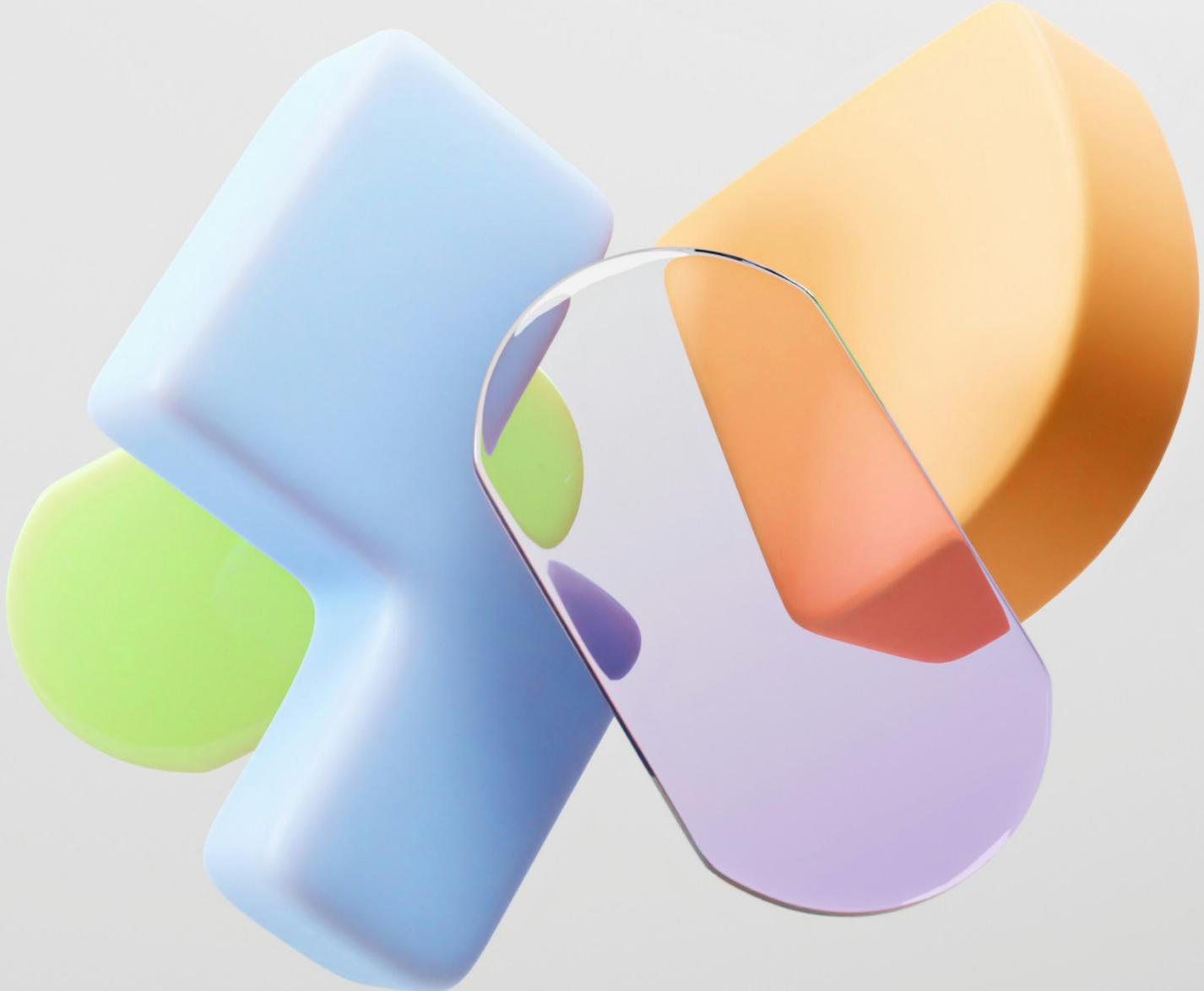


Global Regulatory Perspectives on Tokenisation

Authored by Jersey Financial Services Commission



November 2025

Contents

- 3 Executive summary
- 4 Foreword by the Chair
- 5 Foreword by the Jersey Financial Services Commission
- 6 Introduction
- 7 Global regulatory collaboration on tokenisation
- 8 Why this matters?
- 9 Where is the conversation?
- 15 International approaches to regulation tokenisation
- 16 Canada's Tokenisation frontier: Alberta leads the charge
- 18 Dubai's Tokenisation drive: Building a future-ready financial ecosystem
- 20 Case Study: UK Financial Conduct Authority – Tokenisation in practice
- 22 Case Study: Global regulatory perspectives from the Cambridge
Centre for Alternative Finance

Executive summary

Tokenisation is no longer a concept, it is a reality. Financial markets are at an inflection point. From bonds and real estate to commodities and private credit, assets are being digitised and fractionalised on blockchain platforms. This is not going away.

Yet, the regulatory landscape is fragmented. Jurisdictions are moving at different speeds and in different directions. Some are integrating tokenised assets into existing frameworks; others are exploring bespoke regimes. Legal clarity remains elusive, even where policy positions are emerging. The absence of harmonised standards and interoperable systems is a major barrier to scale.

Terminology is another challenge. Confusion persists between tokenised real-world assets (RWAs) and crypto-native tokens. Clear definitions matter, not just for compliance, but for trust and adoption.

This report captures insights from the Global Financial Innovation Network (GFIN) Tokenisation Project, co-led by the Jersey Financial Services Commission (JFSC) and the Central Bank of Bahrain (CBB). Throughout 2025, GFIN surveyed regulators worldwide, convened discussions at its AGM, and hosted deep-dive roundtables and regulator case studies with the UK's Financial Conduct Authority, Dubai Financial Services Authority, Alberta Securities Commission, and Cambridge Centre for Alternative Finance.

These conversations reveal that no single model for tokenisation exists, design choices vary by jurisdiction, asset type, and market infrastructure. Regulators prefer evolution over revolution, adapting existing rules rather than creating new asset classes. Consumer protection and financial crime controls remain non-negotiable, even as innovation accelerates.

The report includes case studies, shared approaches, and lessons learned. It does not set regulatory guidance or policy positions. Instead, it offers a global snapshot of how regulators are responding to tokenisation, and what this means for financial innovation.

Foreword by the Chair

“Tokenisation represents one of the most profound shifts in financial architecture since the emergence of digital banking. Its potential to enhance transparency, efficiency, and accessibility is immense, but so too are the challenges of interoperability, governance, and trust. Within GFIN, our collective work is not to chase hype, but to ensure that innovation unfolds safely across borders. Jersey’s leadership in this field shows what can be achieved when regulators, industry, and innovators collaborate to turn abstract potential into practical progress. Tokenisation is not simply a technological evolution, it’s a test of how intelligently we can reimagine the foundations of financial systems worldwide.”



Colin Payne
Head of Innovation, FCA, GFIN Chair

Foreword by the Jersey Financial Services Commission

“In August 2024, the JFSC issued a Guidance Note on the issuance of tokenised real-world assets, providing much-needed regulatory clarity in this rapidly evolving space. This framework has since attracted a diverse array of enquiries and applications, from tokenised equities and government treasuries to stablecoins and even fine wine, demonstrating the breadth of innovation underway.

We are proud to contribute to this pioneering GFIN report and extend our sincere thanks to the Central Bank of Bahrain, the Financial Conduct Authority and all participating regulators for their collaboration and insight.

Together, we have explored the emerging ecosystem of tokenised assets, examined how regulatory frameworks are adapting, and considered the challenges and opportunities that tokenisation presents.

The JFSC remains committed to working with our international counterparts to ensure that tokenisation is integrated into the financial system in a way that harnesses the potential of technology while safeguarding market integrity and investor protection.”



Alan Ainsworth
Executive Director of Policy, Innovations & Communications
Jersey Financial Services Commission

Introduction

Tokenisation refers to the process of converting rights to an asset into a digital token on a blockchain or distributed ledger. This innovation is reshaping the financial services landscape by enabling fractional ownership, enhancing liquidity, and streamlining settlement processes. Recent developments have seen traditional financial instruments such as bonds, funds, and real estate being tokenised, attracting interest from institutional players and fintech innovators alike.

As tokenisation gains traction, regulators face new challenges in ensuring that its adoption aligns with the best interests of consumers, firms, and markets. These challenges include legal clarity, technological interoperability, and investor protection. In response, regulators are developing comprehensive frameworks, launching regulatory sandboxes, and fostering ecosystems that support innovation while maintaining market integrity and consumer trust.

From your jurisdictions perspective, what are the main regulatory challenges impacting Tokenisation? Select all that apply.



Global regulatory collaboration on tokenisation

The Global Financial Innovation Network (GFIN) brings together over 90 international regulators and organisations committed to supporting financial innovation that benefits consumers. It aims to streamline how innovative firms engage with regulators, helping them scale new ideas across borders.

Co-led by the Jersey Financial Services Commission and Central Bank of Bahrain, the GFIN Tokenisation Project was launched to explore how regulators are enabling the emergence of tokenised real-world assets in financial services. The initiative sought to assess the maturity of regulatory and legal frameworks and identify key challenges in accommodating tokenised services. These discussions contribute to the global dialogue on integrating this technology into financial systems.

In early 2025, GFIN members completed a survey examining their jurisdictions' approaches to regulating tokenisation, the objectives behind those regulations, and the primary challenges they face. 20 members participated. To build on these insights, GFIN hosted roundtable discussions in March and May to unpack the survey findings and explore further how regulators are addressing the identified challenges.

This report summarises those discussions and showcases the international regulatory community's growing interest in tokenisation. It includes practical examples and case studies of how specific members are adapting their legal and regulatory regimes to support an increasingly on-chain economy.

Why this matters?

Tokenisation is not just a technological shift, it represents a fundamental change in how financial markets operate.

By enabling fractional ownership and faster settlement, tokenisation has the potential to democratise access to investment opportunities and reduce systemic inefficiencies.

However, these benefits can only be realised if regulators and industry participants work together to address risks such as operational resilience and investor protection. This report aims to further the discussion on these issues and foster collaboration to ensure tokenisation develops in a way that strengthens global financial stability.

Where is the conversation?

Adoption of tokenised assets

The adoption of tokenised assets has seen a significant rise, with a wide variety of applications emerging across both financial and non-financial sectors. These applications range from traditional financial instruments to innovative representations of real-world assets, some of which may fall inside or outside the regulated perimeter depending on their structure and offering mechanism. For example, tokenised real estate may be regulated if offered through a securitisation vehicle, but may fall outside regulation if structured differently.

The chart below illustrates the diversity of tokenised products encountered by international regulators, existing financial products, US Treasuries, equities, gold, real estate, luxury goods, and more, this provides a visual overview of the market landscape.

Which type of assets or products have you observed to be tokenised within your jurisdiction? Select all that apply.



Not specifically captured above stablecoins represent the first and most scalable use case of tokenised real-world assets. These are on-chain representations of fiat currencies, predominantly the US Dollar. The market for stablecoins has grown to a total size of \$310 billion and is expected to expand further with the passing of the Genius Act in the United States, which enables banks and technology companies to issue their own stablecoins.

US Treasuries have also seen rapid tokenisation, primarily driven by institutional demand. However, retail interest, especially from jurisdictions with weaker economies or higher rates of inflation is growing. Tokenised exposure to US government debt offers a compelling alternative for these investors. Similarly, tokenised gold and equities are gaining popularity, with issuers targeting either institutional or retail markets based on their strategic objectives.

The NFT boom in 2021 brought tokenisation into mainstream awareness, with notable events such as Beeple's \$70 million digital art sale and the Bored Ape Yacht Club collection reaching multi-billion dollar valuations. By 2025, much of the speculative hype has subsided, giving way to the tokenisation of tangible non-fungible assets like real estate, luxury goods, and wine. This shift raises regulatory questions about whether such tokens and their issuance fall within the regulatory perimeter, often depending on the form of the offering.

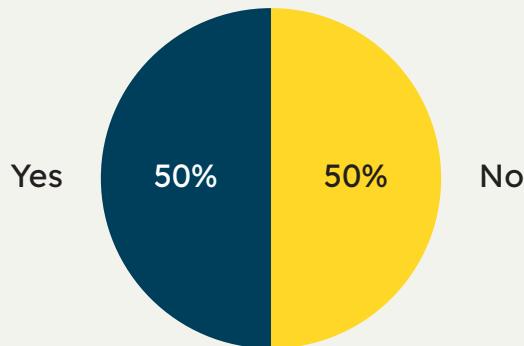
Regulatory fit

Regulators are increasingly focused on providing clarity around tokenised assets. They face a strategic decision: adapt existing regulatory frameworks or develop new guidance tailored specifically for tokenised real-world assets (RWAs).

This regulatory engagement spans different activities. Firstly, the approval process for issuing new tokens within a jurisdiction. Secondly, the regulation of post-issuance activities, which presents a greater challenge due to the unique nature of tokenised assets and blockchain infrastructure. For instance, a tokenised equity may lack the voting or dividend rights of its underlying asset, complicating its regulatory classification.

A key regulatory consideration is the distinction between virtual assets and tokenised RWAs. Stablecoins exemplify this complexity, they have historically been classified as virtual assets but substantively resemble tokenised fiat currencies, necessitating a nuanced regulatory approach with standardised terminology.

Is your jurisdiction planning to launch any initiatives to explore the potential of tokenised financial and real-world assets?



Permissioned vs permissionless blockchains

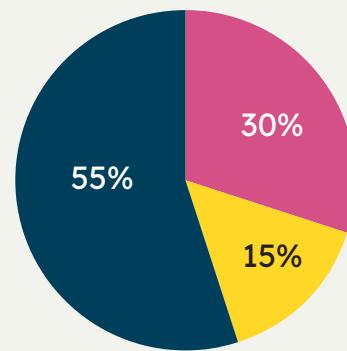
High profile international tokenisation pilots have predominantly launched on private, permissioned blockchains limited to an agreed list of approved players, typically banks, asset managers and other large institutions. However, customer preference is shifting towards public blockchains, which offer greater transparency and decentralisation.

Private blockchains often fail to realise the full potential of blockchain technology, limiting benefits to efficiency and settlement speed. Many pilot projects have struggled with adoption due to low liquidity and transaction limits that do not align with the typical capital flows of large financial institutions. These private chains risk replicating the same siloed capital pools and gatekeepers that blockchain technology aims to disrupt.

Public, permissionless blockchains offer openness, transparency and censorship resistance. There are no barriers to entry. In Tokenisation, this fosters interoperability and trustless settlement that benefit from broad market access and composability across platforms. On a permissionless chain the owner of a tokenised RWA can withdraw that token to their personal web3 wallet and self-custody, send to others or borrow against it in decentralised finance.

Is your jurisdiction planning to launch any initiatives to explore the potential of tokenised financial and real-world assets?

- Too early to assess its impact (11)
- Tokenisation can significantly enhance financial inclusion by democratising access to financial ... (6)
- Tokenisation may have limited impact on financial inclusion (3)
- Tokenisation could exacerbate inequalities in access to financial products (0)



Custody and verification of underlying assets

Despite technological risks such as smart contract vulnerabilities and cybersecurity threats, the most significant risk lies in the verification of the underlying real-world assets. Many regulators require assurance that tokenised assets are backed by real, tangible collateral, ideally at a 1:1 ratio. The issued tokens cannot be created out of thin air, regulators need comfort that any tokenised asset has the underlying substance of the real world asset.

With stringent prudential requirements issuers face challenges in generating yield from these underlying assets while maintaining consumer protection. Regulators are exploring mechanisms that allow monetisation without introducing additional risk. The scalability of on-chain redemptions necessitates robust investor safeguards. Best practices include API integrations with custodians and solutions like Chainlink's proof-of-reserves to verify asset backing.

What are the key tokenisation risks your existing and/or anticipated regulatory framework aims to address? Select all that apply.



Financial crime compliant value distribution and accrual

Regulators must address how value accrual, such as dividends or interest is distributed in a compliant manner on permissionless blockchains. While identity verification is standard during subscription and redemption, secondary market trading introduces the risk of tokens reaching unverified wallets which may be under the control of unidentified sanctioned persons.

Mechanisms such as airdropping tokens or re-basing (e.g., adjusting token value to reflect dividends) must be evaluated for AML/CFT/CPF compliance. The goal is to prevent illicit value transfer while enabling greater access and flexibility for investors.

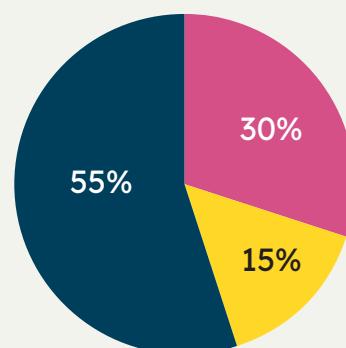
Fragmentation of liquidity

Liquidity fragmentation is a growing concern in the tokenised asset space. Tokenised equities, for example, are often issued by different entities using distinct smart contracts, resulting in non-fungible representations of the same underlying asset.

This fragmentation extends across different blockchains Ethereum, Solana, and other Layer 1s, as well as Layer 2 solutions, where interoperability remains inefficient. Emerging token standards like ERC3643, which incorporate embedded whitelisting, may further exacerbate fragmentation. While this may not be a primary regulatory concern, it poses investor protection risks due to reduced liquidity and redemption challenges.

How does your regulatory body perceive the future to tokenisation in the financial sector? Select one.

- Too early to say (11)
- Tokenisation will be niche but important for certain sectors (6)
- Tokenisation will become a mainstream part of financial markets in the next 3-5 years (3)
- Tokenisation will face significant regulatory challenges and may not gain widespread adoption (0)



Final thoughts

Tokenisation is not a future concept, it is already reshaping financial markets. The critical factor is not what gets tokenised, but how intelligently tokenisation is implemented. The overarching goal must be to deliver tangible benefits to consumers while upholding security and regulatory integrity.

International approaches to regulation tokenisation

Tokenisation is gaining traction globally, but regulatory responses remain diverse. Jurisdictions are navigating this innovation through a mix of adaptation, experimentation, and strategic engagement, with no single model emerging as dominant. Instead, regulators are tailoring their approaches to local market structures, legal systems, and policy priorities.

Many authorities are choosing to integrate tokenised assets into existing frameworks, applying the principle of “same risk, same regulatory outcome.” This approach allows for continuity and clarity, especially where tokenised instruments mirror traditional financial products. However, the unique features of tokenised assets, such as embedded rights, 24/7 trading, and decentralised custody, are prompting regulators to reassess how rules apply in practice.

Legal clarity remains a central challenge. The distinction between native digital tokens and representations of real-world assets has significant implications for property rights, enforceability, and investor protection. Without harmonised definitions and standards, regulatory arbitrage and fragmented oversight are real risks.

To address these complexities, some jurisdictions are launching regulatory sandboxes and pilot programmes focused on tokenisation. These initiatives enable live testing of infrastructure, custody models, and compliance mechanisms, while informing future policy development. Others are refining guidance on specific use cases such as stablecoins, tokenised funds, and real estate, often with a focus on ensuring robust asset backing and redemption rights.

Cross-border collaboration is increasingly seen as essential. Fragmentation of liquidity, inconsistent classifications, and divergent custody standards are limiting the scalability of tokenised markets. International dialogue is helping regulators share lessons, align terminology, and explore mechanisms for interoperability. Emerging ideas include global tokenisation sandboxes, shared taxonomies, and coordinated supervisory frameworks.

Ultimately, the international regulatory community is converging on a shared goal: to enable tokenisation in a way that enhances market efficiency, broadens access, and preserves trust. While the paths differ, the direction is clear, tokenisation is moving from pilot to production, and regulators are evolving to meet the moment.

Canada's tokenisation frontier: Alberta leads the charge

“With technology enabling 24/7 trading and real-time settlement, the question becomes how to align these capabilities with sound regulation. The goal: keep markets fair, protect participants, and foster innovation without sacrificing trust or stability.”

Mohamed Zohiri

Legal Counsel and FinTech Adviser, Alberta Securities Commission

Case Study: Alberta Securities Commission – Tokenisation in Canada

Canada's approach to tokenisation is pragmatic and principles-based. There are no bespoke rules for tokenised assets yet, but securities laws apply if a token represents a security or derivative. The mantra: same risk, same regulatory outcome applies.

Stablecoins are the exception: Canada asserted jurisdiction early, issuing guidance in 2023 for fiat-backed stablecoins. Under this interim framework, issuers must sign pre-registration undertakings and comply with requirements on liquidity, reserves, and redemption rights while work continues on a comprehensive long-term framework. In parallel, a federal approach to regulating fiat-backed stablecoins issued by non-financial institutions has now been announced.

Tokenisation hype is real, but nuanced: “While wrapped securities, such as tokenised shares of private companies, represent one application of tokenisation, we see greater potential for innovation in other areas, particularly those that leverage native digital issuance and programmable asset features,” says the ASC. An area of emerging interest is native digital issuance - securities that originate on-chain, with the potential for continuous trading and embedded rights. This model represents a possible direction for future market infrastructure.

Cross-border friction looms

Canada treats stablecoins as securities; the U.S. does not. Divergence means extra hurdles for issuers moving between markets.

The push and pull

Crypto-native firms have long lobbied for clarity. Now, traditional finance giants like BlackRock are entering the space, forcing regulators to take tokenisation seriously.

The outlook

Tokenisation is moving from niche to mainstream. ASC's stance? If markets can trade 24/7 and settle instantly, why stop them? The regulator's role: keep the game fair, protect investors, and embrace innovation without compromising integrity.

Biggest use cases today:

Tokenisation of securities, which may allow for fractionalization.

Use of tokenized settlement assets like, stablecoins or tokenized money market instruments, within market infrastructure, introducing features like:

- Programmability, enabling automated execution of predefined conditions;
- Composability, allowing programmed instructions to be combined or reused in new arrangements;
- Atomicity, supporting the execution of multiple steps as a single, inseparable transaction.

Why it matters

Tokenisation is about modernising market infrastructure, instant clearing, real-time settlement, and global accessibility. Regulators see efficiency gains but also new risks: collapsing traditional intermediaries into a single tech stack creates concentration and contagion risk among others.

Project Tokenisation

ASC Director of Advanced Research and Knowledge Management, Dr. Ryan Clements, chairs the Canadian Securities Administrator's (CSA) Financial Innovation Hub, where the ASC has championed a tokenisation-themed sandbox. The initiative is co-led by the Ontario Securities Commission, reflecting a strong inter-jurisdictional commitment to exploring the regulatory

Dubai's tokenisation drive: Building a future-ready financial ecosystem

The Dubai International Financial Centre (DIFC)'s positions itself as a global leader in tokenised finance with establishment of robust regulatory environment, legal clarity on digital assets, courts to oversee disputes in digital economy and facilitation through tokenisation regulatory sandbox.

Dubai's regulatory clarity, legal infrastructure, and proactive engagement make it a compelling hub for tokenisation innovation.

Regulatory regime for tokenisation

The independent financial services regulator of DIFC, the Dubai Financial Services Authority (DFSA), introduced a regulatory framework for investment tokens in 2021, regulating them like traditional investments but with added requirements related to disclosure, technology risks, governance, systems and controls.

The DFSA's approach is pragmatic

Given that tokenised assets are treated as investments, any financial services activities related to it, that is carried out in or from the DIFC, would require a licence and be subjected to the prudential and conduct requirements that are relevant to the regulated activity undertaken.

Real estate tokenisation is gaining traction in the UAE

The DFSA considers the use of tokenised fund structures for real estate will best ensure investor protection and enable secondary market trading.

DIFC Tokenisation Sandbox

To facilitate tokenisation in the DIFC, the DFSA launched a tokenisation cohort under its Innovation Testing Licence (ITL) framework in March 2025, resulting in 96 innovative firms expressing their interests to participate. The ITL tokenisation cohort provides for a controlled environment in which firms can carry out financial services related to tokenised assets. Most firms are interested in tokenising fund units, Islamic bonds, and real estate.

Challenges and priorities

Some of the challenges observed in providing or scaling tokenisation in DIFC include market awareness, interoperability, and building a supporting ecosystem of auditors, law firms, and tech providers.

Strategic priorities for the next 12 months include expanding tokenisation to traditional financial products, fostering collaboration across the ecosystem and reviewing the DFSA rules to reflect market's development in this sector.

Legal clarity

The DIFC also introduced a Digital Assets Law in 2023 to set out the legal nature of digital assets as a matter of property law. The law provides general rules regarding title, transfer of title and the exercise of rights over digital assets in the event of death, incapacity or insolvency including how digital assets may be controlled, transferred and dealt with by interested parties.

Ecosystem enablers

The DIFC has its own Digital Economy Court which is a specialized division of the DIFC Courts to resolve complex disputes in the digital economy, such as areas involving blockchain, artificial intelligence, and cryptocurrencies.

Case Study: UK Financial Conduct Authority – tokenisation in practice

The FCA is not just watching tokenisation, it's shaping it. Their stance? Support innovation, stay technology-neutral, and regulate based on substance, not form.

Key Highlights

No bespoke regime for tokenised assets. Tokenised bonds, equities, and funds are largely treated in line with their traditional counterparts. The tech may change, but the rules remain grounded in existing frameworks. The FCA applies a substance-over-form approach, ensuring consistency and clarity. Some adjustments may be needed. For example, specific rules for the safeguarding of security tokens, given the use of new technologies to secure private keys (e.g. hot wallets, cold wallets, MPC etc.)

Digital Securities Sandbox (DSS)

A bold experiment. Jointly operated with the Bank of England, the DSS allows firms to trial DLT-based settlement infrastructure. It's time-limited, but designed with a 'glide path' to permanent regulation. It enables experimentation with integrated post-trade processes and DLT-based depositories.

Fund tokenisation is already live

The FCA authorised the UK's first tokenised UCITS fund in March 2025 through standard procedures. This milestone demonstrates the regulator's commitment to tech-neutral oversight and the viability of tokenisation within existing fund frameworks. The FCA published a consultation ([CP 25/28](#)) earlier this month on their plans to support tokenisation in fund and asset management

Permissionless blockchains?

The FCA is open to public chains, provided firms can demonstrate robust smart contract audits, and investor protections. This openness reflects evolving industry practices and the potential for broader distribution and transparency.

Industry demand is real, and rising

Use cases span real estate, SME capital raising, green products, and money market funds. The common thread? Unlocking liquidity and efficiency in traditionally illiquid markets. The FCA has seen strong interest in fund tokenisation and DLT-based settlement.

Risks are nuanced

From unclear property rights to fragmented liquidity and regulatory arbitrage, the FCA is alert to the challenges. Custody models, insolvency protections, and cross-border legal inconsistencies are key concerns. But it's not about blocking innovation, it's about managing it.

Global collaboration is key

The FCA is active in IOSCO, FSB, and Project Guardian. Cross-border dialogue is shaping the future of tokenisation. Bilateral discussions with US regulators and participation in international working groups ensure alignment and shared learning.

Outlook

Tokenisation isn't mainstream yet, but the groundwork is being laid. The FCA sees potential, but also inertia. Without a push from policymakers and industry, adoption may stall. Still, the direction is clear: tokenisation is coming, and the UK is ready.

Case Study: Global regulatory perspectives from the Cambridge Centre for Alternative Finance

Tokenisation is reshaping finance, but legal and regulatory frameworks are struggling to keep up.

Hatim Hussain and Hugo Coelho from the Cambridge Centre for Alternative Finance (CCAF) offer a global view of the challenges and opportunities emerging from tokenised assets.

Legal uncertainty at the core

Most jurisdictions lack clear legal frameworks for tokenised assets. A major challenge lies in distinguishing between native tokens (created on-chain) and non-native tokens (representing real-world assets). This distinction has profound implications for property rights and enforceability.

Classification challenges

Traditional classifications such as security, utility and governance often fall short. Tokens are flexible and can span multiple categories, making regulatory taxonomies difficult to apply consistently.

Property rights gaps

A token transfer doesn't always equate to a legal transfer of the underlying asset. Without harmonised property rights regimes, investors may lack enforceable claims, especially in insolvency scenarios.

Regulatory arbitrage risk

Inconsistent treatment across jurisdictions creates opportunities for regulatory arbitrage. Existing financial laws often fail to capture the nuances of tokenised instruments, particularly around intermediation and settlement finality.

Custody and collateralisation

The distinction between bank and non-bank custody is critical. Non-bank custodians often lack the safeguards, like asset segregation and capital requirements found in traditional finance. This raises concerns about bankruptcy remoteness and investor protection.

Emerging use cases

Tokenised fiat instruments dominate the market, led by stablecoins like USDC and USDT. Other growing areas include tokenised treasuries, money market funds, and real estate. Cross-border payments, trade finance, and liquidity management are key drivers of adoption.

Supervisory blind spots

Key risks include cybersecurity, operational resilience, AML/CFT compliance, and financial stability. Tokenised money could disrupt monetary policy transmission and challenge the role of banks as money creators.

Enforcement and identity

Airdropping value (e.g., dividends) to unverified token holders raises red flags for financial crime compliance. Solutions like permissioned wallets (e.g., ERC-3643) and whitelisting are gaining traction, but global standards remain fragmented.

The road ahead

CCAF's work highlights the urgent need for legal clarity, regulatory coordination, and robust safeguards. As tokenisation moves from pilot to production, the global regulatory community must evolve fast. The future of tokenised finance depends on it.

GFIN is the international network of financial regulators and related organisations committed to supporting financial innovation in the best interests of consumers.

The Global Financial Innovation Network (GFIN) was formally launched in January 2019 by an international group of financial regulators and related organisations.

GFIN is a network of over 90 organisations committed to supporting financial innovation in the interests of consumers. It seeks to provide a more efficient way for innovative firms to interact with regulators, helping them navigate between countries as they look to scale new ideas. This includes the ability to apply to join a pilot for firms wishing to test innovative products, services or business models across more than one jurisdiction.

GFIN also aims to create a framework for co-operation between financial services regulators on innovation related topics, sharing different experiences and approaches.

www.thegfin.com