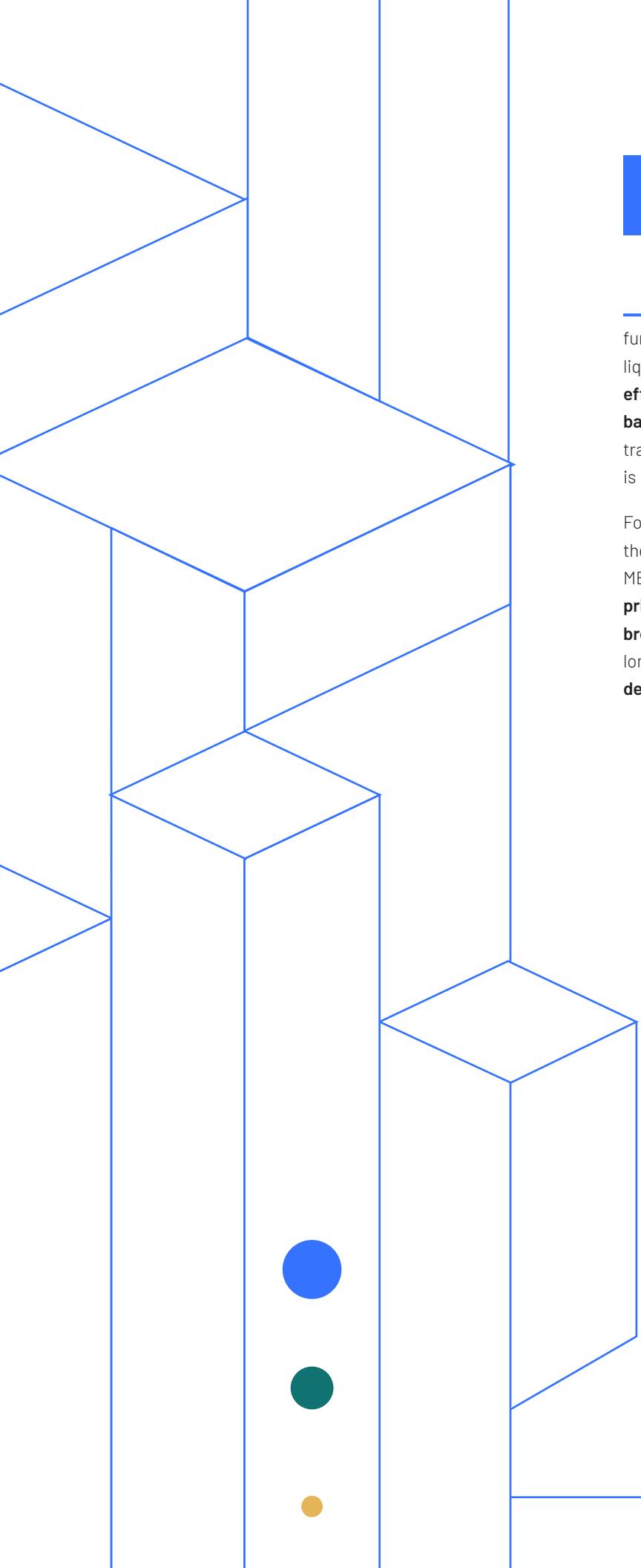




Tokenization in the Mortgage-Backed Securities Market:

A Paradigm Shift in Fixed-Income Investing





Introduction

Why This Matters Now

The fixed-income landscape is undergoing a fundamental shift. Amid rising interest rate volatility, tightening liquidity, and increasing demand for **greater transparency and efficiency**, traditional investment vehicles—including **mortgage-backed securities (MBS)**—are being re-evaluated. At the heart of this transformation is **tokenization**, a blockchain-driven innovation that is poised to **redefine the structure of MBS markets**.

For **fund managers and registered investment advisors (RIAs)**, the question is no longer if but how soon they will adapt. Tokenized MBS offer a **compelling alternative**: they enhance **liquidity, improve price discovery, reduce transaction costs, and open access to a broader investor base**. This paper outlines why tokenization is no longer a theoretical concept but an **imminent market evolution that demands attention today**.

The Evolution of Mortgage-Backed Securities (MBS)

Defining the Market

MBS are securitized pools of mortgage loans that provide investors with **principal and interest payments**, making them an **\$11 trillion** cornerstone of the **U.S. fixed-income market**. These securities have historically played a critical role in providing liquidity to the housing finance system.

The two primary types of MBS are:

- **Residential MBS (RMBS):** Backed by home loans, typically issued by Fannie Mae, Freddie Mac, or Ginnie Mae.
- **Commercial MBS (CMBS):** Backed by loans on commercial properties such as office buildings, shopping centers, and hotels.

Market Inefficiencies Driving Change

Despite their size and importance, MBS markets remain **complex, opaque, and costly to transact in**. The 2008 financial crisis exposed significant **transparency gaps and structural inefficiencies**, underscoring the need for **greater efficiency and security in securitization processes**. Tokenization provides a **data-driven solution to these pain points**, offering **real-time tracking, enhanced liquidity, and improved operational efficiency**.

Prepayment Risk is at Historically Low Levels.

Rates were extremely low in 2020 and 2021. As a result, more than three-quarters of existing mortgages originated at an interest rate under 5%.

Today, the mortgage rate is above 6.5%. Most homeowner would need to see mortgage rates fall well below 5% to refinance. The likelihood of this happening in the near-term is probably low.



Source: Janus Henderson, 2024

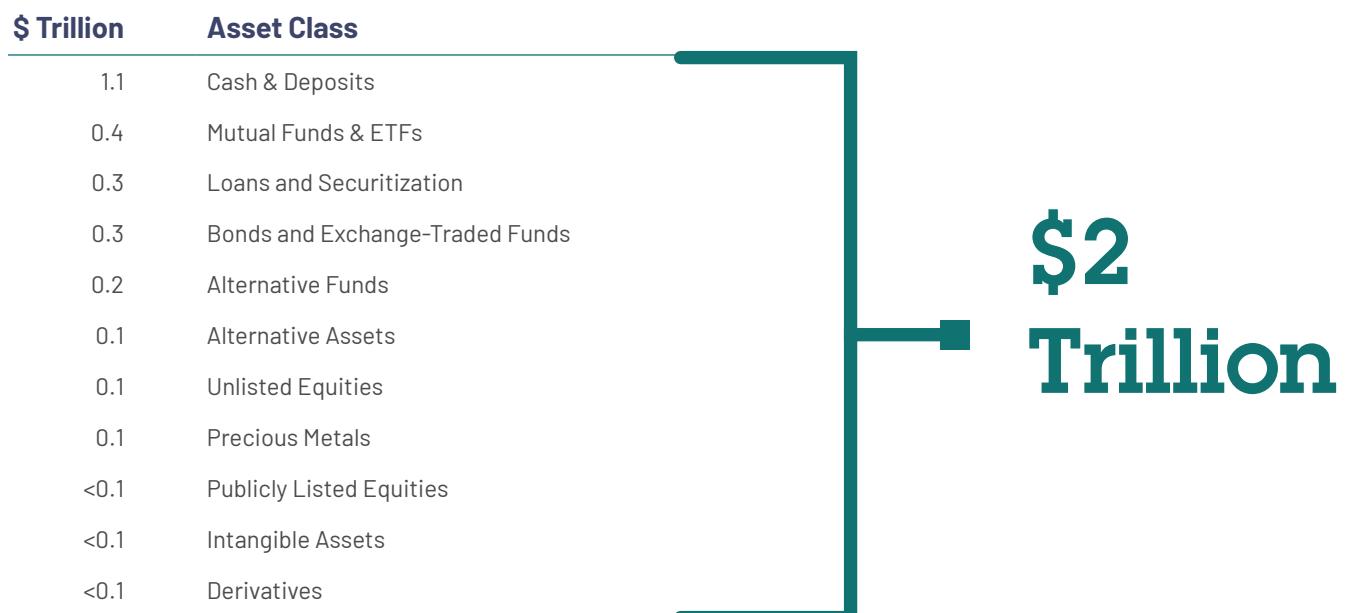
What is Tokenization, and Why Does It Matter?

Tokenization involves **creating a blockchain-based digital representation of an asset**, enabling **fractional ownership, streamlined transactions, and real-time settlement**.

How It Works

- Asset Identification:** Mortgage loans are selected and pooled for securitization.
- Digital Representation:** Tokens are issued to represent ownership of the underlying loans.
- Fractional Ownership:** Investors can purchase tokens in small increments, lowering the entry barrier.
- Trading and Settlement:** Tokens trade on **digital platforms**, benefiting from near **instantaneous settlement and transparent reporting**.

Estimated Value of Tokenized Assets by 2030



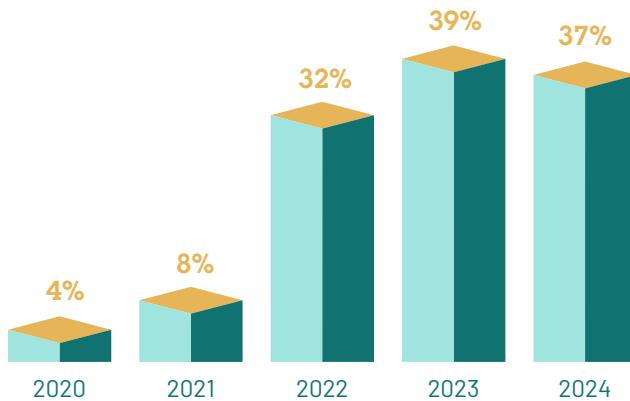
Source: McKinsey, 2024

Digital Ledger Technology Projects are on the Rise

Survey Respondents Who Have Live Digital Ledger Technology (DLT) and Digital Asset Projects.

About 350 respondents globally.

Source: State Street, 2024



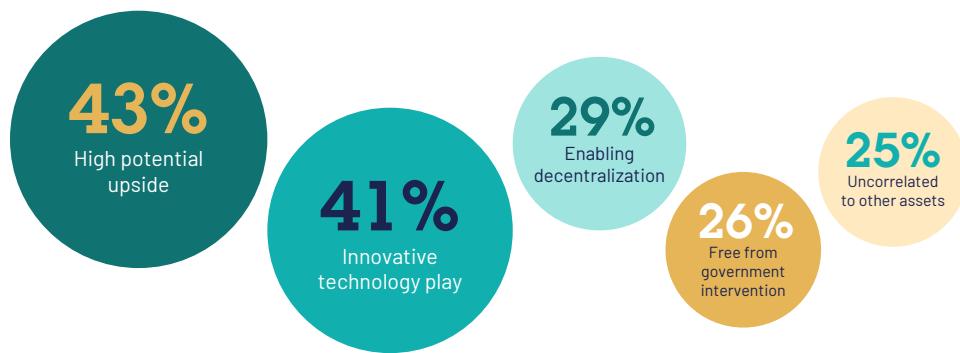
Strategic Advantages for Investment Professionals

- Enhanced Liquidity** – Fractionalized ownership enables broader market participation and secondary market trading.
- Transparency and Security** – Blockchain technology ensures an immutable, auditable transaction history.

- Cost Reduction** – Smart contracts reduce reliance on intermediaries, **cutting fees and operational costs**.
- Regulatory-Ready** – Increasing regulatory clarity in the U.S. and Europe supports the legitimacy of tokenized securities.

The Benefits of Digital Assets

Source: Fidelity Study, 2022



Tokenization in Action: Real-World Use Cases

The Market Momentum is Building

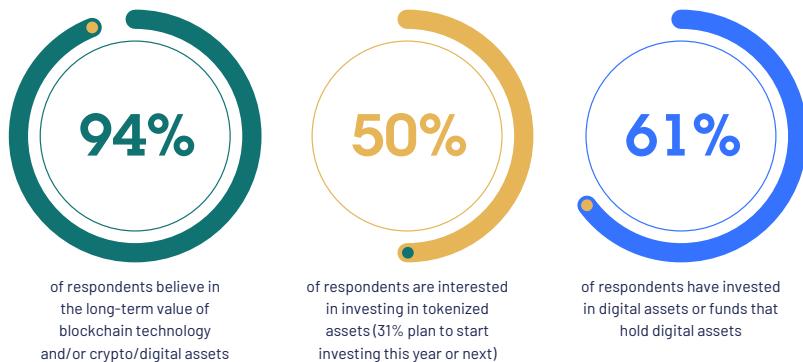
Several pioneers in financial markets have successfully issued tokenized fixed-income products, validating **institutional appetite** for blockchain-enabled securities.

- **Franklin Templeton's OnChain U.S. Government Money Fund (FOBXX)** – A registered fund that operates natively on blockchain.
- **Redwood Trust's \$313 Million Blockchain-Based Mortgage Securitization** – Demonstrating efficiency gains and transparency improvements.
- **Asset Token Ventures (ATV) MBSToken™** – A **real-time, tax-efficient** tokenized MBS investment platform designed to enhance accessibility and liquidity.
- **McKinsey estimates that tokenized assets could grow to \$2 trillion by 2030**, with institutional adoption accelerating as financial institutions seek operational efficiencies and new revenue streams.
- **Tokenized fixed-income products have already surpassed \$2 billion in assets under management**, demonstrating increasing investor demand for **digitally native securities with enhanced liquidity and transparency**.

Institutional Investors Dive In

A survey of 277 institutional investor decision-makers including chief operating officers (COOs), CEOs, portfolio managers and heads of transformation

Source: Ernst & Young, 2024



Regulatory Landscape: A Market Poised for Growth

- The SEC has clarified that **tokenized securities fall under existing U.S. securities laws**, providing a framework for compliance.
- Europe's **MiCA regulations** are paving the way for broader institutional adoption of digital securities.
- The incoming regulatory environment favors **innovation while ensuring investor protection**, accelerating the transition to tokenized financial products.

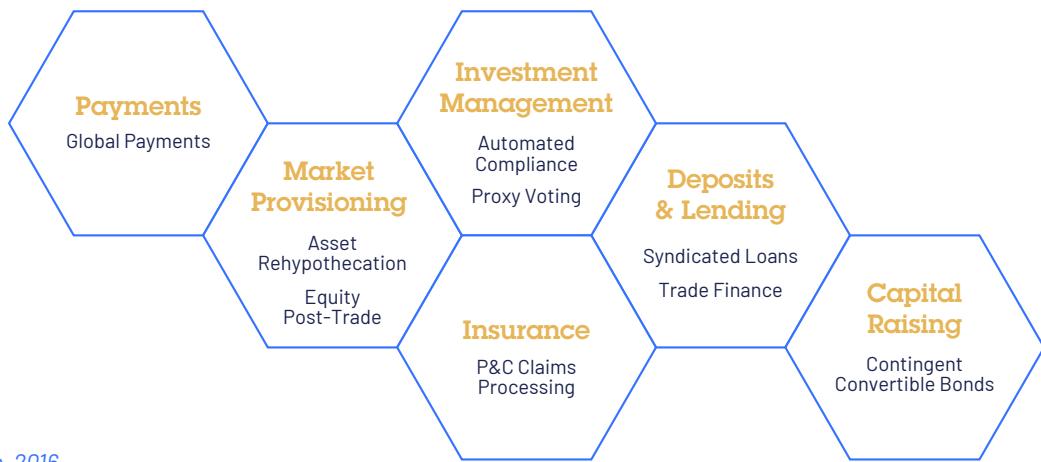
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Blockchain Will
Become 'Beating
Heart' of the Global
Financial System.

- World Economic Forum

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Use Cases



Source: World Economic Forum, 2016

The Future of Tokenized MBS: A Market Set for Expansion

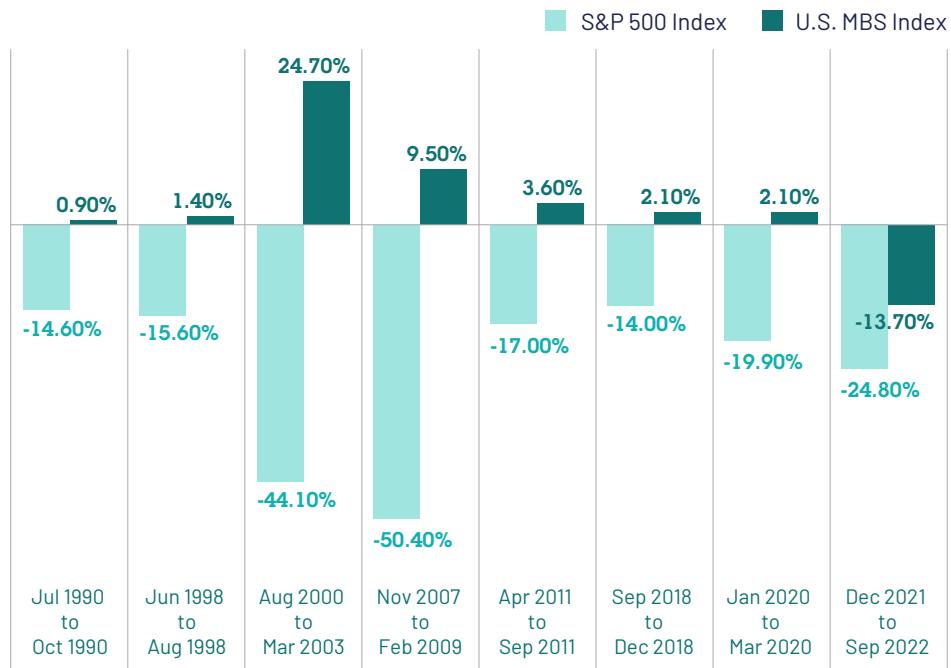
Market Potential

BlackRock CEO Larry Fink recently emphasized the transformative potential of tokenization at the World Economic Forum in Davos, stating, "If we can tokenize bonds and stocks... it will democratize investing in ways we can't imagine." He further remarked, "The fact that we are not moving forward with the tokenization of every stock and bond is crazy." These insights from one of the world's largest asset managers underscore the urgency for institutional adoption

of tokenized financial products. **By 2030, tokenized assets could account for trillions in financial markets, with MBS among the most promising fixed-income categories.** As tokenized securities gain traction, institutional investors will increasingly integrate them into **diversified fixed-income portfolios.**

Playing Defense

S&P 500® Index peak-to-trough drawdowns greater than 10% (1990 – 2024)



Source: Janus Henderson, 2024

Key Technological Advancements

- Smart Contracts:** Automate interest payments and ownership verification, reducing settlement risk.
- Interoperability:** Enable seamless integration between different blockchain platforms.
- Data-Driven Insights:** AI-powered analytics enhance risk assessment and investment strategies.

Strategic Implications for Stakeholders

- Investors:** Access a **liquid, transparent, income-generating asset class.**
- Issuers** – Benefit from **lower issuance costs and greater investor reach.**
- Regulators** – Gain real-time visibility into **market transactions and risk metrics.**

The Call to Action: Why Fund Managers & RIAs Must Adapt Now

The Fixed-Income Playbook is Changing

For **fund managers, RIAs, and institutional investors**, ignoring **tokenization is no longer an option**. The question is: *How will you integrate tokenized MBS into your portfolio strategy?*

The Opportunity for Market Leaders

Tokenized MBS offer a compelling proposition for:

- **Registered Investment Advisors (RIAs)** – Offer clients access to a next-generation fixed-income **asset class** with enhanced liquidity.
- **Family Office Portfolio Managers** – Gain exposure to high-credit-quality, yield-enhancing investments.
- **Corporate Treasury Management** – Increase returns on cash reserves while maintaining liquidity.
- **Sovereign Wealth Funds** – Achieve **efficient exposure to U.S. fixed-income markets** with superior transparency and cost efficiency.
- **Institutional Foreign Investors Subject to Emerging Market Inflationary Pressures** – Tokenized MBS provide a **stable, USD-backed alternative** to hedge against local currency depreciation and hyperinflation, offering predictable yield and secure asset backing.

“

Over the last 15 years, the Bloomberg US Mortgage-Backed Securities Index offered an average yield advantage of just 55 basis points (or 0.55%) over the 10-year Treasury yield, so that 80-basis-point advantage appears attractive now.

”

- Source: Charles Schwab

Conclusion: The Future is Tokenized

Tokenization is not just a trend—it is the next evolution of fixed-income investing. By addressing market inefficiencies, reducing costs, and improving accessibility, tokenized MBS present a compelling opportunity for investors and issuers alike.

Asset Token Ventures (ATV) and its **MBSToken™** exemplify this transformation, delivering a **secure, tax-efficient, and transparent way to invest in high-quality MBS**.

The Time to Act is Now

The financial industry is evolving at an unprecedented pace. Those who embrace tokenization today will be positioned as **leaders in the next generation of fixed-income investing**. Now is the moment to adapt, innovate, and capitalize on the opportunities presented by blockchain technology.



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