

COINMETRICS

REAL WORLD ASSETS REPORT

SEPTEMBER 2024

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INTRODUCTION

Real-world asset (RWA) tokenization represents a significant step forward in the evolution of financial markets, bridging the gap between traditional finance and the emerging world of digital assets. While blockchains and cryptocurrencies have garnered significant attention for their potential to revolutionize various aspects of the financial system, skeptics have often pointed out that many digital assets lack intrinsic value or connection to real-world economic activities.

Tokenization of RWAs addresses this concern by creating a tangible link between blockchain technology and physical assets, potentially unlocking new efficiencies and opportunities in how we manage and trade these valuable assets. While still in its early stages, we've seen an acceleration in interest, with major financial institutions and crypto-native infrastructure providers entering the space in tandem.

In this report, we explore the emergence of the real-world asset tokenization sector, examining its current landscape, areas of adoption, regulatory impacts and market opportunities.

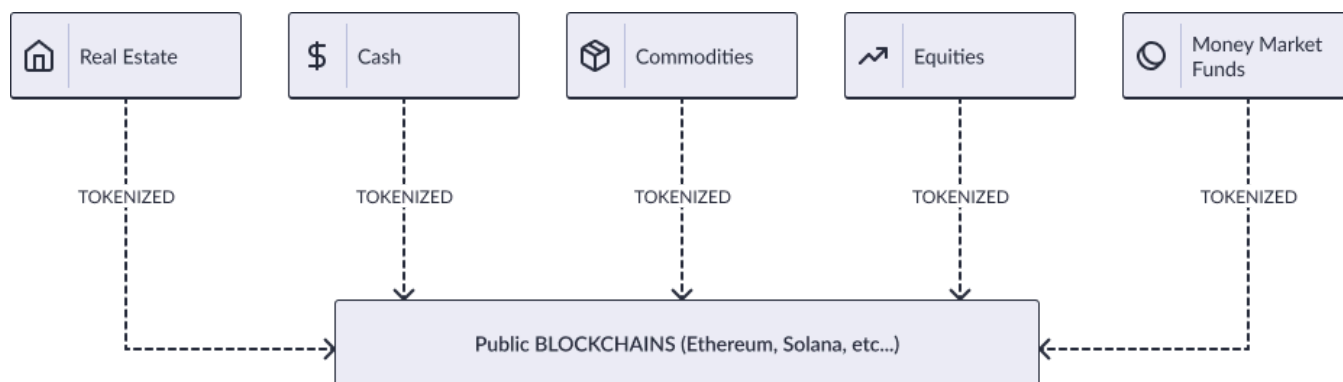
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What are Real-World Assets (RWAs)?

As the addressable market of the digital asset ecosystem has expanded, so has the need for tokenizing various forms of value and assets on blockchains. Today, the asset class consists of not only pure crypto-assets like Bitcoin (BTC) and Ethereum (ETH), but also tokenized representations of tangible and intangible assets from fiat currencies like the U.S. Dollar (stablecoins) to a plethora of traditional financial assets like government securities, private credit, real estate, commodities, money-market funds and more (RWAs). Thus, tokenization is the process of representing off-chain assets in the form of digital tokens, such that their value can be represented and transacted on the blockchain. The tokenization and proliferation of assets tied to real-world economic activity into the on-chain fabric, represents a tremendous market opportunity, bringing trillions of dollars onto the universal substrate of blockchains.



Traditionally, real-world assets such as real estate, commodities, equities, and fixed-income instruments have been traded and managed through complex, often siloed systems that can be slow, opaque, and prone to inefficiencies.

These traditional markets face several challenges:

- **Lack of liquidity:** Many real-world assets, especially in real estate and private markets, can be illiquid and difficult to trade quickly.
- **High barriers to entry:** Minimum investment requirements and regulatory hurdles often limit participation in certain asset classes to institutional or high-net-worth investors.
- **Inefficient price discovery:** Lack of transparency and fragmented markets can lead to suboptimal pricing of assets.
- **Slow settlement times:** Traditional settlement processes can take days or even weeks, tying up capital and increasing counterparty risk.

- **Limited fractional ownership:** It's often difficult or impossible to own small fractions of high-value assets.
- **Geographic restrictions:** Cross-border investments can be complex and subject to various regulatory hurdles.

Blockchain technology and tokenization offer potential solutions to these challenges:

- **Increased liquidity:** By tokenizing assets and creating 24/7 markets, it becomes possible to trade traditionally illiquid assets more easily.
- **Lower barriers to entry:** Tokenization can allow for smaller minimum investments, potentially democratizing access to various asset classes.
- **Improved price discovery:** Blockchain's transparency and the potential for global, round-the-clock trading can lead to more efficient price discovery.
- **Faster settlement:** Blockchain technology enables near-instantaneous settlement of trades, reducing counterparty risk and freeing up capital.
- **Fractional ownership:** Tokenization makes it easy to divide high-value assets into smaller, more accessible units.
- **Global accessibility:** Blockchain-based markets can potentially reduce geographic barriers to investment, allowing for more globalized capital flows.
- **Programmability:** Smart contracts can automate various processes, reducing administrative overhead and enabling new financial products.
- **Enhanced transparency:** The immutable nature of blockchain records can provide a clear audit trail and improve overall market transparency.

While the potential benefits are significant, successful implementation brings challenges including regulatory uncertainty, the need for robust technological infrastructure, and the requirement for trusted intermediaries. As the industry develops, market participants will need to adapt to navigate this emerging landscape effectively. As we explore the current state of RWA tokenization in this report, it's clear that we are still in the early stages of this transformation.

However, the growing interest from both traditional financial institutions and crypto-native protocols suggests that RWA tokenization has the potential to reshape how we interact with and trade real-world assets in the digital age.

The RWA Landscape: Current State

At large, the real-world asset (RWA) sector can be understood through the lens of four major categories. In the table below, we provide an overview of the major categories in the RWA tokenization space, detailing what each category entails, key protocols or companies operating in each area and their estimated market size.

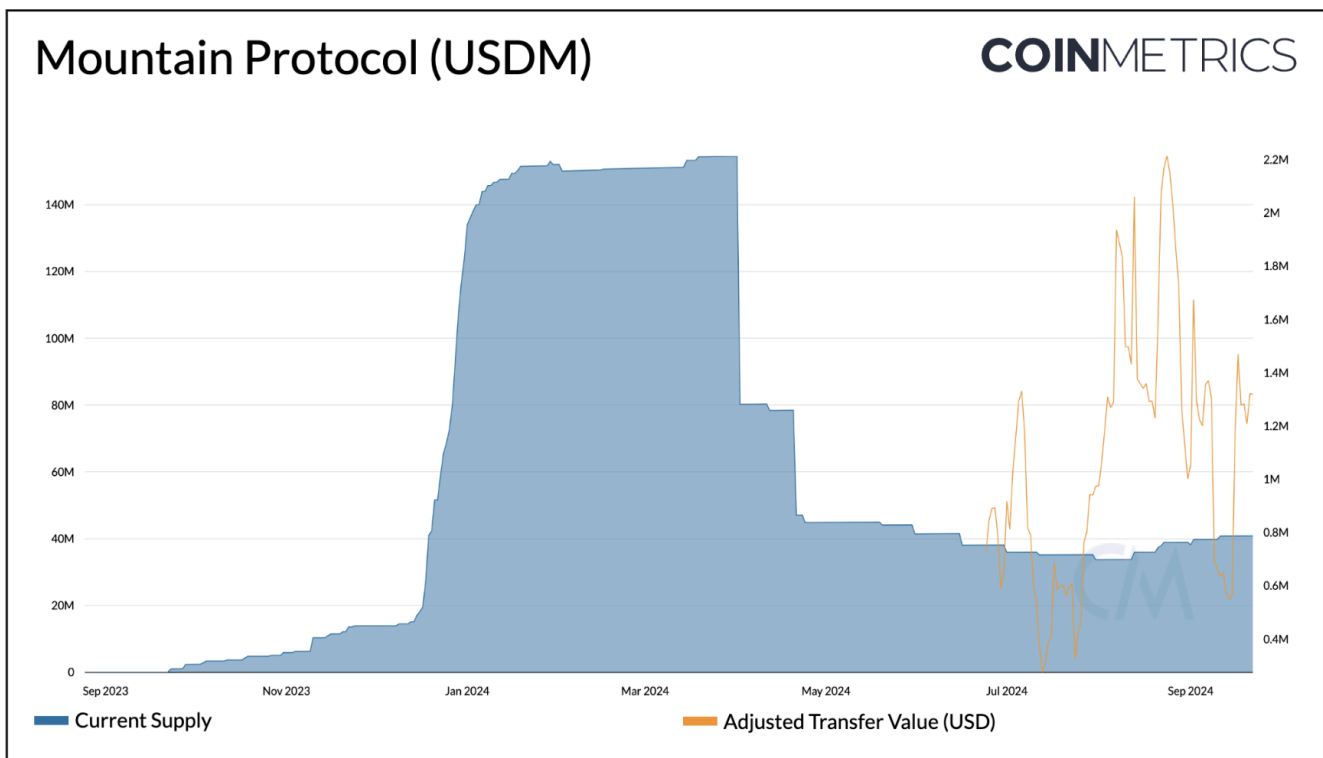
Category	Asset Universe	Protocols/Companies	Current Size (Est.)
Public Securities	<ul style="list-style-type: none"> • Bonds • Government Securities (US Treasuries of various maturities) • Money Market Instruments (Certificates of Deposits, Commercial Paper, Repo's) • Equities 	<ul style="list-style-type: none"> • BlackRock (BUIDL) • Ondo Finance (OUSG, USDY) • Franklin Templeton (FOBXX) • Backed Finance (biB01) • Matrixdock (STBT) • OpenEden (TBILL) • Superstate (USTB, USDCC) • Maple Finance (MPLcashUSDC, MPLcashUSDT) 	~\$1.5 Billion - \$2 Billion
Private Credit	<ul style="list-style-type: none"> • Secured Institutional Lending • Overcollateralized Emerging markets lending • Asset-based finance 	<ul style="list-style-type: none"> • Figure • Maple Finance • Goldfinch Finance • Centrifuge • TrueFi 	~\$500 Million - \$1 Billion, ~\$9B active loan value
Commodities	<ul style="list-style-type: none"> • Gold, Silver • Copper, Oil, Platinum • Agricultural products (i.e., Wheat) 	<ul style="list-style-type: none"> • Paxos Gold (PAXG) • Tether Gold (XAUT) 	~\$800 Million - \$1 Billion
Real Estate	<ul style="list-style-type: none"> • Residential properties • Commercial properties • REIT's • Real estate derivatives 	<ul style="list-style-type: none"> • Groma • RealT • Parcl • LoftyAI 	~500 Million

Project Spotlight

Project: Mountain Protocol (USDM)

Sector: Tokenized Public Securities

USDM is a ERC-20 rebasing token on the Ethereum, Polygon, Arbitrum and Base blockchains, issued by [Mountain Protocol](#) Limited, a company licensed by the Bermuda Monetary Authority (BMA). Unlike traditional stablecoins like USDC & USDT, USDM shares interest earned on its collateral backing. USDM is backed by its reserve assets ("[USDM Reserves](#)"), largely composed of U.S. Treasury bills issued by the U.S. Treasury, reverse repurchase agreements with the Federal Reserve, and cash. The supply of USDM in a user's account increases (rebases) daily, allowing holders to generate the "risk-free rate" as interest, functioning as a crypto savings account for those in emerging and developed economies. USDM has seen modest growth to a supply of \$140M (currently \$40M) buoyed by the interest-rate hiking cycle which improved their net interest margin (spread between the returns generated on the underlying USDM Reserves in excess of the rewards paid to its users). USDM can be used freely in any ERC20-compatible protocol such as swap pools (medium of exchange) or lending protocols (collateral/borrow asset).



Source: [Coin Metrics Network Data Pro](#)

Project: Maple Finance

Sector: Lending

[Maple Finance](#) is an institutional-grade, on-chain credit marketplace providing a diverse range of secured and unsecured lending products to both traditional financial institutions and crypto-native investors on Ethereum, Base and Solana. Products include permissioned lending pools which source yield from secured loans to institutions. These loans are fully backed by select digital assets and undergo rigorous risk assessment, with opportunities including “Blue Chip Secured Lending”, “High Yield Secured Lending” and [several others](#).

Maple also provides on-chain cash management solutions through its [Cash Management Pool](#), giving accredited investors access to yield sourced from US Treasury bills on USDC deposits. Maple also [recently launched Syrup](#), a DeFi platform which allows permissionless access to secured institutional lending via USDC and USDT deposits.

Curated Opportunities For Digital-First Lenders.

Maple offers a concise set of lending options to meet your liquidity, risk and return requirements. Verified lenders gain access to our current and upcoming opportunities.

[Start Lending](#) →

Product	Target APY	Lending Assets	Description
Stablecoin Secured Lending	15%	USDC, USDT, DAI	Overcollateralized lending to institutional counterparties backed by digital assets with in-depth borrower due diligence, on-chain transparency, and downside protection.
Altcoin Secured Lending	10%	ETH, SOL, MATIC	Overcollateralized lending in altcoins to institutional counterparties backed by digital assets with in-depth borrower due diligence, on-chain transparency, and downside protection.
Corporate Credit	11%	US Treasury, Corporate Bonds	Strategic financing to top tier counterparties in the digital asset ecosystem. Premium yields with a short tenor, backed by strong balance sheets with significant, unencumbered liquid assets.
Cash Management	5%	US Treasury	Manage on-chain cash positions by accessing the US Treasury yield directly. The needs of companies, HNWIs and funds are met with daily liquidity and a conservative risk profile.

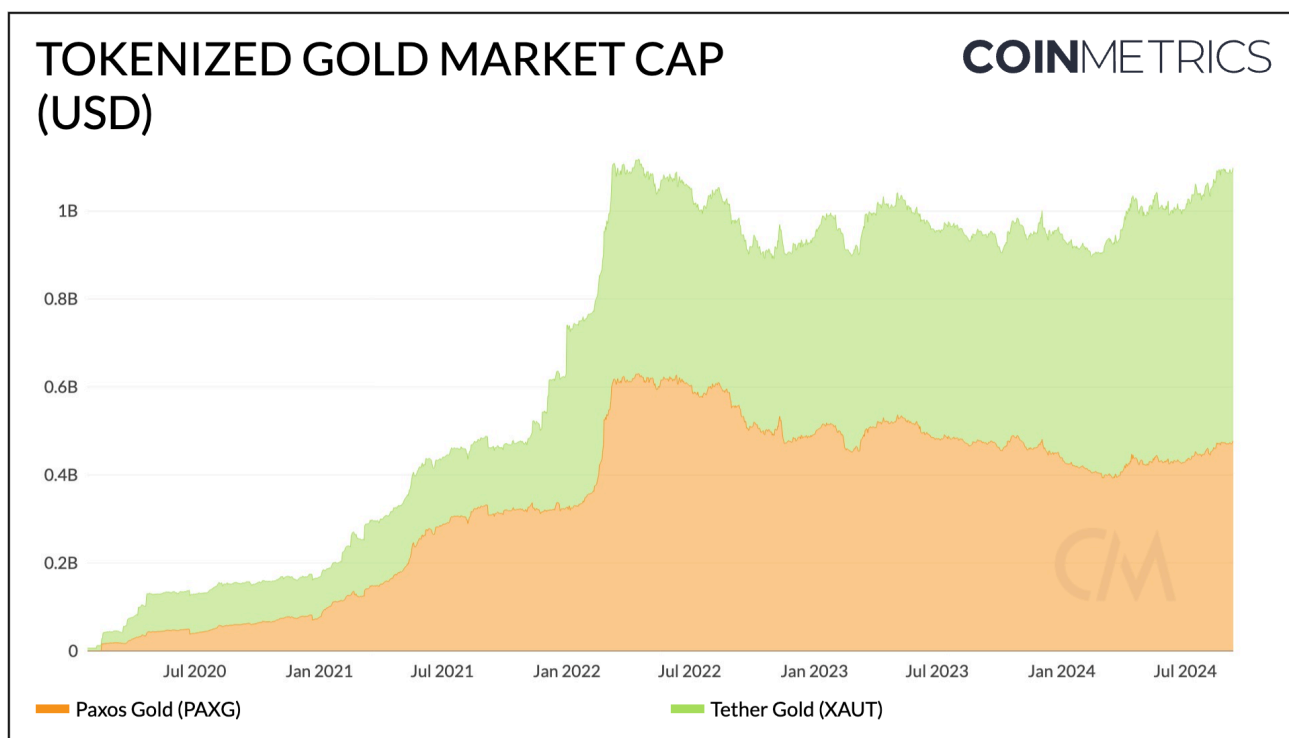
Source: [Maple Finance](#)

Project: Tether Gold (XAUT)

Sector: Tokenized Commodities

[Tether Gold \(XAUT\)](#) is a digital token backed by physical gold, providing easy to transport, easily divisible, 24/7 market access to the most widely accepted store of value. Launched by TG Commodities Limited, Tether Gold is a stablecoin that provides 1:1 ownership of one fine troy ounce on a physical bar of gold in a digital form, avoiding drawbacks such as high storage costs and low accessibility.

Tether Gold (XAUT) has climbed to a market capitalization of \$645M and backed by 644 gold bars weighing 7667 Kilograms.



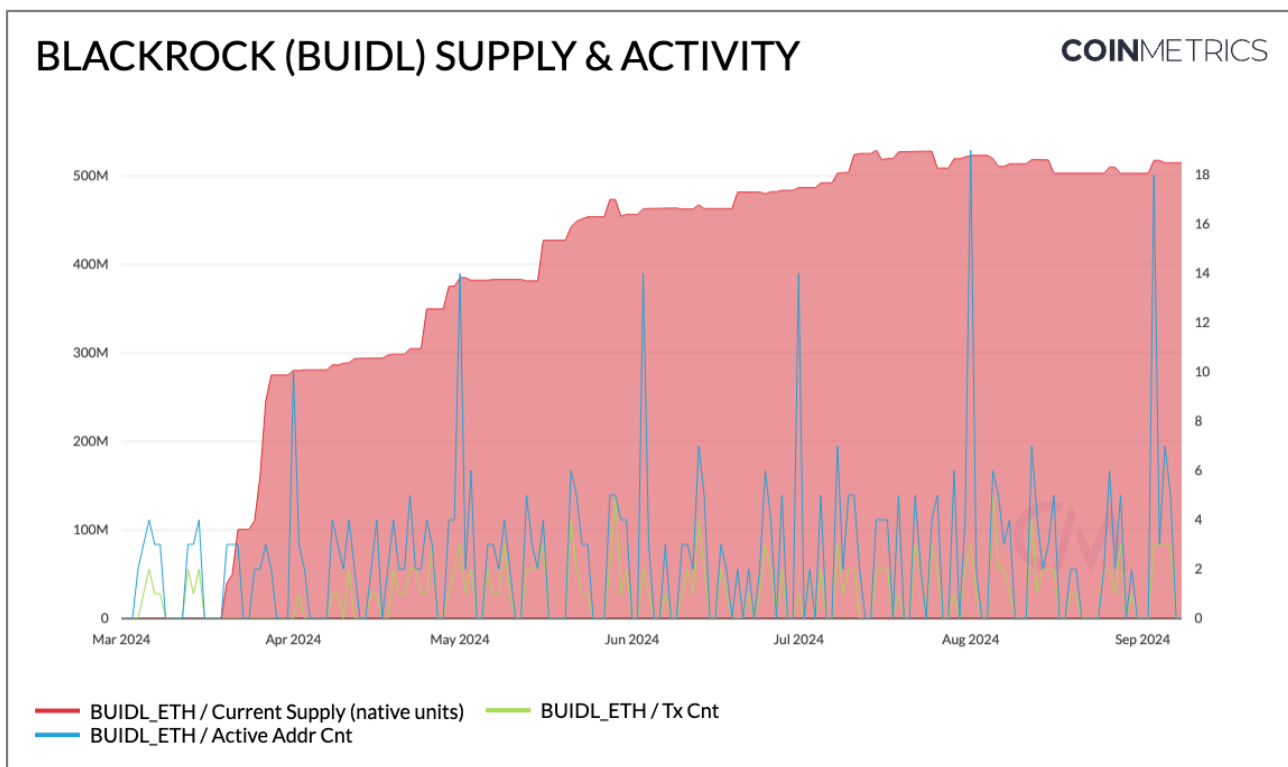
Source: [Coin Metrics Network Data Pro](#)

While the sectors outlined above represent the largest categories today, projects are also experimenting with tokenization in various non-financial areas, such as:

- Carbon Credits (e.g., [Toucan Protocol](#))
- Art & Collectibles (e.g., [Maecenas](#), [SuperRare](#))
- Wines & Spirits (e.g., [Baxus](#))
- Sports Teams (e.g., [Chiliz](#), [Socios](#))
- Agriculture (e.g., [Finka](#))

Adoption & Distribution of Users

Multiple platforms are being developed to cautiously roll out new products on select networks. One such product leading the charge is BlackRock's USD Institutional Digital Liquidity Fund (BUIDL). BUIDL tokenizes a money-market fund in collaboration with Securitize on Ethereum—investing in U.S. Treasuries, cash and repurchase agreements. It has a current supply of 514M and follows the ERC-20 standard on the Ethereum network as a fungible rebasing token, with its contract code preventing non-whitelisted users from receiving the token. Institutions have followed general network standards but have withheld from further integrating into the blockchain ecosystem.



Source: [Coin Metrics Network Data Pro](#)

Major Networks With RWA Activity

Ethereum

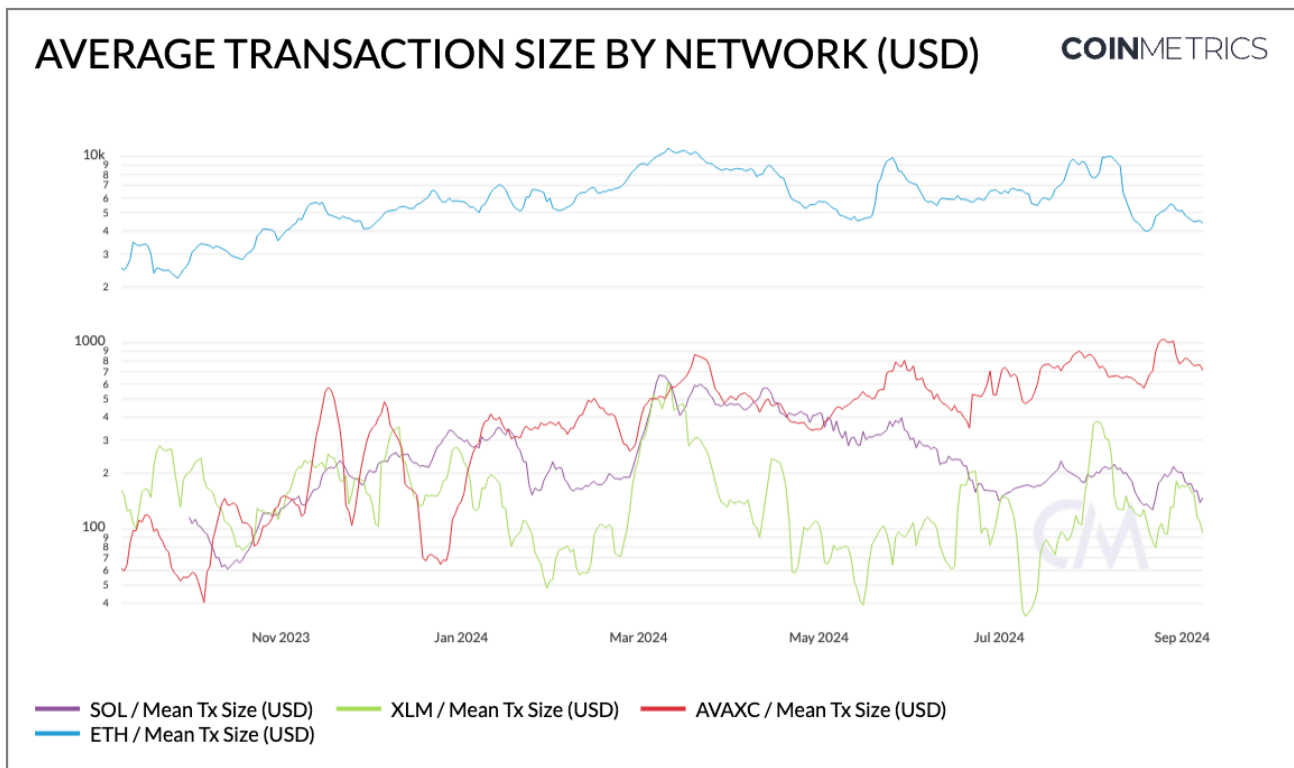
Ethereum's security and network stability has allowed it to currently attract a majority of real world asset value. Ethereum has attracted a [majority of stablecoin supply](#), a stepping stone in the tokenization process, and continues to accrue on-chain investment. Of the eight tokenized short-term treasury bond products covered in Steakhouse Financial's July 2023 report, six of them are available on Ethereum. Ethereum's decentralization and proven development and network uptime have allowed it to catch the eye of institutions interested in tokenization. Ethereum is host to [BlackRock's BUIDL](#), [Ondo Finance](#), [Maple Finance](#), and [Centrifuge](#) to name a few popular real-world investment platforms. Ethereum's expansive ecosystem allows it to benefit from potential real world asset growth on Layer-2s. Deployments including the [Plume Network](#), a RWA-focused rollup built on the Arbitrum Nitro stack posting transaction data to Ethereum. The Optimism Superchain hosts Blast, a Layer-2 with native yield supporting Kettle Finance, a tokenized luxury watch exchange. Both projects secure data availability on Ethereum, paying to roll up to their respective Layer-2s which pay fees to post blobs in the dedicated blob space of Ethereum blocks to secure data.

Solana

Solana has seen healthy growth in real world asset onboarding. Despite historical network outages and fears of consensus centralization, Solana's efficient transaction speeds, cheap fees, and tooling support alternative solutions to deploying on Ethereum. Solana's speed has allowed [Parcl](#) to host a synthetic real estate derivatives exchange. Investors can create long and short futures positions on residential real estate valuations in different cities. As a high-throughput blockchain, Solana's support for large trading volumes allows Parcl users to benefit from trade confirmation speed and gas efficiency. Solana has also attracted non-fungible projects including [Baxus](#), a tokenized wine and spirits trading platform. Users can buy, sell, and use their tokenized collections as collateral to create easier access to liquidity while providing transparent ownership. Instead of immediately taking a bottle of wine into possession after purchase, Baxus manages the collection until a redemption is requested for the physical item, reducing management and transportation costs for investors. [Solana Permissioned Environments \(SPEs\)](#) have driven institutional adoption, enabling operators to completely manage accessibility, validator sets, and consensus mechanisms. Institutions can harness the beneficial speed and low costs of the Solana Virtual Machine while complying with external regulatory requirements. The additional release of [token extensions](#) as a modular set of programs designed to enhance token utility on Solana combines for clear permissioning for institutional use. Institutions can build with token extensions to create compliance features such as permanent delegate and group token holders to monitor addresses. On July 23, 2024, [Libre Capital announced](#) the availability of three tokenized funds – BlackRock's ICS Money Market Fund, Hamilton Lane's Senior Credit Opportunities Fund, and Brevan Howard's flagship Master Fund – to accredited investors on Solana. Solana's continued token extension development and consistent network security will help increase interest in tokenizing more assets on the network.

Stellar

Stellar Network has found success in attracting institutional adoption due to its programmability and cheap fees. Stellar Core is built with C++17, providing a blockchain with a proven programming language for developers to build on. This differs from Ethereum contracts primarily written in Solidity and Vyper or Solana using Rust. C++ business logic could prevent common exploits such as re-entrancy attacks in other smart contracts. Different programming languages can affect the risks involved with deploying a product on the network or enhance the issuer's control over its customization. WisdomTree, an investment product manager, deployed [WisdomTree Prime](#) on Stellar for users to access a variety of traditional asset funds from their phone. With Stellar's asset functionality customization, token issuers can set restrictions on tradeability and supply. Users gain access to a one-stop shop for equity funds, bond funds, and digital asset investment. As WisdomTree Prime continues to grow, users will benefit from the transparent and accessible on-chain wallet with exposure to both traditional and speculative assets. Stellar was also host to the first U.S.-registered fund using a public blockchain. Issued by Franklin Templeton, the [Franklin OnChain U.S. Government Money Fund \(FOBXX\)](#) enables holders to gain access to real world asset yields while transparently proving on-chain ownership. The fund is represented by the \$BENJI token and works to remain stable at \$1.00. Stellar's smart contract control has allowed Franklin Templeton to enable trading the token between holders and provides further development opportunities.



Source: [Coin Metrics Network Data Pro](#)

The average transaction size across blockchain networks provides insight into the types of activities occurring on each chain. Ethereum currently hosts the highest-value transactions with an average of \$4,500, which is partly due to its prominence in RWA tokenization and other high-value DeFi activities. In comparison, AVAX (C-Chain), Stellar, and Solana have average transaction sizes of approximately \$750, \$150, and \$100 respectively. The relationship between RWAs and transaction sizes is likely bidirectional: networks with higher average transaction values may attract more RWA projects, while the presence of tokenization products can also drive up average transaction values. Factors such as network fees, smart contract capabilities, and regulatory compliance influence both RWA adoption and transaction patterns on each blockchain. As RWA tokenization and blockchain ecosystems mature, we can expect transaction patterns to evolve, potentially leading to changes in average transaction sizes across these networks.

Permissioned Networks

Permissioned blockchains enable issuers to control functionality at a higher level. Beyond smart contract design, real-world asset issuers can control who can view ledger entries and limit the information shared across the network. An increasing number of institutions have tested permissioned blockchains including Avalanche subnets to bring data on-chain and simplify user experiences.

[Provenance Blockchain](#) is a permissioned Layer-1 real world asset blockchain built using the Cosmos SDK. Leveraging the Inter-Blockchain Communication protocol allows Provenance to host applications and multiple assets without revealing data to other users. The creation of Zones enables token issuers to control user access, transferability, and fee exposure. Complete customizability allows compliance requirements and regulatory restrictions to be followed.

[Figure Lending](#) has driven Provenance Blockchain adoption. Figure's Home Equity Line of Credit product enables U.S. users to receive credit which is then represented on the blockchain. HELOC data on the blockchain enables fast, accessible data to necessary parties while providing immutability to the agreed contract. As Figure onboards more users to access its products such as Figure Connect, a private credit exchange, Figure will be able to control accessibility and ownership of new tokens representing credit agreements and other products.

Who Can Hold

Current products still require investors to complete KYC processes, become whitelisted to interact with a token, or confirm they are an accredited investor. While real world asset yield has slowly migrated on-chain through various forms of collateral, with increased financial transparency and decreased settlement times, products are still not easily attainable for retail investors. BlackRock's BUIDL requires investors to deposit a minimum of \$5 million to participate.

Alternative U.S. Treasury yield products including Backed's bIB01, Matrixdock's STBT, OpenEden's TBILL and Mountain Protocol's (USDM) offer lower investment minimums, but geographically restrict U.S. investors.

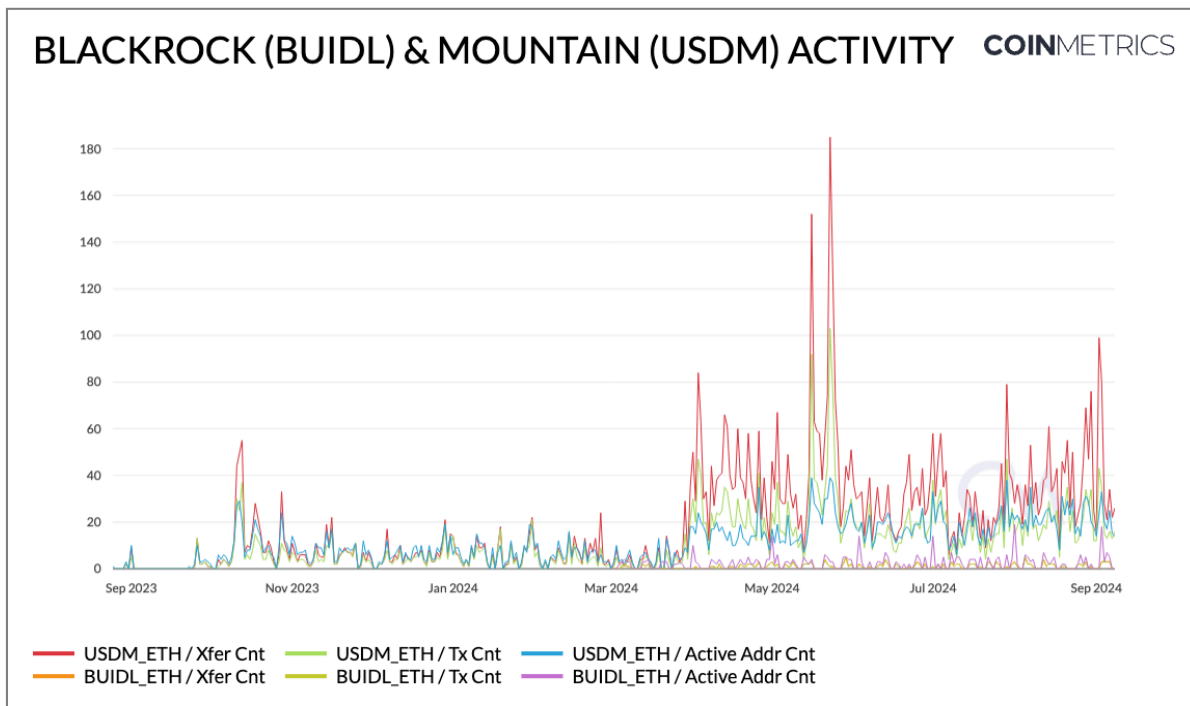
Minimum investment	AUM
\$5,000,000	\$514,796,548.32 USD ¹

Class A Shares
Ethereum

Source: [Securitize.io](https://www.securitize.io)

These barriers are currently consistent throughout each on-chain asset category. Of the assets that are investable by U.S. persons, regulatory ambiguity forces projects to offer products to pre-approved investors. [Groma's](#) Real Estate Investment Trust portfolio currently manages residential homes in Boston, Massachusetts but is currently only accessible to accredited investors. Retail investors can monitor the on-chain deeds and tokens held on Ethereum, but cannot invest directly in the U.S.-based firm.

Similarly, [Maple Finance's](#) lending products offer institutional lending opportunities to US domiciled investors after having proven they are accredited investors through KYC processes, and newer offerings like [Syrup.fi](#) for non-US users.



As a result, transactions, transfer counts and account activity across these products remain low—albeit with high-ticket values.

Token Contract Design

Rebasing tokens enable users to earn more of the same token when accruing yield. Instead of increasing in value and maintaining a fixed supply, rebasing tokens algorithmically adjust the supply to remain pegged to the underlying asset. Tokens including stablecoins, BUIDL, and BENJI, that are rebasing, help simplify the user experience. Rebasing token holders do not have to consistently monitor the exchange rate between other assets. Working to be pegged to an asset such as the U.S. Dollar simplifies future integration with other stablecoins or RWA and DeFi products.

Non-rebasing tokens change in value and can show a clearer picture on interest earned on the underlying asset. Benefitting alternative real-world tokenized assets such as tokenized real estate or traditional financial funds, investors can easily monitor the return from entry prices. Non-rebasing tokenized real estate enables a fixed supply to be distributed and prevent confusion on supply and proportional ownership changes that may occur with issuing a rebasing token.

Regulatory Impacts

As the tokenization of real-world assets (RWAs) continues to gain traction, it's crucial to understand both the regulatory landscape shaping this emerging field and the areas of growth that are driving innovation. This section will explore key regulatory developments and highlight promising growth areas in the RWA tokenization space.

The regulatory environment for RWA tokenization is rapidly evolving as governments and financial authorities grapple with the implications of this new technology. Two significant regulatory developments that are shaping the landscape are the Markets in Crypto-Assets (MiCA) regulation in the European Union and the Staff Accounting Bulletin No. 121 (SAB 121) issued by the U.S. Securities and Exchange Commission.

Markets in Crypto-Assets (MiCA) Regulation

The European Union's MiCA regulation, which came into effect in June 2023, represents a comprehensive framework for regulating crypto-assets, including tokenized RWAs. Key aspects of MiCA that impact RWA tokenization include:

- **Asset-Referenced Tokens:** MiCA introduces the concept of "asset-referenced tokens," which are crypto-assets that aim to maintain a stable value by referencing other assets. This category is particularly relevant for tokenized RWAs, as it provides a regulatory framework for tokens backed by real-world assets.
- **Licensing Requirements:** Issuers of asset-referenced tokens must obtain authorization from national competent authorities. This introduces a formal licensing process for entities looking to tokenize RWAs, potentially increasing credibility but also adding regulatory overhead.
- **Investor Protection:** MiCA mandates strict disclosure requirements for issuers of asset-referenced tokens, including detailed whitepapers that outline the risks, rights, and obligations associated with the tokens. This enhances transparency but may increase compliance costs for issuers.
- **Operational Resilience:** The regulation sets out requirements for robust governance arrangements, including the management of conflicts of interest and the maintenance of adequate funds or insurance policies. This aims to ensure the stability and reliability of tokenized RWA platforms.
- **Cross-Border Recognition:** MiCA establishes a passport regime that allows authorized entities to operate across the EU, potentially facilitating the growth of a pan-European market for tokenized RWAs.

The implementation of MiCA is expected to provide greater regulatory clarity for RWA tokenization in the EU, potentially accelerating adoption by traditional financial institutions while also imposing new compliance burdens on market participants.

Staff Accounting Bulletin No. 121 (SAB 121)

In the United States, the SEC's issuance of SAB 121 in March 2022 has significant implications for entities involved in the custody of crypto assets, including tokenized RWAs. Key points of SAB 121 include:

- **On-Balance Sheet Reporting:** SAB 121 requires entities that custody crypto assets for platform users to record a liability on their balance sheet reflecting their obligation to safeguard these assets. Simultaneously, they must record a corresponding asset.
- **Fair Value Measurement:** The liability and corresponding asset must be measured at fair value, with the fair value being measured based on the value of the underlying crypto assets being safeguarded.
- **Enhanced Disclosure:** Entities must provide comprehensive disclosures about the nature and amount of crypto assets they are responsible for safeguarding, including the potential effects on their financial condition and results of operations.
- **Risk Disclosure:** Custodians must disclose technological, legal, and regulatory risks associated with safeguarding crypto assets, as well as any potential impact on their business and financial condition.

The implications of SAB 121 for RWA tokenization are significant:

- **Increased Transparency:** The requirement for on-balance sheet reporting and enhanced disclosures may increase transparency in the tokenized RWA ecosystem, potentially boosting investor confidence.
- **Higher Operational Costs:** Compliance with SAB 121 may increase operational and compliance costs for custodians of tokenized RWAs, potentially impacting the economics of tokenization platforms.
- **Regulatory Scrutiny:** The bulletin signals increased regulatory attention to crypto asset custody, which may lead to further regulatory developments impacting tokenized RWAs.
- **Institutional Adoption:** While SAB 121 imposes new requirements, the increased clarity it provides may encourage more traditional financial institutions to enter the tokenized RWA space, as they now have clearer guidance on how to account for these assets.

Areas of Growth

Despite regulatory challenges, the RWA tokenization space is experiencing rapid growth and innovation across various sectors. Here are some key areas of development:

Interest Rate Swaps, Forwards, and Smart Contract-Based Derivatives

The integration of traditional financial instruments with blockchain-based infrastructure is opening up new possibilities for interest rate swaps, forwards, and other derivatives. Platforms like [Parcl](#) and [Ostium](#) are at the forefront of this innovation:

- **Parcl:** This platform allows users to gain synthetic exposure to real estate markets through blockchain-based derivatives. Users can invest in specific real estate markets without the need for traditional property ownership, potentially increasing liquidity and accessibility in the real estate sector.
- **Ostium:** Focusing on interest rate derivatives, Ostium aims to bring the \$500 trillion interest rate swap market on-chain. By leveraging smart contracts, Ostium seeks to reduce counterparty risk and increase efficiency in interest rate swap transactions, providing exposure to everything from Oil and Gold to exotic Forex.

These platforms demonstrate the potential for blockchain technology to revolutionize complex financial instruments, making them more accessible, transparent, and efficient.

Ribbon Finance Vaults

[Ribbon Finance](#) has introduced innovative "theta vaults" that automate options-based strategies on various crypto assets. While not directly related to traditional RWAs, the Ribbon Finance model showcases the potential for similar automated yield-generating strategies applied to tokenized real-world assets:

- **Automated Yield Generation:** Ribbon's vaults automatically execute options strategies to generate yield, a model that could be adapted for tokenized RWAs like real estate or commodities.
- **Risk Management:** The structured approach to yield generation could provide new ways for investors to manage risk in RWA portfolios.
- **Increased Accessibility:** By automating complex strategies, Ribbon-style vaults could make sophisticated RWA investment strategies accessible to a broader range of investors.

Secondary Markets

The development of robust secondary markets for tokenized RWAs is crucial for improving liquidity and price discovery. Several initiatives are driving growth in this area:

- **Decentralized Exchanges (DEXs):** Platforms like Uniswap and Curve are exploring the integration of tokenized RWAs, which could provide 24/7 liquidity for these assets. The introduction of “hooks” (custom pool logic) in Uniswap v4 will allow for greater customizability and experimentation with RWAs.
- **Security Token Exchanges:** Specialized platforms like tZERO and Securitize are building compliant secondary markets specifically for security tokens, including tokenized RWAs. Figure Markets allowed users to buy and sell FTX bankruptcy claims in a centralized location benefiting from a transparent orderbook.
- **Institutional Trading:** As traditional financial institutions enter the space, we're seeing the development of institutional-grade trading platforms for tokenized assets, which could significantly boost liquidity and market depth.

The growth of these secondary markets is essential for realizing the full potential of RWA tokenization, as it addresses one of the key limitations of traditional RWA markets – lack of liquidity.

FOREX: Project Mariana

As more forms of tokenized currencies and RWAs come on-chain, there is a large opportunity for on-chain infrastructure providers like decentralized exchanges (DEXs) to [facilitate foreign exchange](#) (FX), offering a faster, cheaper and more efficient alternative for cross-border payments and trade. For example, on-chain FX can facilitate the trading of dollar and euro-denominated stablecoins like USDC and EUROCC using the Uniswap Protocol. Several pilots have been conducted to further explore on-chain FX. For instance, The Bank for International Settlements (BIS) Innovation Hub is spearheading [Project Mariana](#), an initiative exploring the use of Decentralized Finance (DeFi) protocols for foreign exchange and cross-border payments. Key aspects of this project include:

- **Automated Market Makers (AMMs):** Project Mariana is investigating the use of AMM protocols, similar to those used in crypto DEXs, for foreign exchange markets.
- **Cross-Border CBDC Exchange:** The project aims to enable the exchange of hypothetical Swiss franc, euro, and Singapore dollar wholesale central bank digital currencies (wCBDCs).
- **Reduced Counterparty Risk:** By leveraging smart contracts and blockchain technology, Project Mariana seeks to reduce counterparty risk in forex transactions.

This initiative highlights the potential for blockchain technology to revolutionize the \$6.6 trillion daily forex market, potentially leading to more efficient, transparent, and accessible currency exchange mechanisms.

DeFi Integration & New Entrants

The entry of established DeFi protocols into the RWA space signals growing interest from not only institutions, but also on-chain protocols, increasing the potential for capital inflows into the sector. We've also seen a trend of DeFi project DAO's diversifying their treasuries to include RWAs, yield-bearing stablecoins and tokenized US T-bills, giving on-chain finance protocols a diverse composition of collateral and access to sustainable revenue opportunities:

- Spark Protocol: This Ethereum-based lending and borrowing protocol, which is an iteration of the Aave protocol, has expressed interest in integrating RWAs into its platform. This could potentially allow users to borrow against tokenized real-world assets or earn yield by providing liquidity to RWA markets.
- MakerDAO's [\\$1 Billion RWA Investment](#): MakerDAO (now Sky), one of the largest DeFi protocols and the issuer of the DAI stablecoin (now USDS), has approved a proposal to invest up to \$1 billion in U.S. Treasury bonds and corporate bonds. This move represents a significant step towards integrating traditional financial assets into the DeFi ecosystem and could pave the way for further RWA integration in DeFi protocols.
- Ethena, the project behind the “synthetic dollar” USDe, is [planning to allocate](#) part of its Tether (USDT) reserves and surplus buffer into tokenized RWAs. BlackRock's BUIDL, and Mountain Protocol, the issuer of the USDM stablecoin signaled interest.
- Aave, one of the largest on-chain lending protocols, is [looking to onboard BUIDL](#) shares as collateral for its stablecoin—GHO. BUIDL would be included in the GHO stability module (GSM), allowing users to exchange GHO one-to-one with approved assets, supporting the stablecoins peg and generate yield.

As RWA tokenization expands and regulatory frameworks mature, we anticipate further integration of traditional financial assets into on-chain infrastructure, particularly through core primitives like DEXs and lending protocols.

Conclusion

Real-World Asset tokenization can significantly improve current traditional finance processes and democratize access to alternative investments. The physical assets and markets that were previously difficult to access are now abstracted away while still providing verifiable ownership on-chain.

Both institutions and independent entrepreneurs are building solutions to increase access and functionality to tokenized assets on a variety of chains, catalyzed by the changing interest-rate environment. Institutions have consistently driven inflows into tokenized treasury bill funds, primarily on Ethereum, and continue to expand money-market funds and other investment products to chains including Solana, Stellar, and permissioned chains.

Protocols across chains have now enabled investors to purchase luxury goods, participate in private credit agreements, and trade derivatives on local real estate markets, to name a few.

While blockchains are competing for adoption and transaction activity, enticing product issuers with optimizations including cheap transaction fees or increased network reliability, regulations have begun to guide development as institutions navigate the European Union's MiCA Regulations or monitor the U.S.'s SAB 121 proposal.

Tokenization helps bridge the gap between siloed systems and illiquid assets, combining blockchain benefits with an existing demand for alternative assets. We expect to see continued growth on these major blockchains along with protocols to further integrate assets or create new trading primitives as regulators continue to build guidelines for development in blockchain.

REAL WORLD ASSETS

REPORT

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By Matias Andrade, Cooper Duschang, Tanay Ved and the Coin Metrics Team



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