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RWA Tokenization:

Key Trends and 2025 Market Outlook

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STM Security Token Market



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1. What is Real World Asset Tokenization?

Real World Asset (RWA) tokenization refers to representing the ownership and management rights of physical assets, such as real estate, commodities, bonds, and even intellectual property, as digital tokens on a blockchain. These tokens are tradeable around the clock in a manner that is more accessible, efficient, and transparent than traditional financial transactions.

Other benefits of tokenizing real-world assets are substantial and include improved liquidity, enhanced transparency, cost reductions in transactions, and real-time settlement capabilities through smart contracts. By representing assets as digital tokens, tokenization also enables fractional ownership.

This democratizes access to previously illiquid or high-entry-threshold markets. It allows investors to purchase smaller fractions of an asset, which broadens the investor base and increases liquidity. Furthermore, the use of decentralized networks also reduces reliance on intermediaries, which streamlines transactions and increases security.

Historical Context and Evolution

The concept of tokenizing assets emerged alongside blockchain technology. Initially focused on digital currencies such as Bitcoin, the blockchain landscape expanded into a wide array of financial instruments and services.

The mid-2010s marked the beginning of real-world asset tokenization. Companies such as RealT and RedSwan CRE[1] were the first to power fractional ownership in real estate by issuing digital tokens that represent shares in properties.

This move not only increased market liquidity but also democratized investment opportunities in traditionally exclusive markets. While fractional ownership had already been possible offchain, tokenization streamlined the processes for investors and issuers alike and made it easier to execute at scale.

As technology matured, other asset classes, such as commodities, bonds, and funds, also began to be tokenized. This shift was driven by the broader adoption of decentralized finance (DeFi) protocols, which integrate tokenized assets for lending, borrowing, and trading. Today, tokenization is recognized as a transformative trend in the financial industry.

Projections suggest that the market for **tokenized assets could reach between $30 trillion and $50 trillion by 2030**.[2] The tokenization of assets has not been limited to financial markets; it has also made inroads into other industries, such as supply chain management, art, and intellectual property. It has the potential to disrupt traditional practices and create new economic models.[3]

[1] RealT: "Fractional Real Estate Investment," RealT. Available at: https://realt.co. RedSwan CRE: "Tokenized Commercial Real Estate Investments," RedSwan CRE. Available at: https://redswan.io.

[2] McKinsey & Company: "From Ripples to Waves: The Transformational Power of Tokenizing Assets," McKinsey & Company. Available at **link**

[3] Franklin Templeton: "Franklin OnChain U.S. Government Money Fund Surpasses $270 Million in Assets Under Management," Franklin Templeton. Available at **link**

2. Overview of Blockchain Technology and Its Role in RWA Tokenization

Blockchain technology is foundational to the process of RWA tokenization. It provides a decentralized, secure, and immutable ledger system for recording and verifying transactions. This can enhance the security and transparency of asset management. Key aspects of blockchain technology that undergird RWA tokenization include:

1. Security and Transparency: Blockchain technology ensures that all transactions are recorded in a transparent and immutable ledger, which reduces the risk of fraud and increases trust among market participants. This transparency is crucial in managing valuable tokenized assets, where the integrity of transaction records is paramount.

2. Smart Contracts: A significant advantage of blockchains is their capacity to execute smart contracts, which are self-executing provisions directly written into code. Smart contracts can automate payments, compliance checks, and asset transfers, which reduces the need for intermediaries and lowers operational costs.[4]

3. Interoperability and Composability: The ability of blockchains to interact with multiple digital financial instruments and platforms enables the seamless integration of tokenized assets into various ecosystems. This facilitates the secondary trading of assets as well as the use of tokenized assets as collateral on DeFi platforms.

4. Proof of Reserves and Data Oracles: Standards such as Chainlink's proof of reserves and Data Oracles add an additional layer of security and trust to the ecosystem by allowing real-time verification of the reserves backing tokenized assets through links to offchain auditors. These mechanisms help maintain integrity and provide transparency.

5. Reduced Transaction Costs and Real-Time Settlement: Tokenized assets benefit from reduced transaction costs and near-instant settlement through decentralized infrastructure.

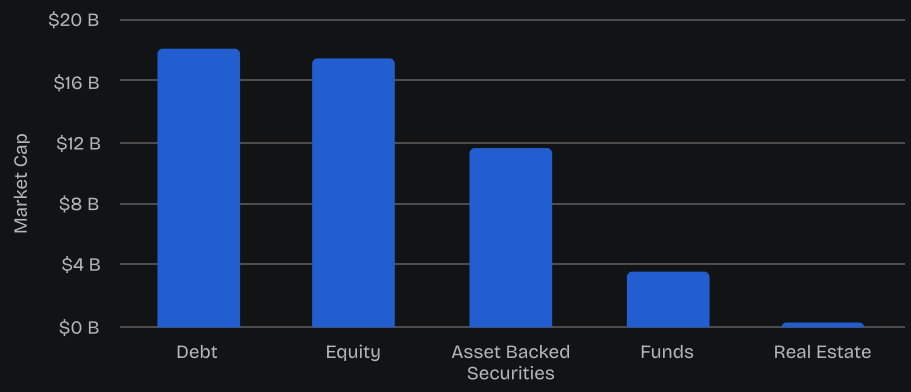
[4] Chainlink: "The Definitive Guide to Tokenized Assets," Chainlink. Available at link

3. Overview of Asset Classes Amenable to Tokenization

Although any asset class can theoretically be tokenized, five types of financial assets have proved most popular, namely debt, equity, asset-backed securities (ABS), funds, and real estate (Figure 1).

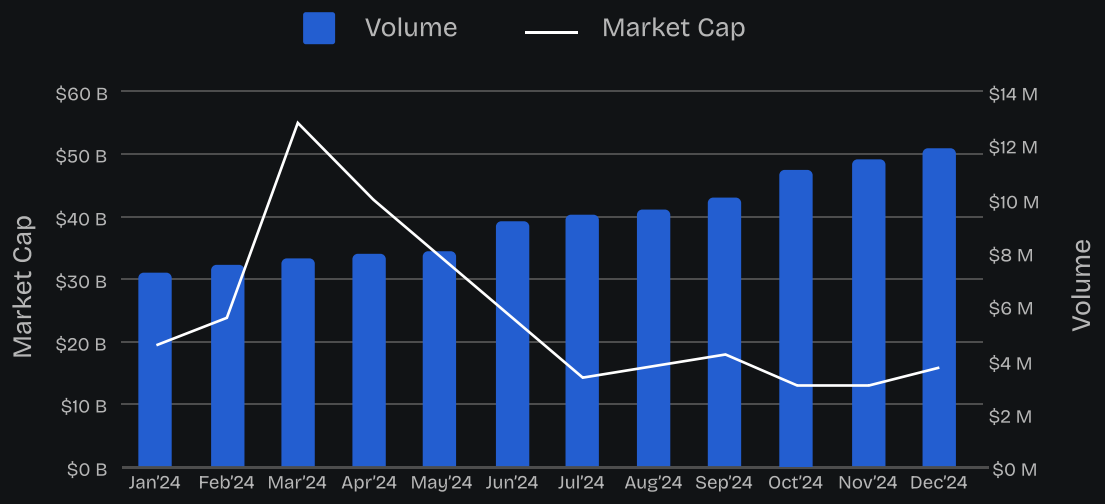
As of December 2024, there are over $50 billion worth of tokenized assets across all these classes, according to Security Token Market. As tokenization continues to impact capital markets, this number is expected to rise in 2025 (Figure 2).

Figure 1: Market Capitalization Vs. Asset Classes



Source: STM.Co

Figure 2: Total Security Token Volume and Market Capitalization: January 2024 - December 2024



Source: STM.Co

Equity tokenization allows a company's shares to be digitized as tokens, which enables fractional ownership and attracts a wider range of investors. This approach has been adopted by the tokenization platform Brickken to distribute shares of existing companies and create tokens to seed fund startups. Equity tokenization not only broadens participation but also brings liquidity to traditionally illiquid equity instruments.

Asset-backed securities (ABS) are another key area for tokenization. Digital tokens backed by pools of loans or receivables enhance transparency and streamline the securitization processes. Traditional securitization relies on intermediaries, extensive documentation, and complex reporting, which drives up costs. Tokenization automates some of these steps with smart contracts. For instance, they can be used to manage payment distribution to investors directly and transparently, which eliminates manual reconciliation.[5]

A notable example is JPMorgan Chase's initiative to tokenize auto loan receivables. This project demonstrates how blockchains can bring efficiency and transparency to the securitization market. Its primary objective is to enhance security and efficiency in payment processing. By replacing sensitive payment data with tokens, the bank reduces the risk of data breaches and fraud, as tokens are meaningless if intercepted. This approach not only safeguards customer information but also streamlines transactions, as tokens can be processed more swiftly than traditional data.

Additionally, tokenization minimizes the storage of sensitive details, which reduces compliance burdens and associated costs.[6]

Tokenization is also reshaping the fund management industry. Investment funds can issue tokens that represent shares in the fund, which reduces administrative overhead and makes fund participation more accessible. Franklin Templeton has leveraged this approach through its Franklin OnChain US Government Money Fund, a tokenized mutual fund that processes transactions and records shared ownership on the Stellar blockchain.

This allows the fund to reduce operational costs and provide greater transparency compared to traditional financial products.[7] Another notable example is JPMorgan and Apollo Global Management's 2023 proof-of-concept for a system that rebalances tokenized portfolios across multiple blockchains in seconds. It is predicted that this can reduce operational costs by 98% and unlock a $400 billion annual revenue opportunity for the asset management industry.[8]

The shift from proof-of-concept to production is well underway, with 2024 marking the deployment of tokenized products such as liquidity instruments, bonds, and private funds. In 2025, institutions are expected to further embrace tokenization and bring more asset classes, such as private credit onchain.

[5] McKinsey & Company: "From Ripples to Waves: The Transformational Power of Tokenizing Assets," McKinsey & Company. Available at link

[6] JPMorgan Chase: "Secure Data with Tokenization," JPMorgan. Available at link

[7] J Franklin Templeton: "Franklin OnChain U.S. Government Money Fund Surpasses $270 Million in Assets Under Management," Franklin Templeton. Available at link

[8] J.P. Morgan: "Portfolio Management Powered by Tokenization," J.P. Morgan. Available at link

Real estate has long been cited as an ideal candidate for tokenization due to its historically illiquid nature. Tokenizing real estate offers numerous benefits, including fractional ownership, instantaneous transaction settlement, enhanced liquidity options, and streamlined collateralization processes. Investors who were previously locked into real estate positions for almost a decade can now sell their equity, or portions of it, more easily through tokenized marketplaces.

Additionally, tokenized real estate assets can be used as collateral in DeFi platforms. This allows borrowers to access liquidity more efficiently than in the traditional banking system. Practical applications of tokenized real estate span a wide range of use cases, from whole properties transacting onchain to fractional ownership in commercial and pre-development projects. Tokenization has also been applied to innovative areas such as home equity lines of credit (HELOCs) with seamless issuance, warehousing, and securitization.

STM's upcoming reports **are expected to provide insights into how much real estate has been tokenized,** the pipeline of projects, and an analysis of past successes and challenges. This information will guide the next phase of tokenized real estate adoption. Looking at some key numbers, **STM reports** that $30B worth of real estate has either been tokenized or is in the pipeline for tokenization across the industry (Figure 3).

Figure 3: Global Tokenized Real Estate Market Statistics in 2024



Source: STM.Co

While institutional adoption is a key driver of tokenization, the technology also offers significant opportunities for retail investors. By streamlining issuance and operations, tokenization makes traditionally inaccessible asset classes available to smaller investors. Notable examples include tokenized whiskey funds, diamonds, art, renewable energy projects, and even niche areas such as car financing and Bitcoin mining.

Infrastructure providers such as Brickken are focusing on making tokenization easier for issuers, further accelerating the adoption of alternative assets. The continued growth of tokenization across both institutional and retail markets highlights its transformative potential. As adoption increases, the financial industry is poised to move closer to a future where all asset classes can be seamlessly integrated into a digital ecosystem.

3.1 Tokenized Bond Issuance

Tokenized bond issuances improve efficiency and accessibility over the traditional bond market. Firstly, tokenized bonds allow a broader range of investors to participate in bond markets through fractionalized ownership. Tokenization also creates liquidity, as tokens can be traded more easily and frequently than conventional bonds. As for blockchain transactions with other asset classes, the transparency of the market can be increased and malfeasances reduced, which improves investor confidence.

The benefits of tokenized bonds go beyond faster settlement and lower transaction costs; they also enable complex structures, such as multi-tranche and multicurrency instruments. HSBC facilitated the Hong Kong Monetary Authority's HKD 6 billion-equivalent digital green bond issuance across four currencies: HKD, CNH, USD, and EUR.

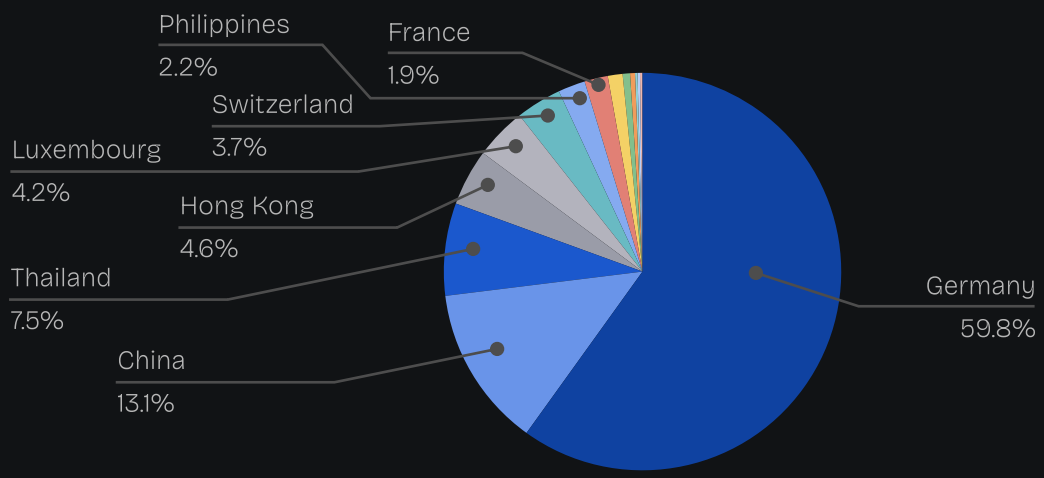
This issuance was conducted via HSBC's Orion platform and marked the world's first multicurrency digital bond offering. The adoption of tokenized bonds varies across countries, reflecting differing levels of engagement with this innovative financial instrument. (Figure 4).

In May 2024, the eurozone completed its first experiment in using blockchains to settle wholesale central bank transactions. It involved 16 private companies and assessed the interaction between TARGET Services and blockchain platforms. The ECB conducted further trials from May to November 2024, which involved over 60 institutions and more than 200 transactions totaling €1.59 billion.

It is working with technology pioneers like Brickken through their European Sandbox program. It is, therefore, likely that wholesale central bank transactions in Europe will be handled by blockchain infrastructure in the near future.

In Germany, the Federal Financial Supervisory Authority (BaFin) has been instrumental in facilitating bond tokenization through a clear regulatory framework that encourages innovation. Prominent German companies, such as Deutsche Börse, have launched platforms such as the Digital Bond Issuance (DBI) to streamline the process of issuing bonds. Several other regulatory bodies and central banks have also created frameworks or are clarifying mechanisms for digital token issuances. (Figure 5).

Figure 4: Tokenized Bond Issuance by Country (USD)



Source: STM.Co

Figure 5: Geographic Distribution of Tokenized Bond Issuances



Source: STM.Co

3.2 Debt and Money Market Fund Tokenization

In 2024, tokenized liquidity products underwent substantial growth as major institutions expanded their offerings or increased their assets under management (AUM). Liquidity products have become attractive for several reasons. They have clear terms, standardized structures, and transparent mechanisms that can be audited onchain.

Their utility extends beyond investment, as they can be used as collateral in decentralized finance (DeFi) and institutional finance applications. For instance, $BUIDL units have already been utilized as collateral on platforms such as FalconX and Hidden Road. Hashnote's USYC serves similar functions on Deribit.

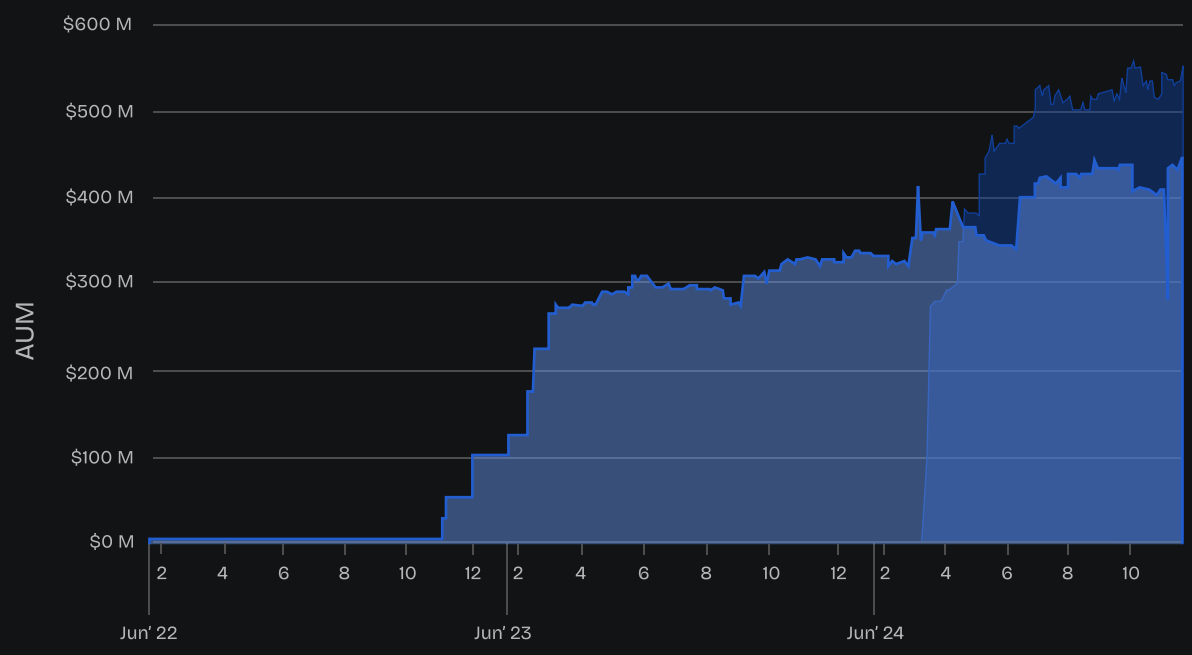
Traditionally, borrowing against securities is reserved for private banking clients.

However, because of the lower transaction fees and easier onboarding due to blockchain infrastructure, these forms of collateral can now be available to everyone.[9]

Recent listings in this area include Franklin Templeton's $BENJI, multiple of WisdomTree's tokenized funds, Hashnote's USYC, and BlackRock's USD Institutional Digital Liquidity Fund ($BUIDL), launched on Securitize. $BUIDL became the largest tokenized fund in just 40 days surpassing $375 million in market capitalization within six weeks (Figure 6).

As of December 31, 2024 it has $648.5 million under management, showcasing the potential of tokenized liquidity products to gain significant traction in a short time. It has since been overtaken by Hashnote's USYC.

Figure 6: BUIDL Vs. BENJI AUM



Source: STM.Co

[9] J.P. Morgan Private Bank: "Securities-Based Lending," J.P. Morgan Private Bank. Available at link

Key Features of BUIDL:

- **Asset Composition:** BUIDL invests in high-quality, short-term instruments, including US Treasury bills and repurchase agreements, aiming to maintain a stable net asset value while providing daily liquidity.
- **Blockchain Integration:** Initially launched on the Ethereum blockchain, BUIDL expanded in November 2024 to include five additional blockchains: Aptos, Arbitrum, Avalanche, Optimism, and Polygon.
- **Investor Accessibility:** Targeted primarily at institutional investors, BUIDL offers shares pegged to the US dollar, with dividends distributed as new tokens monthly.

Franklin Templeton has also launched an integration of blockchain technology with traditional financial products through its Benji Investments platform. This platform facilitates access to the Franklin OnChain US Government Money Fund (FOBXX), a U.S.-registered mutual fund that uses a public blockchain to process transactions and record share ownership.

Each share of the fund is represented as a BENJI token, which lets investors engage with the fund via digital wallets through the Benji Investments app. The Franklin OnChain US Government Money Fund invests at least 99.5% of its total assets in government securities, cash, and repurchase agreements fully collateralized by government securities or cash. The fund aims to provide investors with a high level of current income while maintaining a stable $1.00 share price.

Franklin Templeton has also enabled conversions between USD Coin (USDC) and US dollars (USD) on the Benji platform. This functionality also allows investors to fund their investments using USDC.

The conversion services are facilitated by Zero Hash, a crypto and stablecoin infrastructure platform. By integrating blockchain technology and enabling USDC conversions, Franklin Templeton's Benji platform exemplifies the convergence of traditional finance and digital assets.

Looking ahead to 2025, new entrants such as Coinbase Asset Management, Glasstower, and Ripple are expected to join established players, such as BlackRock, Franklin Templeton, and UBS, in driving the adoption of tokenized liquidity products. These developments signal the beginning of a broader shift, with tokenization set to expand into more complex financial instruments.

4. Value added by Tokenization

In this section, we explore how tokenization adds value through lower transaction and administrative costs, as well as increased liquidity, by drawing comparisons to traditional investment vehicles such as Real Estate Investment Trusts (REITs) and utilizing historical analogies from the financial sector.

Traditionally, investing in large-scale assets such as real estate or private equity funds involves substantial costs related to underwriting, listing, compliance, and reporting. These costs are especially significant in publicly traded REITs, but tokenization offers a more efficient alternative that can drastically reduce these burdens.

Tokenization can be likened to other major steps in the digitization of finance. Before the introduction of Nasdaq in the early 1970s, the NYSE relied on the manual open outcry system, where traders would gather on the floor and negotiate prices face-to-face.

This process resulted in slower price discovery and a lack of transparency, often leading to information asymmetry. Those with faster or better access to price data had a distinct advantage, and prices were prone to inaccuracies.

The launch of the Nasdaq as the world's first electronic stock market revolutionized price transparency. Investors could now see real-time bid-ask spreads, which led to more accurate pricing and a more liquid market.

The Nasdaq's electronic trading system showed how greater price transparency leads to more efficient markets, a principle that directly parallels the benefits of blockchain-based tokenization today.

Underwriting and Listing Fees

In traditional models, REITs incur significant costs when conducting an Initial Public Offering (IPO). Underwriting fees, which range from 5-7% of the total capital raised, and annual listing fees on major stock exchanges like the NYSE or Nasdaq, which can range from $125,000 to $500,000, significantly impact returns.

Tokenization eliminates many of these costs. By issuing digital tokens that represent fractional ownership on blockchain platforms, issuers can bypass many of the intermediaries, including investment banks and underwriters. It also eliminates the need for costly stock exchange listings. This allows for a more direct and cost-efficient capital-raising process, benefiting both issuers and investors.

Compliance and Reporting Costs

Publicly traded REITs face substantial compliance and reporting requirements. These include the need to file regular reports with regulatory bodies such as the SEC, which incurs significant legal and auditing costs.

Many tokenization platforms also offer automatic compliance features like Know Your Customer (KYC) and Anti-Money Laundering (AML) checks, streamlining processes that would otherwise be time-consuming and costly.

Fractional Ownership and Market Access

Tokenization allows assets to be broken down into smaller, more accessible portions, making it easier for investors to buy and sell fractions of large assets such as commercial real estate or private equity funds.

This increased accessibility improves liquidity, as a larger pool of investors can participate in markets that were previously out of reach. The ability to trade fractional ownership shares in real-time on blockchain platforms ensures that investors can quickly exit or enter positions without the long holding periods typically associated with illiquid assets.

Impact on Pricing Efficiency

Liquidity is closely tied to pricing efficiency. In highly liquid markets, such as publicly traded REITs, prices tend to reflect the underlying asset's true value. This is because information is quickly disseminated, and buyers and sellers have numerous opportunities to trade, leading to accurate price discovery. Conversely, less liquid markets, such as non-traded REITs, are more prone to price volatility.

In these markets, a smaller number of participants can produce sharp price swings. Tokenized assets can have improved liquidity through 24/7 trading on blockchain platforms and ensure more consistent and accurate price discovery, similar to the transparency introduced by Nasdaq in the early 1970s.

- **Reduced Information Asymmetry and Improved Liquidity**

In analogy to the Nasdaq's impact on stock trading, tokenization can reduce information asymmetry in illiquid markets. Public blockchain technology ensures that all participants have equal access to transaction records and pricing data, which reduces the advantage of insiders and creates a more level playing field.

Tokenization allows investors to trust the accuracy of asset prices because of real-time updates on ownership, transaction history, and market data. As a result, the liquidity of these assets is significantly improved, and investors no longer need to apply illiquidity discounts when evaluating asset prices.

- **Discount for Illiquidity**

Traditionally, illiquid assets are priced at a discount compared to their more liquid counterparts due to the risk and inconvenience associated with long holding periods and limited exit opportunities.

Non-traded REITs often suffer from illiquidity discounts as investors demand higher returns to compensate for the lack of market access. Tokenization enables more fluid secondary market trading, thus reducing the need for these discounts. As liquidity improves, tokenized assets can be priced more favorably, reflecting their true market value without the penalty for illiquidity.

- **Secondary Market Trading**

Tokenization also allows secondary market trading, which is often limited or unavailable in traditional asset markets such as real estate or private equity. This greatly benefits portfolio managers by allowing them to rebalance portfolios more easily and quickly respond to market changes.

5. The Technology Driving Tokenization

Blockchain and Distributed Ledger Technology (DLT)

Blockchains, as the underlying technology for tokenization, are immutable ledgers that ensure the secure recording of transactions and asset ownership. Blockchain platforms offer programmable environments where tokens can be created, traded, and transferred globally with reduced friction.

These platforms also enable real-time settlement, which reduces the delays (T+2 or T+3) associated with legacy financial systems. This not only accelerates transactions but also decreases the counterparty risk associated with delayed settlement.

Smart Contracts

Smart contracts are a key element of blockchain systems. They can automate processes that would typically require manual intervention or trusted third parties.

These programmable agreements let complex financial transactions, such as dividend payments, bond issuances, or fractional ownership distributions, occur automatically once predefined conditions are met.

In the tokenization of RWAs, smart contracts can be configured to manage a variety of tasks:

- **Automating Payments:** Automating the execution of profit sharing, interest payments, or coupon distributions to tokenholders based on real-world performance or events.
- **Governance and Voting Rights:** For tokenized equities or real estate, smart contracts can be used to grant voting rights to tokenholders to make corporate governance more accessible and transparent.
- **Compliance and Regulatory Oversight:** Smart contracts can embed Know Your Customer (KYC) and Anti-Money Laundering (AML) requirements directly into the lifecycle of the asset, ensuring that only authorized entities interact with the tokenized asset.

Oracles

While blockchain networks are self-contained, many tokenized assets require real-world data to function accurately. Oracles, which serve as intermediaries between the blockchain and the outside world, are crucial for bringing offchain data into the blockchain ecosystem.

Oracles facilitate the integration of real-time information, such as asset prices, weather conditions, or supply chain data, into smart contracts.

This lets tokenized assets reflect real-world conditions accurately. For example, in the case of tokenized commodities, oracles can provide real-time updates on the price of gold or oil, which ensures that the token's value is always aligned with the physical asset it represents.

Crosschain Interoperability

As tokenization evolves, assets need to be able to move across different blockchain networks seamlessly. Crosschain interoperability allows tokenized assets to interact with multiple blockchains to facilitate liquidity and broaden market access.

Without secure and efficient crosschain infrastructure, tokenized assets would be limited to isolated liquidity pools, which could hinder the broader adoption of tokenized financial instruments.

Chainlink's crosschain Interoperability Protocol (CCIP) is a popular set of standards for facilitating this communication. Crosschain solutions not only enhance the liquidity of tokenized assets but also allow institutional investors to access multiple markets without needing to interface with each blockchain independently.

Token Standards

Tokenization relies on established token standards that ensure compatibility and security across different platforms. Ethereum's ERC-20 standard, for example, governs fungible tokens, while ERC-721 is used for non-fungible tokens (NFTs), which are often used to tokenize unique assets such as art or real estate.

By adhering to standardized token formats, tokenized assets can be easily integrated into various decentralized applications (DApps) and exchanges, increasing their marketability and liquidity.

Reserve Audits

A key challenge in the tokenization of real-world assets is ensuring that the digital tokens remain fully backed by their corresponding real-world assets. Reserve audit mechanisms can involve third-party auditors to provide a way for institutions to verify that tokenized assets, such as stablecoins or tokenized gold, are indeed backed 1:1 by reserves held offchain. This enhances trust and confidence among investors, reducing the risk of fraud or over-issuance.

Blockchain-based proof of reserves solutions, such as those offered by Chainlink, can automatically verify reserves of crypto assets in real-time and publish the data onchain. This ensures transparency and mitigates the risks associated with undercollateralized assets.

Capabilities such as **Secure Mint** via Chainlink proof of reserves provide further enhancements. It embeds programming logic that prevents token mints unless they are adequately backed by a verified proof of reserve. Secure Mint protects against infinite mint exploits in which bad actors can create uncollateralized assets.

Privacy-Preserving Technologies

Privacy is an important consideration for assets tied to sensitive financial data or personal identity information. Zero-knowledge proofs (ZKPs) allow parties to cryptographically prove partial information about digital assets they hold without giving full disclosure.

For instance, a financial institution could verify that a user has sufficient funds to purchase a tokenized asset without revealing the total balance of their account.

Privacy-preserving technologies are becoming increasingly important in enabling compliance with regulations like GDPR while still allowing for the secure management of tokenized assets in a decentralized environment.

6. Structure of a Tokenized Asset Issuance

Tokenized asset issuance is a process that combines traditional financial structures with blockchain technology to create digital tokens that represent ownership or participation in a real-world asset.

The structure of a tokenized asset issuance typically follows a series of phases, which include deal structuring, digitization, primary distribution, post-tokenization management, issuing dividends, and secondary trading (Figure 7). These stages can be described as follows:

1. Deal Structuring

This initial phase involves the legal and financial organization of the asset, a determination of how it will be tokenized, and the establishment of a framework for the issuance of tokens by institutions. Key decisions include:

- **Asset Identification and Legal Structuring:** The issuer must determine the underlying asset, such as real estate, a bond, or a private equity fund, and create the appropriate legal structure to hold it, often a Special Purpose Vehicle (SPV). The SPV becomes the entity whose ownership is tokenized. The legal structure ensures that tokenholders have clearly defined rights, such as fractional ownership, profit-sharing, or debt repayment.
- **Compliance:** Ensuring that the issuance complies with the legal and regulatory framework in the jurisdictions where tokens will be distributed. This includes Know Your Customer (KYC), Anti-Money Laundering (AML), securities regulations, and adherence to relevant frameworks.

2. Digitization

In this phase, the physical or traditional ownership records are digitized and placed on a blockchain. Key considerations include:

- **Digital Register of Members (ROM):** The ownership of the asset is recorded digitally on the blockchain. Each investor's share of the asset is stored as a token, which ensures secure and immutable ownership records.
- **Smart Contracts:** Programmable actions are set up on the blockchain, defining the terms of the token and automating processes such as compliance checks, dividend payments, or shareholder voting. These smart contracts increase operational efficiency by removing the need for intermediaries in routine tasks.

3. Primary Distribution

Once the tokens are created, they are distributed to investors in exchange for capital. This is equivalent to an Initial Public Offering (IPO) but in the form of tokenized securities. The distribution process involves:

- **Investor Onboarding:** Investors undergo KYC and AML checks before they can receive tokens. Once cleared, their information is recorded on the digital ROM.
- **Token Issuance:** Tokens are issued to investors. Each tokenholder's details, along with their fractional ownership of the asset, are stored immutably on the blockchain. Smart contracts can automate various corporate actions at this stage, such as defining shareholder rights and dividend distribution.

4. Post-Tokenization Management

This phase refers to the ongoing management of the tokenized asset, where smart contracts play a significant role.

- **Corporate Action Management:** The automation of tasks such as distributing dividends, conducting shareholder votes, and implementing changes in ownership. The efficiency gained from smart contracts lets asset managers reduce administrative costs.
- **Compliance Maintenance:** Continuous monitoring of compliance requirements to ensure that all regulatory obligations, such as reporting and KYC/AML protocols, are met throughout the life of the token.

5. Ongoing Activities

5a. Ongoing Activities

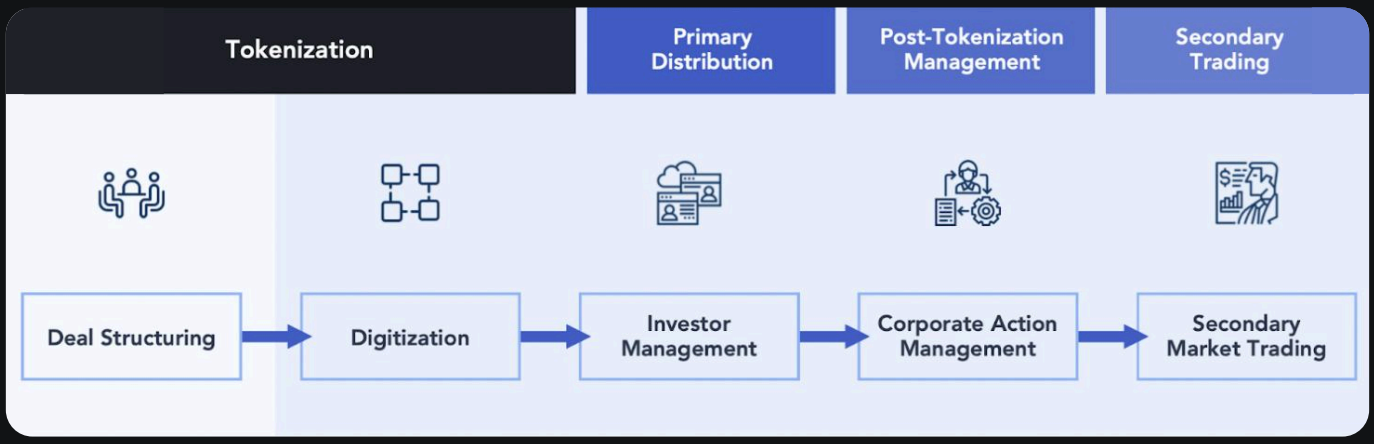
Once tokens have been distributed and the assets start generating income, dividends can be paid out to tokenholders. Smart contracts are employed to automate the dividend distribution process and ensure that payments are made in accordance with the rights attached to each token. This reduces the operational burden on asset managers and allows for faster and more accurate payments to investors.

5b. Secondary Trading:

The final phase is the secondary trading of tokens. Once investors hold tokens, they can trade them on regulated secondary markets or peer-to-peer.

- **Enhanced Liquidity:** Tokens provide liquidity for traditionally illiquid assets such as real estate or private equity. Investors can trade tokens in a secondary market, allowing for faster and more cost-effective exits than traditional asset sales.
- **Compliance and Market Regulation:** For secondary trading, exchanges or platforms that handle security tokens must comply with regulatory frameworks such as securities laws. This ensures investor protection and transparent trading processes.

Figure 7: Structure and Flow of Tokenized Asset Issuance



Source: STM.Co, Schmid, E., Truebestein, M., Aepli, M.D.

The lifecycle of tokenized asset issuance can be summarized as a fluid process leveraging blockchain for enhanced efficiency and liquidity. Deal structuring would remain similar to traditional issuances, which would then be followed by digitization, which would put the deal structure into the blockchain infrastructure. Token issuance and distribution are automated through smart contracts. Post-tokenization management and secondary trading unlock the real value of tokenization through cost reduction and liquidity.

Conclusion: A Look Ahead

The tokenization of real-world assets (RWA) has reached an inflection point and is transitioning from isolated pilot projects to broader institutional adoption. However, achieving widespread adoption requires a concerted effort to address existing barriers and foster an ecosystem conducive to innovation.

While 2024 marked significant milestones for tokenization, the journey is far from complete. The transition to production-level use cases for tokenized bonds, real estate, and private credit indicates a maturing market.

However, the path forward will require continuous innovation, collaboration, and education to address remaining challenges and unlock the full potential of RWA tokenization. Mckinsey currently expects a $2 Trillion base value for tokenized assets by 2030 (Figure 8).

Figure 8: Analysis of Tokenization Waves by Asset Capitalization Potential and Adoption Drivers

Industry outlook: Base case estimate of potential value of tokenized assets by 2030 is nearly $2 trillion.

An analysis of tokenization waves by asset capitalization potential and adoption drivers

Wave	2030 tokenized asset market capitalization base case, $ trillion		Examples of use cases driving adoption
1	Cash and deposits[1]	*Excluded from total*	24/7 business-to-business payments
	Mutual funds and ETFs[2]	~0.4	Money market fund distribution
	Loans and securitization[3]	~0.3	Streamlined warehouse lending
	Bonds and exchange-traded notes[4]	~0.3	Intraday repo/collateral mobility
2	Alternative funds[5]	~0.2	Distribution and investor onboarding
	Alternative assets[6]	~0.1	Liquid secondary market
	Unlisted equities[7]	~0.1	Liquid private markets for secondary sales
	Precious metals[8]	~0.1	Collateral in decentralized finance
3	Publicly listed equities[9]	<0.1	Clearing and settlement efficiencies
	Intangible assets[10]	<0.1	Real-time distribution of royalties
	Derivatives[11]	<0.1	Clearing and settlement efficiencies
	Total value tokenized in 2030	~1.9	

[1]Tokenized cash and deposits are excluded from total to avoid double counting, since these are involved in the settlements of trades involving tokenized assets. [2]ETFs, mutual funds and money market funds. [3]Wholesale loans, mortgage and home equity, structured credit. [4]Government bonds, municipal bonds, corporate bonds, commercial paper, etc. [5]Private equity/venture capital funds. [6]Real estate (including real estate investment trusts), carbon, art and collectibles, and commodities (excluding precious metals). [7]Single unlisted private equity and mezzanine financing. [8]Gold, silver, platinum, palladium. [9]Listed corporate equities. [10]Intellectual property (brands, trademarks). [11]Options, futures, swaps, warrants, investment certificates, excluding over-the-counter derivatives.
Source: Bank for International Settlements; Deal Logic; Federal Reserve Bank of St Louis; Prequin, Savills; Statista; The Block; WFE; expert interviews

McKinsey & Company

Source: McKinsey & Company

Institutions that embrace tokenization early stand to gain a competitive edge, capture new revenue streams, and take charge of reshaping global financial markets. In this dynamic landscape, the role of forward-thinking entities like Brickken, working at the intersection of technology, compliance, and education, cannot be overstated.

By fostering partnerships with regulatory bodies and market participants, they are laying the groundwork for a more inclusive, efficient, and transparent financial future. The stage is set for tokenization to redefine the way assets are managed, traded, and accessed—ushering in a new era of financial innovation.

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