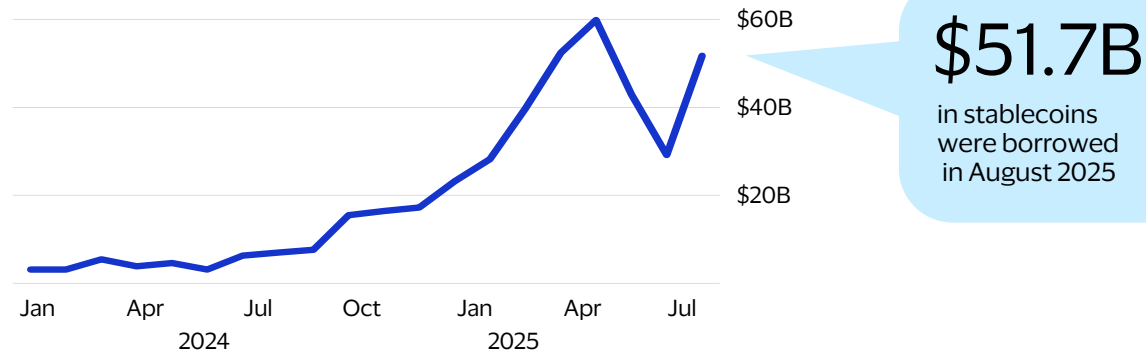


Source: Allium (September 2025)

1. Volume and borrowers

In August 2025, \$51.7 billion in stablecoins were borrowed, bringing the total stablecoin lending volume since January 2020 to over \$670 billion. Stablecoin lending activity declined significantly from 2022 through early 2024, primarily due to turmoil from the collapse of Terra Luna, FTX and several centralized crypto lenders. However, in late 2024, stablecoin lending began recovering, reaching new highs over recent months.

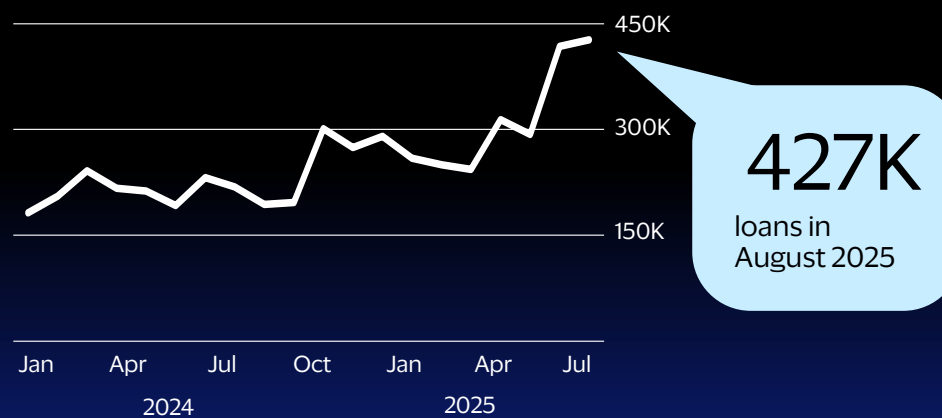
Monthly onchain stablecoin lending volume⁵



Source: Allium (September 2025)

This recovery is also seen in the number of loans and unique borrowers, which in August 2025 were 427K loans and 81K borrowing addresses, respectively.

Monthly onchain stablecoin loan count⁵



Source: Allium (September 2025)

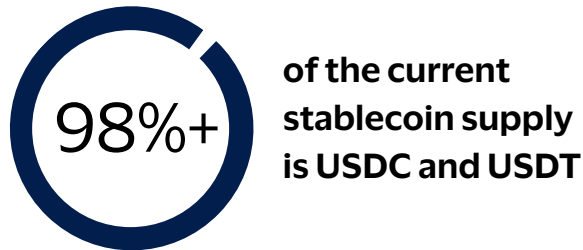
Monthly unique borrowing addresses⁵



Source: Allium (September 2025)

2. Volume by segment

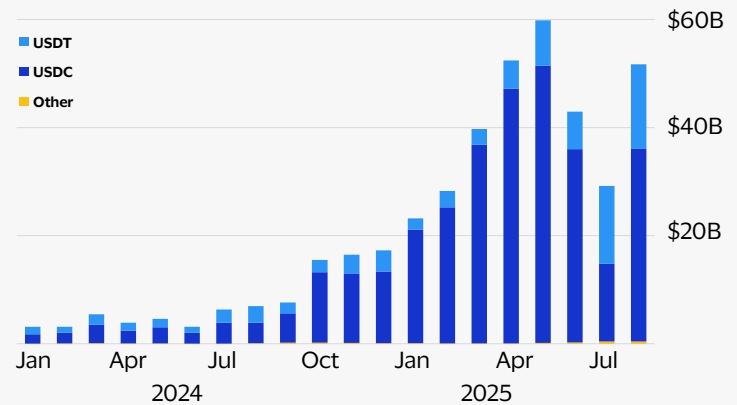
Examining volumes more closely, USDC and USDT constitute the vast majority of stablecoin lending, representing over 99% of historical volume. This is unsurprising given that USDC and USDT account for over 98% of the current stablecoin supply across the stablecoins analyzed.



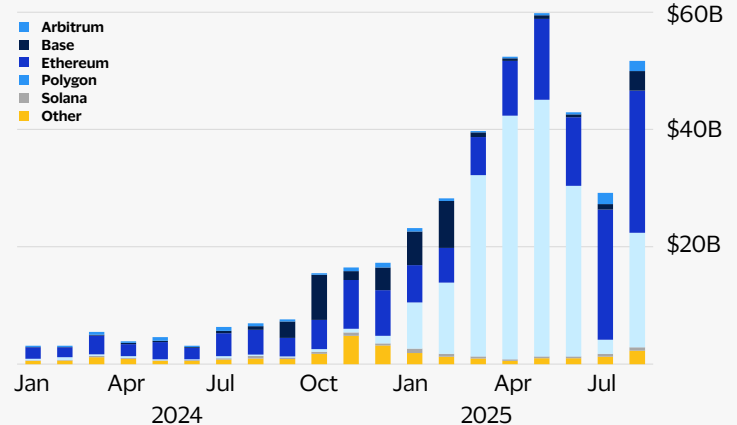
During the previous cycle, most lending occurred on Ethereum, Avalanche, BSC and Polygon blockchains. Since then, Ethereum and Polygon have remained dominant with 85% combined share in August 2025, while Base, Arbitrum and Solana have gained share, reaching 11% combined during the same period

Regarding onchain lending protocols, Aave and Compound accounted for 89% of volume in August 2025 (and have historically been the dominant protocols), while Morpho has gained new share, reaching 4% after launching Morpho V1 in early 2024 and V2 in June 2025.

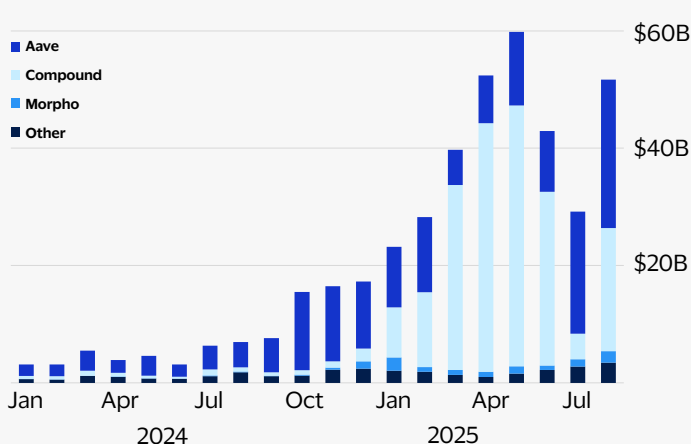
Onchain stablecoin lending volume, by stablecoin⁵



Onchain stablecoin lending volume, by blockchain⁵



Onchain stablecoin lending volume, by protocol⁵



3. Loan size

Average loan size also declined during the lull after the previous cycle but has since recovered to \$121,000 in August 2025, reflecting potential additional lending demand from institutional players.

Average stablecoin loan size⁵



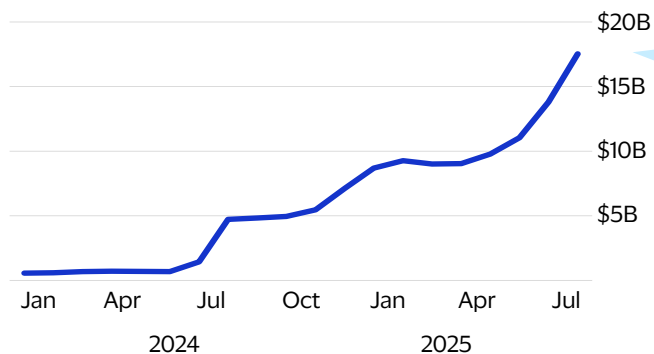
Source: Allium (September 2025)

\$121K

average stablecoin loan size in August 2025

4. Outstanding loans and deposits

Total stablecoin liquidity (deposit balance) in lending protocols⁵



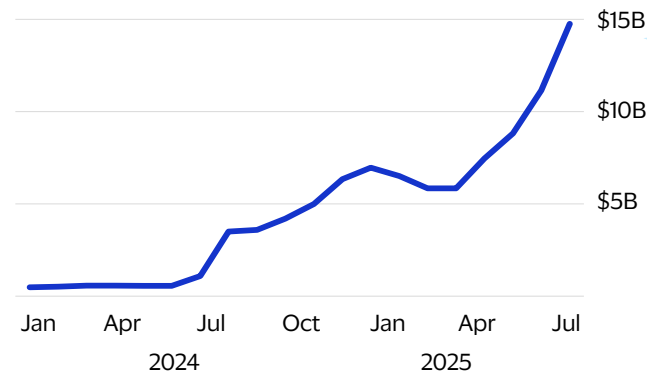
Source: Allium (September 2025)

\$17.5B

in stablecoin liquidity

Active loan balances and the supply of stablecoins in lending protocols have also recovered to reach all-time highs compared to the previous cycle. August 2025 saw an average of \$17.5 billion in stablecoins maintained in lending protocols, with \$14.8 billion (84%) actively utilized in loans.

Total stablecoin loan balances outstanding⁵



Source: Allium (September 2025)

\$14.8B

in outstanding stablecoin loans

5. Interest rates

Average stablecoin lending rates fluctuate due to volatility in onchain market conditions impacting non-stablecoin collateral assets (such as ETH and BTC), with borrower APRs ranging from under 2% to over 16%. The average rates in August 2025 were 6.4% APR to borrow and 5.1% APY to lend.

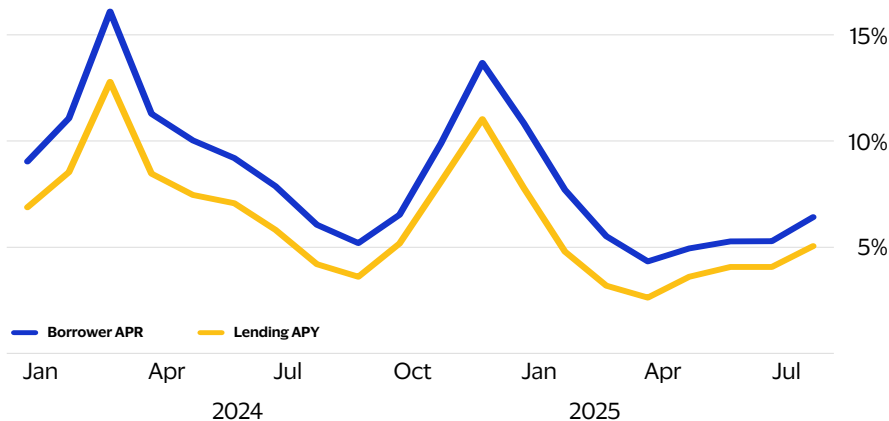
These rates align closely with broader historical averages — average rates for the last 12 months were 6.7% APR to borrow and 5.0% APY to lend, while historical average rates sit at 6.4% APR to borrow and 4.8% to lend. These averages suggest that with higher-quality collateral, onchain interest rates can be within a few percentage points of traditional market lending rates.



6.4%

average borrower APR

Average stablecoin lending interest rates⁵



Source: Allium (September 2025)

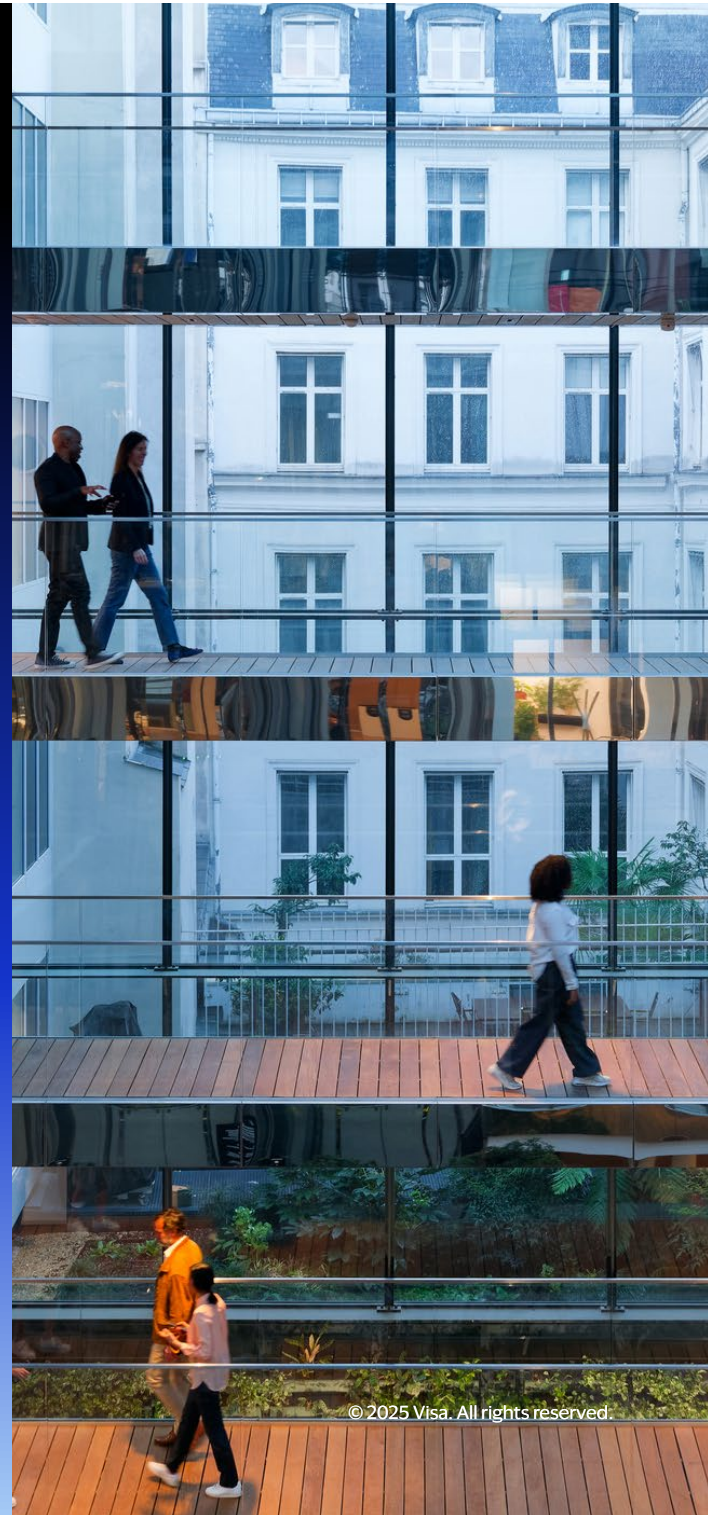


Case studies



The recent surge in stablecoin lending has highlighted new use cases for stablecoins in onchain finance. Protocols like Morpho optimize lending markets with globally aggregated liquidity using stablecoins. Rain, a stablecoin-linked card issuer, finances their credit programs using platforms like Credit Coop and Huma Finance. Beyond card solutions, Credit Coop enables cash-flow and revenue-based loans, while Huma uses stablecoins to enable more efficient trade financing and faster cross-border payments globally.

Leading lending protocols are using stablecoins to power card programs, cross-border payment financing and aggregated lending marketplaces — demonstrating viable commercial applications beyond crypto capital market use cases.



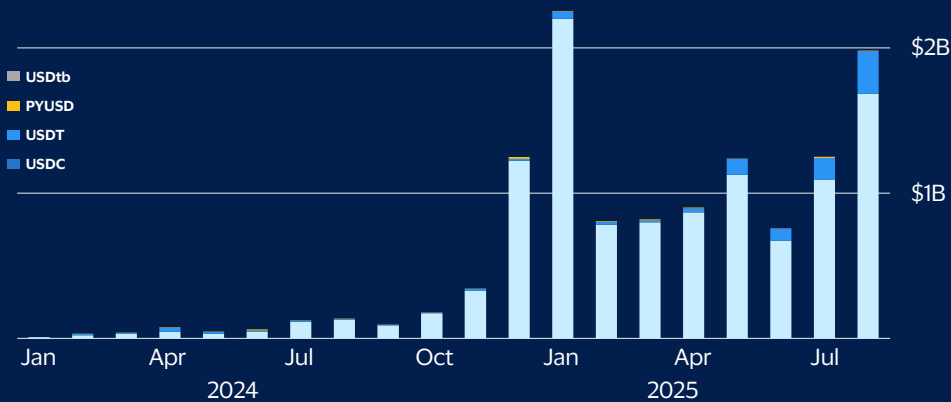


Morpho

Morpho is a lending protocol that aggregates demand and liquidity across other platforms. Morpho integrates as the back-end lending infrastructure for third-party platforms and wallets including Coinbase, BitPanda, Safe, Ledger and Trust Wallet, as well as banks like Société Générale. With Morpho under the hood, users on these platforms can tap into shared demand and liquidity. For example, a user can borrow USDC via Coinbase that was originally deposited into a vault by a Ledger wallet user. This approach improves lending rates and efficiency, as Morpho helps replace traditional webs of siloed bilateral or triparty lending relationships with a single multilateral lending marketplace.

Today, Morpho has \$1.7 billion in monthly stablecoin lending volume with \$1.9 billion in active stablecoin loans outstanding. USDC comprises \$1.6 billion (90%) of stablecoin lending volume and \$1.8 billion (91%) of active stablecoin loans.

Monthly Morpho stablecoin lending volume, by stablecoin



Source: Allium (September 2025)

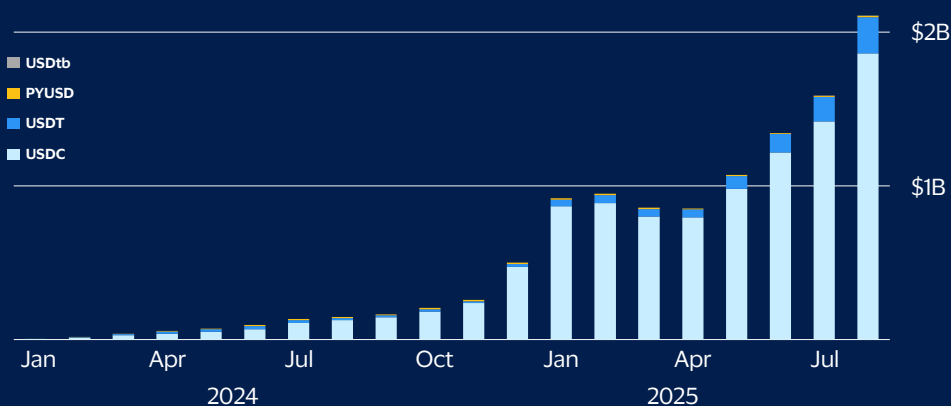
\$1.7B

average monthly
stablecoin lending
volume

90%

(\$1.6B) is comprised
of USDC

Average monthly Morpho active stablecoin loans (EVM), by stablecoin



Source: Allium (September 2025)

\$1.9B

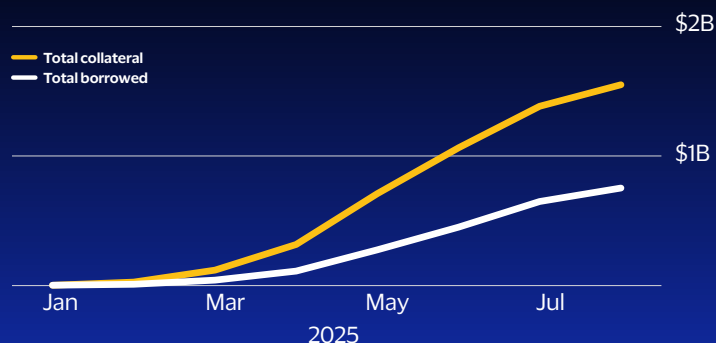
average monthly
stablecoin loans
outstanding

91%

(\$1.8B) is comprised
of USDC

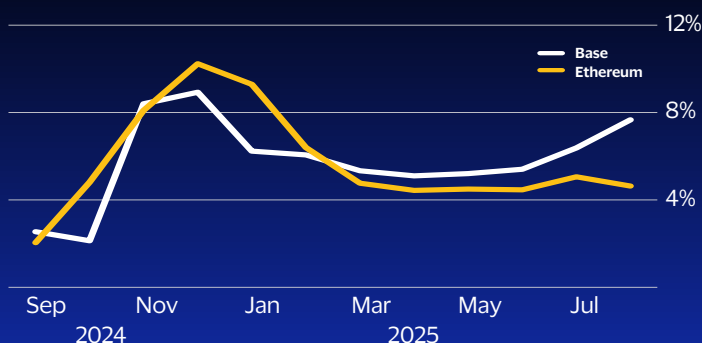
Morpho's partnership with Coinbase is a major driver of this USDC activity. The Coinbase integration has driven over \$1 billion in USDC loan originations backed by \$1.2 billion+ in cbBTC collateral on Morpho.¹

Average monthly Morpho active USDC loans and cbBTC collateral via Coinbase integration



Source: Allium, Morpho (September 2025)

Average weekly Morpho USDC borrow APY (with cbBTC as collateral)



Source: Allium, Morpho (September 2025)

\$1B

USDC loans backed by \$1.2B+ cbBTC collateral

By aggregating USDC liquidity across platforms, Morpho's USDC borrow APY on Ethereum can be as low as 4-5% — up to 2x lower than other crypto-backed loan options.²

For the exchanges, wallets and fintechs partnering with Morpho, the protocol can also drive user retention. In-app financial services give users fewer reasons to move their assets elsewhere and enable users to borrow instead of selling assets. Since Morpho's markets run autonomously onchain with full transparency for loans and collateral, participants can gain better trust and information to manage market and counterparty risk.





Credit Coop is a structured finance protocol that enables borrowing and lending against onchain cash flows. Credit Coop smart contracts allow lenders to automatically receive a split of revenue from borrowers' revenue-generating smart contracts. This provides recourse in the event of a default by automatically redirecting 100% of cash flows from the revenue contracts.

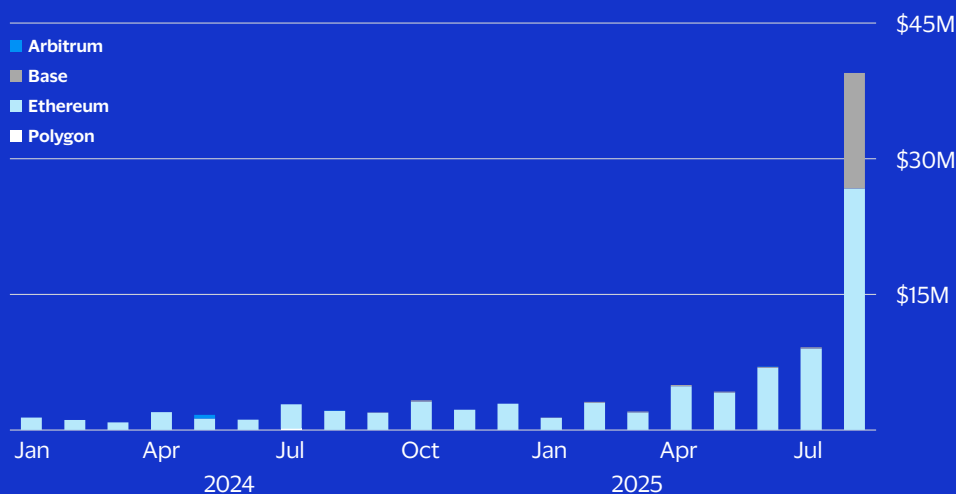
Rain, a stablecoin-linked card issuer and Visa partner, leverages Credit Coop to access liquidity using their cardholders' payment receivables as collateral to secure credit. As a credit card issuer, Rain must settle with Visa daily for cardholder purchases, while repayments from users are collected later in the month. Credit Coop's Spigot technology creates a programmable lockbox over these user repayment flows, allowing Rain to borrow against future receivables without additional collateral, solving their working capital timing challenge. To date, Rain has borrowed or repaid over \$175 million in USDC via Credit Coop, with this activity accelerating as Rain's adoption grows.

On the acquirer side, Coinflow, a crypto-native payment processor, also uses Credit Coop to finance instant disbursements for merchants in USDC while card payments are settling.

\$175M+

USDC borrowed/
repaid by Rain

Monthly Credit Coop lending volume, by chain



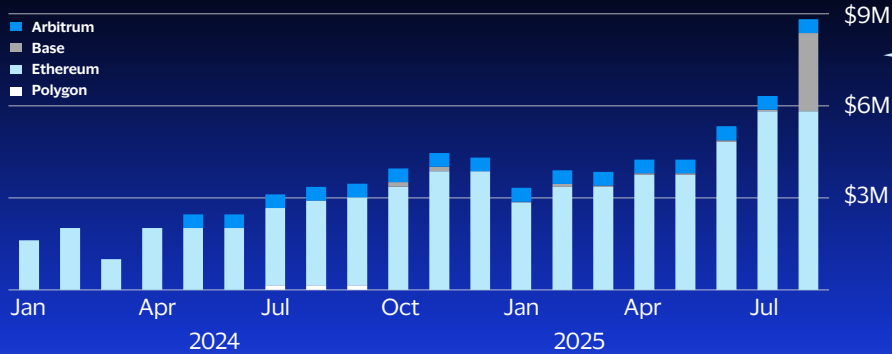
Source: Allium, Credit Coop (September 2025)

\$30M+

monthly lending volume
(August 2025)

Overall activity on Credit Coop has grown significantly over recent months, with lending volume exceeding \$30 million and active loans surpassing \$8.8 million in August 2025. Activity spiked particularly in August 2025, with significant growth on Ethereum and major new activity on Base.

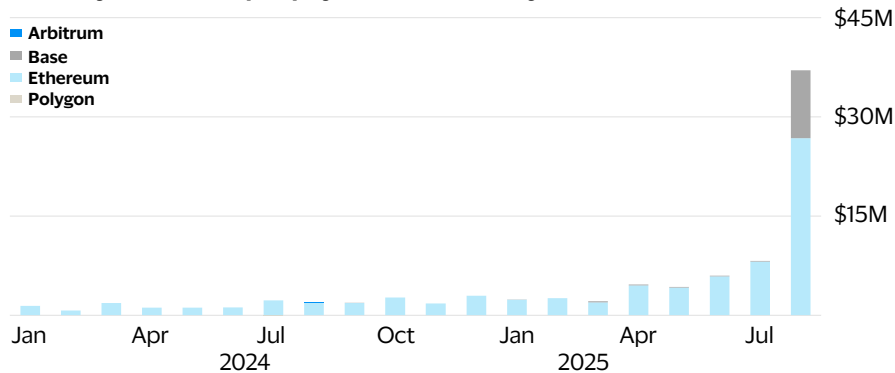
Average monthly Credit Coop active loans, by chain



Source: Allium, Credit Coop (September 2025)

\$8.8M+
active loans in August 2025

Monthly Credit Coop repayment volume, by chain



Source: Allium, Credit Coop (September 2025)

Repayment volume on Credit Coop closely correlates with lending volume (over \$29 million in August 2025), as Credit Coop continuously collects and disburses repayments to lenders from borrowers' revenue streams.

For lenders, Credit Coop offers higher yields at 12-15% APY with full onchain transparency into loan performance and trustless recourse from programmatic control of revenue-generating smart contracts. Credit Coop also natively integrates with onramps, allowing institutions to more easily start lending and access onchain yields via wire transfers.

12-15%
APY for lenders

VISA

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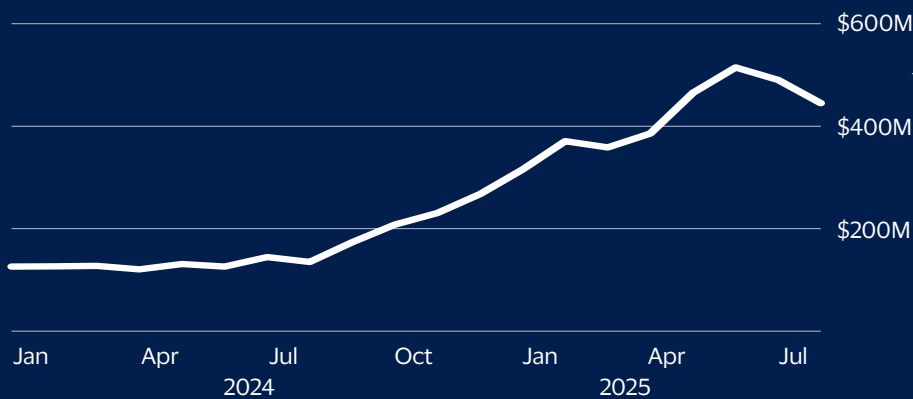
Huma Finance is a payment financing platform using blockchain and stablecoins, designed for compliant cross-border payments financing, stablecoin-linked card financing, trade finance and other financing solutions.

Huma's PayFi network allows businesses to access revolving credit lines, receivable-backed credit lines and receivable factoring credit in stablecoins. Today, approved businesses use Huma largely to accelerate

cross-border payments and supplier payouts, allowing recipients to receive immediate funds in stablecoins. This eliminates the need for pre-funding, capital lockups and related costs and delays.

Businesses pay a daily fee (typically 6-10 basis points) while maintaining an open loan balance. Since capital is repaid quickly (typically 1-5 days), the same capital is frequently recycled. As a result, lenders on Huma can access yields of 10% or more APY.

Monthly Huma Finance transaction volume across lending and repayments



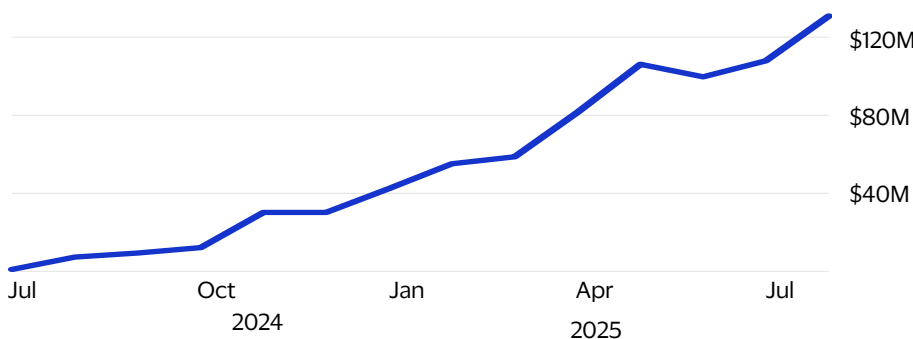
Source: Allium, Huma Finance (September 2025)

\$500M

monthly transaction volume

Activity on Huma has grown steadily with major acceleration from late 2024 onward. Monthly transaction volume now reaches approximately \$500 million, split roughly evenly between loan originations and repayments. Active liquidity has grown to reach \$140 million, with \$98 million in PayFi assets being used in active loans. Much of this activity relates to cross-border payment financing.

Average monthly Huma Finance stablecoin liquidity



Source: Allium, Huma Finance (September 2025)

\$140M

active liquidity

\$98M

PayFi assets in active loans

Future opportunities ahead

The intersection of stablecoins and onchain lending creates three future opportunities that we expect will reshape traditional finance over the next decade.

1. Tokenized traditional assets to unlock collateral pools

Real-world asset (RWA) tokenization is creating opportunities for onchain lending collateral.

The market has grown from \$5 billion in December 2023 to \$12.7 billion today, with McKinsey projecting total tokenized assets could reach \$1-4 trillion by 2030.²

BlackRock's BUIDL Fund exemplifies institutional adoption, reaching an all-time high market cap of \$2.9 billion in tokenized Treasury holdings in May 2025, with multiple onchain lending protocols participating as yield distribution partners.⁴ Franklin Templeton's OnChain U.S. Government Money Fund (BENJI) adds another \$800 million in tokenized government securities, while MakerDAO now derives nearly 30% of its \$6.6 billion balance sheet from real-world assets.^{2,3}

Traditional assets like corporate bonds, private credit and real estate may soon serve as collateral in 24/7 global lending markets. This can bridge the \$40+ trillion traditional credit market with the efficiency and transparency of programmable money, creating new liquidity sources for traditional assets.

Major asset managers are already piloting scalable implementations, with the potential to tokenize hundreds of trillions in addressable traditional assets over the coming decade.

\$1-4T

in total tokenized assets projected by 2030

\$40T

traditional credit market unlocked through real world asset tokenization and the efficiency of programmable money.



2. Crypto collateral powers next-generation credit programs

Credit card programs could soon be expanded to include crypto collateral, opening new market opportunities.

Early movers like ether.fi are launching non-custodial credit cards that allow users to access liquidity by borrowing against their crypto holdings while maintaining asset ownership, avoiding capital gains taxes while maintaining upside exposure. Real-time collateral monitoring through smart contracts enables automated margin calls and risk.

Banks and private credit funds could serve as liquidity providers to these programs, offering institutional capital through programmable lending protocols rather than traditional credit facilities. This creates new yield opportunities for institutional investors while reducing counterparty risk through transparent, automated collateral management.



3. Onchain identity enables undercollateralized lending at scale

One of the most transformative opportunities on the horizon is in undercollateralized lending based on onchain behavior and digital identity.

The current overcollateralization model, while secure, is capital-intensive and limits the market to borrowers who already possess significant assets. The next wave of innovation focuses on solving this challenge through the development of onchain identity and credit scoring systems. These emerging solutions analyze a wallet's transaction history, asset holdings and interactions with other protocols to construct a credit profile, all while preserving user privacy through techniques like zero-knowledge proofs.

Platforms like 3Jane, Providence and Credora are pioneering methods to assess creditworthiness based on verifiable onchain behavior. This can eventually enable protocols to offer undercollateralized and unsecured loans based on reputation and credit history, potentially unlocking a new addressable market and bringing the full spectrum of traditional credit products into this efficient onchain architecture.



There is more to be learned around onchain finance protocols in terms of the opportunities and risks they can offer.

How Visa is shaping the future of finance

As onchain finance evolves to serve more traditional financial use cases, Visa is committed to helping our partners navigate this transformation and seize the opportunities it presents.

We invite you to take the next step with us:

Explore the data yourself

To see live data and gain more insights, visit the [Visa Onchain Analytics Dashboard](#). This free tool tracks real-time stablecoin movements across 17 major blockchains to highlight trends related to supply, transaction volume and address activity.

Build your strategy with us

If your organization wants help developing an onchain finance strategy, [contact a Visa Crypto Representative](#) to learn about [Visa Crypto Solutions](#) and explore new offerings. Our experts help banks and financial institutions navigate the stablecoin landscape with strategic guidance across the entire lifecycle, from education to implementation.

Visa provides end-to-end consulting and implementation support, including:



Market analysis

Insights on market trends, use cases and regulatory evolution



Onchain finance strategy

Assessment of opportunities for tokenized assets, smart contract-enabled lending and programmable treasury operations



Custody strategy

Assessment and development of custody strategies that align with your institution and its clients

The future of finance is programmable, transparent and always-on.



Organizations that embrace this emerging financial infrastructure today will be well-positioned to lead the next generation of global markets tomorrow.

To learn how Visa is working to integrate stablecoins into the next generation of payments:



Explore our [stablecoin solutions page](#)



Access insights into stablecoin activity with the [Visa Onchain Analytics Dashboard](#)



[Get in touch](#) to realize your stablecoin ambitions today

