

Breaking the Settlement Bottleneck: How Tokenization Will Fix Finance

By Imran Ali Khan



Introduction

The financial landscape stands at an inflection point. For years, tokenization—the process of converting real-world assets into digital representations on blockchain networks—existed largely in the realm of theoretical possibilities and pilot projects. But 2024-2025 has marked a decisive shift from experimentation to

implementation. What once seemed like a distant future has become the present reality, with major financial institutions, regulatory bodies, and technology leaders moving from exploration to large-scale deployment.

The transformation is happening quietly but steadily. BlackRock's tokenized money market fund has surpassed \$2.3 billion in assets under management. Goldman Sachs has operated an end-to-end tokenized asset infrastructure for over a year. The European Investment Bank has issued digital bonds. Franklin Templeton processes mutual funds on public blockchains. And perhaps most tellingly, BlackRock's CEO and COO have drawn parallels between tokenization today and the internet in 1996, suggesting that tokenization could advance at the pace of the internet—faster than most expect.

This is not incremental progress. This is the foundation for the restructuring of global financial markets.

Understanding Tokenization: Definition and Significance

At its core, tokenization is the process of creating a digital representation, called a "token", of a real-world asset on a distributed ledger or blockchain. These tokens are programmable, traceable, and can be transferred peer-to-peer, with each token acting as a digital certificate of ownership or a claim to a portion of an asset.

The concept extends across virtually any asset class. Rather than purchasing an entire share in a private company or a whole commercial property, investors can now acquire fractions of that asset represented as tokens. Someone in Bangkok could own a token representing a fraction of a Bangkok office building. A retail investor in Southeast Asia could hold shares of infrastructure projects previously accessible only to institutional investors with millions of dollars.

The significance of tokenization transcends mere technical innovation. It represents a fundamental reimagining of how value is represented, transferred, and settled in financial markets. The process could help overcome fragmented financial flows and foster greater industry collaboration, with tokenized securities and deposits potentially coming together in seamless capital flows that connect global markets in ways unbound by traditional finance's cutoff times.

This is not simply a digital replication of existing systems. Tokenization enables atomic settlement—the simultaneous transfer of security and payment—eliminating multi-day settlement cycles that have plagued traditional markets for decades. It enables 24/7 trading. It reduces intermediaries and their associated costs. And critically, it democratizes access to asset classes that have historically remained the exclusive domain of wealth elite.

The Current State: From Proof of Concept to Production

The institutional appetite for tokenization has transformed dramatically. Financial institutions are now fully embracing blockchain to enhance liquidity, streamline cross-border transactions, and launch new financial products, with Franklin Templeton processing a US-registered mutual fund on public blockchain networks and Société Générale issuing a €10 million tokenized green bond on Ethereum.

The market data underscores this momentum. By the end of 2024, the tokenized assets market reached approximately \$15.27 billion in Assets Under Management. This figure, while notable, only hints at the true scale of what lies ahead. US Treasuries dominate this space at 66% of adjusted market holdings, reflecting institutional confidence in fundamental value preservation. Private credit emerged as the single largest protocol category by assets, with Figure's platform alone managing \$9.16 billion.

The institutional players driving this transformation represent the who's who of global finance. BlackRock and Franklin Templeton have launched tokenized mutual funds, while traditional custodians like Securitize have accumulated over \$1 billion in tokenized assets across all asset classes through partnerships with major players including BlackRock, KKR, and Hamilton Lane.

Central banks have moved from observation to active participation. Hong Kong Monetary Authority's Project Evergreen demonstrated the first green bond issuance in February 2023, followed by the world's first multicurrency issuance in February 2024 involving HSBC Orion and Goldman Sachs DAP technology. These are not experimental projects. These are production systems managing real assets and real capital flows.

Rapid Technological Advances and Innovation

The infrastructure supporting tokenization has matured exponentially. Ethereum has emerged as the predominant blockchain for tokenized assets, hosting 89% of protocols, though multi-chain deployment is increasingly common among larger players. This diversification signals confidence in blockchain technology's stability and scalability.

Recent innovations are addressing long-standing challenges. Layer 2 solutions are dramatically reducing transaction costs, with over 200 projects now exploring zero-knowledge rollups for enhanced efficiency. Smart contract automation has reached production readiness, enabling compliance checks, dividend distributions, and settlements to occur without human intervention—with estimated annual operational cost savings of \$15-20 billion globally.

A significant shift in industry focus has occurred: tokenization—not blockchain itself—is now becoming a focal point of enterprise adoption, reflecting a move from theoretical applications to practical, large-scale implementation, particularly in finance. This distinction matters profoundly. The conversation has evolved from "will blockchain work?" to "how do we tokenize?"

The emergence of Central Bank Digital Currencies (CBDCs) represents another critical enabler. As central banks develop and test digital currency infrastructure, they create the foundational payment rails upon which tokenized asset transactions can settle with finality and trust. By 2030, tokenization in private markets could reach nearly four trillion USD in value, an 80x growth rate, according to Citi forecasts, while another report estimates that up to 2% of the global money supply could be tokenized over the next five years.

Regulatory Framework: From Uncertainty to Clarity

Perhaps the most transformative development enabling rapid tokenization adoption is the emergence of clear regulatory frameworks. For years, regulatory ambiguity throttled institutional participation. That has fundamentally changed.

The European Union's Markets in Crypto-Assets (MiCA) regulation represents a watershed moment. MiCA became law on December 30, 2024, creating a unified

framework across all 27 EU member states and classifying digital assets into three main categories: asset-referenced tokens, e-money tokens, and other crypto-assets, with issuers and service providers facing new obligations including publishing whitepapers, securing licenses, and maintaining liquid reserves.

The significance of MiCA extends beyond Europe. Although MiCA is an EU law, its influence extends worldwide, with regulators in the UK, Singapore, and the United States examining its approach as a possible model, and some jurisdictions including Switzerland and the UAE marketing themselves as "MiCA-equivalent" hubs.

In the United States, a fundamental shift in regulatory approach has accelerated institutional adoption. The SEC's rescission of SAB 121 removed accounting barriers to bank custody of digital assets. Following the SEC's rescission of SAB 121 in January 2025, accounting barriers to bank custody of digital assets were eased, and by late September 2025, US spot bitcoin ETFs collectively managed between \$150-170 billion in assets.

This regulatory clarity serves a dual purpose: it protects investors through standardized compliance requirements, and it empowers institutions to participate confidently in tokenized asset markets. Large financial services providers can now invest in custody infrastructure, settlement systems, and tokenization platforms with the assurance that regulatory parameters are clearly defined.

Implications for Asset Management

For asset managers, tokenization represents both transformation and opportunity. The ability to fractionalize previously illiquid assets creates new product categories and expands addressable markets. Mass adoption is expected to originate in bonds (including money market funds), commodities and private equity funds, with the most transformative impact likely to be on private equity funds and the bond industry in the nearer term.

The implications are profound. A \$100 million commercial real estate portfolio can now be broken into 10,000-unit tokens, each worth \$10,000, accessible to

investors who previously could not participate. Private equity fund interests, traditionally locked for years, can be tokenized to create secondary markets where limited partners can achieve liquidity at intermediate milestones.

For fund managers, tokenization reduces operational complexity. Smart contracts automate tasks like compliance checks, dividend payments or settlements, reducing human error and lowering operational expenses, with custody becoming more flexible as investors can manage their own wallets or opt for custodial services depending on their preference and risk appetite.

The cost structure of asset management will fundamentally shift. Tokenized infrastructure, relying on automated smart contracts rather than teams of back-office staff, can operate at significantly lower cost. This efficiency can be passed to investors as reduced fees or retained as margin improvement for asset managers who choose.

Implications for Trading and Settlement

Today's trading infrastructure is built on legacy systems that have fundamentally constrained market efficiency for decades. Settlement typically requires three to five business days. Trading halts outside market hours. Different asset classes use entirely different systems and plumbing, creating operational friction and counterparty risk.

Tokenization eliminates these constraints. In traditional markets, it can take days to settle trades as it involves multiple parties and reconciliation processes, but with tokenization, settlement with digital tokens confers ownership at the time of trade, and as settlement and compliance processes become automated or even eliminated, large assets are fractionalized to promote greater access and liquidity.

Consider cross-border foreign exchange transactions. Today, a multinational corporation needs days to move funds between international entities operating in different currencies, processing the transaction through the SWIFT network with associated fees and delays. Tokenized currency—digital representations of fiat deposits on blockchain rails—can settle these transactions in minutes.

The implications for market structure are seismic. 24/7 trading becomes economically viable when settlement is instant. Emerging market investors gain equal access to global capital markets. Market liquidity spreads, potentially improving price discovery. And systemic risk from settlement failures effectively disappears when transfer of ownership and transfer of payment occur simultaneously.

Implications for Financial Inclusion

Perhaps the most consequential implication of tokenization concerns financial inclusion. Tokenization enables asset fractionalization, breaking assets into smaller, more affordable units, with the ability to level the playing field for retail investors and those in developing markets who have historically found it difficult to access traditional financial institutions and asset classes.

For investors in emerging economies, the impact is transformative. Real estate investments, traditionally inaccessible to retail investors due to high capital requirements and regulatory barriers, become available in fractional units. Commodity exposure, previously available only through complex derivative instruments, can be accessed through straightforward token ownership. Private company equity, once reserved for accredited investors and institutional funds, becomes accessible to anyone with an internet connection and modest capital.

This is not merely democratization in principle—it represents a genuine redistribution of opportunity. Fractionalized assets and decentralized finance models make it possible for investors in developing economies to access global assets at lower costs, eliminating traditional geographic and financial restrictions.

In emerging markets, the advantages extend further. Many developing economies struggle with legacy financial infrastructure. Implementing tokenization technology could mean leapfrogging legacy systems, particularly in emerging markets where traditional infrastructure investments remain incomplete.

Emerging Asset Classes and Opportunities

The scope of tokenization extends far beyond traditional securities. Novel asset classes are emerging as tokenization infrastructure matures.

Private credit represents the leading edge, with institutional lenders moving private credit deals onto blockchain rails to access wider investor bases and improve settlement efficiency. Treasury products, having achieved significant traction in 2024, are expected to see major banks offering treasury-backed tokens directly to institutional clients throughout 2025.

Carbon credits and ESG assets are creating transparent, tradable markets for climate-linked investments. Alternative assets—fine art, wine, vintage cars, rare collectibles—are entering digital portfolios backed by custody solutions ensuring authenticity and provenance. Infrastructure financing for airports, toll roads, and energy plants is exploring tokenization to attract wider investor bases without navigating complex securitization structures.

This diversification signals maturation. When early-stage technology primarily attracts speculative interest, the asset classes typically tokenized reflect financial engineering rather than economic fundamentals. The emergence of treasuries, private credit, and infrastructure indicates that tokenization is now addressing genuine market needs and inefficiencies.

Regulatory Considerations and Compliance Challenges

While regulatory clarity has accelerated adoption, significant compliance challenges remain. Most of the efficiencies from tokenization come to fruition once the entire ecosystem is built, requiring regulatory clarity and standardized norms, with technological challenges including cybersecurity, network protection, scalability and interoperability among different blockchains.

The compliance burden particularly impacts smaller market participants. The complexity and costly legal processes required for MiCA compliance means that some smaller institutions may exit regulated markets or consolidate operations. Conversely, this creates competitive advantages for well-capitalized firms capable of absorbing significant compliance infrastructure investments.

Data privacy and cybersecurity require careful attention. Tokenized financial systems create permanent, auditable transaction records—a feature that enhances market integrity but raises privacy concerns for trading strategies and

client information. The industry must develop robust solutions for permissioned data access, secure custody of private keys, and protection against quantum-computing threats.

International regulatory harmonization remains incomplete. While MiCA establishes EU standards and regulatory reforms accelerate globally, jurisdictional differences persist. Institutions operating across multiple regions must navigate divergent regulatory requirements, with some jurisdictions adopting MiCA-equivalent frameworks while others develop proprietary approaches.

The Competitive Landscape

As tokenization infrastructure develops, competitive dynamics are shifting. Traditional financial infrastructure providers face pressure to modernize or risk obsolescence. Specialized tokenization platforms are attracting institutional capital. Blockchain networks are competing to become the infrastructure layer of choice for financial institutions.

Yet this competition produces efficiency. Institutions can now compare custody solutions, settlement systems, and tokenization platforms, selecting those offering superior cost, security, and reliability. The market is validating real solutions and eliminating inferior alternatives. This ruthless efficiency—increasingly rare in traditional finance with its legacy incumbents—accelerates overall ecosystem maturation.

The emergence of interoperability standards signals healthy ecosystem development. Rather than winner-takes-all dynamics, we see projects working toward cross-chain bridges and standardized data formats, enabling assets tokenized on Ethereum to settle with efficiency across Polygon or other networks without friction.

The Next Five Years: Market Evolution and Growth Projections

The projections for tokenized asset growth are extraordinary. By 2030, tokenized private markets alone could reach \$4 trillion in value. This represents an 80x expansion from current levels. Conservative estimates suggest that 2% of global

money supply could be tokenized within five years. For perspective, this implies hundreds of trillions of dollars in tokenized asset infrastructure at scale.

These projections should not be dismissed as speculative. They emerge from analyst teams at major financial institutions analyzing genuine market demand, regulatory progress, and technological feasibility. They reflect conversations occurring now between major asset managers and institutional investors regarding tokenization deployment.

The trajectory follows established technology adoption patterns. Market growth accelerates as network effects develop. Institutional participation increases as regulatory uncertainty decreases. Infrastructure standardization occurs as competition drives efficiency. And user experience improvements occur as specialized teams focus exclusively on making tokenization simple and reliable.

Challenges and Risks

Significant challenges remain before tokenization achieves ubiquitous adoption.

Technical risks include smart contract vulnerabilities, blockchain network failures, and quantum computing threats to cryptographic security. Operational risks involve custody solutions, key management, and fraud prevention. Market risks include volatility in tokenized asset valuations and potential for speculative bubbles in certain token categories.

Regulatory risks persist despite recent progress. Jurisdictional conflicts could create costly compliance burdens. Overly restrictive regulations in certain markets could stifle innovation or push tokenization activity to less-regulated jurisdictions. Inconsistent international standards could fragment markets along geographic lines.

Adoption risks involve institutional reluctance to fully transition systems to blockchain-based infrastructure. Conservative financial institutions may move slowly, preferring incremental pilots to wholesale platform replacement. Risk-averse compliance teams may impose restrictive interpretations of new regulations, limiting innovation.

Finally, societal risks warrant consideration. Increased financial market accessibility could increase retail investor exposure to market risk. Wealth concentration could intensify if tokenization creates new opportunities disproportionately captured by existing wealth holders. Developing economies could face challenges integrating tokenized asset infrastructure into existing financial systems.

Conclusion: The Inflection Point

Tokenization has reached an inflection point. The infrastructure exists. The regulatory clarity is emerging. Institutional participation is accelerating. The required capital infrastructure is being deployed. And the economic incentives align powerfully toward comprehensive adoption.

This is not speculation about distant possibilities. This is the trajectory of a technology moving from proof-of-concept to production deployment. Goldman Sachs, BlackRock, Franklin Templeton, and the European Investment Bank are not testing theoretical concepts—they are operating tokenized asset systems managing billions of dollars in real capital.

We have already moved beyond the exciting theoretical opportunity and started to deliver the actual transformation of financial systems through tokenization, with this shift set to forever change the way that nations trade and promote more inclusive financial participation.

The speed of this transition will surprise most market participants. Those expecting gradual, incremental change over two decades will be shocked by the pace of the next five years. The infrastructure is becoming standardized. The regulatory frameworks are solidifying. And the institutions are committing serious capital to tokenization infrastructure deployment.

Tokenization is not coming faster than many think. Tokenization is here. The only question remaining is not whether tokenization will transform financial markets, but how quickly the transformation will render today's settlement and custody infrastructure obsolete. For investors, asset managers, financial institutions, and regulators, the time to understand, prepare for, and actively participate in the

tokenized financial future is now. The window of strategic optionality is closing, and decisive action will determine competitive positioning for the next decade of finance.

Special Thanks

This article would not have been possible without the visionary leadership and strategic foresight of Larry Fink, whose commitment to embracing blockchain technology and tokenization has fundamentally transformed how the financial industry approaches digital asset innovation. Through BlackRock's pioneering initiatives—including the launch of tokenized money market funds and the establishment of comprehensive tokenized asset infrastructure—Larry Fink has demonstrated that institutional-grade tokenization is not a distant theoretical possibility but a practical reality demanding immediate attention. His recognition that tokenization represents the next frontier in financial markets, comparable to the internet revolution itself, has inspired institutional confidence and accelerated adoption across the industry. This article stands as a testament to the vision he has championed and the path he has illuminated for the future of finance.