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TOKENIZATION - REINVENTING FINANCIAL INSTRUMENTS

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Point Zero Forum™
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Tokenization - Reinventing Financial Instruments

At the Point Zero Forum 2023, a roundtable titled "Tokenization - Reinventing financial instruments" was hosted by the Swiss National Bank alongside the Swiss Centre of the BIS Innovation Hub.

The roundtable brought together technology providers, banks, financial market infrastructures, public institutions and universities to discuss the transformative impact of tokenizing financial instruments and the multifaceted challenges involved. The roundtable was conducted under Chatham House Rule.

This document outlines the main themes and important actions that emerged from the discussion.

Executive Summary

1. **Tokenization offers potential but faces adoption challenges:** While tokenization has shown promise in enhancing financial instruments, key challenges such as integrating with legacy systems, regulatory support, high switching costs, and achieving liquidity remain.

2. **Strong foundations are necessary but not sufficient for success:** Adoption of digital assets requires a robust legal framework, scalable and interoperable DLT infrastructure, and secure settlement assets like CBDCs. However, the market is fragmented, and strong incentives are needed for widespread adoption.

3. **Managing the transition to a tokenized financial system:** Successful transition involves spreading benefits across private and public participants, coordinated efforts between market participants, central banks, and regulators, and addressing the complexities of integrating new technology with existing systems.

Introduction

In today's rapidly evolving financial landscape, tokenization is helping to reshape traditional financial instruments issued by sovereign and corporate entities. The transformative potential is exemplified by several digital bonds issuances as part of Project Helvetia Phase III. Also, Project Promissa aims to tokenize promissory notes that are instrumental in raising funds for the World Bank and other international financial institutions.

The roundtable explores two aspects: first, the transformative impact of tokenizing financial instruments, such as liquidity, accessibility, transparency, and efficiency. Second, the multifaceted challenges of tokenization, ranging from technical aspects such as security, privacy and interoperability, to regulation and compliance and coordination between diverse actors in the financial markets.

Substantive Discussion

1. Tokenization is available and can bring benefits, but challenges for adoption remain

In today's rapidly evolving financial landscape, the concept of tokenization is helping to reshape traditional financial instruments issued by sovereign and corporate entities. Financial market infrastructures, issuers, banks and other entities have explored blockchain and digitisation for many years and its potential to deliver new benefits across the securities lifecycle from faster issuance through atomic settlement and high collateral mobilisation across asset classes, through to their ability to scale – all key enablers to the future.

Against this background: What are the lessons learned so far and what are the biggest challenges?

The projects so far have shown that the technology is viable, and that tokenization can bring benefits to market participants, but key challenges remain:

- First, integration and compatibility with legacy systems, particularly in terms of resilience, security and scalability, has been difficult to achieve. This is important not only from a straight-through processing perspective, but also because markets need to be connected: I don't just want to hold a bond, I want to trade it in secondary markets or use it as collateral.

- Second, the regulatory environment is not always supportive of the introduction of tokenized financial instruments, with some notable exceptions.

- Third, switching costs are very high due to the large investments required to master the technology.

- Finally, without widespread adoption, it is a challenge to achieve liquidity for tokenized financial instruments and ensure sufficient commercialisation and profitability for operators, investors and service providers.

There is a sense that these challenges are being addressed in the background and that things are moving in the right direction. Some markets, such as tokenized repo, are seeing quite a lot of activity.

2. Strong foundation is necessary but not sufficient for adoption

Despite their potential, the adoption of digital assets on a large scale has been slow. From the perspective of issuers, the successful launch and widespread acceptance of digital assets depend on multiple factors. These include technological readiness, market demand, the ability to integrate digital assets into existing financial systems seamlessly and regulatory clarity. Issuers require that digital assets are secure, compliant with regulations, and provide clear benefits over traditional financial instruments.

Digital asset infrastructures, such as blockchain platforms and digital wallets, must offer compelling advantages to attract issuers and banks. These infrastructures need to be robust, scalable, and user-friendly, providing seamless integration with existing financial systems.

Based on this, what will it take for digital assets to 'take off'? How can digital asset infrastructures provide an attractive proposition?

The roundtable identified three fundamental areas for successful adoption:

- First, tokenization needs a strong legal and regulatory framework. As the legal basis for intermediated securities, for example, is being developed, some participants urged not to repeat the same mistakes of the past and to try to establish a harmonised, or at least consistent, global legal and regulatory framework.
- Second, a sound underlying DLT infrastructure that provides scalability, privacy and interoperability is needed, but balancing these elements can be complex.
- Third, a secure settlement asset, ideally in the form of central bank digital currencies (CBDCs).

However, while these three foundations are necessary, they are not sufficient criteria for adoption. The market remains fragmented, with high switching costs (e.g. due to integration with legacy systems, running a node on a DLT network). Incentives to switch need to be strong, for example by offering unique benefits such as intraday repo.

3. Transition to a tokenized financial system: Distribution of benefits and coordination

Transitioning of the financial ecosystem to a tokenized system involves considerable practical challenges, including investment costs, initial inefficiencies, integration of the cash-leg in the form of tokenized private money or CBDCs, regulatory changes, and coordination issues among stakeholders. During this period, organizations must navigate the complexities of integrating new technology with existing systems, manage the financial burden of investment costs, and address any inefficiencies that arise as the new system is implemented. Given these complexities, how can the transition best be managed?

Three aspects have been discussed that would support the transition to a tokenized financial system:

- First, the benefits of tokenization would need to be spread across both private and public participants. This includes private participants such as issuers, investors, operators, financial institutions. Additionally, there would need to be a public policy interest. For example, issuers of digital bonds or money market funds may benefit from cost savings that they can pass on to investors in the form of higher returns. And the public policy interest could be based on the assumption that this will promote a more diversified financial market infrastructure to increase choice, competition and lower barriers to entry.
- Second, the coordination of the market in terms of the relationship between market participants, the central bank and regulators is seen as an important success factor. This will allow a common strategy and plan to be developed and implemented. A common approach will make it possible to build a multi-layer, multi-asset platform that integrates different systems and coordinates across jurisdictions.

- Third, addressing the complexities of integrating new technology with existing systems. The integration process is often complex because it involves aligning new technologies with legacy systems, ensuring seamless communication between different software platforms, maintaining data integrity, and minimising disruption to ongoing business operations.

Conclusion

The exploration of tokenization in the financial sector reveals both its transformative potential and the significant challenges that must be overcome for widespread adoption. While digital bonds and other tokenized financial instruments offer promising benefits—such as enhanced liquidity, improved accessibility, greater transparency, and increased operational efficiency—the path to integration is fraught with complexities. These include the technical difficulties of aligning new technologies with legacy systems, navigating a fragmented regulatory landscape, and addressing the high costs associated with adopting and scaling these innovations.

Despite these challenges, there is a growing sense of optimism that the financial industry is moving in the right direction. Successful transition to a tokenized financial system will require a strong legal and regulatory framework, robust and scalable digital infrastructure, and secure settlement assets like CBDCs. Moreover, the benefits of tokenization must be equitably distributed across both private and public sectors, fostering a more competitive and inclusive financial ecosystem.

To manage this transition effectively, coordinated efforts among market participants, regulators, and central banks are crucial. A unified approach will help build the necessary infrastructure, integrate diverse systems, and navigate the complexities of implementation. As these foundations are strengthened, the financial industry may well witness the large-scale adoption of tokenized assets, unlocking new opportunities for innovation and growth in the global financial landscape.

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