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Tokenization of Financial Instruments Reshapes Traditional Finance

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In the ever-evolving landscape of capital markets, the relentless march of tokenization is reshaping the industry. Traditional financial institutions, often perceived as slow to adopt innovations, are now making decisive moves into production beyond proofs of concept (POCs), pilots and sandboxes.

This shift marks a significant turning point, emphasizing that tokenizing financial assets extends far beyond real estate, art, venture capital, and private equity. As we delve into this transformative journey, it's evident that the market is closely watching developments in places like Singapore and Switzerland and learning from these pioneering models.

The "Bonding" of Tradition and Blockchain

One illustration of this shift is the tokenization of bonds. In 2022, UBS pioneered the world's first digital bond issued by a banking institution, trading and settling on both blockchain-based and traditional platforms (with an issue volume of CHF 375million). Moreover, the European Investment Bank (EIB) and Société Generale have also embraced experimentation with crypto-native bond issuance.

And while this market appears as only a tiny sliver of the traditional bond market (e.g., the tokenization of U.S. Treasuries is only around $800M, according to RWA.xyz), vertically integrated models like those in Switzerland, and well-supported ecosystems as in Singapore have inspired the industry nonetheless. Further activities are popping up, including private credit loans to businesses on Ethereum and other networks.

The momentum has continued across 2023, with major players such as Deutsche Bank, Goldman Sachs, HSBC, BNP Paribas, and RBC Capital Markets actively participating in various digital bond initiatives. Goldman, for instance, unveiled its own tokenization platform using the vendor Digital Asset, where it will support reduced bond issuance times.

To move out of pilots and POCs into the real world, settlements, payments and full life-cycle integration of these assets are becoming focal points for banks, as they refine or adopt new infrastructure and leverage third-party platforms to accommodate distributed-ledger technology (DLT).

Tokenization of bonds is clearly early stage and not going to replace traditional issuance soon. But the momentum of activity in repo, for example (e.g., Broadridge's DLT platform), inspires confidence and suggests there's an appetite beyond basic experimentation, and if there are gains to be made, banks will continue to push new models across both issuance and trading.

Tokenization Opportunities Take Center Stage

Traditional financial institutions are not merely paying attention—they are actively engaging with the opportunities that tokenization on the blockchain present. In 2023, infrastructure players and sell-side firms are not merely testing the waters but building bridges. For instance, the New York Fed has tested tokenized deposits with R3's Regulated Liability Network (RLN), while J.P. Morgan Onyx is also laying out plans to tokenize deposits for settlements.

Conversations with industry leaders also reveal a resonance around industry projects like the Canton Network and Project Guardian, with public chains such as Avalanche and Polygon also being leveraged for tokenization. Avalanche, for instance, is being tested by a number of traditional buy-side (e.g., T. Rowe and Wellington) and sell-side firms for both on-chain execution and settlement.

Project Guardian, which is under the Monetary Authority of Singapore, has uniquely become the epicenter of tokenization opportunities, with at least five tokenization pilots taking place among 17 financial institutions across the full life cycle of listing, distribution, trading, settlement, and asset servicing. Regulators across the U.S., Europe and Asia are taking note.

Navigating Public and Private Blockchains

The tokenization journey is not a single path and involves both public and private blockchains, which offer a spectrum of benefits and trade-offs, including speed, privacy and interoperability.

The Canton Network and Project Guardian both showcase the industry's commitment to testing the feasibility of applications in asset tokenization and decentralized finance (DeFi) across different blockchains. For instance, Cumberland, T. Rowe, Wellington, and WisdomTree have chosen the public blockchain Avalanche and the Evergreen subnet Spruce to test DeFi applications for FX and interest-rate swaps, among other areas.

While private blockchains have captured attention, further exemplified by KKR's tokenization of their fund on Avalanche (via Securitize), most sell-side focus currently centers around private, permissioned chains. Several leading banks, including Goldman Sachs, are actively exploring opportunities on private blockchains, emphasizing the development of robust infrastructure. Moreover, Swift announced a partnership with Chainlink to connect multiple blockchains for movement of tokenized assets, demonstrating that the industry can be agnostic to chains.

Interoperability and Guardrails: Navigating the Unknown

However, as the sector forges on, the need for guardrails is clear. Europe's DLT pilot regime and the FCA Regulatory Sandbox offer legal avenues for experimentation. But the road ahead will require the integration of permissioned networks with public networks, which may challenge these sandboxes.

Privacy is also a lynchpin of financial markets and a key focus of the Canton Network, a piece of the potential puzzle. Other options like Ownera are exploring conventional routing systems among different blockchain applications, but there is no clear answer to both interoperability and privacy.

Data and Infrastructure: The Cornerstones of Transformation

As the financial industry embraces tokenization, the implications for data and infrastructure requirements are profound. Intermediaries are actively seeking data, tools and platforms. On the data side, market data, on-chain activity data and DeFi data are being sought out, alongside the necessary infrastructure for tokenization projects that include regulated platforms and other third-party applications. Moreover, traditional accounting functions, custody systems and settlement mechanisms must also evolve to accommodate the data deluge from DeFi.

With industry giants now actively involved in projects and initiatives, the fusion of crypto ingenuity with traditional market principles is reshaping the financial landscape. For banks, the tokenization of assets and the embrace of DeFi mark the dawn of a new era in finance, laying the foundation for the next generation of markets.

David Easthope is the author of this publication.

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www.greenwich.com | ContactUs@greenwich.com

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