

Tokenized Private Credit:

A New Digital Frontier for Real World Assets

October 2024



This article, by S&P Global Ratings, S&P Market Intelligence, and Coalition Greenwich, a division of CRISIL, is a thought leadership report that neither addresses views about individual ratings nor is a rating action. S&P Global Ratings, S&P Market Intelligence, and Coalition Greenwich are separate and independent divisions of S&P Global.

Authors:

Evan Gunter, Private Markets Analytics, S&P Global Ratings

Andrew O'Neill, Digital Assets Analytical Lead, S&P Global Ratings

Sophia Furber, 451 Research, S&P Global Market Intelligence

David Easthope, Coalition Greenwich, a division of CRISIL

Key Takeaways

- Digital markets and tokenization represent a potential avenue of growth for the rapidly expanding and evolving private credit market.
- Tokenization could help to address some inherent challenges in private credit, potentially facilitating enhanced liquidity, efficiency, and transparency.
- Use cases remain limited so far, and not without challenges.

Benefits of tokenization for private credit



Private credit is evolving. Lenders are providing money to an ever-widening base of borrowers, as well as offering a growing range of funds and investment vehicles. At the same time, a digital revolution is brewing that could open access to private credit for both investors and borrowers in a whole new way.

Proponents of tokenization say the technology will address some of the underlying challenges inherent in private credit. Even with private credit's brisk 17% compound annual growth rate over the past five years, a recent survey by Coalition Greenwich found that a majority of investors still consider liquidity, efficiency, and transparency to be barriers to investment.

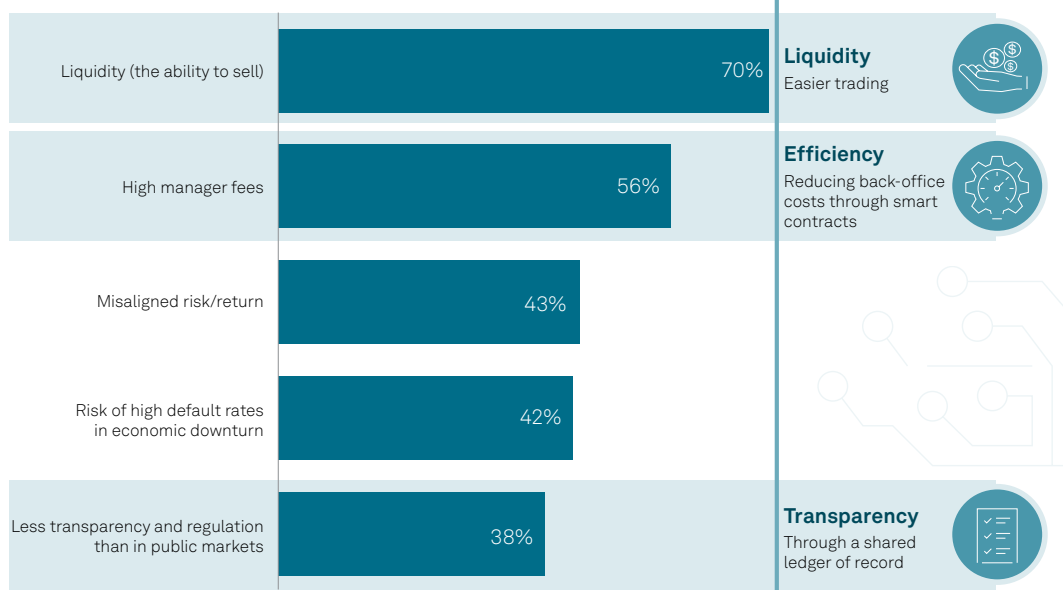
Tokenization could potentially mitigate these barriers:

- **Liquidity** – Tokenization could ease the process of buying into private credit funds and of trading shares. This could broaden the range of investors, provide easier access to the asset class, and expand the base of capital for private credit borrowers.
- **Efficiency** – The opportunity to save back-office costs through smart contract templates could lead to lower transaction costs and management fees.
- **Transparency** – The transaction flow of private credit assets would be much more visible due to real-time settlement and the use of a shared ledger, which provides data on underlying assets at all times.

A majority of wealth and asset managers say they would have allocated more to private credit investments if it weren't for liquidity risks and/or high manager fees, according to a year-end 2023 survey by Coalition Greenwich, **(see figure 1)**.

Figure 1:

Barriers to investing in private credit



Source: Coalition Greenwich 2023 Private Credit Market Structure Study, with S&P Global Ratings and 451 Research

Private credit's lack of liquidity and transparency can be viewed as barriers to investment, even if some see them as being advantageous. A majority of wealth and asset managers say they would have allocated more to private credit investments if it weren't for liquidity risks and/or high manager fees, according to a year-end 2023 survey by Coalition Greenwich. A substantial share also cited concerns about transparency. Even so, 63% still expected to increase allocations to private credit in the year ahead.

While tokenization can potentially mitigate each of these three barriers, the extent to which benefits can be realized remains to be seen. For instance, efficiency gains could be limited as issuance would still require intermediaries, such as broker-dealers and transfer agents, to perform specific duties and meet legal requirements.

Furthermore, transparency benefits must be weighed against privacy considerations, which are of paramount importance to financial institutions. Portfolio managers want to keep positions private, so as not to show their hand to other traders. This desire will likely clash against digital markets' use of public wallets, even if records are anonymous.

Both private credit and tokenization have a common goal of disintermediation. Where private credit is direct lending that bypasses banks, tokenization seeks to use smart contracts in place of some financial intermediaries. But as each grows in scale and scope, we would expect a need for new trusted intermediaries to emerge. These custodians would attest that a token is genuinely underpinned by the specific real world asset it purports to represent.

Expanding domains



Financial firms and platforms are exploring tokenization, and the creation of digital tokens that represent real world assets on a blockchain. The aim is to provide

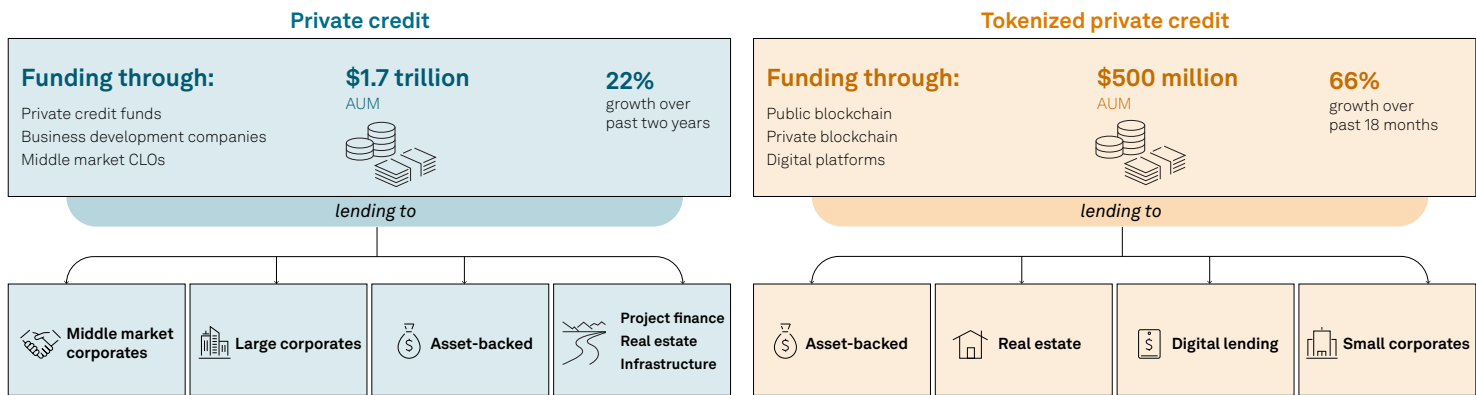
operational efficiencies and cost savings, while broadening investors' ease of access. A variety of assets have already been tokenized, including Treasuries, equities, and real estate. Tokenization is also making early inroads in private credit.

The growth of both private credit and tokenization demonstrates market participants' increasing appetite for alternative investments and technologies. Early steps in tokenization also signal a possible avenue for private debt to continue increasing in size and scope. The private credit market is approaching \$1.7 trillion in investment globally, according to Preqin data. By contrast, there is only about \$500 million of tokenized private credit, according to our estimates from data on rwa.xyz. Still, this segment is rapidly growing, and it is accretive. Many of the estimates commonly cited for private credit likely don't fully reflect tokenized investments.

Figure 2:

Digital domain, real world assets

Tokenization presents a new avenue for private credit's growth



Beyond proof of concept

Financial institutions are exploring whether digital platforms can offer advantages over traditional channels in distributing and holding assets. Early uses have focused on digital bonds and tokenized money market funds.

Alternative assets are now on the frontier of tokenization. KKR made an early move in 2022 with the launch of its Health Care Strategic Growth Fund on the Avalanche blockchain. Hamilton Lane followed in 2023, tokenizing its Senior Credit Opportunities (SCOPE) private credit fund on the Ethereum and Polygon chains through the Securitize platform. In July 2024, it expanded to the Solana chain via the Libre platform.

Decentralized private credit lending platforms share similar aims with private credit funds, such as seeking to broaden the availability of credit in areas not optimally served by banks. While decentralized private credit lenders may seek to automate operations through smart contracts, they still require trusted intermediaries, for example, to set lending policies and provide custody services for collateral. They also depend on the same legal frameworks and loan documentation that underpin traditional lending markets.

While challenges to the tokenization of private credit remain, some participants are making progress.





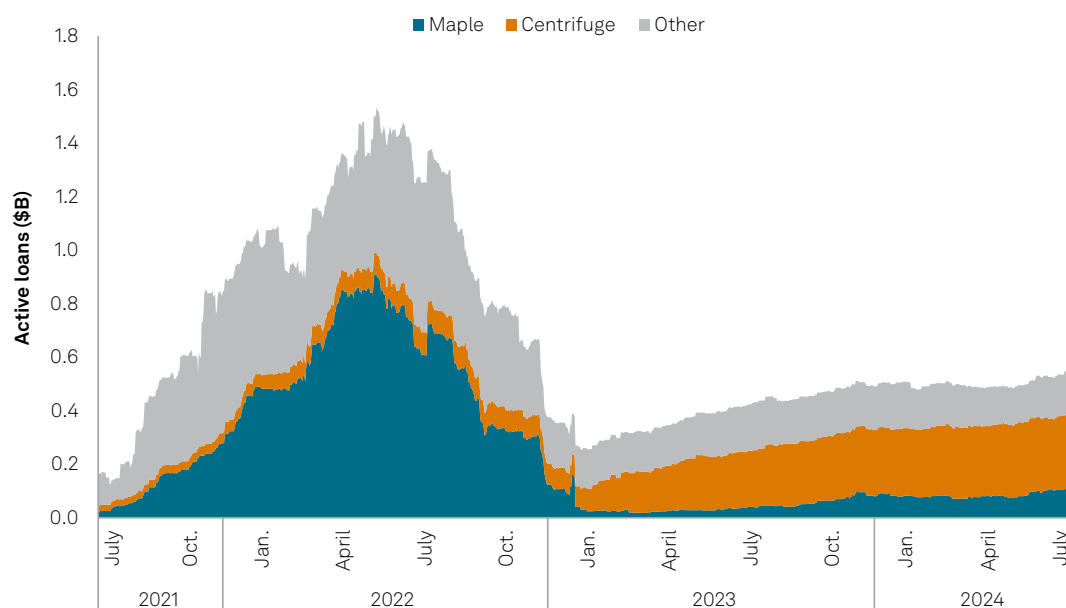
In practice, there are two main ways in which private credit can be tokenized: tokenizing an existing off-chain private credit fund or using a decentralized lending protocol to create tokenized debt on-chain. Hamilton Lane did the former with its SCOPE fund, which comprised middle-market corporate loans typically associated with private credit.

By contrast, decentralized lending platforms include much more than just corporate loans under the banner of private credit. Examples so far have focused on asset-backed lending for consumer, auto, fintech, real estate, and carbon projects, among others. These are also areas that private credit is expanding into.

Figure 3:

Decentralized finance is establishing a base of private credit lending

Total active loans outstanding balance on select decentralized finance protocols



Source: rwa.xyz.

The composition of active outstanding loans made on-chain has changed greatly since the market tumbled from a peak near \$1.5 billion in 2022. In the run-up to the slump, from July 2021 through year-end 2022, borrowing was dominated by crypto-trading and market-making firms. This lending collapsed during the crypto winter of 2022 (see [Crypto CeFi And DeFi Must Strike A Balance To Thrive](#)). As the market has rebounded, it has changed.

New growth has predominantly come from real world lending financed through the Centrifuge protocol. The decentralized lending protocol had \$289 million of active loans outstanding as of July 26, 2024, focused on consumer asset backed securities (ABS), real-estate bridging loans, and trade finance. Over 85% of loans originated through Centrifuge have been financed via the Sky protocol (previously called Maker), which is one of the most established decentralized finance protocols and the issuer of the USDS (previously DAI) stablecoin.

In a simplified Centrifuge transaction, an originator will sell a pool of consumer loans to a special-purpose vehicle, which then issues two tranches of debt tokens through the Centrifuge protocol backed by the loans. The originator will hold onto the junior tranche tokens as a first loss position, and use the senior tranche as collateral in the Sky protocol to borrow USDS. Generally, the senior tranche has a balance no higher than 70% of the asset balance.

A secondary market has not yet been established for these tokens.

Greengage has taken a different route. The London-based digital finance company announced in July that it is collaborating with Coinbase to issue tokenized private credit to provide e-money account services to SMEs. Greengage said that SMEs are often under-served by traditional banks, and that tokenization can help them access credit in a more transparent and efficient manner. The company aims to let SMEs benefit from the efficiencies of commercial paper, which is normally the preserve of large corporations. It will source funding from providers including hedge funds, high net-worth individuals, and family offices.

Challenges to tokenization



While some firms are taking incremental steps toward private credit tokenization, others have already pulled back, possibly due to concerns that the market environment and/or the blockchain technology are not quite ready.

Percent, for instance, encountered several specific problems that could represent broader challenges to the adoption of private credit tokenization.

The firm, then known as Cadence, issued its first tokenized private debt product in 2019, intending to cut back-office costs by standardizing and re-using smart contract templates for structured offerings.

It ran into three problems at the time:

- 1) **Regulatory challenges.** The company had to structure offerings in the real world within existing regulations and then create a mirrored contract on chain.
- 2) **Lack of efficiencies.** Creating mirror contracts and putting them on-chain was more expensive than expected. This often offset all of the revenue from smaller transactions.
- 3) **Demand.** There was insufficient demand for tokenized debt on-chain, probably due to the limited number of investors set up to invest meaningfully in tokens.

In another case, private credit lending through DeFi platform Goldfinch was curtailed after it encountered problem credits through its emerging market offerings. Even when tokenized, the quality of the credit matters.

Addressing challenges



Evolution in the tokenization of real world assets has led to some small steps in adoption, which could lead to larger steps down the road. Key developments to watch include credit quality; uneven progress in legal and regulatory frameworks for digital assets; the ability to trade tokens across multiple chains rather than a single specific network; and changes in investor demand.

Some jurisdictions have updated legal frameworks to explicitly address digital securities, such as Switzerland and Luxembourg. In other markets, legal and regulatory

uncertainty will hold back investor and originator interest. Clarity may emerge from the successful execution of transactions under existing laws and regulations or from the creation of new legal frameworks.

Interoperability across different digital platforms is also needed to support meaningful adoption. The nascent tokenized financial markets are spread across multiple systems, which complicates trading. This is one reason why there is still little to no secondary market activity, even for relatively straightforward digital bonds.

Widescale adoption of tokenization in private credit requires technical interoperability, as well as legal and regulatory clarity covering the underlying borrower, the originator, the tokenization protocol and the end investor. This requires robust solutions for on-chain cash payments, which will be helped by the emergence of regulatory frameworks for stablecoins or wholesale central bank digital currencies in key jurisdictions. Technical solutions are emerging that aim to address regulatory AML/KYC and privacy obligations through zero-knowledge proofs and new token standards. Permissioned networks may also solve interoperability issues, at least between partnering institutions. Still, these are all nascent developments, and adoption for private credit remains a multi-year prospect.

Watch for sudden shifts



We believe the tokenization journey is not a straight path. Benefits for liquidity, efficiency, and transparency all come with trade-offs, and challenges remain.

Investor demand may come gradually, then suddenly. The evolution of on-chain assets could turn into a revolution once the pool of capital reaches a critical mass. A meaningful pick-up in tokenized private credit can also probably only happen if investors are holding a broad array of tokenized assets and have embedded on-chain transactions into their operational processes.

Regardless of technological innovation, the quality of the credit remains of paramount importance. Whether on-chain or off, credit is credit. The quality of the borrower is what ultimately matters.

Related Research:



Crypto CeFi And DeFi Must Strike A Balance To Thrive, June 22, 2023

DeFi Protocols For Securitization: A Credit Risk Perspective, Feb. 7, 2023

Q4 2023: Wealth and Asset Managers Focus on Private Credit

CONTACTS

www.spglobal.com

www.spglobal.com/en/enterprise/about/contact-us.html

Copyright © 2024 S&P Global Inc. All rights reserved.

These materials, including any software, data, processing technology, index data, ratings, credit-related analysis, research, model, software or other application or output described herein, or any part thereof (collectively the **“Property”**) constitute the proprietary and confidential information of S&P Global Inc its affiliates (each and together **“S&P Global”**) and/or its third party provider licensors. S&P Global on behalf of itself and its third-party licensors reserves all rights in and to the Property. These materials have been prepared solely for information purposes based upon information generally available to the public and from sources believed to be reliable.

Any copying, reproduction, reverse-engineering, modification, distribution, transmission or disclosure of the Property, in any form or by any means, is strictly prohibited without the prior written consent of S&P Global. The Property shall not be used for any unauthorized or unlawful purposes. S&P Global's opinions, statements, estimates, projections, quotes and credit-related and other analyses are statements of opinion as of the date they are expressed and not statements of fact or recommendations to purchase, hold, or sell any securities or to make any investment decisions, and do not address the suitability of any security, and there is no obligation on S&P Global to update the foregoing or any other element of the Property. S&P Global may provide index data. Direct investment in an index is not possible. Exposure to an asset class represented by an index is available through investable instruments based on that index. The Property and its composition and content are subject to change without notice.

THE PROPERTY IS PROVIDED ON AN “AS IS” BASIS. NEITHER S&P GLOBAL NOR ANY THIRD PARTY PROVIDERS (TOGETHER, **“S&P GLOBAL PARTIES”**) MAKE ANY WARRANTY, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, FREEDOM FROM BUGS, SOFTWARE ERRORS OR DEFECTS, THAT THE PROPERTY'S FUNCTIONING WILL BE UNINTERRUPTED OR THAT THE PROPERTY WILL OPERATE IN ANY SOFTWARE OR HARDWARE CONFIGURATION, NOR ANY WARRANTIES, EXPRESS OR IMPLIED, AS TO ITS ACCURACY, AVAILABILITY, COMPLETENESS OR TIMELINESS, OR TO THE RESULTS TO BE OBTAINED FROM THE USE OF THE PROPERTY. S&P GLOBAL PARTIES SHALL NOT IN ANY WAY BE LIABLE TO ANY RECIPIENT FOR ANY INACCURACIES, ERRORS OR OMISSIONS REGARDLESS OF THE CAUSE. Without limiting the foregoing, S&P Global Parties shall have no liability whatsoever to any recipient, whether in contract, in tort (including negligence), under warranty, under statute or otherwise, in respect of any loss or damage suffered by any recipient as a result of or in connection with the Property, or any course of action determined, by it or any third party, whether or not based on or relating to the Property. In no event shall S&P Global be liable to any party for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees or losses (including without limitation lost income or lost profits and opportunity costs or losses caused by negligence) in connection with any use of the Property even if advised of the possibility of such damages. The Property should not be relied on and is not a substitute for the skill, judgment and experience of the user, its management, employees, advisors and/or clients when making investment and other business decisions.

The S&P Global logo is a registered trademark of S&P Global, and the trademarks of S&P Global used within this document or materials are protected by international laws. Any other names may be trademarks of their respective owners.

The inclusion of a link to an external website by S&P Global should not be understood to be an endorsement of that website or the website's owners (or their products/services). S&P Global is not responsible for either the content or output of external websites. S&P Global keeps certain activities of its divisions separate from each other in order to preserve the independence and objectivity of their respective activities. As a result, certain divisions of S&P Global may have information that is not available to other S&P Global divisions. S&P Global has established policies and procedures to maintain the confidentiality of certain nonpublic information received in connection with each analytical process. S&P Global may receive compensation for its ratings and certain analyses, normally from issuers or underwriters of securities or from obligors. S&P Global reserves the right to disseminate its opinions and analyses. S&P Global Ratings' public ratings and analyses are made available on its sites, www.spglobal.com/ratings (free of charge) and www.capitaliq.com (subscription), and may be distributed through other means, including via S&P Global publications and third party redistributors.

