

Scaling tokenisation in European financial markets

1. Current state and future opportunities of tokenisation

An industry representative stated that the total market for tokenised real-world assets is estimated at USD 20–30 billion, a level that should be regarded only as a starting point. The real opportunity tokenisation represents for Europe is to rethink its capital markets by bringing equity and debt instruments on-chain and incorporating features already available in crypto markets. This would deliver far greater benefits than simply automating existing intermediaries, though that may be a useful first step.

Distributed ledger technology (DLT) enables faster and cheaper settlement, greater transparency, and more resilient systems. It also allows fractional ownership, decentralised trading, self-custody, and continuous 24/7 access, making capital markets more inclusive and opening participation to new categories of investors, notably the “unbrokered” retail customers who currently do not invest. With these combined features, tokenisation should encourage greater engagement of retail investors and firms in the capital markets, contributing to advance the Savings and Investment Union’s objectives and enhance Europe’s competitiveness.

Current tokenised products remain first-generation. Often structured as debt instruments, they do not offer the full benefits of equity ownership. Within the next year, more advanced products are expected to appear, providing full beneficial ownership of the stocks and a direct link between issuers and holders, a development that would mark a significant step forward.

A second industry representative noted that over the past year many tokenised products have reached the market, with tokenised stocks among the most prominent. These, however, are only a first step. Future offerings will broaden considerably, enabling investors to access directly a much wider range of products.

Tokenisation offers opportunities across the whole value chain. At the back end, it reduces frictions and removes the need for transaction reporting, as activity is recorded directly on chain. At the front end, it enhances distribution and investor access, helping to democratise financial products and extend participation well beyond traditional channels. Around-the-clock 24/7/365 trading is a key benefit, reflecting users’ expectations that markets operate continuously. For market makers, this constant activity is positive also, creating continuous opportunities to provide liquidity.

An official agreed that tokenisation holds strong potential in advancing the SIU, provided it is implemented in a way that avoids market fragmentation. Efficiency gains include smoother data reconciliation,

lower transaction costs, faster settlement times, and the use of smart contracts to bypass existing barriers. These cost savings should be shared between savers and issuers, in line with the objectives of the SIU. Tokenisation also brings greater transparency, such as upfront knowledge of transaction costs and real-time identification of shareholders. These benefits apply potentially across a wide range of instruments – equities, bonds, and investment funds – and could be especially valuable for green bonds, which remain costly to issue due to manual processing.

A third industry representative underlined that DLT can also help reduce risks in the financial system. It enables collateral to be moved in real time to where it is needed, removes single points of failure by distributing records across multiple ledgers, and atomic settlement can drastically reduce settlement risk.

2. Conditions for a successful scaling of tokenisation

2.1 Availability of adequate settlement assets

An official stressed that a key condition for scaling tokenisation is the availability of safe settlement assets enabling instant on-chain transactions through atomic settlement. Since 2020, the Banque de France has been testing a wholesale central bank digital currency (wCBDC) to act as a secure anchor for transactions on distributed ledgers. As the BIS highlights, the stability of money relies on two anchors: retail users must be able to convert commercial bank deposits into central bank cash at par, and banks must settle with each other in central bank money. These foundations need to be preserved as markets move on-chain. By 2026, the Eurosystem aims to provide a wCBDC for tokenised markets, interoperable with both private blockchains and TARGET2, offering a trusted reference point and supporting private-sector coordination.

An industry speaker stated that the Eurosystem pilots bringing central bank money onto private ledgers are an important step, since central bank money is likely to remain a key element of the ecosystem. Its role, however, may differ in tokenised markets compared with today. Currently, central bank money mitigates settlement risk by serving as a risk-free settlement asset. On distributed ledgers, this risk can instead be managed through atomic settlement, where all legs of a transaction are executed simultaneously and conditionally. In such a system, there is no exposure during the settlement process to the value of the settlement asset. Central bank money will therefore continue to be relevant, but its function may evolve in future markets.

A second industry speaker suggested that stablecoins can play a role in the on-chain settlement of financial instruments as well as in crypto markets. While 99% of stablecoins are currently dollar-denominated, there is a strong case for scaling euro-denominated stablecoins under MiCA alongside wCBDCs to enhance liquidity in European markets.

An official underlined that while atomic settlement eliminates counterparty risk by ensuring simultaneity, stablecoins cannot provide market participants with the same level of safety as wCBDC, since their reliability as a store of value is still to be demonstrated.

The official considered that the dominance of US dollar stablecoins could decline over time. In Asia, initiatives linking faster payment systems and building new platforms may result in lowering transaction costs between non-dollar currencies, reducing the need to use the dollar as a vehicle currency. Over time, this could foster a more balanced international monetary system, though the transition may be turbulent.

A third industry speaker agreed with previous speakers that the availability of suitable settlement assets will be decisive for scaling tokenisation in the EU. Swift is neutral on which settlement asset should prevail. CBDCs, tokenised deposits, and stablecoins could all be supported on the network once regulatory clarity is established regarding their use. Some tokenised instruments, such as money market funds and Bitcoin ETFs, are already flowing through the Swift network. Experiments have also been conducted linking CBDC networks with existing payment systems and trialling single access points for multiple digital asset classes and currencies, with use cases in payments, securities, and FX.

The official supported the concept of shared ledgers where multiple asset types, including private settlement assets, can be exchanged alongside central bank money, provided participants always retain the option to settle in central bank money. Providing this choice is essential because it anchors private arrangements to the wider monetary system and prevents them from drifting into separate, incompatible networks. Without such an anchor, tokenised markets risk fragmenting, not necessarily along national borders but across closed private ecosystems. In Europe, Project Appia is intended to mitigate this risk by building shared infrastructure through public-private cooperation.

2.2 Access to suitable DLT platforms

An official highlighted four ongoing central bank projects that may support the development of tokenisation. Project Appia, led by the Eurosystem, aims to create a European shared ledger for tokenised assets where both public and private monies can be used. It is aligned with the BIS-led Project Agora, which is developing a cross-border shared ledger integrating private currencies, central bank money, and tokenised assets. The Mandala project has also successfully shown how blockchain can secure compliance certificates and improve information sharing among correspondent banks, thereby reducing compliance costs in cross-border payments. Separately, Project

Rialto explores how tokenisation could reduce costs and enhance efficiency in foreign exchange for cross-border payments.

An industry speaker emphasised the growing recognition that public, permissionless ledgers can provide greater liquidity, transparency and developer engagement. Although regulators have raised concerns about settlement finality and reliance on unknown validators on such platforms, not all public ledgers are the same. Some have been specifically designed for regulated finance, addressing these issues while retaining the advantages of liquidity and transparency.

Another industry speaker observed that the debate is sometimes framed as a choice between public and private blockchains. This does not seem appropriate, as in the future platforms will likely be hybrid, combining the transparency, resilience, and interoperability of public permissionless blockchains with KYC permission layers or verification tools. This model is already being implemented, for instance on Ethereum with added verification layers, and could help address many of the current concerns associated with public blockchains.

However, the official noted that permissionless public DLTs do not always strike the right balance between liquidity and financial risk, particularly with regard to AML/CFT concerns.

2.3 Interoperability and standards for DLT platforms

In response to a question from the chair about the conditions required for an effective scaling of tokenisation, an industry representative emphasized that with clear demand for tokenisation already demonstrated, effective scaling depends primarily on robust, secure and resilient infrastructure and sufficient market integration. The projects led by the Eurosystem and BIS contribute to this objective. Three key priorities stand out.

First, interoperability: the proliferation of protocols, platforms and technologies risks creating isolated "digital islands." Building bridges through interoperable solutions is therefore essential, supported by ongoing experiments to connect DLT platforms around shared business outcomes and standards. Second, standards: tokenised markets require consistent data formats and market practices to enable cross-border value transfers and to avoid trapped liquidity or operational complexity, in the same way as traditional finance. Regulators must coordinate globally to achieve this. Third, collaboration: meaningful scaling will only be achieved through joint efforts across a broad range of institutions, including banks, asset managers, brokers, custodians and fintechs, each bringing specific expertise.

An official agreed that while the vision for how tokenisation could improve the functioning of financial markets is compelling, several challenges still need to be addressed before markets can reach sufficient liquidity and scale. At present, firms are creating their own DLT platforms with proprietary technologies, often incompatible with one another. The central challenge will be to achieve interoperability among these solutions; without it, even basic tasks such as ownership transfers could become more difficult than under legacy

systems. Real progress therefore depends not only on convincing use cases that attract participants, but also on effective collaboration to deliver workable interoperable arrangements.

2.4 Risk management and governance

An official stressed that new risk will emerge as tokenisation develops. Markets may function very differently from today, with 24/7 operations, rapid payment and collateral flows bringing both benefits and vulnerabilities. Supervisors will need to ensure that these new models uphold financial stability and market integrity, but it will be difficult to fully assess their resilience until tokenised markets are operating at scale.

An industry representative underlined that DLT brings specific risks, particularly around operational resilience and settlement finality. These risks can be managed through cooperation between firms and regulators, but current rules, written for traditional centralised systems, often do not fit DLT and may create unnecessary barriers. Regulators should therefore adopt a technology-neutral, outcomes-based approach, focusing on the main functions and how risks are managed by key entities, such as issuers, trading venues, or protocol operators, rather than on the technology itself. Regulators should remain open to innovation, citing public permissionless blockchains as an example.

Another official noted that European capital charges for tokenised products reflect those of the underlying assets, demonstrating the neutrality of the current framework.

The chair concluded that technological innovation must be governed responsibly, with risk management and compliance embedded to ensure sustainable development. Regulation and supervision should remain technologically neutral, while also assessing the specific risks and added value of different technologies. Risk should remain the guiding criterion: as in traditional finance, risks may shift into shadow systems, but proactive monitoring combined with integrated supervision and international cooperation enables supervisors to intervene effectively.

3. Policy framework

3.1 Regulatory changes needed to support tokenisation in the EU

An industry speaker observed that Europe has taken the lead in regulating digital asset activities through the DLT Pilot and MiCA, but the US is advancing rapidly and could overtake the EU. Distribution and market access will be critical, with large US players likely to push for a more uniform global framework. For liquidity providers, the priority is to build a structure comparable to traditional finance, where exchanges, margining, and prime brokers guarantee depth and resilience. Prime brokers remain hesitant to engage in crypto markets, but appropriate regulation could encourage their

participation and help provide the depth and stability needed across trading venues.

A second industry speaker suggested that the DLT Pilot Regime, though useful, could have been designed to promote innovation in a more effective way. A Commission report with new proposals is expected shortly. Crucially, pilot regimes must offer a clear path to mainstream adoption: initial limits imposed to contain financial stability risks should be progressively lifted as confidence grows that risks can be mitigated. Without this, firms will have little commercial incentive to remain engaged in the market over the longer term.

A third industry speaker argued that the US is not aiming to catch up with MiCA but to leapfrog it, moving very fast. Alongside the GENIUS and CLARITY Acts, the SEC is engaging directly with firms under "project crypto". These initiatives could soon produce broad exemptive relief or guidance enabling innovative models. Europe must match this pace. Five areas for action could help at the policy level: (i) recognising that stablecoins can serve as settlement assets alongside wCBDC, as acknowledged by the Bank of England, since a mix of settlement assets will inevitably emerge in a context where the US has decided not to develop a wCBDC; (ii) revising MiFID II to cover self-custody; (iii) amending CSDR to recognise that blockchains can perform some functions currently carried out by CSDs, such as maintaining the register of ownership, which requires unbundling the definition of services covered by the regulation; (iv) lowering excessively high capital requirements that currently prevent banks and broker-dealers from operating on permissionless blockchains despite their importance for market depth; and (v) making the DLT Pilot Regime permanent.

The industry speaker further stressed that implementing these measures will take three to five years, while the US is moving at speed. The key challenge is how to bridge the current framework with the future one once legislative changes are complete. The key challenge is how to bridge the current framework with the future one once legislative changes are complete. Interim solutions may be needed, such as allowing member states to adopt domestic measures in the meantime, with ESMA ensuring supervisory convergence.

The chair agreed that Europe's leadership with MiCA and DORA must be safeguarded in the context of rapid US developments. Existing rules can be leveraged to support continued progress in digital assets. Dedicated legislation is not always necessary: even before MiCA, prudential rules and governance standards already allowed supervisors to intervene when firms sought to enter crypto markets. MiCA has now brought clarity to this area and provides a solid foundation for further developments.

3.2 The UK approach

An official described three initiatives through which the UK is addressing tokenisation challenges. The first is the Digital Securities Sandbox, a flexible pilot regime that allows firms to operate under temporary modifications to regulation to test new models. The Bank of England and the FCA are responsible for

assessing these models, considering their regulatory implications, and monitoring them over time. Modifications can extend beyond financial regulation to areas such as company law. If a model proves successful, the necessary legislative changes can then be embedded in permanent law, enabling further scaling in the market. Fifteen firms, ranging from Fintechs to FMI and investment firms, have already passed the first stage of approval.

The second initiative is DIGIT, a digital sovereign debt instrument. The aim is not simply to issue gilts on a DLT platform, but to create the structure for a liquid secondary market with both debt and cash legs operating on-chain. Delivering this will require close public-private cooperation, as the sector cannot build such a market alone.

The third initiative is the new Wholesale Financial Markets Digital Strategy published by the government to establish structured dialogue between industry, regulators, and government. A digital markets champion will be appointed to identify necessary reforms and tackle barriers to scaling tokenisation and other digital developments.

Wrap up

The chair closed the session by stressing three key points. First, tokenisation is already part of today's market reality, not a distant vision. It is, however, not yet clearly regulated and sits at the crossroads between digital and traditional finance, raising new regulatory and supervisory questions.

Second, beyond debates about the type of DLT platforms to favour and the degree of decentralisation, the central issue is whether tokenisation generates value and whether the related risks can be managed. Effective risk control is essential, since efficiency gains in normal times can quickly turn into contagion risks during periods of stress, given the high interconnectedness of digital markets.

Third, market stakeholders must pool their knowledge, skills, tools, and data. No single actor can meet these challenges alone, and greater collaboration will also help prevent fragmentation. Such cooperation will be critical for tokenisation to develop safely.