II. TOKENISATION AS AN ALTERNATIVE TO SECURITIZATION: LEGAL, REGULATORY AND OPERATIONAL CHALLENGES

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ABSTRACT

This paper explores tokenization as a modern alternative to securitization, analyzing its legal, regulatory, and operational challenges. While tokenization leverages blockchain to enhance liquidity, enable fractional ownership, and democratize access to financial assets, it faces hurdles in classification, custody, settlement, interoperability, and jurisdiction. The study compares global regulatory approaches and highlights India's fragmented framework, proposing phased licensing, legal recognition of smart contracts, regulated digital custody, and interoperability mandates. Concluding that tokenization is not a panacea but a transformative tool, the paper argues it can bridge financial markets and retail investors, fostering a resilient and inclusive financial ecosystem.

Keywords: Tokenization, Securitisation, Securities, Blockchain and Financial Markets

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I. INTRODUCTION

While traditional and digital finance are becoming entangled, the securitization of assets has reached the zenith of its amalgamation with tech through tokenization. Tokenization is a term for using smart contracts and blockchain technology to represent ownership or rights to an asset as a tradable, on-chain token. Research shows that tokenized market capitalization could reach around $2 trillion by 2030, excluding Bitcoin and cryptocurrencies, which reflects huge potential. If one were to design the future of financial services, the inclusion of features of digital assets would be inevitable. Amid this momentum, the complete adoption of tokenization of financial services is complex, with regulatory and operational challenges. Tokenized assets face legal ambiguity, especially regarding classification, ownership and regulatory over jurisdiction. India lacks a unified system that deals with the enforcement, conduct and recognition of smart contracts. Therefore, it is advocated that a phased licensing regime be implemented and steps be taken to recognize smart contracts legally and SEBI-regulated digital custody reform to bridge the gap between the financial market and investors. This article discusses the conceptual foundations of tokenisation and securitization, examines the legal challenges associated with the unrestricted use of tokenised assets, and proposes necessary reforms.

II. TOKENISATION AND SECURITIZATION: CONCEPTUAL AND LEGAL OVERVIEW

The financial alchemy of pooling in not–easily or non-tradable assets and repackaging them into interest-bearing securities can be termed securitization. This practice can be traced back to the 1970s when US-based agencies pooled home mortgages, culminating in the securitization of various income-producing assets. Financial institutions employ securitization for various reasons. One among those is that it is cheaper to raise money through securitization, making it easier for banks to hold assets, as financial regulators have different stances towards them. It also gained momentum because of its broad economic benefits, including credit exposures, reduced systemic vulnerability and less risk concentration. The process of securitization includes multiple stages. In the first stage, the financial institutions recognize the asset they want to get out of their balance sheet and group them into a single pool called the reference portfolio.[1] This is then sold to an issuer, such as a Special Purpose Vehicle, an entity run by a financial institution, to purchase and realize the assets for legal and accounting purposes. In the last stage, the SPV issues securities to the investors, representing a claim on the underlying asset. In this process, the issuer acts as a servicer, collecting payments from the original borrower and distributing them to the investor after deducting the servicing fee. The investors receive fixed or floating rate payments from a trustee account funded by the cash flows generated by the reference portfolio.

The SARFAESI Act primarily regulates the inflow and outflow of securities. Securitization means the acquisition of financial assets by any asset

[1] IMF, "Classification of Financial Assets and Liabilities" (*IMF*, Sep 2008) <https://www.imf.org/external/pubs/ft/mfsmcg/c4.pdf>accessed 12 May 2025.

reconstruction company from any originator.[2] Whether by raising funds by such asset reconstruction companies from qualified buyers by issuing security receipts representing an undivided interest in such financial assets or otherwise. It also empowers the companies to acquire financial assets from banks or financial institutions through an agreement or assignment and gives the right to SPVs to issue Security Receipts **("SRs")** to Qualified Institutional Buyers **("QIBs")** in exchange for funds.[3] Further, the SEBI (Issue and Listing of Securitized Debt Instruments and Security Receipts) (Regulations, 2008) also talks about compliance to be involved in the process of securitization.[4]

While securitization is still prominent in the market, the entry of new forms of it has gained momentum. With the growing retail investor interest enabled by the fintech innovation and exposure of the public to trading,[5] tokenization has emerged as a pivotal mechanism, facilitating fractional ownership, enhancing market liquidity, and democratizing access to a wide range of assets. The tokenization of financial assets refers to representing real-world financial assets, such as stocks, bonds, or currencies, using digital tokens.

In this, security tokens are created through an Initial Coin Offering **("ICO")** to distinguish them from other ICOs, which can produce different tokens such as equity, utility, or payment tokens.[6] A Security Token Offering **("STO")** can be used to create a digital representation – a security token- of

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[2] Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002, Act No. 54 of 2000.

[3] Mayashree, "Asset Reconstruction Companies (ARCs)- Business Model" (*ClearTax*, 21 April 2025) <https://cleartax.in/s/asset-reconstruction-companies-arcs>accessed 12 May 2025.

[4] SEBI (Issue and Listing of Securitized Debt Instruments and Security Receipts) Regulations, 2008, Gazette of India, No LAD-NRO/GN/2008/13/127878, 17 June 2008.

[5] McKinsey & Company, "Fintechs: A New Paradigm of growth" (*McKinsey & Company*, 24 October 2024) <https://www.mckinsey.com/industries/financial-services/our-insights/fintechs-a-new-paradigm-of-growth>accessed 12 May 2025.

[6] Doreth Clemon, "Initial Coin Offering (ICO): Coin Launch Defined, With Examples" (*Investopedia*, 02 June 2024) <https://www.investopedia.com/terms/i/initial-coin-offering-ico.asp>accessed 12 May 2025.

an asset, meaning that a security token could represent a share in the company, ownership of a piece of real estate, or participation in investment funds. Despite their structural differences, securitization and tokenization pursue fundamentally similar financial goals. While both processes aim to spread the financial risk among an extensive base of investors and allow multiple investors to participate in the ownership of tokens, specific fundamental differences exist. The securitization process is heavily intermediated with the Originator, Special Purpose Vehicle, and underwriter, but the tokenization is largely disintermediated.[7] Another difference is about legal compliance; the law requires contracts between multiple parties and serving agreements in securitization, while in tokenization, laws are fragmented and nascent.

III. LEGAL, REGULATORY, AND OPERATIONAL CHALLENGES IN TOKENIZED ASSETS

In any emerging field where money is the central player, it becomes the imperative duty of the law to govern the field with utmost care and precision. With tokenization emerging as one of those, regulating them has become a herculean task for global leaders. The following are some of the challenges assessed in the legal and regulatory sectors, coupled with operational challenges associated with tokenization that should be taken into consideration.

A. Existing Laws Governing Tokenization

In the existing regulatory framework, Singapore has one of the most comprehensive systems. Its Monetary Authority categorizes the tokenization

[7] OECD, "The Tokenization of Assets and Potential Implications for Financial Markets" (*OECD*,2020) <https://www.oecd.org/content/dam/oecd/en/publications/reports/2020/03/the-tokenisation-of-assets-and-potential-implications-for-financial-markets_370f9853/83493d34-en.pdf> accessed 12 May 2025.

of such instruments into three parts, i.e., firstly, as a Security Token, representing an ownership interest.[8] Secondly, it is a payment token used as a medium of exchange, and thirdly, it is a utility token providing access to services and products without conferring ownership rights. These categories are governed by their respective statutory laws, such as the Securities and Futures Act,[9] Payment Service Act and the Digital Token Service Providers framework, with specific provisions governing each aspect, including the offshore activities targeting Singapore residents and augmenting existing laws. On the same note, the UAE has also framed a similar structure where its Securities and Commodities Authority regulate both the Security Token and Commodity Token.[10] Additionally, tokens that come under the Payment Token's ambit are governed by the Central Bank of the UAE through the Payment Token Services Regulation.

Moreover, the Securities and Commodities Authority **("SCA")** released its draft regulations defining security tokens and established rules for their issuance,[11] trading and promotion so that only licensed platforms like Multilateral Trading Facilities or Organized Trading Facilities are allowed to trade. It is also mandated that the Distributed Ledger Technology **("DLT")** is required to have a strong technical standard to ensure data integrity and security. On the other side of the world, the European Union has established a law where tokenized assets are governed based on their qualification as a Financial Instrument, filtering through the criteria under the Markets in

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[8] Somer Anderson, "Cryptocurrency Security Token: Definition, Forms, and Investment" (*Investopedia*, 31 August 2024) <https://www.investopedia.com/terms/s/security-token.asp>accessed 12 May 2025.

[9] Securities and Futures Act 2001 (Singapore).

[10] Gregory Man, "UAE Securities & Commodities Authority Consults on new Security Token Regime" (*Bird Bird*, 07 February 2025) <https://www.twobirds.com/en/insights/2025/united-arab-emirates/uae-securities-,-a-,-commodities-authority-consults-on-new-security-token-regime>accessed 12 May 2025.

[11] Crypto Assets Regulations, SCA, Administrative Decision no. (11) of 2021 concerning Guidance for Crypto Asset Regulations, (17 March 2021).

Financial Instruments Directive II **("MiFID II").**[12] Failing to comply with the ambit of MiFID II might get it regulated under the Markets in Crypto-Assets Regulation **("MiCA"),** marking a crucial distinction between the regulatory frameworks.

In a similar line of thought, the United States, following the notion of '*If it looks like a security, it is a security*', governs the tokenization based on its nature, in which the nature of any tokenized asset would be determined on its qualification as an '*Investment Contract*', as per the famous '*Howey Test*'.[13] Once labelled as a security, the token's offering, trading, and management must comply with U.S. securities laws, mainly the Securities Act of 1933 and the Securities Exchange Act of 1934.[14]

Lastly, India falls short on all these fronts, as its current regulatory framework operates on the principle of 'substance over form', meaning that the legal treatment of tokenized assets is based on their underlying nature and function rather than their formal classification. Elements from foreign models that are realistically transplantable into the Indian context include the EU's clear asset-class definitions for tokenized instruments, Singapore's calibrated risk-based licensing thresholds, and the UK's functional categorization of digital tokens, all of which could provide India with greater regulatory clarity while remaining adaptable to domestic market conditions." For instance, if the token serves as a security, like shares or debentures, it would come under the ambit of the Securities Contracts (Regulation) Act, 1956 and SEBI regulations.[15] Similarly, tokens representing real estate ownership, pool investments, and promise returns will be governed by property laws such as

[12] MiFID-II, Directive 2014/65/EU, European Parliament and of the Council (15 May 2014).
[13] Crypto Law, "The Howey Test: Is Your Crypto Token a Security?" (*Gordon Law*, 2023) <https://gordonlaw.com/learn/howey-test-is-your-token-security/>accessed 12 May 2025.
[14] Securities Exchange Act, 1934 15 U.S.C. § 78a et s.
[15] Securities Contracts (Regulation) Act, 1956 (India)

the Real Estate (Regulation and Development) Act, 2016 **("RERA")** and the Collective Investment Scheme under SEBI regulations, respectively.[16] However, while this doctrine correctly emphasizes intrinsic characteristics, it falls short because it does not provide a unified or technology-specific regulatory approach suited to the unique risks and structures of tokenized assets. Regardless of these functional similarities in regulatory approaches across different nations, tokenized assets still face significant legal hurdles of not being governed under a uniform, technology-specific regulation, creating uncertainty in consistently classifying and governing tokenized assets.

1. REGULATORY CLASSIFICATION AND UNCERTAINTY

Tokenized assets in this technologically dominant era could be termed as shapeshifter assets, as they can represent any assets from stock, bonds, and real estate to gold-backed tokens and access to services. One of its key features is that it creates a major hurdle of being regulated in a structured format, which is an integral issue in determining how to legally classify tokens, affecting how the token is regulated, traded, and taxed. The key question that emerge here are whether a token should be treated in a singular format regardless of its diverse nature and, if not, how it will be treated uniformly. The question might seem simple to answer, as previously, it has been analyzed under the governing laws of different jurisdictions; wherever the token's nature ends up, the respective statute will govern the token; however, do the existing laws cover them adequately? A prime example could be the emergence of hybrid tokens, which represent a mixture of utility and profit rights. For instance, a gaming-platform token may allow users to access in-game features (utility) while simultaneously entitling holders to a share in the platform's transaction-fee revenues (profit), thereby complicating the question of whether it should

[16] Real Estate (Regulation and Development) Act, 2016.

fall under consumer-protection law, securities regulation, or both. This makes it the most challenging to classify under which respective law it should be governed. These uncertainties surrounding the correct classification of tokenized assets carry far-reaching consequences for the financial ecosystem. On a transnational level, inconsistent, erratic classification across nations will create a fertile field for regulatory shopping, allowing entities to exploit loopholes and relocate to less stringent regimes. Moreover, it would critically jeopardize the investors' protection as the inadequacy of a clear categorization may deprive investors of essential disclosures and statutory safeguards. Different regulatory sandboxes of several nations are currently dealing with these emerging challenges; however, the clear-cut answer to the said issue remains a mystery.

B. Ownership, Custody, and Settlement Issues

Tokenized assets in the Indian market present a three-layer issue that is a significant hurdle for financial regulators to overcome. Firstly, no specific legal framework could recognize digital tokens as a security or property, which creates an ambiguity in contending the ownership rights over such assets. In addition, although the assets based on blockchain technologies are immutable, their admissibility as evidence in the courts under the Bharatiya Sakshya Adhiniyam, 2023 remains unclear, obscuring the enforcement of ownership claims.[17] Moreover, tokenized assets existing on the decentralized ledger fall outside the frame of the Depositories Act of 1996, which until now governs traditional securities held in dematerialized format through the recognized depositors.[18]

[17] The Indian Evidence Act, 1872, Act No. 1(India Code).
[18] The Depositories Act, 1996 (India).

Secondly, there is an absence of Licensed Digital Custodians. India presently lacks a framework which could furnish licensing for digital assets custodians, abandoning the investors without regulated entities to securely store their digital assets. Moreover, the assets' reliance on private keys for asset control unveils the risk of loss, which cannot be mitigated without a regulatory custodian. At last, there is the issue of settlement and finality with the regulators and investors. Tokenized assets often work on the atomic settlement, which contrasts with the traditional T+2 & T+1 settlement cycle,[19] showcasing a question about the finality and reversibility of transactions. It is also imperative to note that such assets function by employing smart contracts, which removes the need for central counterparties, which is a financial intermediary that stands between the buyer and seller in a trade, guaranteeing its completion from the whole transaction. However, due to the absence of such central counterparties, there is an increase in the overall systemic risk of any issue emerging in the transaction, such as a security breach, transaction failure, or price fluctuation. Moreover, markets where such assets are traded often lack the netting benefits and other protection facilitated by the regulated intermediaries, shaping enforcement of rights and dispute resolution even more complex.

C. Operational Challenges in Tokenization

While tokenization undertakes to modernize real-world asset management by facilitating improved liquidity and tokenization, its deployment is replete with significant operational challenges that must be considered to ensure long-term viability and trust. Firstly, Tokenization functions on smart contracts,

[19] Giraldo Mora, "It is Along Ways Global Payment Infrastructure in Movement" (*Juna*, 2023) <https://research-api.cbs.dk/ws/portalfiles/portal/96635637/juan_camilo_giraldo-mora_phd_series_28_2023.pdf>accessed 12 May 2025.

which, although they automate the transactions but, are susceptible to several vulnerabilities, such as reentrancy attacks, integer underflow and overflows, access control issues and logic errors, which can lead to the drainage of funds to incorrect execution of contract functions. Secondly, tokenizing real-world assets entails a reliable link between the physical asset and its digital representation; however, the 'On Chain' model which records asset information directly on the blockchain- fails to do what is required.

Additionally, with the '*Off Chain*' model, the real asset is in the physical world, and only its representation is on the blockchain, so ensuring a token accurately reflects the asset's actual status is problematic. Thirdly, this blockchain ecosystem comprises various networks, each one of them having its own protocols and standards; however, all of these systems are isolated from one another, which makes assets on one blockchain hard to transfer to another one, thereby limiting liquidity and utility. Moreover, the current solutions, like token bridges, which allow tokens to be transferred across different blockchain networks aim to solve the problem but introduce security vulnerabilities.

D. Jurisdiction and Enforcement Issues

For a traditional system, the legal framework governs a transaction based on the location of the assets, parties involved, or the place where it was executed. However, the said presumption is defied by the distributed ledger technology. Tokenized assets existing on the distributed ledgers that traverse multiple jurisdictions hinder ascertaining which nation's law would be applicable. Moreover, the decentralized nature of the blockchain worsens the situation by challenging the traditional legal 'situs', which is crucial in determining the applicable laws. Another facade that the tokenized assets face is the dispute resolution in decentralized networks. Since smart contracts are

employed to execute such transactions, an absence of a built-in mechanism for dispute resolution could lead to serious legal disputes that could not be entertained under the traditional legal system. While decentralized resolution platforms like Kleros have emerged as a potential solution, Kleros provides decentralized dispute resolution, but its rulings lack clear legal recognition internationally, making enforceability across jurisdictions uncertain.

IV. TOKENIZATION AS A BRIDGE BETWEEN FINANCIAL MARKETS AND RETAIL INVESTORS

On a global scale, tokenization, regardless of its uncertainty over legal governance, is seen as a perfect tool to democratize investment access, bridging the gap between retail investors and financial markets. The reason could be associated with the first mover advantage, to the lower barriers to entry and a widespread engagement of asset classes, once exclusive to high-worth investors. However, this tool does not come clean but with some of its complexities, such as losing the protection of banks, custodians and auditors, heightened technology vulnerability and little or no recourse to redressal. Thus, it becomes imperative to assess how tokenization will unleash funding avenues for the retail participants, as well as the associated risks it comes with.

A. Democratizing Access through Tokenization

Tokenization, through its primary function, facilitates a reduced minimum investment threshold so investors can buy small shares or tokens of an asset instead of meeting the high premium needs. This eases the entry barrier in traditional high-value markets such as private equity funds and other alternative assets restricted under the ambit of high-net-worth individuals,

demanding high capital commitments and prolonged retention periods.[20] Tokenization can convert this ownership stake into digital tokens of smaller denominations. This enables individual investors to participate in private equity value creation for the first time in a digitally native way. This fractionalization facilitates tokens to lower the per-unit investment and delivers liquidity via secondary trading, which acts as a significant interest for private equity, evading locking up capital for years. As per a report published by the Chartered Alternative Investment Analyst Association, fractional ownership via blockchain *"can facilitate investments by lowering entry barriers in certain markets, such as private equity and private debt."*[21] Given India's legal and regulatory challenges, advancing on this opportunity is narrowly accessible; however, sandbox initiatives are underway, and GIFT City's regulators are exploring the tokenized fund under controlled conditions.[22]

B. Risks of Unregulated Tokenization and Disintermediation

Given the regulatory challenges, the investors and market altogether are exposed to notable downsides, one of which stems from disintermediation, i.e., the reduced role of intermediaries such as banks, brokers, custodians, and auditors. Since the transaction occurs peer to peer on the blockchain, digital tokens, with the assistance of smart contracts, enforce rules by themselves, reducing the dependency on traditional institutions. This process has led to efficiency, but if not curtailed, it will eliminate safeguards facilitated by very

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[20] KPMG Assets, The Asset Tokenization C- Suite Playbook (*KPMG*, 2022)<https://assets.kpmg.com/content/dam/kpmg/sg/pdf/2024/02/kpmg-sfa-the-asset-tokenization-c-suite-playbook.pdf> accessed 12 May 2025.

[21] Chartered Alternative Investment Analyst Association, *Blockchain and the Future of Finance* (*CAIA* Association, 2022) <https://caia.org/research/blockchain-and-future-finance> accessed 12 May 2025.

[22] PIB, IFSCA introduces Framework for Regulatory Sandboxto tap into innovative FinTech solutions *(PIB*, 2023) <https://www.pib.gov.in/Pressreleaseshare.aspx?PRID=1665858> accessed on 12 May 2025.

traditional institutions. The following is an analysis of such risks. Below, we examine key risk factors when tokenized markets operate without adequate regulation:

1. LOSS OF TRADITIONAL INVESTOR PROTECTIONS:

In mainstream finance, intermediaries such as banks and custodians hold assets on behalf of investors with legal obligations and require capital to secure those assets. In addition, auditors and regulators extend eternal oversight by authenticating the assets and records as accurate and flagging any misconduct that might be there. Circumventing these intermediaries would lead to losing these core layers of protection and might pose risks such as fraud and misrepresentation. According to the International Financial Services Authority of India,[23] tokens issued without regulatory control would open the doors to issuer malfeasance or errors – to illustrate, a compromised system or deceitful issuer could issue illegitimate tokens not backed by any assets, leading to losses and eroding confidence.

2. FRAUD, SCAMS AND OPERATIONAL VULNERABILITIES:

To our dismay, the vast boom of tokenization, especially in the crypto arena, has been accompanied by numerous fraud cases and technical vulnerabilities. Fraudulent schemes such as fake token offerings and Ponzi schemes with unrealistic, high returns proliferate. Moreover, smart contracts governing tokenized assets are prone to harbor bugs and loopholes where the code has an anomaly, attackers can prey on it to steal funds or alter records. The past few years have affirmed the same, witnessing massive security

[23] Thakkar, Tokenization of Assets in IFSC: IFSCA's Proposed Legal Framework*, (Taxmann,*2022*)* < *https://www.taxmann.com/research/fema-banking-insurance/top-story/10501000000026878/tokenization-of-assets-in-ifsc-ifscas-proposed-legal-framework-experts-opinion> accessed on 12 May 2025.*

breaches on decentralized finance (DeFi) protocols and the crypto sector, with over $2 billion in losses reported in 2024 alone.[24]

3. ABSENCE OF GRIEVANCE REDRESSAL MECHANISMS:

Unlike traditional finance, a purely decentralized token market lacks a grievance redressal mechanism. A retail investor often finds himself without an institution accountable for a loss that occurred to him due to an unregulated entity defrauding him in a state of defraud by an unregulated token scheme. Additionally, the law enforcement agency would face an issue of jurisdiction. If the perpetrators are anonymous and lack the formal legal status of a token, it becomes muddled with what rights the investor even had. Moreover, the dispute over ownership and smart contract execution becomes complex. This gap is cognizant amongst regulators worldwide. International Financial Services Centres Authority (IFSCA) has clearly emphasized the need to impose standards of due diligence, disclosure and grievance redressal on the entities involved in the market.[25]

Concisely, disintermediation has reinvented tokenization but has also altered the risk dynamics. Without a level-headed oversight, investors will be at a continuously exposed risk of becoming susceptible to fraud or software bugs, with little or no hope of remedy. This would also result in the erosion of confidence in the market due to high-profile failures. Rather than being against the favorable use of tokenization, these concerns underscore the need for a

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[24] Editor, "*Category deep-dive: $2.2 billion was stolen in crypto-related hacks in 2024*" (*TRM Labs*, 2025) <https://cdn.prod.website-files.com/6082dc5b670562507b3587b4/67f7132b33d3535ca28a54a4_TRM_2025%20Crypto%20Crime%20Report.pdf> accessed on 12 May 2025.

[25] Financial Sector Conduct Authority, Regulation of Crypto Assets under the Financial Advisory and Intermediary Services Act (*FSCA*, 2021) 4 https://www.fsca.co.za accessed 12 May 2025.

robust regulatory approach ensuring a safe and sustainable bridging between traditional and new finance.

V. RECOMMENDATIONS

The tokenization of assets happens at both institutional and government levels. This shift would change the preface of the financial landscape. Adopting these measures is not widespread, but institutions with blockchain capabilities will have a strategic advantage.

A. Codify Security- Token Definitions and Jurisdiction

To eliminate the ambiguity and provide a clear regulatory approach toward tokenized assets, the SEBI Act,[26] 1992, should be amended to introduce an inclusive definition of "security token". The definition should encompass any digital representation of traditional financial instruments equity shares, corporate debt, government bonds or units of collective investment schemes that are made, recorded or transferred via a distributed ledger technology system. By doing this, market participants would get clarity that all would fall squarely under the SEBI's supervision. SEBI could develop rulebooks and publish adequacy norms for token issuers. It would also be useful in a single window for permitting token issuance and trading platforms under SEBI to avoid delays inherent in multi-system clearances.

B. Phased Licensing and Sandbox Approach

Tokenization is an emerging domain, and regulators may adopt a phased licensing approach, which would typically include stages such as a sandbox (testing phase), a restricted license (limited operations phase), and a full license (unrestricted phase), with progression contingent on meeting regulatory benchmarks.

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[26] Securities and Exchange Board of India Act 1992 (India).

1. REGULATORY SANDBOX PHASE:

This is the testing phase where the tokenization projects can operate within a regulatory sandbox, which could be defined as a controlled environment under regulatory oversight but with certain restrictions. This allows the innovators to test *products, services, or business models under regulatory supervision* without being overburdened by huge compliance requirements. Like the U.K.'s Digital Securities Sandbox (DSS) model,[27] India could also develop a model where the sandboxes cap the scales and run for a definite period. This would ultimately enable business learning on refining tech with real users and regulatory authorities to observe the technology in action and identify what risks need managing.

2. RESTRICTED OR CONDITIONAL LICENSE:

After proving itself in the sandbox phase, a sandbox platform will receive a restricted license to operate in a broader market but under specific constraints. For instance, if a platform has undergone the first phase, that platform might be allowed to offer tokenized assets but only to accredited or institutional investors, which would limit retail exposure during the nascent phase. The whole purpose of this phase comes down to the fact that one could continue observing the platform under real market conditions.

3. FULL LICENSE (EXPANDED PHASE):

In the last stage, the platform is granted a full license, akin to any other traditional financial market license. A full license would permit the firm to offer its services to the public. By this point, the regulatory framework for

[27] Sarah Breeden, "Digital Securities Sandbox (DSS)" (*Bank of England,* 2024) <https://www.bankofengland.co.uk/financial-stability/digital-securities-sandbox>accessed 12 May 2025.

tokenized assets would be fully applicable to the firm, meaning it must conduct business just as safely as any traditional market player. For example, even if tokenized assets are deemed securities, the platform might become a licensed broker-dealer or stock exchange alternative, with obligations to perform suitability checks, disclosure, market surveillance, etc.

This phased approach ensures that regulatory oversight keeps pace with innovation. It allows regulators to start very seemingly and cautiously and scale up with the risk mitigation measures. Ultimately, a phased licensing regime strives to strike a balance: encourage fintech innovation through sandboxes and gradual integration, but require that by the time the retail public is widely involved, the operators are fully vetted and accountable under the law.

C. Legal Recognition of Smart Contracts and Regulated Custody

The legal framework should recognize Smart contracts through the Indian Contract Act of 1872 and the Indian Evidence Act of 1872.It will also be imperative to institute a "Digital Custodian" regime under SEBI, authorizing only licensed custodians to hold underlying assets backing tokens. This framework would primarily segregate token-backed assets into bankruptcy-remote trusts, ensuring that these assets remain insulated from the issuer's financial distress. By maintaining real-time audit trails on a distributed ledger, every transaction can be transparently recorded and verified, while quarterly attestations submitted to SEBI would provide regulatory oversight and independent confirmation of asset integrity. Collectively, these measures safeguard token-holders against counterparty insolvency, enhance transparency, and ensure that the property rights associated with tokenized assets are legally enforceable.

D. Mandate Interoperability, Operational Resilience, and Investor Disclosures

It would also require a token platform to adopt common technical standards to ensure cross-chain interoperability and uniform regulatory reporting. Such imposition would mandate periodic independent security audits, penetration testing and reporting to regulators.[28] It is also mandated that token issuers publish a standardized "Token Prospectus" detailing the underlying asset custodian details and risk factors.[29] Along with the SEBI-IFSC investor-education portal, these measures will empower investors to make informed decisions and foster confidence in tokenized markets. Unless government intervention is effective and righteous, these changes would not fall in the right place. The legal recognition of tokens and smart contracts and the implementation of the sandbox phased approach would ultimately make India a pioneer in the growing market.

VI. CONCLUSION

For the past 3 decades, several business stakeholders have witnessed the transition from the offline model to an embracing digital platform employing cutting-edge technologies for better adaptability and extended market presence. This digital adaptation has transformed how a business operates and now necessitates modernizing conventional fundraising, i.e., securitization. Tokenization offers the required modernization, leveraging blockchain technology and furnishing an enhanced, transparent, accessible, and efficient

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[28] SEC, IoT-Enabled Tokenization of Physical Assets with Verifiable Physical Proof: A Comprehensive Regulatory and Technical Framework, (*SEC*, 2023) < https://www.sec.gov/files/ctf-written-input-daniel-bruno-corvelo-costa-092125.pdf> accessed 12 May 2025.

[29] Bitpanda, Capital Market Prospectus,(*Bitpanda*, 2022) <https://cdn.bitpanda.com/media/documents/securities/en-prospectus.pdf> accessed 12 May 2025.

fundraising mechanism to democratize investment opportunities. BlackRock, an American multinational investment management corporation, has already taken a first-mover advantage by launching its USD Institutional Digital Liquidity Fund (BUIDL) on the Ethereum blockchain.[30] This fund tokenizes shares of a money market fund, facilitating liquidity and equitable access for investors. It has already surmounted $1.87 billion in assets under management within three weeks of launch, showcasing an advancing institutional appetite for tokenized real-world assets. Analogously, JPMorgan launched a platform, '*Onyx*,' facilitating intraday repo transactions using blockchain, which has processed over $900 billion, exhibiting the scalability and portability of blockchain solutions in traditional finance.[31]

Nevertheless, the extensive tokenization application faces regulatory, legal, and operational challenges, requiring the development of a legal framework, compliance, and standard protocol for mainstream tokenized assets in mainstream finance. Whilst tokenization is not a panacea, its ability to address and fulfil the shortcomings of traditional securitization orients itself as an achievable bridge between financial markets and a broader investor base. By endorsing tokenization, the financial industry can transition into a more resilient and inclusive future.

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[30] Vicky Ge Huang, "BlackRock Launches First Tokenized Fund on Ethereum Blockchain" (*The Wall Street Journal*, 20 March, 2024)<https://www.wsj.com/livecoverage/fed-meeting-fomc-interest-rate-decision-march-2024/card/blackrock-launches-first-tokenized-fund-on-ethereum-blockchain-nzDSJjH5mEijUzKO24T4> accessed on 12 May 2025.

[31] Peter Gaffney, "Legacy Names, Modern Brands: Security Tokens"(*CAIA Association*, 23 February, 2024)<https://caia.org/blog/2024/02/23/legacy-names-modern-brands-security-tokens> accessed on 12 May 2025.