Real-World Asset (RWA) Tokenization: Market Landscape, Use Cases, and Outlook

By Molly Liu, 10/18/2025

Key Insights

1) Tokenization is rapidly scaling from theory to real implementation. Market value is projected to grow from $0.6 trillion in 2025 to $18.9 trillion by 2033, a CAGR over 50% (Ripple & BCG, 2025). This signals a structural shift in how investors invest in traditionally illiquid assets like bonds, credit, and real estate.
2) Tokenized finance is defined by five core differentiators: shared records, flexible custody, programmability, fractionalization, and composability. This enables instant settlement, 24/7 markets, and inclusive participation (WEF, 2025)
3) Tokenization is moving through clear phases. From experimentation to legitimization, then to institutionalization. reflecting growing confidence and maturity in on-chain finance.
4) U.S. Treasuries and private credit are leading adoption[1] . Real estate and infrastructure are gaining traction too, with early experiments in hotel equity and EV charging revenue showing real-world viability (Mckinsey, 2024).

Introduction

The first time I encountered the idea of *tokenizing real-world assets* was during my internship in the summer of 2025. A founder described a pilot in Hong Kong where investors could buy fractional tokens representing electric vehicle charging station revenues. The concept fascinated me as I thought to myself: how could physical infrastructure, like EV chargers, be transformed into investable, liquid digital assets?

That conversation became my gateway into exploring Real-World Asset (RWA) tokenization—a movement that merges blockchain technology with traditional finance. As I delve deeper in research, I realized this wasn't just about digitizing ownership. It was about reprogramming the entire lifecycle of financial assets, from issuance to custody to settlement, in a way that makes markets faster, more inclusive, and more transparent.

Industry Landscape

Tokenized real-world assets (RWAs) are digital tokens on a blockchain that represent traditional or physical assets—like cash, commodities, stocks, bonds, loans, art, or intellectual property. This approach is transforming how such assets are accessed, traded, and managed, opening the door to new possibilities across both financial services and broader applications built on cryptography and decentralized systems. These tokens can then be traded globally and settled instantly, often with lower costs and smaller minimums. Instead of needing $1 million to invest in a building, you might invest $100. That shift matters because it opens high-value markets to ordinary investors while giving issuers cheaper, faster access to capital.

Tokenization represents a structural redesign of financial infrastructure, not a cosmetic upgrade. While traditional financial systems rely on fragmented databases, intermediaries, and messaging protocols that takes days to reconcile transactions across ledgers, tokenization introduces a shared system of record powered by programmable ledgers, where asset ownership, transfer, and compliance are encoded directly into digital tokens(WEF, 2025). According to Ripple and BCG (2025), tokenization is entering a "tipping point" where institutional adoption drives exponential growth. The projected $18.9 trillion market by 2033 (CAGR over 50%) will be concentrated in financial and tangible assets, starting with U.S. Treasuries, private credit, and funds, then expanding into real estate and infrastructure.

This isn't just DeFi anymore. Big names like BlackRock, JPMorgan, and Franklin Templeton are leading the way, alongside governments like Hong Kong and regulators in the EU and UAE. The U.S. is still navigating regulation but hosts many of the largest projects. Most RWAs live on Ethereum (75%+) (CoinPedia, 2025), with others like Polygon and Solana gaining share due to lower fees and faster finality. Public chains dominate, but custom networks are emerging to combine compliance with blockchain benefits.

Tokenization has clearly moved from idea to infrastructure, shifting from centralized and intermediary-driven systems to distributed and user-centric markets, marking the potential of defining the next generation of capital market.

Case Studies: Moving Through The Three Phases of Tokenization

Case Study 1- London Mayfair Hotel (2019): Proof of Concept Experimentation

The London Mayfair Hotel tokenization project, valued at about US$600 million, is widely seen as the first large-scale tokenization of a luxury property. Led by Liquefy, it became an early proof of concept showing that blockchain could fractionalize ownership of physical real estate (Liquefy, Real Estate Tokenization, 2020).

Phase 1: Structuring.

Liquefy and its partners, including Sidley Austin, KPMG, and Colliers International, designed a dual-SPV (special purpose vehicle) structure: one onshore entity held the property, while an offshore entity issued security tokens representing fractional equity stakes. About 49% of the hotel ownership was tokenized and offered to accredited investors under Hong Kong and Singapore securities exemptions. This early stage tested tokenization's legal and technical feasibility (Ripple & BCG, 2025).

This aligns with the first phase of RWA adoption. Experimentation, where early projects tested technical feasibility and regulatory boundaries without opening offerings to the public.

Phase 2: Digitization on a Private Chain.

Ownership was recorded on a permissioned blockchain, forming a digital register of members. Smart contracts automated KYC, dividends, and transfers, cutting settlement time from weeks to minutes. The private chain provided control and compliance suited to early institutional pilots (WEF, 2025).

Phase 3: Issuance and Liquidity.

Tokens representing 49% of ownership were then issued to professional investors through Liquefy's platform. This made it possible for smaller investors to access high-value assets that usually required multi-million-dollar minimums. While limited to private investors, the project hinted at the democratization potential of real estate tokenization—fractional access without the long process or high costs of traditional REIT listings (WEF, 2025).

Phases 4 & 5: Automation and Trading

After issuance, smart contracts managed investor relations automatically—paying dividends, tracking performance, and handling votes—reducing administrative work (Liquefy, 2020). Liquefy also enabled limited OTC trading among verified investors, an early sign of real-estate liquidity that foreshadowed later Legitimization and Institutionalization phases seen in tokenized bonds and funds (Ripple & BCG, 2025).

The Mayfair project proved that tokenization could bring liquidity, transparency, and automation to traditionally illiquid assets. Using a private blockchain balanced innovation with regulation, laying the groundwork for future public-chain and institutional adoption (WEF, 2025).

Case Study 2 – Hong Kong Government Green Bond (2023): Legitimization of Tokenized Sovereign Finance

In 2023, the Hong Kong SAR Government and the Hong Kong Monetary Authority (HKMA) issued HK$800 million of tokenized green bonds under Project Evergreen, marking the world's first government green bond fully settled on a distributed ledger (HKMA, 2023). The pilot tested how distributed ledger technology (DLT) could support every stage of a bond's life cycle, from issuance to redemption, within Hong Kong's legal framework (HKMA, 2023).

Phase 1: Structuring and Issuance.

Project Evergreen used Goldman Sachs' Digital Asset Platform (GS DAP™) to represent beneficial interests in the bonds and Hong Kong dollars as on-chain tokens. The issuance followed the government's Global Medium-Term Note (GMTN) framework, ensuring compliance with existing debt-market rules while testing blockchain as the main record of ownership (HKMA, 2023).

Phase 2: On-Chain Settlement and Automation.

Using a permissioned blockchain built on Hyperledger Besu and Canton DLT, all participants—issuers, arrangers, and investors—shared one synchronized ledger. Smart contracts enabled atomic delivery-versus-payment (DvP) using digital HKD, reducing settlement from T+5 to T+1 and removing manual reconciliation (HKMA, 2023).

Phase 3: Efficiency and Transparency.

The system automated coupon payments, ownership updates, and ESG fund tracking, giving every party real-time visibility while keeping sensitive data private. The combination of automation and confidentiality balanced innovation with regulatory control (HKMA, 2023).

Phase 4: Institutionalization and Impact.

After Evergreen, the HKMA began exploring digital-HKD settlements and cross-border pilots such as Project Guardian with Singapore, extending tokenization from domestic bonds to regional markets (HKMA, 2023; Ripple & BCG, 2025).

Project Evergreen proved that DLT can enhance speed, transparency, and risk management in sovereign finance while remaining fully compliant. Unlike early private pilots such as the Mayfair Hotel tokenization, this government-backed issuance marked the legitimization phase of tokenized finance, where blockchain becomes a trusted foundation for regulated capital markets (WEF, 2025; HKMA, 2023).

Case Study 3 – BlackRock BUIDL Fund (2024): Institutionalization of Tokenized Funds

In 2024, BlackRock launched the USD Institutional Digital Liquidity Fund (BUIDL) on the Ethereum blockchain, marking one of the first large-scale tokenized funds by a global asset manager. The initiative represented a major milestone in the institutionalization phase of tokenized

finance, proving that blockchain could be embedded into mainstream asset management (BCG, 2024).

Phase 1: Structuring and Tokenization.

BUIDL tokenized shares of a traditional money market fund, enabling investors to hold ownership directly as ERC-20 tokens. The fund's underlying assets were U.S. Treasury bills, repos, and cash, mirroring a standard institutional liquidity portfolio. Token issuance and investor onboarding were handled through Securitize, a regulated digital transfer agent and distribution platform (BCG, 2024).

Phase 2: On-Chain Operations and Settlement.

By recording ownership on a public blockchain, BUIDL allowed instant settlement and 24/7 investor access, unlike traditional mutual funds that operate on a T+2 cycle. Each investor wallet directly represented fund shares, eliminating intermediaries like transfer agents and reducing back-office friction. This structure also enabled real-time Net Asset Value (NAV) updates and programmable cash flows (BCG, 2024).

Phase 3: Distribution and Market Integration.

The fund targeted both institutional and digital-native investors, including stablecoin issuers and decentralized finance (DeFi) protocols seeking low-risk yield exposure. Within months, BUIDL reached over $500 million in AUM, making it the largest tokenized money market fund globally and outpacing early entrants like Franklin Templeton's OnChain U.S. Government Money Fund (FOBXX) (BCG, 2024).

Phase 4: Public-Private Permissioning.

While BUIDL operated on a public blockchain, it adopted a public-permissioned model to maintain compliance with investor KYC, AML, and securities regulations. This setup preserved transparency while controlling access, combining the security of private systems with the scalability and composability of public chains (BCG, 2024).

Phase 5: Institutionalization and Ecosystem Impact.

BUIDL demonstrated that tokenized funds can seamlessly integrate with on-chain money such as stablecoins, tokenized deposits, and central bank digital currencies (CBDCs). The fund's success

accelerated adoption among other major managers and reinforced the flywheel effect of tokenized finance, where more tokenized money drives more tokenized assets and vice versa (BCG, 2024).

The BlackRock BUIDL Fund proved that tokenization can coexist with existing fund structures while unlocking greater efficiency, transparency, and investor access. Unlike earlier proofs of concept, BUIDL marked the beginning of commercial-scale adoption. It transformed tokenized funds from a niche experiment into a credible pillar of institutional finance, setting the foundation for trillions in tokenized AUM by 2030 (BCG, 2024).

Outlook

The three case studies reveal a consistent trajectory: tokenization has matured from a technical proof of concept into a trusted financial infrastructure. The London Mayfair Hotel showed how private networks tested the model for fractional ownership; Project Evergreen proved that governments could apply blockchain safely within public markets; and BlackRock's BUIDL Fund demonstrated institutional integration on a global scale. Together, they illustrate how tokenization moves through three overlapping phases—experimentation, legitimization, and institutionalization.

In the experimentation phase (2020–2024), innovators focused on compliance and feasibility, building systems that balanced blockchain innovation with regulatory caution. These projects, though limited in scope, established the legal and technical groundwork that later pilots would rely on (Liquefy, 2020; Ripple & BCG, 2025).

The legitimization phase (2025–2028) is characterized by confidence and scale. Governments and banks have begun embedding tokenization into traditional capital markets, reducing settlement times and automating processes. The Hong Kong Green Bond exemplified this transition; its T+1 settlement proved that distributed ledgers could increase efficiency without breaking regulatory safeguards (HKMA, 2023).

The institutionalization phase (2028–2033) represents tokenization's full maturity. As seen in the BUIDL Fund, public blockchain rails are now used by major asset managers to operate regulated funds. This shift marks what the Boston Consulting Group (2024) calls "ecosystem transformation," where tokenized assets, money, and markets connect into an integrated digital financial system.

By the early 2030s, tokenized assets may be as common as digital bank statements are today. Whether in public equities, private credit, or infrastructure, tokenization could make markets faster, cheaper, and more inclusive.

Conclusion

RWA tokenization sits at the intersection of my interests: technology, efficiency, and finance with purpose. It can democratize access, direct capital to impactful projects, and modernize the way we own and invest. For students like me, that is not just exciting—it is a real career opportunity. As finance becomes increasingly programmable, tokenization is creating new roles that blend finance, technology, and regulation. Future professionals will not just analyze markets; they will help build them, designing how value moves on-chain and how compliance and trust are coded into financial systems.

Beyond careers, tokenization proves that blockchain has real utility. It gives our community at Blockchain at Emory a credible way to connect finance and technology in serious, interdisciplinary conversations—whether with skeptics, regulators, or innovators.

Looking ahead, I imagine a financial system that is faster, more inclusive, and borderless. There is still work to be done on regulation, infrastructure, and accessibility, but the momentum is real. Writing this report has left me not only informed, but excited to help shape what comes next.

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