



Real-World Asset (RWA) Tokenization

Blockchain at Emory | Research & Investment Team

Proprietary Research | Subject to Further Review and Evaluation

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



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I'm a sophomore at Emory University studying Finance and AI, passionate about Web3 and digital finance. For this Project, I analyzed various industry reports and case studies to explore how real-world asset tokenization is transforming traditional finance.

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Tokenization Overview

- I. What Can Be Tokenized and Why It Matters
- II. How Tokenized Finance Improves Traditional Systems
- III. Timeline of Financial Fragmentation and Liquidity Unlocking



What Can Be Tokenized and Why It Matters

Tokenization enables all types of assets to be digitized, unlocking liquidity and expanding investment access

What Can Be Tokenized



Financial Assets

Cash, bonds, loans, stocks, and funds



Physical Assets

Real estate, commodities, and infrastructure



Alternative Assets

Art, collectibles, and intellectual property



Emerging Categories

Carbon credits, EV-charging revenue, and other impact-linked assets

Example

Problem:

Capital Provider



Emma wants to invest in farmland that was only open to institutional buyers, purchasing a stake required **\$1M minimum**

Capital Seeker



Chris, the farmland owner, struggled to attract investors because farmland required **large upfront capital and long holding periods**

Solution:



Tokenization turns a **\$1M farm** into **\$1000 shares**, unlocking access for investors and liquidity for assets



How Tokenized Finance Improves Traditional Systems

Tokenized finance enhances traditional systems by enabling faster settlement, lower barriers, and greater transparency

The Five Differentiators of Tokenized Finance



Shared system of record

Unified, transparent ledger of record



Flexible custodial arrangements

User control over asset storage



Programmability

Smart contracts automate processes



Asset Fractionalization

Smaller, accessible ownership units



Composability

Assets interact trading & collateral reuse

Traditional Finance

Tokenized Finance

Intermediary Third Parties (banks)

Settlement in T + 2 to T + 5 days

High financial entry barriers

Manual reconciliation



Shared programmable ledger

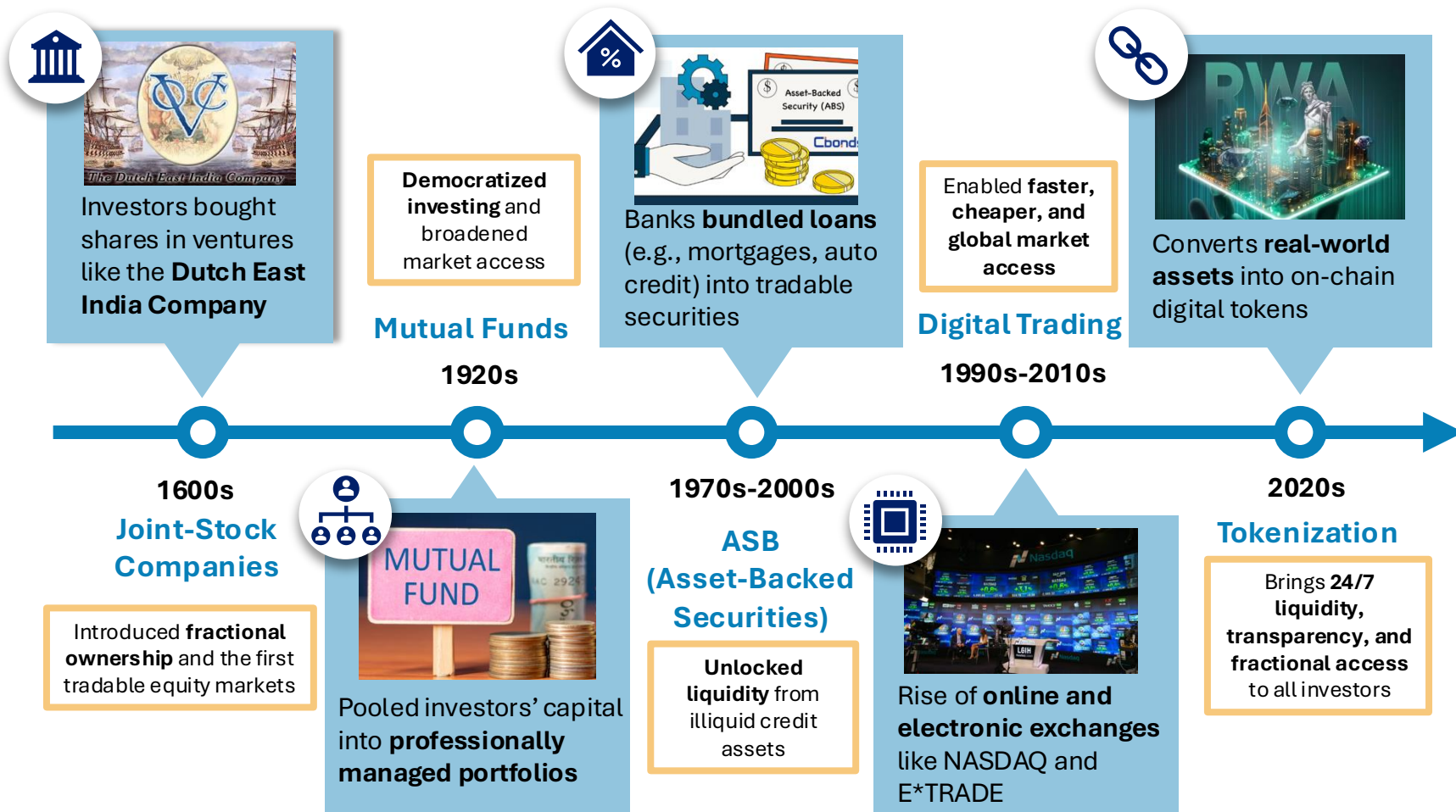
Instant on-chain settlement

Fractional access

Smart-contract automation

Timeline of Financial Fragmentation and Liquidity Unlocking

Financial history is a story of increasing fractionalization, connectivity, and transparency—culminating in tokenization





Market Landscape

- I. Projected Growth of the Tokenization Market
- II. Drivers of Market Adoption
- III. The Three Phrases of Adoption

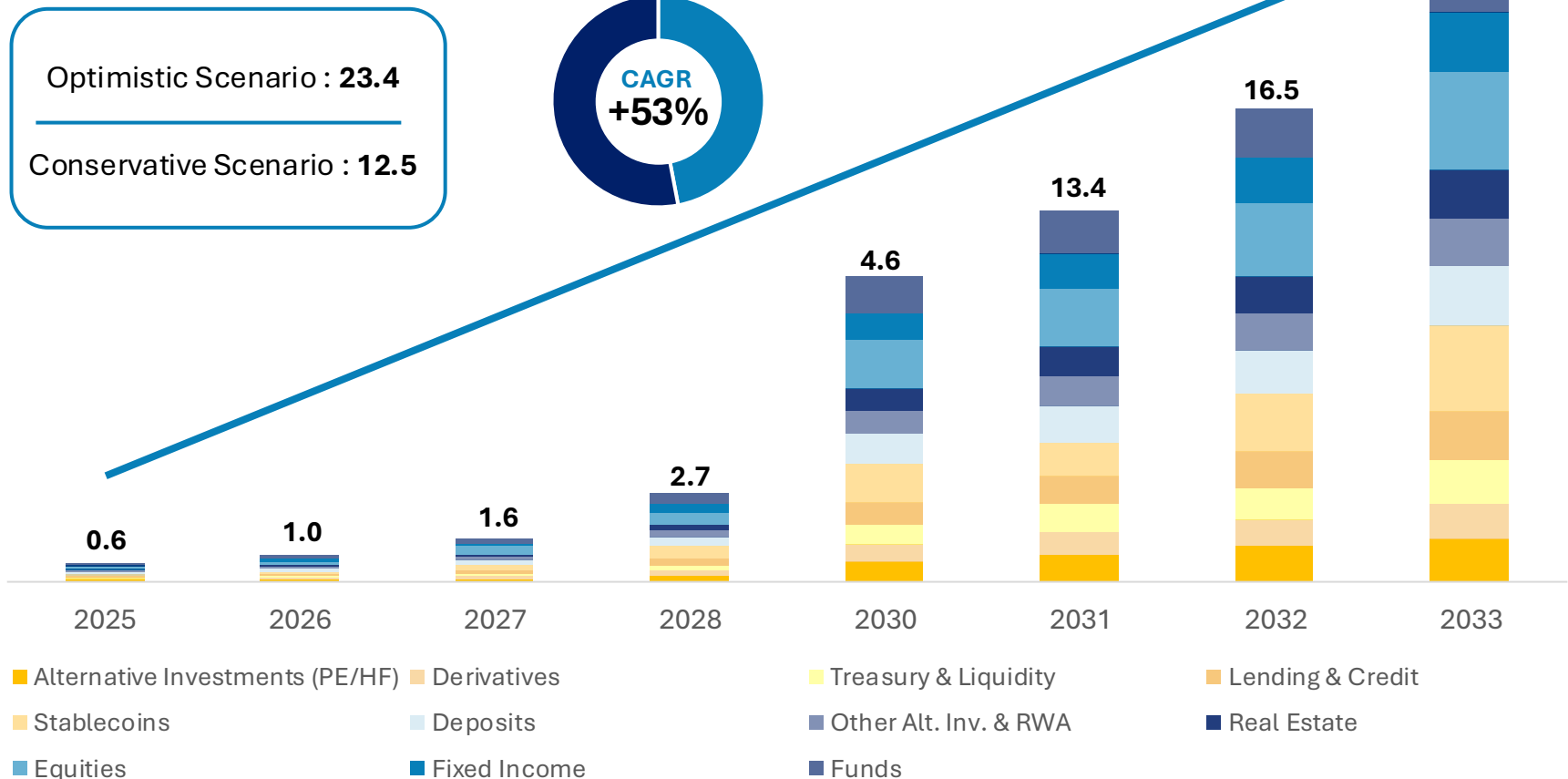


Projected Growth of the Tokenization Market

Tokenized assets expected to reach \$12–23T by 2033, driven by cross-asset adoption and 53% CAGR

Estimated Growth in Tokenization Through 2033

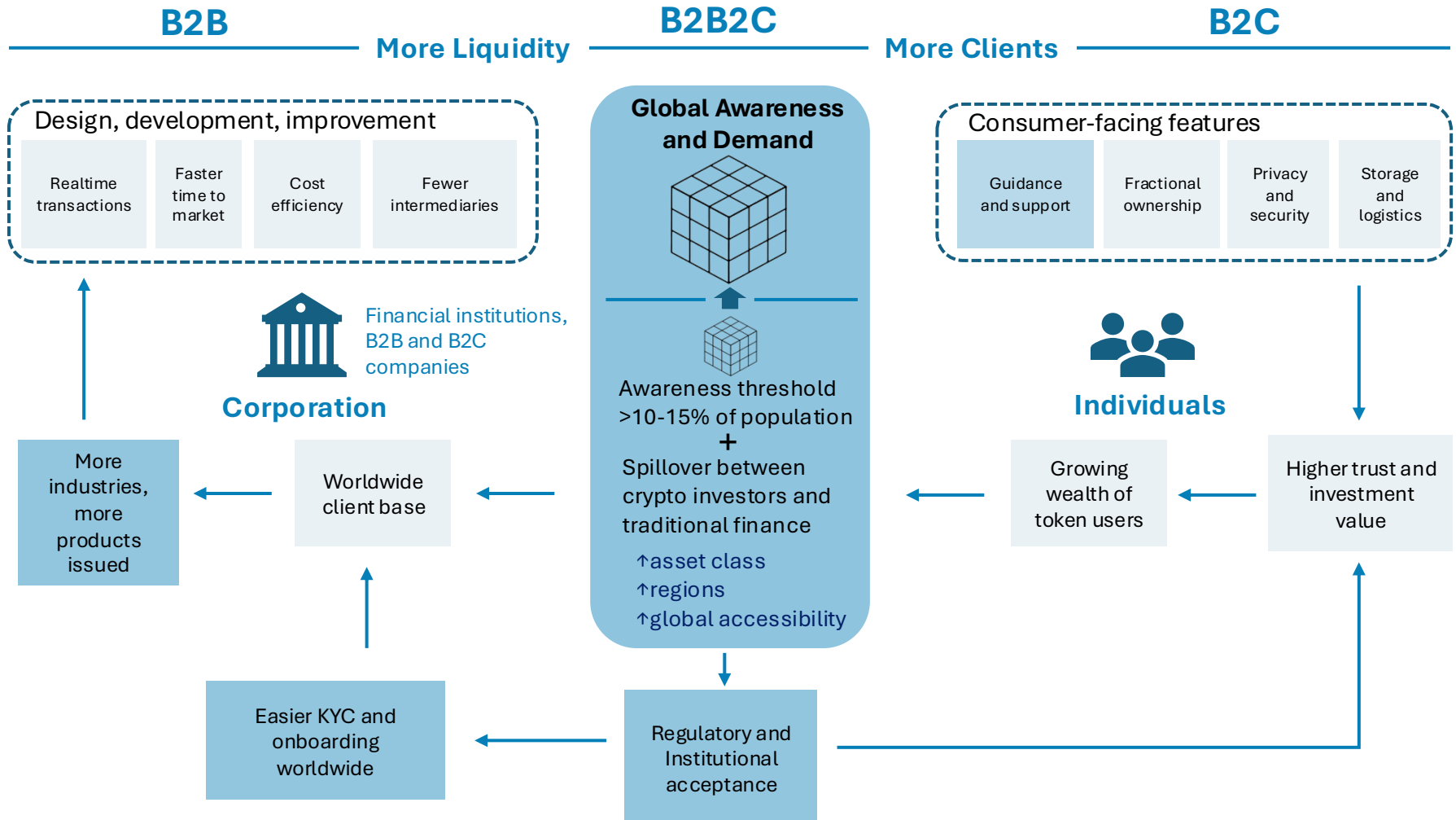
Per asset class
In USD trillion





Drivers of Market Adoption

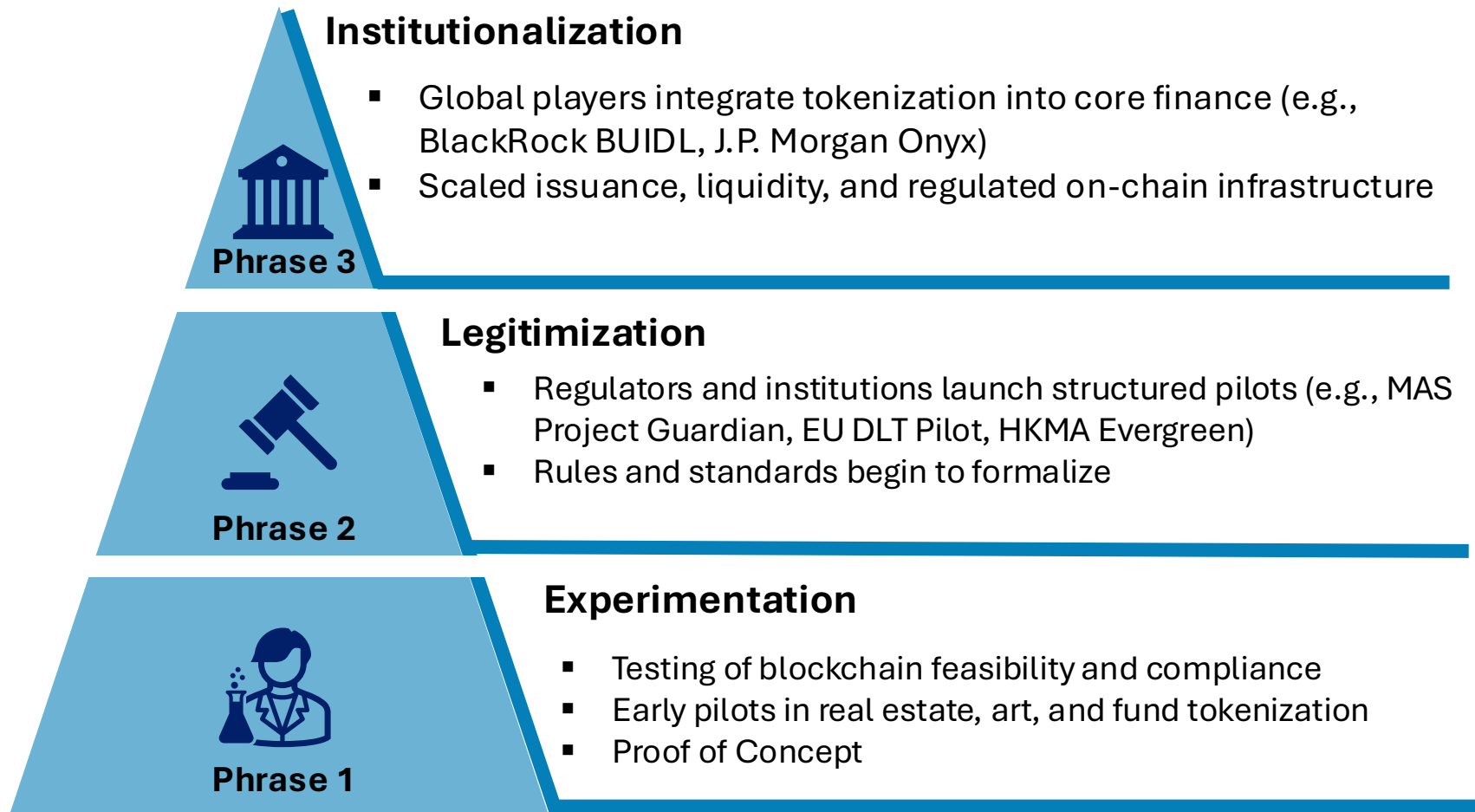
The Twin Flywheels of Tokenization Market Adoption





The Three Phrases of Adoption

Tokenization is progressing through three phases—moving from pilot experiments to mainstream financial infrastructure





Case Studies

- I. London Mayfair Hotel (2019)
- II. Hong Kong Green Bond (2023)
- III. BlackRock BUIDL Fund (2024)



Case Study – London Mayfair Hotel (2019)

The first large-scale pilot showing blockchain could fractionalize real-world property while navigating legal boundaries

Project Overview



- **Year:** 2019
- **Value:** US\$600M luxury property
- **Lead:** Liquefy with KPMG, Sidley Austin, Colliers
- **Blockchain:** Private permissioned ledger
- **Scope:** Fractional ownership of 49% equity

Key Insights

- Built a dual-SPV structure to issue compliant security tokens to accredited investors
- Used smart contracts for KYC, dividend, and transfer automation. Reducing settlement time from weeks to minutes.
- Created a private secondary OTC market for verified investors.
- Proof of Concept: first real estate tokenization at institutional scale.

Tokenization Phases

1. Structuring



- Designed a dual – SPV structure
- Onshore entity held 51% of property
- Offshore entity held 49% → security tokens for fractional equity

2. Digitalization



- Ownership recorded on a private blockchain
- Smart contracts automated KYC, dividends, and transfer (reduced settlement time)
- Private chain pilot ensured legal compliance

3. Issuance



- The 49% tokenized ownership issued to professional investors via Liquefy's platform
- Digital member registry needed to qualify
- Enabled fractional access to high value RE

4. Automation



- Smart contracts handled investor relations— dividends, voting, performance tracking
- Enabled private OTC trading among verified investors → early secondary-market liquidity



Case Study – Hong Kong Green Bond (2023)

A sovereign-backed pilot that proved distributed ledgers can support public-sector issuance securely and efficiently

Project Overview



- **Year:** 2023
- **Issuer:** Hong Kong Monetary Authority/ HK SAR
- **Value:** HK\$800M
- **Blockchain:** Hyperledger Besu + Canton DLT
- **Partners:** Goldman Sachs, HSBC, Crédit Agricole

Key Insights

- First government bond fully settled on-chain via GS DAP™ platform.
- Atomic DvP with digital HKD reduced settlement from T+5 to T+1.
- Smart contracts automated coupon payments and ownership records.
- Proved regulatory trust and efficiency for tokenized sovereign finance.

Tokenization Phases

1. Structuring



- Designed bond framework with digital HKD integration
- Defined legal and regulatory parameters for on-chain settlement

2. Digitalization



- Represented bond ownership and payments as digital tokens on Canton DLT
- Embedded transaction logic using smart contracts

3. Issuance



- Issued HKD 800M in tokenized green bonds via GS DAP™ platform
- Achieved atomic Delivery-versus-Payment (DvP) with near-instant settlement (T+1)

4. Automation



- Automated coupon payments and ownership tracking through smart contracts
- Improved operational transparency and reduced intermediaries



Case Study – BlackRock BUIDL Fund (2024)

Tokenization enters mainstream finance as global managers operate fully on public blockchains

Project Overview

BlackRock
BUIDL



- **Year:** 2024
- **Issuer:** BlackRock & Securitize
- **Fund Type:** USD Institutional Digital Liquidity Fund (tokenized MMF)
- **Blockchain:** Ethereum (public-permissioned)
- **AUM:** > US\$500M within months

Key Insights

- Tokenized shares of U.S. Treasury-backed fund using ERC-20 tokens.
- Offered 24/7 access and real-time NAV updates.
- Combined compliance (KYC/AML) with open blockchain liquidity.
- Marked the beginning of large-scale institutional tokenization — bridging on-chain money and traditional assets.

Tokenization Phases

1. Structuring



- Designed a tokenized money market fund backed by U.S. Treasuries and repo agreements
- Established compliance framework with Securitize for regulated investors

2. Digitalization



- Represented fund shares as ERC-20 tokens on Ethereum's public-permissioned network
- Integrated on-chain KYC/AML and real-time NAV visibility

3. Issuance



- Launched BUIDL tokens to qualified investors via Securitize platform.
- Enabled 24/7 trading and instant settlement through blockchain rail

4. Automation



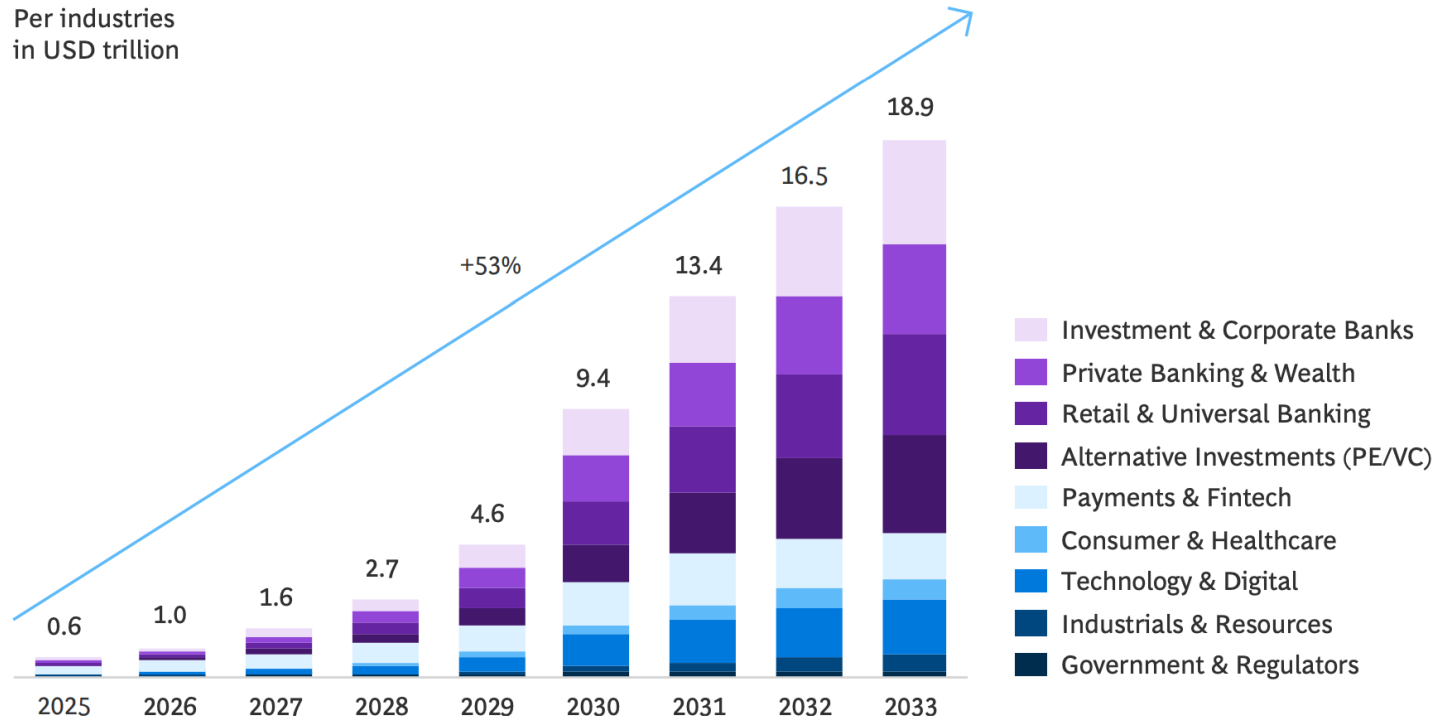
- Automated NAV updates, yield distribution, and record-keeping on-chain.
- Bridged traditional fund management with digital liquidity infrastructure.



Market Landscape

Exponential Growth and Structural Change

Per industries
in USD trillion



Source: Ripple and BCG

Q&A