DIGITAL ASSETS AND THE LAW: A CROSS-JURISDICTIONAL ANALYSIS OF REGULATORY FRAMEWORKS

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ABSTRACT

Digital assets now sit at the intersection of private law, financial regulation, and public governance. Legislators and regulators face two recurring problems. First, market participants often describe functionally similar arrangements with inconsistent labels, and they describe functionally different arrangements with the same label. Second, conventional legal categories were built for tangible assets, intermediated securities, and account-based money, while many digital-asset systems allocate rights through software rules, cryptographic control, and network governance. This paper argues that durable regulation must start from legal substance rather than technology form, but it must also recognize that form affects custody, transfer, and enforcement. It synthesizes legal developments across leading jurisdictions and international standard setters. It also integrates contemporary private law reform efforts on property status, security interests, insolvency, and conflict of laws. The analysis proposes a structured approach that links a digital asset's rights profile, issuance model, and transfer mechanics to the relevant regulatory perimeter. It then compares how major economies regulate issuance, trading, custody, payments, stablecoins, and decentralized finance. Finally, it identifies cross-cutting themes, including the tension between innovation and market integrity, the operational fragility of socio-technical infrastructures, and fragmentation risks that invite regulatory arbitrage. The paper concludes with policy recommendations that aim to improve legal certainty while preserving adaptive capacity in a fast-moving market.

Introduction

Digital assets have moved from a niche technology phenomenon to an enduring feature of global capital markets and payment experimentation. The resulting legal problem is not simply that new assets appear. The deeper challenge is that digital assets frequently combine several legal relationships at once. A token can simultaneously function as a claim against an issuer, a governance right in a protocol, and an instrument traded on a secondary market. These overlapping features complicate classification, disclosure obligations, prudential controls, and insolvency outcomes. [1]

A foundational insight in modern scholarship is that a large share of digital assets represent familiar legal concepts in a new digital form. These instruments often embody rights that already exist in financial and commercial law, even if their technical implementation differs from legacy infrastructure. At the same time, some cryptoassets, especially those issued and transferred through open and permissionless networks without a formal issuer, strain existing legal categories and force legal systems to clarify whether and how "property" can exist in purely digital objects.

This paper adopts a functional approach. It treats "distributed ledger technology" ("**DLT**") as a technical architecture that may change transfer mechanics and custody risk, but not necessarily the underlying legal nature of the rights represented. It uses "digital asset" as an umbrella term for digital representations of value or rights that can be stored and transferred electronically. It uses "cryptoasset" to describe a subset of digital assets that depend on cryptography and DLT or similar technology, while recognizing that many regulators, legislators, and standard setters use these terms differently.[2]

The paper proceeds in four broad moves. It develops a definitional and analytic framework grounded in rights, representation, issuance, and transferability. It then analyzes private law foundations, including property status, secured transactions, insolvency, and conflict of laws. Third, it maps the public regulatory perimeter across conduct regulation, market infrastructure rules, prudential standards, financial crime controls, and tax and reporting regimes. Finally, it

[1] Jason G. Allen, Michel Rauchs, Apolline Blandin & Keith Bear, Legal and Regulatory Considerations for Digital Assets (Cambridge Ctr. for Alt. Fin. 2020).
[2] UK Jurisdiction Taskforce, Legal Statement on Cryptoassets and Smart Contracts (Nov. 2019)

compares major jurisdictions and draws cross-cutting themes and policy recommendations that aim for legal certainty, proportionality, and international coherence.[3]

Conceptual and Definitional Framing

A useful starting point is to separate substance from form. The form of a digital asset includes its technical representation and the system that records transfers. The substance includes the rights and obligations the asset confers and the legal relationships it creates. A share in a company remains a share whether recorded as a paper certificate, an entry in a central securities depository, or a token on a shared ledger. However, the digital form can materially affect how ownership is evidenced, how transfers become final, and which party bears responsibility for record integrity.

Many early regulatory taxonomies emphasized token categories such as payment, utility, and security tokens. These categories improved early regulatory communication, but they also created confusion where the same token migrates across functions over time, or where one token performs several functions at once. In response, a growing line of analysis argues that regulators should focus on the legal concept behind the digital asset and then determine the regulatory perimeter by reference to that underlying concept.[4]

A widely cited analytic approach uses four dimensions: rights, representation, issuance, and transferability. The "rights" dimension asks what the holder can legally demand or enforce. The "representation" dimension asks how the system expresses those rights and what the token stands for. The "issuance" dimension asks whether a formal issuer exists, and if so, which obligations attach to issuance and redemption. The "transferability" dimension asks how transfers occur, whether transfers are final, and whether the system supports good-faith acquisition and priority rules that commercial markets require.

From Terminology to Regulation: Defining the Core Concepts of Digital Assets

A "stablecoin" is not a single legal category. Standard setters note that the term is commonly used in markets but does not by itself guarantee value stability or a uniform legal treatment. A

[3] Law Commission of England and Wales, Digital Assets: Final Report (June 2023); supplemental report and draft bill materials (2024).
[4] FINMA, Guidelines for Enquiries Regarding the Regulatory Framework for Initial Coin Offerings (Feb. 16, 2018).

stablecoin arrangement can implicate payment regulation, deposit-like prudential requirements, securities or derivatives rules, and consumer protection rules, depending on how it maintains its peg and how holders obtain redemption rights.[5]

"Decentralised finance" ("**DeFi**") usually refers to financial services performed through smart contracts and decentralised protocols, often without traditional intermediaries.[6] Yet research from global standard setters increasingly emphasizes that DeFi commonly replicates the economic functions of traditional finance, even when it implements them through novel software and governance structures.[7] This functional equivalence supports the regulatory principle often described as "same activity, same risk, same regulation," while leaving open hard questions on who bears compliance obligations when governance is diffuse.[8]

"Virtual asset service provider" ("**VASP**") is a term used in global financial crime standards to identify persons or entities that conduct certain virtual-asset activities as a business, such as exchange, transfer, and custody.[9] "Crypto-asset service provider" ("**CASP**") is a related term used in European Union law to describe regulated service providers for crypto-asset markets. These definitions matter because they determine licensing triggers, supervisory jurisdiction, and the feasibility of rules such as the "Travel Rule," which requires identifying information to accompany transfers.[10]

Private Law Foundations for Digital-Asset Markets

Digital-asset regulation often concentrates on market integrity, consumer protection, and financial stability. Yet private law determines what the asset is, whether it is property, and what happens when disputes arise. Markets cannot function without predictable rules on ownership,

[5] Financial Stability Board, High-Level Recommendations for the Regulation, Supervision and Oversight of Crypto-Asset Activities and Markets (July 17, 2023).
[6] Financial Stability Board, High-Level Recommendations for the Regulation, Supervision and Oversight of Global Stablecoin Arrangements (July 17, 2023).
[7] Financial Stability Board, The Financial Stability Risks of Decentralised Finance (Feb. 16, 2023)
[8] International Organization of Securities Commissions, Policy Recommendations for Crypto and Digital Asset Markets (Nov. 16, 2023)
[9] Financial Action Task Force, Updated Guidance for a Risk-Based Approach to Virtual Assets and Virtual Asset Service Providers (Oct. 2021).
[10] European Banking Authority, MiCA implementation statements and MiCA-related materials, including definitions and applicability dates.

transfer, collateral, and insolvency distribution. This is why recent law reform efforts increasingly treat private law clarification as a precondition for sustainable regulation

Digital Assets as Property: The Emergence of the Control-Based Paradigm

Historically, many legal systems divided personal property into "things in possession" and "things in action." Digital assets often fit neither category neatly, especially where no issuer owes a claim and the asset exists as a digital object controlled through cryptographic keys. In response, English law has developed a line of reasoning that treats cryptoassets as property in principle, subject to standard doctrines such as tracing and remedies. The United Kingdom has since moved toward statutory confirmation that certain digital assets can constitute property.

The United Kingdom's reform trajectory illustrates the logic. The Law Commission of England and Wales published reform recommendations that support a third category of personal property that can accommodate digital objects. Subsequent developments culminated in the Property (Digital Assets etc.) Act 2025, which confirms that the law of England and Wales does not prevent digital assets from being objects of personal property rights merely because they do not fall into traditional categories.[11]

A parallel development in the United States focuses on the commercial consequences of "control." The Uniform Commercial Code ("**UCC**") amendments adopted in 2022 introduced a new Article 12 governing "controllable electronic records," and they link transfer and priority outcomes to a technology-neutral notion of control rather than physical possession.[12] This approach attempts to replicate negotiability-like features for certain digital assets, including take-free protections for qualifying purchasers.[13]

These reforms shift the key legal question from "Where is the asset?" to "Who can control it?" In digital-asset systems, control often maps onto the ability to use private keys or system permissions to transfer or exclude others. However, courts and legislators must still decide how to handle intermediary custody, multi-signature arrangements, and situations where the person with technical control differs from the person with the beneficial entitlement.

[11] United Kingdom, Property (Digital Assets etc.) Act 2025 (received Royal Assent Dec. 2, 2025)
[12] Uniform Law Commission, Uniform Commercial Code Amendments (2022) overview materials, including the introduction of Article 12 on controllable electronic records.
[13] New York, UCC Article 12 governing-law provision example (Section 12-107).

Tokenisation, Intermediated Securities, and Settlement Finality

"Tokenisation" often describes representing a conventional asset on a digital system. From a private law perspective, tokenisation is less a conceptual revolution and more a new medium for an old process: recording economically significant attributes so that market participants can trade the record rather than the underlying asset. Yet the new medium can reshape settlement and finality by changing who maintains the ledger and which rules govern error correction. If multiple parties jointly maintain a settlement layer, responsibility for integrity, governance, and operational resilience can become diffuse.[14]

Where tokenisation targets capital markets instruments, legal clarity requires answers to familiar questions in a new context. Which rule set governs transfer finality? Can a good-faith purchaser acquire free of adverse claims? What constitutes delivery? These questions cannot be answered solely by reference to software. Private law must specify whether the system's internal rules are legally effective against third parties and how they interact with mandatory rules on securities settlement and insolvency.

Countries have pursued different paths. Switzerland, for example, introduced "ledger-based securities" into its Code of Obligations, enabling certain rights to be created and transferred through a compliant securities ledger.[15] This approach aims to align tokenisation with existing securities concepts while offering statutory recognition of the ledger as the legally operative record.[16]

Secured Transactions, Collateral, and Insolvency

Digital assets now function as collateral in borrowing arrangements and structured finance. This raises priority disputes when multiple creditors claim the same asset or when an intermediary becomes insolvent. Legal systems must specify how a security interest attaches, how it is perfected, and how it ranks against competing claims. Article 12 of the amended UCC attempts to clarify perfection and priority by control for controllable electronic records, aligning collateral law with the operational logic of digital wallets and custody systems.

[14] EU-level materials on DLT market infrastructures and pilot regimes for tokenised financial instruments.
[15] Swiss DLT reforms introducing ledger-based securities under the Swiss Code of Obligations (with discussion of relevant provisions).
[16] Swiss DLT-related reforms addressing custody, segregation, and bankruptcy-related treatment of digital assets.

Insolvency highlights the practical stakes. If an exchange or custodian holds client assets, the legal system must decide whether clients hold proprietary claims that survive the insolvency, or merely contractual claims that fall into the general creditor pool. Jurisdictions have responded with different tools. Some provide statutory segregation or bankruptcy-remote structures for certain custody arrangements, while others rely on trust law, contractual segregation, or supervised custody rules. Switzerland's DLT legislative package includes changes that address segregation of crypto-based assets in bankruptcy, reflecting the view that private law reform is necessary for market confidence.

Conflict of Laws and Cross-Border Enforceability

Digital assets frequently circulate across borders by design. This produces conflict-of-laws questions about which jurisdiction's property law governs ownership, perfection, and priority. The difficulty is that digital tokens on decentralized systems lack an obvious physical location, and intermediaries, developers, and users may sit in multiple jurisdictions.

International initiatives increasingly address these issues. The Hague Conference on Private International Law ("**HCCH**") has launched work on digital tokens, recognizing that localization puzzles affect property law analysis and jurisdictional questions. The project reflects an emerging consensus that private international law must adapt, but it should do so through technology-neutral criteria rather than platform-specific rules.[17]

Domestic reforms also embed conflict-of-laws rules. UCC Article 12 includes governing-law provisions that attempt to supply a workable jurisdictional anchor for matters covered by Article 12 by referencing the controllable electronic record's designated jurisdiction or system rules. This approach attempts to reduce uncertainty in cross-border secured transactions and insolvency disputes.[18]

A related area concerns electronic trade documents, such as electronic bills of lading. The UNCITRAL Model Law on Electronic Transferable Records ("**MLETR**") enables legal recognition of electronic transferable records by using functional equivalence rules and a

[17] Hague Conference on Private International Law, Digital Tokens Project (private international law localisation and related issues).
[18] State-level enactment illustration of UCC Article 12 choice-of-law mechanics, including fallback concepts where relevant.

control-based concept to prevent duplication and support transfer.[19] Although MLETR is not a crypto-specific text, it provides a template for how legal systems can recognize electronic instruments in cross-border commerce without tying the law to any single technology.[20]

Public Law Regulation and the Regulatory Perimeter

Private law determines what the asset is. Public law determines which activities require licensing, what disclosures must be made, which safeguards must protect customers, and how authorities enforce market integrity and financial stability. Public law frameworks must also remain coherent across functions: issuance, trading, custody, payments, market abuse, prudential risk, and financial crime controls.

Financial Stability, Prudential Regulation, and the Institutional Perimeter

The last decade has seen repeated digital-asset boom-bust cycles, with spillovers into traditional finance through leveraged exposures, stablecoin runs, and interconnected intermediaries. International standard setters have responded with frameworks that encourage consistent domestic approaches.

The Financial Stability Board ("**FSB**") issued high-level recommendations for regulating and overseeing crypto-asset activities and markets. It emphasizes that regulators should apply requirements commensurate with risks and should strengthen cross-border cooperation to reduce regulatory arbitrage. The FSB also updated recommendations for global stablecoin arrangements, framing stablecoins as potential sources of payment disruption and market instability depending on scale and interconnections.

Bank prudential regulation has followed. The Basel Committee on Banking Supervision ("**BCBS**") finalized a prudential framework for banks' cryptoassets exposures and later issued targeted amendments, with an implementation date that BCBS communications set at 1 January 2026.[21] The framework distinguishes between tokenized traditional assets and other categories of cryptoassets, applying conservative capital treatment to higher-risk exposures and requiring

[19] United Nations Commission on International Trade Law, Model Law on Electronic Transferable Records (2017) (functional equivalence and cross-border use).
[20] UNCITRAL status and explanatory materials on MLETR enactments and cross-border recognition context.
[21] Basel Committee on Banking Supervision, press releases and final amended prudential standard materials setting implementation for 1 Jan. 2026.

disclosures to improve market discipline.[22]

These prudential standards do not regulate the issuance of stablecoins or tokens. They govern bank exposures, risk management, and disclosures. Yet they indirectly shape the market by deciding whether banks can hold, custody, lend against, or market certain digital-asset exposures at scale.

Market Conduct, Disclosure, and Market Integrity Considerations

Digital-asset markets present a range of market integrity considerations that resemble those observed in traditional financial markets, including potential conflicts of interest, governance opacity, trading practices, information asymmetries, and fraud-related risks. In response, some regulatory authorities have explored the application or adaptation of existing securities market conduct frameworks to digital-asset intermediaries and trading platforms.

The International Organization of Securities Commissions ("**IOSCO**") has issued policy recommendations for crypto and digital-asset markets that address areas such as governance, conflicts of interest, custody, disclosures, and cross-border regulatory coordination. These recommendations reflect an effort to promote consistency in regulatory outcomes where comparable risks arise, irrespective of whether activities involve traditional financial instruments or digital assets.[23]

In the context of decentralized finance ("DeFi"), IOSCO's work highlights the importance of identifying participants who may exercise control or exert meaningful influence over a given arrangement. This perspective acknowledges the technical role of automated systems while considering the extent to which human actors remain relevant for purposes of regulatory oversight. It also reflects an ongoing discussion regarding how responsibility should be attributed in systems characterized by varying degrees of decentralization.[24]

Securities, Commodities, and Payment Regulation

The classification boundary between securities, commodities, and payments remains a central regulatory fault line. In the United States, federal securities law often turns on whether a token

[22] Basel Framework chapter on cryptoasset exposures (SCO60), noting effective date information and updates.
[23] IOSCO implementation review materials emphasizing consistency, enforcement, and cross-border cooperation.
[24] IOSCO, Policy Recommendations for Decentralized Finance (Dec. 2023).

transaction constitutes an "investment contract" under the Howey test. The U.S. Securities and Exchange Commission ("**SEC**") historically relied on fact-specific Howey analysis, and in March 2026 it issued an interpretive release clarifying how federal securities laws apply to certain crypto assets and transactions, including the concept that some crypto assets initially sold as part of an investment contract may later separate from that investment contract once issuer promises are fulfilled.[25] This interpretive approach attempts to address a common market dispute: whether secondary market trading remains subject to securities law when the economic realities change over time.[26]

By contrast, the U.S. Commodity Futures Trading Commission ("**CFTC**") has treated certain virtual currencies as commodities for purposes of its jurisdiction, particularly in derivatives markets, and it has asserted enforcement authority in cases involving commodity options and fraud. The Coinflip order is frequently cited as an early articulation that virtual currencies such as Bitcoin can fall within the Commodity Exchange Act's broad definition of commodity.[27]

Payment regulation often focuses on stablecoins and custody. Stablecoins can resemble e-money or deposit-like instruments where holders expect par redemption and low volatility. But they can also embed investment risk, governance risk, and redemption fragility. This dual character explains why stablecoin regulation often blends payment law, prudential safeguards, and disclosure requirements.

Financial Crime, Sanctions, and the Information Architecture of Compliance

Anti-money laundering and counter-terrorist financing ("**AML/CFT**") law has become one of the most internationally coordinated domains in digital-asset regulation. FATF's risk-based guidance requires jurisdictions to assess and mitigate risks, to license or register VASPs, and to subject them to supervision. FATF also clarifies that VASPs must comply with obligations similar to those applied to financial institutions, including customer due diligence and suspicious transaction reporting. This guidance frames VASP status as a functional concept

[25] U.S. Securities and Exchange Commission, interpretive release and related SEC statements on application of federal securities laws to crypto assets (Mar. 2026).
[26] SEC 2019 staff framework and subsequent developments indicating supersession by later interpretive action.
[27] Commodity Futures Trading Commission, In re Coinflip, Inc. order (Sept. 17, 2015) (virtual currencies as commodities).

based on activity, not on marketing labels or underlying technology.[28]

The "Travel Rule" extends wire-transfer style information requirements to virtual-asset transfers. This rule forces the market to develop interoperability standards and governance structures for transmitting originator and beneficiary information. It also creates friction with data protection laws, cross-border data transfer rules, and privacy expectations, demanding careful legal design to balance traceability with lawful processing.

The United States' approach illustrates the layered nature of financial crime regulation. FinCEN has issued guidance on how entities administering, exchanging, or using virtual currencies can fall within the Bank Secrecy Act framework, including money transmission obligations for certain exchange and transfer business models. [29] FinCEN later consolidated and expanded interpretive guidance for convertible virtual currency business models.[30]

Sanctions enforcement adds a further layer.[31] The U.S. Office of Foreign Assets Control ("**OFAC**") has issued sanctions compliance guidance tailored to the virtual currency industry, emphasizing risk-based compliance programs, screening, and controls that address the speed and pseudonymity of virtual-asset movement.[32]

Europe has embedded financial crime controls directly into its evolving digital-asset regime. The EU Transfer of Funds Regulation extends AML traceability rules to transfers of cryptoassets by CASPs, aiming to improve traceability and reduce abuse by aligning crypto transfers with wire transfer controls.[33]

Taxation, Accounting, and Reporting

Tax treatment shapes market behavior because it determines gain recognition, reporting obligations, and enforcement feasibility. In the United States, IRS Notice 2014-21 treats convertible virtual currency as property for federal tax purposes, applying general property

[28] FATF targeted update materials reflecting implementation trends and coverage questions for NFTs and DeFi-adjacent issues.
[29] Financial Crimes Enforcement Network, FIN-2013-G001 guidance on virtual currency activities under the Bank Secrecy Act framework.
[30] FinCEN, FIN-2019-G001 consolidated interpretive guidance on convertible virtual currency business models.
[31] Office of Foreign Assets Control, Sanctions Compliance Guidance for the Virtual Currency Industry (Oct. 2021).
[32] OFAC related publication announcement describing the guidance's role and compliance best practices.
[33] EU-level Travel Rule implementation references describing traceability requirements for transfers of cryptoassets by service providers.

transaction principles.[34] In recent years, the United States has expanded information reporting obligations for digital assets, including broker reporting rules that require reporting on dispositions beginning with transactions on or after January 01, 2025, supported by IRS guidance and related Treasury communications.[35]

Internationally, tax transparency initiatives now target the visibility gap created by cross-border crypto transfers. The OECD developed the Crypto-Asset Reporting Framework ("**CARF**") and related amendments to the Common Reporting Standard, aiming to enable automatic exchange of information on crypto-asset transactions between tax authorities.[36] Within the European Union, DAC8 extends administrative cooperation to crypto-asset reporting and exchange between EU countries, aligning the EU framework with global tax transparency efforts.[37]

Accounting treatment also matters because it shapes balance sheets, capital calculations, and investor understanding. Under IFRS Accounting Standards, the IFRS Interpretations Committee concluded that holdings of cryptocurrencies generally meet the definition of an intangible asset under IAS 38, and that IAS 2 applies when cryptocurrencies are held for sale in the ordinary course of business. This approach reflects the absence of a dedicated IFRS standard for crypto holdings and the need to apply existing definitions carefully.[38]

Under U.S. GAAP, the Financial Accounting Standards Board ("**FASB**") issued Accounting Standards Update 2023-08, requiring in-scope crypto assets to be measured at fair value with changes recognized in net income, replacing the prior cost-less impairment model for many entities. This reform aims to provide more decision-useful information and to align reported values more closely with observable market prices where available.[39]

Comparative Jurisdictional Approaches in Leading Markets

Jurisdictions increasingly converge on functional goals: protect consumers, reduce market

[34] Internal Revenue Service, Notice 2014-21 (virtual currency treated as property for U.S. federal tax purposes).
[35] IRS guidance on broker reporting for sales and exchanges of digital assets and planned Form 1099-DA reporting starting with 2025 transactions.
[36] Organisation for Economic Co-operation and Development, CARF rules and implementation materials, including guidance on first exchanges beginning in 2027.
[37] European Commission, DAC8 overview and exchange-of-information framing for crypto-assets across EU Member States.
[38] IFRS Interpretations Committee, agenda decision on holdings of cryptocurrencies (June 2019) applying IAS 2 and IAS 38.
[39] Financial Accounting Standards Board, Accounting Standards Update 2023-08 (crypto assets fair value measurement and disclosures).

manipulation, control systemic risk, and prevent illicit finance. They still diverge in institutional design, licensing models, and legal classification. The following survey selects approaches that materially influence global market structure.

European Union

The European Union's Markets in Crypto-Assets Regulation ("**MiCA**") represents a comprehensive, harmonized framework for crypto-asset issuance and service provision in the EU. MiCA defines crypto-assets as digital representations of value or rights that can be transferred and stored electronically using DLT or similar technology, and it creates regulatory regimes for issuers and service providers, including specific treatment for asset-referenced tokens and e-money tokens. Regulatory authorities have described phased applicability, with certain stablecoin-related provisions applying from June 30, 2024 and broader service-provider provisions applying from December 30, 2024.[40]

The EU's AML traceability framework complements MiCA. The Transfer of Funds Regulation extends traceability requirements to transfers of cryptoassets, aiming to improve law enforcement visibility and to reduce the misuse of crypto transfers for money laundering and terrorist financing. This alignment operationalizes the Travel Rule concept within the EU legal framework.

United States

The United States continues to regulate digital assets through a mix of federal securities law, commodities law, money transmission regulation, and state licensing regimes. A central feature is the continuing role of the Howey investment contract test in securities classification. The SEC's March 2026 interpretive release clarifies its view on how federal securities laws apply to certain crypto assets and includes guidance on how an investment contract relationship may end, potentially changing how some assets are treated after network maturation and fulfillment of issuer promises.

The CFTC has asserted that certain virtual currencies constitute commodities and has taken enforcement actions in derivatives contexts. This dual-agency landscape creates persistent

[40] EU supervisory authorities' consumer risk warnings referencing MiCA phases and definitions.

boundary disputes and compliance complexity for intermediaries that offer spot trading, derivatives, lending, or staking-like products.

For financial crime compliance, FinCEN's guidance anchors U.S. federal AML obligations for many crypto intermediaries by classifying certain activities as money transmission and requiring registration and compliance with Bank Secrecy Act measures. OFAC supplements this through sanctions compliance expectations tailored to virtual currency business models.

Tax law has increasingly become an enforcement lever through information reporting. IRS and Treasury communications on broker reporting for digital assets aim to extend information reporting to transactions beginning in 2025, with administrative tooling such as Form 1099-DA supporting compliance.

United Kingdom

The United Kingdom has pursued a distinctive strategy that combines private law reform, regulatory perimeter expansion, and market competitiveness goals. The UKJT's legal statement on cryptoassets and smart contracts supported the view that cryptoassets can constitute property under English law in principle, and that smart contracts can be legally enforceable. This statement influenced broader legal development and reduced uncertainty for market participants.[41]

The Law Commission's reform process culminated in the Property (Digital Assets etc.) Act 2025, which confirms that digital assets can be objects of personal property rights. This statutory clarification aims to enable courts to develop nuanced rules for custody, collateral, and transfer without being blocked by outdated categorical constraints.[42]

Switzerland

Switzerland's approach combines clear token classification guidance, targeted private law amendments, and licensing innovations. FINMA's ICO guidance distinguished payment tokens, utility tokens, and asset tokens, and it recognized hybrid tokens where multiple classifications apply. This guidance provides a functional approach that ties regulatory

[41] UKJT-related commentary on the legal status of cryptoassets as property and enforceability of smart contracts in principle.
[42] UK government description of the Property (Digital Assets etc) legislation's purpose and effect.

treatment to economic characteristics rather than the mere use of blockchain terminology.[43]

In private and commercial law, Switzerland's DLT reforms introduced ledger-based securities, enabling certain rights to be created and transferred through legally compliant securities ledgers. These reforms aim to support tokenized capital markets instruments and to improve certainty around transfer and custody. Switzerland also adjusted insolvency-related rules in its DLT legislative package, reflecting the view that bankruptcy outcomes must be predictable for custody models to be credible.

Singapore

Singapore has combined licensing under payments regulation with targeted stablecoin regulation. The Monetary Authority of Singapore ("**MAS**") finalized a stablecoin regulatory framework that applies to single-currency stablecoins pegged to the Singapore Dollar or a G10 currency and issued in Singapore.[44] MAS described requirements concerning reserve backing, redemption at par, and disclosures, reflecting a policy focus on value stability and consumer confidence in payment-like stablecoins.[45]

Singapore also provides a relevant reference point for cross-border trade digitization, given its engagement with electronic transferable records and trade document digitization initiatives. While these efforts are not limited to cryptoassets, they show how jurisdictions can modernize commercial law to support electronic instruments in cross-border commerce.

Hong Kong

Hong Kong has pursued a licensing regime for virtual asset trading platforms through regulatory reforms that require centralized trading platforms to obtain licenses, with transitional arrangements for pre-existing platforms. The Securities and Futures Commission ("**SFC**") has issued circulars detailing the implementation of the new regime and expectations for compliance and licensing timelines, reflecting a move toward stricter gatekeeping and investor protection.[46]

[43] FINMA guidance and related FINMA materials describing token categories and hybrid token treatment.
[44] Monetary Authority of Singapore, media release on MAS stablecoin regulatory framework for single-currency stablecoins (Aug. 15, 2023).
[45] BIS FSI brief noting MAS stablecoin framework structure and jurisdictional positioning.
[46] Securities and Futures Commission, circular on implementation of the virtual asset trading platform licensing regime and transitional arrangements (effective June 2023).

Japan

Japan has historically regulated crypto-asset exchange services and has strengthened its framework following high-profile exchange incidents. It has also established a legal framework for stablecoins through amendments to its Payment Services Act, with commentary indicating that the stablecoin regime took effect in 2023. Japan's approach tends to emphasize consumer protection, licensing controls, and conservative institutional eligibility for issuance and handling of certain stablecoin-like instruments.[47]

South Korea

South Korea's Virtual Asset User Protection Act entered into effect in July 2024 after legislative enactment in 2023. Official government communications describe the law as covering user asset protection, unfair trading practices, supervisory authority for regulators, and sanctions powers against virtual asset service providers.[48] South Korea's approach illustrates the increasing use of dedicated virtual-asset legislation that targets investor protection and market integrity rather than relying solely on general financial law categories.[49]

United Arab Emirates

The United Arab Emirates has developed a multi-center regulatory landscape, with different financial free zones and emirate-level regulators. Dubai established the Virtual Assets Regulatory Authority through Law No. 4 of 2022, positioning VARA as the authority regulating virtual assets across Dubai's jurisdictions outside the Dubai International Financial Centre.[50] VARA later issued Virtual Assets and Related Activities Regulations, building a licensing and supervisory system designed for a wide range of virtual-asset activities.[51]

Abu Dhabi Global Market has developed a virtual asset framework administered by its Financial Services Regulatory Authority. This framework includes guidance for regulated

[47] Japan stablecoin regulatory reforms under the Payment Services Act amendments (enactment and expected entry into force timeline described in legal commentary).
[48] South Korea, Financial Services Commission press release on implementation of the Virtual Asset User Protection Act (effective July 2024).
[49] Korean statutory text translation reference for the Act on the Protection of Virtual Asset Users (Act No. 19563, July 18, 2023).
[50] Virtual Assets Regulatory Authority, Law No. 4 of 2022 Regulating Virtual Assets in the Emirate of Dubai (scope statement and authority description).
[51] VARA rulebook materials describing Virtual Assets and Related Activities Regulations 2023.

virtual asset activities and consultative updates addressing emerging issues such as staking. The UAE example demonstrates how jurisdictions can compete on regulatory clarity while maintaining gatekeeping and financial crime controls.[52]

Canada, Australia, Brazil, and India

Canada's approach relies heavily on securities regulators coordinating through the Canadian Securities Administrators. CSA Staff Notice 21-332 sets expectations for crypto-asset trading platforms, including pre-registration undertakings for platforms operating while pursuing registration, reflecting an investor protection strategy focused on platform conduct and risk management controls.[53]

Australia has pursued a licensing and regulatory reform agenda through Treasury consultations on regulating digital asset platforms and related intermediaries. Official consultation materials reflect an intention to regulate digital asset platforms within or alongside existing financial services licensing structures to address consumer harms while supporting innovation.[54]

Brazil enacted Law No. 14.478/2022, creating guidelines for virtual asset services and regulation of virtual asset service providers.[55] Subsequent steps include central bank communications and regulations detailing authorization and oversight approaches for providers in the Brazilian market.[56]

India presents an evolving example of regulatory development and policy debate in the context of digital assets. The Supreme Court of India set aside an earlier circular issued by the Reserve Bank of India that had restricted regulated entities from providing services to virtual currency businesses. The judgment engaged with principles of proportionality in assessing the regulatory measure, while leaving broader questions relating to the long-term legal and regulatory framework for digital assets open for further development.[57] India has introduced taxation

[52] Abu Dhabi Global Market materials describing virtual asset framework, including public consultation items and framework overviews.
[53] Canadian Securities Administrators, CSA Staff Notice 21-332 on crypto-asset trading platforms and pre-registration undertakings.
[54] Australia, Treasury consultation on regulating digital asset platforms (Oct. 2023).
[55] Brazil, Law No. 14.478/2022 (guidelines for virtual asset services and regulation of VASPs).
[56] Central Bank of Brazil communications on rules and authorization processes for virtual asset services (Nov. 2025).
[57] India, Internet and Mobile Association of India v. Reserve Bank of India (Supreme Court of India, Mar. 4, 2020) (judgment materials and summaries).

measures alongside ongoing policy developments in the digital-asset space. At present, its regulatory approach reflects a combination of these elements rather than a single, consolidated statutory framework comparable to comprehensive regimes such as the Markets in Crypto-Assets regulation.[58]

Cross-Cutting Themes and Policy Recommendations

The comparative survey reveals common themes that recur across jurisdictions with otherwise divergent histories.

First, definitional clarity remains a central policy artifact. Vague categories invite arbitrage and inconsistent enforcement. Functional definitions anchored in rights and activities produce more durable regulatory outcomes than technology-centric labels. FATF's functional VASP concept and the EU's MiCA definitions exemplify this direction, even if implementation varies.

Second, private law and regulatory clarity are mutually reinforcing. Licensing regimes cannot fully protect customers if private law does not clearly specify whether client assets remain proprietary in custodial insolvencies. Conversely, private law reforms may not deliver market integrity without conduct and disclosure regulation. This is why reform efforts in England and Wales, the United States (UCC Article 12), and UNIDROIT's principles converge on clarifying property status, transfer rules, and secured transaction outcomes.

Third, socio-technical governance is a regulatory object in its own right. Digital-asset systems embed rules in code, but they also depend on developer teams, governance tokens, validators, custodians, oracles, and centralized interfaces. Regulators increasingly treat governance structures, conflicts, and operational resilience as part of the regulated activity, not as externalities. IOSCO's DeFi recommendations and the FSB's analysis of DeFi vulnerabilities support this shift.

Fourth, stablecoins have become the test case for regulatory integration. Stablecoin frameworks increasingly combine reserve quality requirements, redemption rights, governance standards, and financial crime controls. BCBS prudential standards treat stablecoin exposures differently depending on their stabilization mechanisms and reserve arrangements, while MiCA and MAS

[58] Commentary on proportionality reasoning and practical effect of the RBI circular set-aside decision.

regulate issuers and impose stablecoin-specific safeguards.

Fifth, cross-border enforcement drives convergence pressures. Rules on market abuse, AML/CFT compliance, and taxation require interoperability and cooperation. Travel Rule obligations and CARF reporting obligations illustrate that digital-asset compliance increasingly depends on global data standards and coordinated supervisory practices, not only on domestic licensing.

Conclusion

Regulators should adopt a rights-based classification process that begins with the legal concept represented, continues with an analysis of issuance and redemption obligations, and ends with an assessment of transfer and custody mechanics. This approach reduces the risk that functionally equivalent activities receive inconsistent rules simply because developers used different technical rails.

Legislators should modernize private law to treat qualifying digital assets as objects of property rights, and they should specify priority, good-faith acquisition rules, and insolvency segregation outcomes for custodial business models. The UK's 2025 Act and UCC Article 12 provide models for targeted statutory clarification that preserves room for doctrinal evolution.

Supervisors should prioritize governance and operational resilience requirements for intermediaries that serve as practical choke points, including custodians, exchanges, stablecoin issuers, and key protocol controllers. Even in DeFi contexts, regulatory strategies should focus on identifiable persons who exercise control or significant influence over protocol functions, rather than assuming that decentralization eliminates regulatory targets.

Finally, national authorities should invest in cross-border coordination mechanisms and harmonized data standards that make compliance feasible. Travel Rule interoperability and CARF reporting illustrate that poorly coordinated standards can increase compliance costs while yielding limited enforcement benefits. Effective cooperation requires shared expectations on identity standards, data protection, auditability, and supervisory collaboration frameworks.