Idaho Department of Finance Financial Innovation Lab

Emerging Technology Advisory Committee Report

Tokenization:

America's Opportunity to Build the Financial System of the Future

Executive Summary

It is vital for the United States to take a leadership role in the development of tokenized assets by creating a responsible technology positive regulatory environment because geopolitical competitors/rivals are attempting to use blockchain technologies to build a new global financial hierarchy and dilute America's primary role in the global financial system. If America's rivals build the financial infrastructure of the future, they will have the ability to lessen their dependence on the U.S. dollar, evade potential sanctions, and most importantly increase their geopolitical influence and strength by controlling more financial/economic activity.

The use of shared distributed programmable ledgers (e.g., blockchains) in tokenization enhances operational efficiencies by enabling cheaper and quicker financial transactions and significantly improving liquidity, accessibility, financial inclusion, and transparency throughout the financial ecosystem for the benefit of stakeholders. The benefits tokenization provides make it a likely candidate to become the next generation of financial infrastructure that will replace the current 50-year-old financial rails/systems in use today.

By embracing tokenization, the United States can maintain its primary role in the financial system and use it to promote western democratic values, further U.S. dollar dominance, and build innovative frameworks and businesses that will safeguard American geopolitical and economic strength. To ensure American leadership in tokenization and the global financial system, regulators and policymakers should modernize their registration processes, update settlement/custody guidance, explore alternative trading platforms, and create collaborative vehicles (e.g., sandboxes) to test tokenization infrastructure, business models, and regulatory frameworks. Industry should use this regulatory clarity to build and test tokenization infrastructure, use cases and products, build workforce capacity, and develop risk assessment frameworks.

A Chance to Update Outdated Financial Rails & Improve Operational Inefficiencies

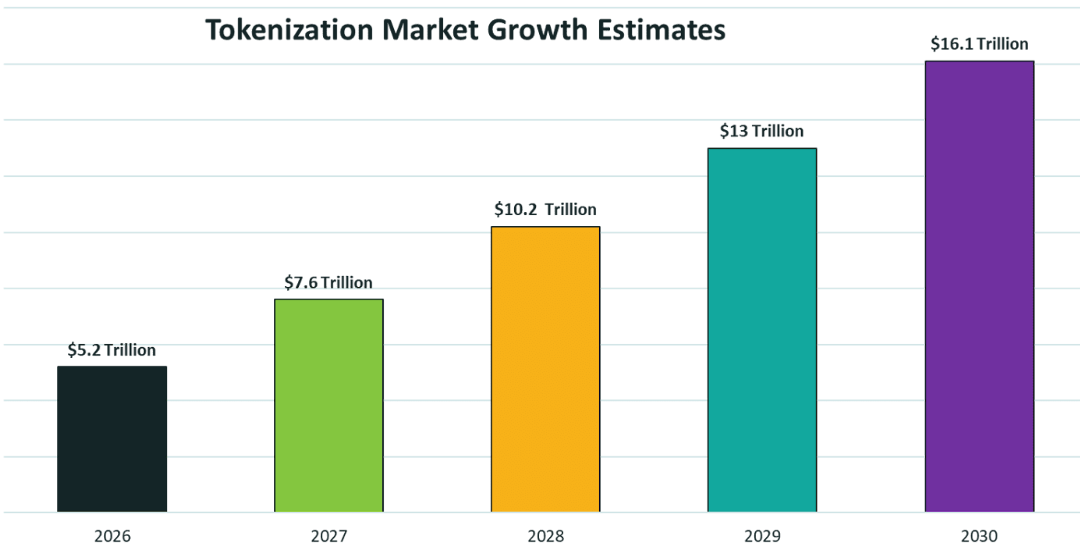
The rapid advancement of distributed ledger technologies (DLT), which includes both public and permissioned blockchains, presents a transformative opportunity to modernize financial and payment operations. By integrating with legacy infrastructures, DLT holds the potential to make the global financial system more efficient, secure, cost-effective, and inclusive.

One of the most promising innovations within this space is tokenization – the process of converting real-world assets such as bank deposits or equities/stocks into digital tokens that can be securely recorded, transferred, and programmed on a DLT/blockchain. Tokenization could enable faster settlement times, reduce transaction costs, and decrease reliance on intermediaries like central securities depositories, making financial operations more streamlined and programmable.

Industry research estimates that tokenization could unlock $20 billion in global clearing and settlement savings and $100 billion in collateral annually.[1] In production DLT/blockchain-based platforms like Broadridge's Distributed Ledger Repo or proof-of-concept projects like Singapore's Project Guardian, which successfully developed an on-chain foreign exchange (FX) swap, demonstrate how tokenization can enhance financial market efficiency and flexibility.[23]

Beyond operational efficiencies, tokenization holds tremendous economic opportunities for financial institutions, startups, and nation-states. It is projected that by 2030 tokenized assets may account for nearly 10% of global GDP, translating into trillions of dollars in business value (see chart below).[4] But today's financial infrastructure – designed in response to the Wall Street "Paperwork Crisis" of the early 1970's – lacks the automation and programmability capabilities that tokenization enables, leaving institutions reliant on slow, manual, and costly systems. Until new rails are developed, the financial system will remain constrained by legacy architecture.

As DLT matures, tokenized assets and blockchains could become the new foundation of the global financial system, positioning its builders to reap significant economic and geopolitical rewards.



[5]

Tokenization Can Transform the Financial System & Improve Operational Efficiencies

The push to modernize financial and payment infrastructures with faster, more resilient, and cost-effective systems – alongside the geopolitical race to control the key financial systems of the future – has made tokenization a powerful economic and strategic opportunity.

U.S. policymakers and regulators have traditionally recognized the value of improving efficiencies and reducing friction in markets. For example, prior to 1993 securities settled on a T+5 basis (trade date plus 5 days).[6] Over the past three decades securities regulators have progressively streamlined the settlement cycle to T+1, reducing counterparty risk and lowering the costs related to settlement. Inter-bank electronic cash payment settlement times have moved from a couple of business days to real-time payment systems. Tokenization offers markets an opportunity to build on these legacy systems to benefit both institutions and consumers in the following ways:

- **24/7 Market Access, Increased Efficiency, & Faster Settlement:** DLT/blockchain and smart contracts facilitate around-the-clock trading and rapid settlement, reducing capital and liquidity requirements. Tokenized assets also transcend geographical barriers, broadening investor participation and enabling more seamless cross-border transactions. By automating transactions through smart contracts, tokenization reduces reliance on intermediaries, cutting costs and improving transaction speeds.
- **Enhanced Liquidity:** Tokenization transforms traditionally illiquid real-world assets like real estate, private securities, and art into digital assets, making them more tradable on digital platforms. Tokenized assets enable fractional ownership, expanding access to the public and allowing for greater portfolio diversification.
- **Improved Transparency:** Time-stamped blockchain records ensure an immutable audit trail, reducing asset misrepresentation and enabling real-time verification of asset provenance and transactions.

- **Increased Investor Access & Capital Formation:** Tokenization lowers traditional barriers to entry, granting broader access to banking and investment opportunities that were previously out of reach for many individuals. It could also offer streamlined ways for small businesses to raise capital.

Geopolitical Competition for Global Financial Infrastructure Dominance Should Drive U.S. Leadership in Tokenization

The U.S. dollar has long anchored the global economy, granting America unparalleled "exorbitant privileges" such as lower borrowing costs, diplomatic leverage, and the ability to influence global economic activity. Geopolitical competitors view DLT's technological capabilities (e.g., instant settlement) as a rare opportunity to challenge U.S. control over the global financial system and diminish the dollar's dominance in international trade. Both adversaries and allies are actively pursuing tokenization research, DLT/blockchain-based financial projects, and next-generation payment systems, positioning themselves to maintain relevance and expand influence within an evolving global financial order. The rapid development of central bank digital currencies (CBDCs), stablecoins, and Real-Time Gross Settlement (RTGS) systems reflects broader efforts to reshape global financial power structures, driven by several key geopolitical and economic factors, including:

- **De-Dollarization:** Countries are increasingly diversifying away from the U.S. dollar, due to geopolitical shifts, financial fragmentation, and new settlement systems. While the dollar remains dominant, its share of global reserves is shrinking, as central banks reallocate holdings and trade mechanisms adapt. Stablecoins and DLT/blockchain-based financial infrastructures accelerate this trend, especially in emerging markets where dollar access is limited. Stablecoins enable cross-border transactions without reliance on traditional dollar-based payment systems and offer alternative yields. While imminent de-dollarization concerns may be overstated, BRICS members and other global players are actively testing blockchain-based financial infrastructures to increase their monetary sovereignty.[7]

- **Sanctions Evasion:** The increasing use of financial sanctions as a policy tool by the U.S. and Western allies is leading sanctioned nations to use cryptocurrencies and develop DLT/blockchain-based alternative financial systems/infrastructure to settle payments and transactions. For example, BRICS members are exploring the possibility of a shared digital currency, while Russia is experimenting with the idea of using tokenized assets to conduct trade settlements with China and India.[8][9]

- **Increased Geopolitical Influence and Strength:** Developing DLT-based financial infrastructures can enable a nation-state(s) to control and oversee more global financial/economic activity, and make other countries dependent on their infrastructure, currency, and financial services/products. This could greatly improve a country's diplomatic power, leverage, and position in the global financial hierarchy.

Increasing geopolitical competition makes U.S. leadership and participation in the tokenization space necessary because U.S. trade and economic statecraft are bolstered by the strength of the U.S. dollar, the depth and volume of American financial markets/payment systems, and the fairness of the U.S. legal system. It is vital for the U.S. to view tokenization as an opportunity to:

- **Promote Western Democratic Values:** U.S. leadership is necessary in the tokenization space to ensure that western democratic values such as liberty, free enterprise, equality, human/individual rights, and privacy are enshrined in any potential future financial system, instead of the authoritarian values being promoted by geopolitical rivals such as Russia, China, and Iran. America should also take a leadership role in building tokenization standards that will provide regulatory clarity to industry participants to allow innovation to thrive responsibly, while concurrently protecting consumers and American interests against illicit finance and sanction evasion threats/vulnerabilities from bad actors and rivals.

- **Further U.S. Dollar Dominance and Reach:** Currently, 98% of stablecoins are denominated in U.S. dollars with nearly 80% of transactions occurring in emerging markets, which provides the U.S. with a tremendous opportunity to increase the reach of the U.S. dollar and solidify its standing in the global financial ecosystem.[10] The battle to represent currency on-chain is far from settled, but the impact tokenized assets have on traditional finance will only grow as enterprises further integrate programmable DLT-based solutions with legacy financial infrastructure in both financial transactions and markets. Accepting that the future of financial services will be multi-railed (relying on both DLT and non-DLT systems) should cause the U.S. to prioritize tokenization to retain U.S. dollar dominance.

- **Create and Test New Business Models, Capabilities, and Frameworks:** The U.S. should be at the forefront of building, developing, testing, and deploying new tokenized financial products, services, infrastructure, compliance solutions, and regulatory frameworks to ensure America retains its leadership role in the global financial system. DLT-based solutions are transforming payment and market operations, enabling new programmability, real-time data insights, and 24/7 functionality capabilities. The U.S. needs to be careful not to fall into a nation-state version of an "Innovator's Dilemma" mindset that could cause it to cede its prominent role in the global financial system to global rivals.[11]

Spotlight on Key Tokenization Projects and Use Cases

While in-production use cases of DLT/blockchain-based infrastructure solutions are still limited, the financial industry has deployed a slew of new offerings in the last 18 months to advance DLT / legacy system interoperability and tokenized asset growth. The projects all view DLT/blockchain as an important modernization upgrade to future-proof the financial services industry and demonstrate a range of solutions from the future of money (e.g., CBDCs, stablecoins) to the future of FX and liquidity management. Here are four notable use cases:

Project Guardian: Launched in 2022 by the Monetary Authority of Singapore, Project Guardian has grown into a 40+ entity public-private initiative for modernizing legacy financial systems and commercializing asset tokenization. Pilots have shown DLT-based solutions can transform asset management, FX, and fixed income. Project Guardian is also developing a Global Layer 1 DLT solution to advance cross-border tokenized asset transactions.

mBridge: Launched in 2021 by the Bank of International Settlement (BIS) and the central banks of China, Thailand, and the United Arab Emirates to enable instant cross-border payments and settlement, mBridge demonstrated it could settle cross-border transactions in seconds using tokenized assets. The project met minimum viable product stage in mid-2024 and has been viewed by some in the west as a way for countries to bypass the dollar-based financial system.

Project Agora: Launched in 2024 by BIS, it explores how tokenization can enhance wholesale cross-border payments. It proposes a "unified ledger approach to tokenization" to merge payment messaging and account updates into one transaction, seeks to execute payments atomically rather than in a series of sequential transactions, and explores using new privacy preserving KYC/AML encryption.

Zodia Markets T+1 Stock Trading: In November, Standard Chartered-backed Zodia Markets demonstrated that stablecoins can help Asia-Pacific investors meet new foreign exchange cut-off time requirements resulting from America's recent move to T+1 equity settlement.

Keys to Accelerating DLT/Blockchain & Tokenized Asset Adoption in the United States

The U.S. must take decisive action to develop and adopt DLT/blockchain-based financial solutions to safeguard its leadership in the global financial system. Failing to act risks ceding economic and geopolitical influence to competing nations. To maintain its competitive edge, the financial industry and U.S. regulators should pursue the following key initiatives:

Industry

- **Focus on Advancing Fit-For-Purpose Financial Use Cases-** DLT adoption in the financial sector has largely focused on proof-of-concept trials and pilots, rather than full-scale deployment. The next phase must focus on transitioning from experimentation to implementation, scaling viable solutions, and growing tokenized asset totals, which remain low. A strong starting point is on-chain collateral use cases, as they are expected to reshape liquidity and treasury management operations and rely on U.S. dollar backed tokenized money market funds and stablecoins. By prioritizing deployment, the U.S. can harness its operational and investment expertise to maintain global leadership in financial innovation.

- **Invest in Training to Upskill Financial Workers-** Industry participants should prioritize workforce development to ensure professionals can navigate DLT/blockchain architectures, DeFi tools, smart contract automation, and understand the evolving role of digital assets as a viable investment class. Strengthening academic partnerships and specialized training programs will be essential to equipping the workforce with the expertise needed to drive innovation and shape the future of global finance.

- **Further Develop Digital Asset Risk Assessment Frameworks and Standards-** DLT/blockchain-based financial solutions present new operational, financial, and regulatory challenges. To safeguard financial stability, the industry should build upon existing digital asset-specific risk assessment frameworks, models, and standards such as the Financial Action Task Force's VA and VASP Guidance while addressing new technological, cybersecurity threats, and compliance developments.

Regulators & Policymakers

- **Establish a Federal Digital Asset Sandbox and Expand State-Level Initiatives-** Regulatory sandboxes allow firms to experiment freely without fear of regulatory consequences. While the U.S. has been slow to embrace this model, other jurisdictions like the UK, Singapore, and EU have successfully used sandboxes to accelerate tokenization efforts, foster industry collaboration, and refine regulatory frameworks. Rather than reinvent the wheel, the U.S. can build on these proven approaches, creating structured environments that balance financial stability with responsible experimentation.

- **Develop Clear and Adaptive Regulatory Guidance for Digital Assets-** Policymakers must establish fit-for-purpose regulations that accommodate the unique characteristics of tokenized assets, DLT/blockchain-based financial structures, and decentralized markets. A modernized securities registration framework is essential to support issuance, trading, and settlement of digital assets. The SEC should revise existing disclosure and compliance requirements to account for fractional ownership, automation, and global accessibility in tokenized ecosystems. Additionally, regulation should clarify rules for alternative trading systems (ATS), national exchange integrations, and DLT-based settlement and custody mechanisms. A balanced, adaptive approach – one that fosters innovation while maintaining market integrity and investor protections – is crucial to accelerate U.S. tokenized asset adoption.

- **Accelerate U.S. Blockchain Growth with Targeted Incentives-** U.S. policymakers and private sector partners should begin to implement targeted incentives such as tax credits for DLT/blockchain research and development (R&D), grant programs for infrastructure development, or public-private partnerships to accelerate tokenization. Financial funding and incentives could support academic research, pilot programs, and industry collaboration, while government agencies and private firms could collaborate to scale payment, identity verification, and financial inclusion efforts.

By putting these recommendations into action, the United States will be able to take a leadership role in the tokenization space and maintain its primary role in the financial system and reap the geopolitical rewards that accompany this privileged position if tokenization becomes the next generation of financial infrastructure.

Endnotes

[1] https://www.weforum.org/stories/2024/12/tokenization-blockchain-assets-finance/

[2] https://www.prnewswire.com/news-releases/broadridge-successfully-completes-pilot-of-blockchain-based-bilateral-repo-solution-300536848.html

[3] https://www.prnewswire.com/apac/news-releases/citi-and-fidelity-international-demonstrate-tokenized-money-market-fund-and-digital-foreign-exchange-swap-solution-302295142.html

[4] https://web-assets.bcg.com/1e/a2/5b5f2b7e42dfad2cb3113a291222/on-chain-asset-tokenization.pdf

[5] Ibid

[6] https://www.finra.org/rules-guidance/notices/93-77

[7] https://www.lowyinstitute.org/the-interpreter/brics-pay-challenge-swift-network

[8] Ibid.

[9] https://www.gisreportsonline.com/r/china-russia-finance/

[10] https://www.atlanticcouncil.org/blogs/econographics/what-is-next-for-crypto-regulation-in-the-us/

[11] https://www.brookings.edu/articles/the-innovators-dilemma-and-u-s-adoption-of-a-digital-dollar/