

Paving the Path for Crypto Clarity: A Framework for Digital Asset Regulatory Structure

Discussion Draft

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Abstract

The rapid growth of digital assets presents both unprecedented opportunities and significant regulatory challenges, necessitating a thoughtful and comprehensive legal framework. Paving the Path for Crypto Clarity: A Framework for Digital Asset Regulatory Structure proposes a structured approach to creating a regulatory regime that encourages innovation while ensuring reasonable consumer protection and accountability. Our approach is structured as a thorough assessment of the market, its components, participants, design, and infrastructure, as well as the roles, interconnectedness, risks, and other significant factors related to each.

In creating the framework we first considered existing classes for traditional assets, and identified how those classes are defined and how their respective assets are grouped. We then applied a similar grouping logic to develop a methodology to define and group digital assets into classes. Specifically, we identified many of the most common types of digital assets, as well as their defining characteristics, remaining mindful that innovation is ongoing. For each digital asset type, we evaluated its particular qualities and the risk/return profile to determine, as a preliminary matter, whether it should be subject to regulatory oversight and, if so, what issues regulations would likely address. We also identified significant categories of market participants and their respective roles, and considered potential risks and concerns related to these roles, particularly in the context of the current market structure.

The framework ultimately recognizes twelve broad digital asset classes and identifies which digital assets fit within each class. The digital asset classes are compared to existing asset classes, entities, and activities to identify potential suitable regulatory authorities. Such classification and assessment provides an overall system to analyze and determine the appropriate legal and regulatory regimes to apply to the market as a whole and to its components.

Throughout this paper, we emphasize the need for clarity in the classification of assets in order to ensure fair market practice and mitigate systemic risk. We also identify and integrate foundational regulatory principles—including transparency, protection, adaptability, due process, and proportionality to guide the crafting or amending of regulation. The framework also integrates lessons from traditional corporate governance while acknowledging the distinct decentralized, transparent, and peer-to-peer nature of Digital Ledger Technology (“DLT”) networks. We analyze DLT networks as an emerging business structure contrasting it with traditional corporate structure and identifying characteristics and incentives that shape its governance.

Inspired by Justice Louis Brandeis’s advocacy for transparency and accountability, the framework highlights disclosure as a powerful regulatory tool. As Brandeis famously observed, “Publicity is justly commended as a remedy for social and industrial diseases. Sunlight is said to be the best of disinfectants; electric light the most efficient policeman.”ⁱ However, in the digital era, excessive disclosure can be counterproductive. As former SEC Commissioner Troy Paredes cautions, “Sunlight can also be blinding.”ⁱⁱ While transparency is essential, an overload of unstructured or excessive information can obscure meaningful insights, hindering consumer protection and regulatory effectiveness. The framework seeks to strike a balance, ensuring transparency while preventing information saturation that could undermine oversight and informed decision-making.

The framework advocates for adaptive, forward-thinking regulation that balances innovation and responsibility. By encouraging collaboration among regulators, industry participants, and policymakers, the framework seeks to foster market stability, consumer protection, and the growth of a dynamic digital asset ecosystem.

The paper invites feedback and collaboration to further refine this evolving blueprint into a functioning regulatory landscape for digital assets that is effective, practical, and adaptable to the fast-paced evolution of technology.

ⁱ Louis D. Brandeis, *Other People's Money and How the Bankers Use It*, New York: Frederick A. Stokes Company, at 92 (1914).

ⁱⁱ Troy A. Paredes, *Blinded by the Light: Information Overload and Its Consequences for Securities Regulation*, *Washington University Law Quarterly*, Vol. 81, No. 2, at 417-85 (2003).

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Exhibit 1: Proposed Digital Asset Classification Chart

Exhibit 2: Proposed Market Participant Chart

Paving the Path for Crypto Clarity: A Framework for Digital Asset Regulatory Structure

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I. Introduction¹

The rapid evolution of Distributed Ledger Technology (“DLT”) and associated digital assets presents both an unprecedented opportunity and a profound challenge for policymakers worldwide. Cryptocurrencies, stablecoins, decentralized finance (“DeFi”), and other types of digital assets are fundamentally reshaping financial systems, commerce, and the global economy. Regulating this dynamic industry is inherently multidisciplinary, requiring seamless coordination across regulatory agencies and the executive and legislative branches. This burgeoning industry intersects with and is shaped by numerous areas of law, requiring a unified and coordinated regulatory framework capable of fostering innovation while providing pragmatic safeguards to protect consumers.

In President Trump’s Administration, the regulatory approach is no longer confined to patchwork solutions and artificial boundaries. This Framework for Digital Asset Regulatory Structure provides a structured approach to create a regulatory regime for digital assets and a methodology to determine how digital assets should be categorized and treated from a legal and regulatory perspective. This framework is designed to be forward-thinking and anticipate the future of technology, considering not-yet-emerged products and assets, rather than merely trying to catch up with current developments.

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¹ This framework was shaped through extensive discussions and collaboration with industry participants, thought leaders, legal experts in various areas of law, and technology visionaries. “Crypto” as used herein is a noun that is synonymous with the digital assets associated with DLT.

This blueprint is useful for a U.S. framework, as well as frameworks globally. While the terminology may differ among countries, we encourage countries and international organizations to apply consistent principles, to the extent possible, to these borderless assets and markets.

We welcome insights and feedback as we continue to refine and enhance this framework, and we look forward to continued collaboration on its further development.

II. DLT Networks As A New Business Form

When considering appropriate regulatory frameworks, the overall context of what is being regulated is important. In this case, digital assets are not stand-alone instruments but are integral to DLT networks—they operate together.² The differing rights and obligations represented by these assets are inherently tied to their respective DLT networks and associated ecosystems. As DLT evolves, its applications and governance structures continue to expand, reshaping economic activity, governance, and value exchange.

This transformation extends beyond a structural shift; DLT networks redefine how trust, ownership, and economic coordination function. They challenge traditional business models, financial systems, and governance structures, necessitating a reexamination of regulatory approaches. DLT and Web3 technologies are working to solve longstanding challenges related to trust, privacy, efficiency, centralization, financial inclusion, and more by enabling decentralized and secure solutions across various industries. These technologies are reshaping the way individuals and organizations interact with data, assets, and services. These solutions should be understood within the broader context of our current era—the Fourth Industrial Revolution—a period of rapid technological advancements encompassing artificial intelligence (“AI”), blockchain and other DLT networks, quantum computing, and biotechnology.³ Just as previous industrial revolutions reshaped industries through mechanization, electrification, and digital computing, today’s technological innovations are transforming financial markets, corporate governance, and societal structures at an unprecedented pace. Accordingly, DLT networks and digital assets should be analyzed within this broader technological shift, recognizing that they will continue to evolve and redefine economic paradigms.

² DLT is an overarching term that encompasses various technologies, including blockchain, Directed Acyclic Graph (“DAG”), Hashgraph, and Holochain. *See Distributed Ledger Technology (DLT)*, Legal Information Institute, Cornell Law School (explaining and distinguishing various DLTs), https://www.law.cornell.edu/wex/distributed_ledger_technology_%28dlt%29; *see also* RSM US LLP, *Blockchain and the Island of Yap*, <https://rsmus.com/insights/industries/financial-services/blockchain-and-the-island-of-yap.html> (describing the first distributed ledger system).

³ See Klaus Schwab, *The Fourth Industrial Revolution: What It Means, How to Respond*, World Econ. F. (Jan. 14, 2016), <https://www.weforum.org/stories/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond/>; *see also* United Arab Emirates Gov’t, *The UAE Strategy for the Fourth Industrial Revolution*, UAE, <https://u.ae/en/about-the-uae/strategies-initiatives-and-awards/strategies-plans-and-visions/government-services-and-digital-transformation/the-uae-strategy-for-the-fourth-industrial-revolution>.

A. DLT Networks As Economic And Governance Structures

As DLT networks facilitate economic activity and commercial transactions, they are increasingly integrating with—or in some cases, replacing—traditional business models. In some respects, they resemble corporate entities by performing similar roles in resource allocation, value creation, and governance. Many DLT networks implement formalized governance mechanisms, such as token-holder voting and delegated decision-making, akin to corporate board structures. However, DLT-based ecosystems differ significantly from traditional corporate structures in several ways:

- **Decentralization:** DLT networks operate on a spectrum of decentralization, often dispersing control among a distributed network rather than centralizing it within a corporate hierarchy.
- **Permissionless versus Permissioned Access:** While some DLT networks are open and permissionless, allowing anyone to participate, others impose access restrictions akin to corporate or financial gatekeeping.
- **Transparency and Pseudonymity:** Transactions on DLT networks are typically transparent and auditable, yet participants often remain pseudonymous.
- **Distributed Consensus:** Governance in DLT networks is executed through decentralized consensus mechanisms rather than hierarchical corporate oversight.
- **Automation and Smart Contracts:** Smart contracts enable automated enforcement of agreements, shifting governance functions from individuals to code.

There are a variety of DLT networks and governance structures, including direct token-holder participation and delegated authority models. This decentralization of control echoes historical shifts in corporate governance and legal theory.

B. Parallels Between DLT Networks And The Evolution Of Corporate Structures

It may be that DLT enables separating rights that previously were bundled and granting new rights. This would not be the first time that previously bundled rights have been separated in a way that challenged traditional theories. The evolution of the corporate structure likewise challenged conventional logic, particularly with regard to ownership, control, and property. Originally, a natural person and their business were not separate, which is significant when the liability of the person owning and managing the business cannot be detached from the business itself. The incentives of the owner, controller, and accountable person were fully aligned (in the same person or group). As businesses evolved into separate entities from their owners and managers, the dynamics and incentive structure changed. The fundamental theory of corporate law is “the establishment of a *form* of doing business; i.e., the creation of an artificial entity, the conferring upon it of such powers as are necessary to give it proper business efficiency, while placing upon it such restrictions as will properly safeguard the interests of those peculiarly concerned in the

corporation, as well as the public.”⁴ Juxtaposing this structure to DLT, the entities that create DLT networks are similar artificial entities in that they are legal constructs, state-registered entities, and/or state-licensed businesses, but the networks themselves often operate autonomously without formal incorporation. A DLT network’s governance structure may be a separate entity (e.g., a decentralized autonomous organization (“DAO”)), which may be a recognized legal entity or a type of association, depending on the developing applicable law.

DLT’s democratization and distribution of control over enterprises may be viewed as separating rights and obligations that have historically been united. The corporate form has undergone significant transformations, particularly regarding the separation of ownership and control.⁵ Corporations first developed as “groups of investors pooling their individual contributions of risk capital to organize and carry on an enterprise”—the same individuals both owned and controlled the enterprise.⁶ When ownership of the corporation (represented by stock) was separated from control (management of the enterprise), “the two attributes of ownership-risking collective wealth in profit-seeking enterprise and ultimate management of responsibility for that enterprise[. . .]had become divorced.”⁷ These changes to incentives, rights, and obligations called for a “new form of economic organization of society.”⁸ New questions had to be answered, such as whether an owner who relinquishes control of their wealth should still retain all the benefits derived from it, or if their interest in the wealth changes as a result of the relinquishment.⁹

Similar to the evolution of the business structures and the corporate form, DLT networks enable new forms of economic organization that challenge aspects of conventional notions of ownership, control, and property.

C. The Transformation Of Property, Ownership, And Control

The evolution of the corporate structure led to changes in property relationships, distinguishing between:

1. **Passive Property:** “a set of relationships between an individual and an enterprise, involving rights of the individual toward the enterprise but almost no effective powers over it”; and

⁴ U.S. House of Representatives. *Report of the Commissioner of Corporations*, 58th Congress, 3d Session, Document No. 165, at 38 (Dec. 1904) Government Printing Office, 1937 (“Comm. Corp. Rep.”), www.sechistorical.org/collection/papers/1900/1904_1221_ReportCorporations.pdf.

⁵ Adolf A. Berle, Gardiner C. Means, *The Modern Corporation and Private Property*, at xx (revised ed. 1970) (“Berle”).

⁶ *Id.* at xxvi.

⁷ *Id.*

⁸ *Id.*

⁹ *Id.*

2. **Active Property:** “a set of relationships under which an individual or set of individuals hold powers over an enterprise but have almost no duties in respect to it which can be effectively enforced.”¹⁰

DLT networks introduce a novel consideration: whether the possession of active property is itself private property that can “belong to and be disposed of by its possessor.”¹¹ For example, governance tokens that are owned or controlled by their holder, transferable, grant control over network decisions, and do not confer traditional equity ownership seemingly create a property right in the active property (i.e., a property right in the digital asset, which represents active property). This warrants further consideration about this new type of property, as well as the rights, responsibilities, and relationships associated with it. Specific factors include use, transferability, limitations or conditions on use or transferability, its relation to other types of property and their respective owners, and its relation to other property rights in the same active property and their respective owners.

Historically, corporate law evolved to address similar concerns. About 125 years ago, corporate law was characterized as “relatively new and untried—an experiment only just begun.”¹² From the outset, certain structural issues of the corporate form caused unintended consequences that were mitigated by regulatory intervention.¹³ Notably problematic were the divisibility of interests (in terms of ownership and control and the creation of special classes of stock); reduced accountability of managers due to their limited liability; and the disconnect of laborers, owners, and creditors from direct involvement with, and authority over, the means of production.¹⁴ To mitigate the resulting negative impact on commercial dealings, misaligned incentives, and outsized corporate power relative to the government, regulatory interventions sought to address risks stemming from:

- Disparities in information and control between shareholders and managers;
- The influence of corporate entities over labor, creditors, and consumers;
- Unchecked economic power without accountability and its impact on public interests; and
- Corporate influence on government policymaking for private gain.¹⁵

These same considerations evaluating disparities in information and control, influence over enterprise and market participants, economic power, accountability, and impacts on all stakeholders are relevant when evaluating any new business form, including DLT networks. The structural differences of DLT networks and their ecosystems, including decentralization of governance and automation of decision-making, may require a reassessment of property,

¹⁰ *Id.* at 304-05.

¹¹ *Id.* (discussing this concept in the 1930’s as a potential future property right and illustrating a hypothetical circumstance in which “if by custom the position of director became hereditary and this custom were given legal sanction”).

¹² Comm. Corp. Rep. at 37.

¹³ *Id.* at 37.

¹⁴ *Id.* at 38-39.

¹⁵ *Id.*

ownership, and control, as well as their relationships to each other. In addition, changes to the bundling (or de-bundling) of various rights and obligations may also necessitate an assessment of incentive alignment, accountability, transparency, and fairness.

D. DLT Networks, Profit Models, And Ecosystem Participants

DLT networks may also be redefining the concept of profit. Traditionally, corporations derive profits from a combination of internal operations and external market factors. Some economic theories argue that because corporations rely on broader societal contributions, such as infrastructure, workforce development, and consumer engagement, profit distribution should account for these external contributions.¹⁶

Consumers, and others, have always been a functioning part of an enterprise,¹⁷ but DLT networks enable participants to engage more actively within ecosystems. The ecosystems enable new forms of value creation that challenge traditional corporate profit models. Instead of value in the form of profits accruing solely to shareholders, value can be distributed among network participants based on governance contributions, staking mechanisms, or other incentive structures. In addition, this may challenge conventional notions of what constitutes value.

E. Regulatory Considerations For Future DLT Governance

To develop forward-looking regulations, policymakers must recognize the evolving nature of DLT networks and both the opportunities and risks associated with new economic structures. Lessons from corporate governance provide useful frameworks, including:

- Transparency and disclosure standards;
- Incentive alignment between stakeholders and governance participants;
- Accountability mechanisms for decentralized decision-making; and
- Balancing innovation with consumer protections and market integrity.

III. Methodology For A National Regulatory Approach

With the foregoing context in mind, we developed a methodology to approach creating a comprehensive framework for a digital asset regulatory approach in a structured and methodical manner, allowing for flexibility and iterative refinement. The framework is designed to create a regulatory regime that encourages innovation while ensuring reasonable consumer protection and accountability.

First, we considered the existing classifications of assets, and reviewed the logic applied to their groupings, which is based on similar characteristics and similar market behaviors. The

¹⁶ Berle at xviii.

¹⁷ *Id.* at 306.

distinguishing features and behaviors inform purchasers and market participants as to various risks, returns, or benefits.

Non-Exhaustive List of Existing Asset Classes

- **Equities** (Stocks): Ownership in a company, offering dividends and capital appreciation potential. Example: Shares of stock in companies.
- **Bonds** (Fixed-Income): Debt instruments that provide regular interest payments and principal repayment. Examples: U.S. Treasury bonds, corporate bonds, municipal bonds.
- **Cash and Cash Equivalents**: Highly liquid, low-risk short-term investments. Examples: Money market funds, Treasury bills, certificates of deposit (“CDs”).
- **Real Estate**: Ownership in physical property or real estate funds. Examples: Residential and commercial properties, real estate investment trusts (“REITs”).
- **Commodities**: Raw materials or agricultural products. Examples: Gold, oil, agricultural products.
- **Private Equity**: Investments in private companies or buyouts of public companies. Traditional private equity focuses on more mature companies or buyouts. Venture capital is a subset of private equity that focuses on investments in early-stage companies.
- **Hedge Funds**: Pooled investment funds that typically invest in public markets. Examples: Long/short equity funds, global macro funds.
- **Collectibles**: Assets bought for potential appreciation. Examples: Art, rare coins, vintage cars.

Second, applying the same logic to distinguish existing asset classifications, we identified many of the most common digital assets and considered the following:

- **Common Characteristics**: The assets’ attributes, including their functionality and use; their traits, including risk (volatility, credit or default risk, liquidity risk), return potential (income generation, capital appreciation), liquidity (high or low), time horizon (short- term versus long-term goals/purposes), income versus growth (income-oriented or focus on capital gains/long-term growth), and correlation with other asset classes (positive/high or negative/low, the latter increases diversification); and associated risks and concerns, such as consumer protection. For example, stocks and bonds differ in volatility and risk, while their liquidity impacts how easily they can be traded without price disturbances.
- **Similar Behavior in Response to Economic Factors**: The expected responses of the assets’ function or performance to economic trends. For instance, equities perform well in strong economies, while commodities often perform well in inflationary environments.

- **Common Market Participants and Instruments:** Who purchases or uses the assets or are otherwise market participants for the assets. Also, what types of instruments the assets are associated with, the purpose of the assets, and the markets in which the assets are traded. For example, mutual funds and exchange-traded funds that invest in stocks are both equity-related products with common retail investor and institutional investor participation.
- **Historical Precedent and Classification Systems:** The general financial theories and widely accepted market conventions, such as the Global Industry Classification Standard (“GICS”), also guide asset categorization.

Third, for each type of digital asset, we identified the concerns (e.g., consumer protection, market integrity) that a legal or regulatory regime may aim to address.

Fourth, we also identified many of the most significant categories of market participants and their respective roles, and considered various potential risks and concerns related to these roles, particularly in the context of the current market structure. This is set forth in the attached Exhibit 2.

Fifth, after considering these various aspects of the types of digital assets, we identified twelve broad digital asset classes, which are listed below and explained in Section VI.

Sixth, we analyzed numerous types of digital assets and identified which digital asset class or classes each type of digital asset would fit into. The asset classes are not mutually exclusive. The types of digital assets are discussed below in Section VII and the classifications are set forth in Exhibit 1.

Seventh, we compared these digital asset classes to existing asset classes, entities, activities, and trends already addressed by existing federal regulators, and suggested potential suitable regulatory authorities. These are identified in the respective parentheticals of the list of twelve digital asset classes below.

1. Digital Payment Units (securities and banking)
2. Primary Digital Currencies (commodities)
3. Functional Digital Assets (commodities and regulators of associated goods, services, or rights)
4. Digital Commodities (commodities)
5. Digital Securities (securities)
6. Asset-Backed Stablecoins (banking, commodities, and regulators of collateral)
7. Tokenized Real World Assets (commodities and regulators of underlying asset)
8. Non-Fungible Digital Assets (commodities, intellectual property, and regulators of associated asset)
9. Tribal And Social Digital Assets (commodities and intellectual property regulators)
10. Non-Functional Inert Digital Assets (commodities and intellectual property regulators)
11. Hybrid Digital Assets (regulators of the various above categories that are implicated by the asset's characteristics)
12. Other Digital Assets

Once these proposed asset classifications, applicable regulators, and potential risks and concerns are finalized, the next phase is to analyze the legal and regulatory regimes that apply to each class and market participant, and identify any regulatory changes that are necessary. To inform this next step, we include a set of goals and guiding principles that should be considered in establishing and amending regulations to fit digital assets in a future-proof way. These overarching principles guide the analysis for class-specific regulatory frameworks, fostering a comprehensive and collaborative approach.

In addition, we discuss some obstacles that are hindering regulatory clarity for the digital asset industry and outline guiding principles designed to address these challenges. We also discuss various considerations specific to digital assets that should be taken into account when creating and evaluating regulatory approaches.

IV. Principles Driving Regulation

Regulation serves diverse purposes depending on the perspective, but there is a universal principle we should all align with: regulation should seek to “do no harm.”¹⁸ Regulation is not an objective in and of itself; rather, it is a tool that, when overused, can harm innovation, restrict markets and individual freedoms, and create inefficiencies. Thoughtful regulation should, however, play a critical role in maintaining social order, fostering market stability, and ensuring fairness in competition. Before implementing regulation, it is essential to evaluate its necessity and clearly define its objectives, with careful consideration of potential unintended consequences.

Regulation should target specific concerns, managing risks, and promoting transparency without stifling innovation. Underlying this approach is the acknowledgment that our laws prohibiting lying, cheating, and stealing already provide a baseline for consumer protection. Regulatory regimes are generally created when enforcement alone is insufficient to protect the public or public goods, necessitating a proactive, structured approach to manage complex systems and mitigate significant harm. Heightened regulatory measures, which require the government to exercise additional oversight and monitoring, are generally established when the potential harm or the nature of what needs protection justifies intervention. For example, when harm reaches a certain magnitude of potential risk (such as in the case of securities regulation), heightened regulation is often implemented. Given that the health of our securities markets is vital to a strong national economy, this relationship is a core rationale for heightened regulatory oversight.

In some instances, such as with digital assets, the lack of clear rules and a practical regulatory regime is destructive to an industry. “Where a statute allows wide range for policy choice the agency’s failure to define policy may give rise to evil consequences and bring administrative

¹⁸ Greek physician Hippocrates, who created a code of ethics known as the “Hippocratic Oath” that included principles to abstain from deleterious, mischievous, and corrupt conduct, and whose writings included that a physician should, among other things, “do no harm.” Hippocrates. *Hippocrates: Collected Works I*, pp. 165, 299-30. Edited and translated by W. H. S. Jones, William Heinemann Ltd., and G. P. Putnam’s Sons (1923), <https://archive.org/details/hippocrates0000hipp/page/n1/mode/2up?q=oath>.

delegation into disrepute. A broad delegation of power is not only a power, it is a summon to create order.”¹⁹ In this instance, there is a call to create order, but doing so while mindful of the foregoing principles to guide its development.

Furthermore, to foster the growth of a robust market, we intend to identify structural barriers that hinder expansion and recommend implementing targeted incentives to address them. Strengthening key market participants and enhancing competition, for example, may play a significant role in developing the necessary market structure.

V. Foundational Concepts For Digital Asset Analysis

The framework addresses what we refer to as “digital assets.” Other countries and international frameworks use different terminologies, often reflecting the terms used in other jurisdictions’ legal regimes. While it would be ideal if all countries used the same terminology, in some circumstances it would require countries to amend the nomenclature of numerous bodies of law.

A. Digital Asset Description

A digital asset broadly refers to any item of value that exists in a digital format. The digital assets discussed in this framework are a subset of the broad category and are generally those that are intangible, digitally represented units of value, right, or ownership that are created, issued, or transferred using DLT²⁰ or comparable technology. These digital assets may be programmable, enabling automated functions through smart contracts or embedded logic. They can serve various uses, and their characteristics may evolve over time. Digital assets typically have a tribal component—fostering community or network effects—but the strength of this aspect varies by asset and ecosystem. Transactions involving digital assets are recorded in a secure, tamper-resistant distributed ledger, often using cryptographic techniques and various consensus mechanisms to ensure integrity, transparency, and security. Validation methods can be centralized or decentralized, depending on the system’s design.

B. Digital Asset Characteristics

Digital assets are intangible and composed of digital information that can be owned, controlled, or otherwise used to represent or produce positive economic value, and they can represent other types of assets (e.g., tangible, intangible, financial).

¹⁹ SEC Chairman William Casey, keynote for *The SEC Speaks*, at 9 (Feb. 18, 1972) (quoting Professor Louis L. Jaffe, *Judicial Control of Administrative Action* 49 (1965)), <https://www.sec.gov/news/speech/1972/021872casey.pdf>.

²⁰ Digital assets associated with a DLT network may more precisely be termed “DLT Digital Assets.”

C. Digital Asset Risk/Return Profile

The risk/return profile of an asset varies by asset type. There may be high risk/high return for speculative assets or low risk for more stable and predictable assets. It is important to consider both technology risk and the risk of the asset itself.

D. Potential Concerns

Certain digital assets may present particular risks and vulnerabilities, some of which are unique, that may require legal or regulatory intervention. This section attempts to identify the most pressing concerns with the intention of later assessing whether legal or regulatory interventions are necessary and, if so, ascertaining the least restrictive means of accomplishing the regulatory goal. Regulatory goals should be pursued while minimizing interference with honest business activities.²¹

It is important to recognize the general prohibition against dishonesty, including lying, cheating, and stealing, which is enforced through the civil and criminal authorities of various government entities. When these protections prove insufficient, regulatory regimes are established to impose additional duties and government oversight. While an imperfect analogy, it may be helpful to think of regulatory regimes as mechanisms for setting requirements, such as safe speed limits, and oversight such that speeding can be caught and stopped before there is a catastrophic accident.

In identifying concerns and potential regulation to address those concerns, there are two fundamental questions:

1. What is needed more than the basic prohibition against lying, cheating, and stealing to reasonably protect against consumer and market harms?
2. Are there monitoring mechanisms and enforcement authorities that need to be bolstered, and/or is there a regulatory/registration regime that is required?

E. Digital Asset Market Structure And Market Participants

Market participants generally are the various individuals, institutions, and entities that engage in market activities. These can include developers, retail customers, institutional investors,

²¹ See 77 Cong. Rec. 937 (1933) (President Franklin D. Roosevelt observed that federal securities legislative proposals did not pursue investor protection at all costs and were designed to impose “the least possible interference to honest business.”); Federal Securities Act, *Hearings Before the House Interstate and Foreign Commerce Committee*, 1st Session, on H.R. 4314 (Mar. 31, 1933) (Hon. Huston Thompson, former member of the FTC who helped develop the federal securities legislation, stated: “The purpose and policy here is to protect . . . with as little interference with business as possible. This is the main theme upon which we played in building up this bill.”); S. Rep. No. 47, at 1 (1933) (Rep. Thomas Brooks Fletcher from the Committee on Banking and Currency stated: “The purpose of this bill is to protect the investing public and honest business . . . to protect honest enterprise, seeking capital by honest presentation . . . to aid in providing employment and restoring buying and consuming power.”); 77 Cong. Rec. 3801-2 (May 20, 1933) (On H.R. 5480, Fletcher stated: “The country justly demands that the public have some protection . . . and honest business a legitimate chance.”).

exchanges, custodians, and so forth. Each type of participant plays a distinct role and influences market dynamics, which may impact liquidity, price discovery, stability, market efficiency, and other significant factors. A summary of certain market participants and potential risks and considerations related to each are set forth in the annexed Exhibit 2.

Market structure generally refers to the overall organization of a market, including the design and infrastructure. Identifying the classifications of the digital assets that trade in the markets and their distinguishing characteristics, and the categories of market participants and their respective roles, is required to understand the current market structure. Evaluating the current functioning of the market—how assets move within it, the technological, infrastructural, and legal constraints in place, the risks involved and their sources, as well as the consequences of the market’s existing structure—provides insights for designing an effective regulatory framework to govern both the market’s operations and the behavior of its participants.

VI. Digital Asset Classes

With the foundational concepts for digital assets established, we turn to the twelve classes of digital assets into which we classify the identified types of digital assets. The following classes are not mutually exclusive. The asset class names and descriptions are intended to encompass not only existing digital assets, but also future digital assets. One goal of new regulatory frameworks is to be forward-looking and as future-proof as possible. In the Classification Chart, annexed as Exhibit 1, each digital asset is categorized as included (marked with an “”), excluded (left blank), or potentially subject to inclusion (marked with an “”) within the classification.

A. Digital Payment Units

Digital Payment Units refers to digital assets serving primarily as a medium of exchange (payments and transfers). These are used similarly to traditional currencies but are not legal tender.

The proposed definition does not include a unit of account or store of value. Consideration should be given to whether those should be included. Generally, these terms are understood to have the following meanings:

- Medium of exchange: Can be used to directly purchase goods and services from merchants who accept them.
- Unit of account: A standard to measure the value of different goods and services relative to each other.
- Store of value: Can be held and exchanged later for goods and services, potentially retaining purchasing power over time.²²

²² See generally, IRS Notice 2014-21 (Mar. 25, 2014); 6 FIN-2013-G001, *Application of FinCEN's Regulations to Persons Administering, Exchanging, or Using Virtual Currencies*, (Mar. 18, 2013).

B. Primary Digital Currencies

Primary Digital Currencies refers to assets that are inherently associated with, and integral (native) to, a base layer DLT network (also referred to as a layer 1 blockchain or DLT). The asset (often referred to as a token or coin) and protocol do not function without each other; the asset is needed to transact on the platform. These DLT networks provide the core infrastructure, consensus mechanisms, and security protocols that enable decentralized transactions.

Primary Digital Currencies function as the primary (also referred to as principal) currency of a protocol but may have additional functionalities. This digital asset also qualifies as a Functional Digital Asset (described below), but it is distinct from other types of functional digital assets in that it is required for operation of base DLT networks, as well as technology built on top of it (e.g., layer 2 blockchain or DLT), and thus has unique characteristics that should be considered in analyzing appropriate legal and regulatory regimes.

C. Functional Digital Assets

Functional Digital Assets are assets that have a function or purpose within a network, platform, or ecosystem, such as to provide access to a specific application, product, or service within a DLT ecosystem or similar platform. These are not designed to raise capital but rather to facilitate transactions involving DLT-based goods or services, or to enable special features.

These include assets that are inherently associated with, and integral to, a layer 2 distributed ledger, and any distributed ledgers built on top of another distributed ledger. Layer 2 may provide solutions for scaling, efficiency, interoperability, various applications, off-chain, side-chain, and other purposes. Functional Digital Assets also include Primary Digital Currencies.

D. Digital Commodities

Digital Commodities are digital representations of goods, services, rights, and interests in which contracts for “future delivery are currently or will be traded in the future.²³ The underlined phrase has been interpreted in various ways, with the middle-of-the-road approach being that the existence of a futures market for one asset renders all assets within that same class “commodities” under the Commodity Exchange Act (“CEA”).²⁴ This approach requires defining the “class” of items. If this interpretation is followed, then it could be interpreted to mean that all cryptocurrencies (if

²³ Commodity Exchange Act § 2(a).

²⁴ *Commodity Futures Trading Comm'n v. My Big Coin Pay, Inc.*, Civ. No. 18-CV-10077 (D. Mass. Oct. 29, 2020) (“The CEA defines ‘commodity’ generally and categorically, ‘not by type, grade, quality, brand, producer, manufacturer, or form.’”). The narrow reading is that only assets that are explicitly structured for futures trading or have a demonstrated history of being traded in a futures-like manner qualify as a commodity. The broad reading is that any asset that could potentially have a futures contract on it would be a commodity, regardless of market demand, history, structure, or any other factors.

considered a class) are commodities since there are futures on some cryptocurrencies. This would require defining the class “cryptocurrency.”

An important feature of commodities is their interchangeability or fungibility.

General Commodities Context

For context, traditional commodities are basic goods and materials that are widely used, not meaningfully differentiated from one another, and interchangeable with other goods and materials of the same type. They are generally classified into:

- Hard commodities, which are natural resources that are mined or extracted (e.g., energy products like oil and natural gas, and metals like gold and copper); and
- Soft commodities, which are agricultural or livestock products that are grown or harvested (e.g., wheat, coffee, and cattle).

In addition to physical commodities, traditional commodities include financial commodities, such as interest rates and stock indices, and other specialized commodities, such as weather.

Generally, commodity prices rise when inflation accelerates, and commodities are used to protect against inflation. Since the commodities themselves are rising in price, owning them preserves value compared to holding cash, which loses purchasing power. As inflation expectations grow, investors purchase more commodities. This higher demand causes prices to increase. For this reason, commodities can potentially be used to hedge against a currency’s decreased buying power when inflation rates increase. There are other risks, such as supply problems, policy changes, and global demand fluctuations that can influence the value of commodities.

E. Digital Asset Securities

A Digital Asset Security is a digital asset (computer code) that represents rights and obligations that render it a security per the definition in the Securities Act of 1933 (“Securities Act”) and the Securities Exchange Act of 1934 (“Exchange Act”), similar to a physical stock certificate (paper) that represents ownership interest in a company and is considered a security. A Digital Asset Security may represent an investment contract; however, a Digital Asset Security is not the subject of the investment contract (e.g., an asset, a venture), nor is it an asset the investor receives as proceeds from the investment opportunity (e.g., a commodity, profit). We propose a revised Investment Contract definition, which is more fully explained in Section VIII.A.

Digital Asset Securities include (but are not limited to) transactions in which digital assets are offered or sold for capital raising and investment purposes by contracts that represent an ownership stake, a debt obligation, or the right to receive proceeds from the issuer’s or promoter’s successful operation of a venture on behalf of the investor. This requires (1) a *quid pro quo*, and (2) information asymmetry between the purchaser and the issuer/promoter such that the purchaser requires information disclosures to monitor the issuer’s/promoter’s efforts in managing an enterprise, and an identifiable issuer/promoter who is capable of providing meaningful periodic

disclosures (without conflicting with the lawful purpose of the digital asset and associated technology).

In the context of an agreement for future tokens, there are several alternative structures that may change the classification of an asset and transaction. Often, the agreement represents the investment contract and describes the investment opportunity, and the future tokens are the “proceeds.” The investment opportunity involves a capital raising activity, as discussed in the immediately preceding paragraph and in Section VIII.A. The transaction concludes upon the investor receiving the assets (tokens) in return for their investment pursuant to the agreement. While not typical, it is possible that the tokens ultimately received are digital asset securities; that is, the investor receives securities as proceeds. Both of these structures are distinguished from an agreement to buy and sell a non-security asset at a specific price on a specific date (forward and futures contracts).

General Securities Context

In determining whether the securities laws apply, it’s important to consider the purposes of the securities laws and whether those purposes are served in the circumstances. Securities laws fundamentally address the risks associated with investors entrusting their capital to another party’s management, particularly when the investors face challenges in overseeing that management effectively. This dynamic gives rise to two central economic concerns: agency costs and collective action problems.

- **Agency costs** arise from the separation of ownership and control, where the agent (such as the issuer or promoter) has more information than the principal (the investor or owner), which can lead to conflicting incentives. These costs manifest in the efforts needed to gather information, negotiate restrictions, and monitor or supervise those in control of the investment.
- **Collective action problems** emerge when multiple investors struggle to coordinate their oversight efforts, often making it difficult to exercise meaningful supervisory control over the management of the investment.

To determine whether something qualifies as a security under the Securities and Exchange Commission’s (“SEC”) jurisdiction, it must fall within the statutory definition of a security:

[U]nless the context otherwise requires—(1) [t]he term “security” means any note, stock, treasury stock, security future, security-based swap, bond, debenture, evidence of indebtedness, certificate of interest or participation in any profit-sharing agreement, collateral-trust certificate, preorganization certificate or subscription, transferable share, investment contract, voting-trust certificate, certificate of deposit for a security, fractional undivided interest in oil, gas, or other mineral rights, any put, call, straddle, option, or privilege on any security, certificate of deposit, or group or index of securities (including any interest therein or based on the value thereof), or any put, call, straddle, option, or privilege entered into on a national securities exchange relating to foreign currency, or, in general, any

interest or instrument commonly known as a “security”, or any certificate of interest or participation in, temporary or interim certificate for, receipt for, guarantee of, or warrant or right to subscribe to or purchase, any of the foregoing.²⁵

Two aspects of this definition are particularly noteworthy. First, the general caveat allows flexibility in that the definition applies unless the context dictates otherwise. This has been applied to exclude instruments from the definition of a security if they are adequately regulated by another regulatory regime.²⁶ Second, digital assets that implicate the securities laws may fall under various classifications—not only an investment contract—such as a note, evidence of indebtedness, or a certificate of interest or participation in any profit-sharing agreement.

There are two exemptions that merit mentioning. While applying the exemptions is nuanced and implicates other provisions, generally, the Securities Act exempts from registration a seller who is not an issuer, underwriter, or dealer. This exemption generally allows retail purchasers to sell securities in the secondary market without registering the transaction, so long as they are not acting in one of the prohibited roles. The second exemption involves short-term notes. A note that arises out of a current transaction and matures within nine months is exempt from registration.²⁷ However, the timing of maturity is not the sole determinant. Instead, the Supreme Court applies a “family resemblance” test, creating a rebuttable presumption that a note is a security unless it fits into an exempt category.²⁸ The factors considered in this test are:

- The motivations of the buyer and seller (e.g., if the note is for commercial or consumer goods purposes, it is less likely to be a security);
- The method of distribution (e.g., if the note is widely offered and sold, it is more likely to be a security);
- The reasonable expectations of the investing public (e.g., if there is an expectation of profits from the efforts of others, it is more likely to be a security); and
- Other considerations (e.g., if the note is not collateralized, is not traded on a secondary market, or is not regulated under a non-securities framework, it is more likely to be a security).²⁹

²⁵ 15 U.S.C. § 77b(a)(1) (emphasis added to highlight particular elements of the definition to consider when analyzing digital assets and associated transactions). While this definition is from the Securities Act and the definition is slightly different in the Exchange Act (15 U.S.C. § 78c(a)(10)), these definitions are typically interpreted consistently. *United Housing Foundation, Inc. v. Forman*, 421 U.S. 837, 847 n.12 (1975).

²⁶ *Marine Bank v. Weaver*, 455 U.S. 551 (1982) (holding that, notwithstanding that a bank CD has many attributes of long term debt, that an applicable alternative regulatory regime rendered securities regulation unnecessary). Separately, and notably, the *Marine Bank* court also determined that a profit-sharing agreement was not a security as it was privately negotiated and gave the purchasers significant control over the operation. *Id.*

²⁷ Securities Act § 2(a)(1), 15 U.S.C. § 77b(a)(1); Securities Exchange Act § 3(a)(10), 15 U.S.C. § 77c(a)(3).

²⁸ *Reves v. Ernst & Young*, 494 U.S. 56, 64-65 (1990).

²⁹ See generally, *id.*

We recommend considering a return to more closely following the statutory language, exempting notes with a clear maturity requirement, potentially with conditional safe harbors.

F. Asset-Backed Stablecoins

Asset-Backed Stablecoins are digital assets typically used as a medium of exchange or store of value that is pegged to and backed by the value of a stable asset, such as fiat currency or commodities, to maintain price stability.

G. Tokenized Real World Assets

Tokenized Real World Assets (“RWAs”) refer to digital assets that represent RWAs (such as commodities, real estate, or other physical assets) and can be traded or transferred in whole or in fractions, using DLT or a similar platform or technology.

These intangible representations of tangible assets are regulated according to the nature of the underlying asset. In addition, as with all assets, regulations are also triggered based on the manner in which they are transacted. For example, just as nondigital fractionalized interests in tangible assets may implicate the securities laws, so too may fractionalized Tokenized RWAs.

H. Non-Fungible Digital Assets

Non-Fungible Digital Assets are digital assets that represent unique, indivisible digital assets that are typically used for digital art, collectibles, or other distinct items. These are valued for being unique, rare, non-replicable, bespoke, and non-interchangeable on a one-to-one basis.

This includes a series of the same non-fungible token (“NFT”), provided they are numbered. The precise number of series that renders the asset fungible depends on the facts and circumstances. We propose a presumption that a series not in excess of a certain number (e.g., 50,000) is non-fungible. At a certain point, the abundance of the same NFT diminishes its value based on uniqueness, effectively making it fungible.

I. Tribal And Social Digital Assets

Tribal And Social Digital Assets are digital assets that are used for social proof, cultural identity, community involvement, community membership, a shared identity, or similar purpose. They are used for things like supporting a creator, showing allegiance to a community, or being part of a tribal ecosystem. Unless it is a hybrid digital asset, it has no function (e.g., governance, access to services) and is not for capital raising purposes.

J. Non-Functional Inert Digital Assets

Non-Functional Inert Digital Assets refer to digital assets that lack a clear function or practical use. This includes airdrops with no immediate function and may be intended for marketing purposes or to create initial interest in a project, but they do not necessarily have any functionality at the time of distribution.

K. Hybrid Digital Assets

Hybrid Digital Assets are digital assets that have a combination of various types of characteristics and are classified in more than one of the classifications above.

L. Other Digital Assets

Digital assets categorized in the “Other” class do not fit into any of the above categories and/or have attributes of a traditional asset class not fully represented by the digital asset-specific classes.

VII. Classification Analysis Of Specified Digital Assets

In this section, we include a non-exhaustive list of common digital assets, and their associated description, characteristics, risk and return considerations, and consumer protection or market integrity concerns that may drive the focus of regulation. Each of these assets fall within one or more of the twelve classes discussed in the preceding section. To the extent a particular type of transaction or its participants implicate a different concern, such as national security, those considerations would need to be considered.

<u>Digital Asset</u>	<u>Description, Characteristics, Risk/Return, and Potential Concerns</u>
Cryptocurrencies (e.g., bitcoin, ether, and altcoins)	<p>Description: Digital assets secured by cryptography and operating on decentralized networks using DLT, are fungible/interchangeable, and are peer-to-peer (can be exchanged directly between users without intermediaries such as banks or payment processors).</p> <p>Characteristics: Differing levels of liquidity, subject to more volatility, traded 24/7, speculative; some serve as a medium of exchange or store of value, or for decentralized apps (“dApps”). They are designed to function autonomously from centralized institutions. Many—but not all—of these assets have frequently been the subject of an investment contract or the proceeds of the investment contract.</p> <p>Risk/Return: Potential for high returns, especially during growth. Often subject to higher volatility. Depending on additional functionality, one may have lower return potential compared to purely speculative tokens. More stability often related to liquidity and strength/popularity of functional use (e.g., integrated and necessary for many other DLT networks).</p> <p>Consumer/Market Concerns: Fraud, market manipulation, information asymmetry if there is a controlling entity or group, illicit use (e.g., money laundering).</p>

Fiat-Backed Stablecoins

Description: Digital assets whose value is pegged to and backed by fiat currency, often used for payment in commercial transactions.

Characteristics: Designed to minimize volatility by being backed by and pegged to fiat currency. Volatility is linked to volatility of underlying currency. Used for trading, remittances, or as a store of value.

Risk/Return: Lower risk than traditional cryptocurrencies; risk mirrors that of the underlying fiat currency. Still exposed to counterparty risk. Lower returns than other digital assets.

Consumer/Market Concerns: Inadequate asset backing, inadequate disclosure, and redemption risks. Risk of de-pegging and loss of value.

Asset-Backed Stablecoins

Description: Stablecoins backed by a basket of assets, such as commodities or real estate.

Characteristics: Similar to fiat-backed stablecoins except volatility linked to volatility of underlying assets. May be more diversified than fiat-backed stablecoins.

Risk/Return: Risk mirrors that of the underlying asset(s). Moderate risk depending on transparency of reserves. Lower returns than other digital assets.

Consumer/Market Concerns: Inadequate asset backing, inadequate disclosure, and redemption risks. Risk of de-pegging and loss of value.

Algorithmic Stablecoins

Description: Stablecoins using algorithms for price stabilization.

Characteristics: Algorithmic mechanisms to maintain price stability.

Risk/Return: High risk due to potential algorithm failures and lower returns than other digital assets.

Consumer/Market Concerns: Lack of algorithm transparency, risk disclosures, and stability guarantees.

Non-Fungible Tokens

Description: Unique, non-fungible digital assets representing ownership or proof of authenticity of items, typically art or collectibles.

Characteristics: Indivisible, stored on DLT, used for digital ownership, cannot be exchanged on a one-to-one basis.

Risk/Return: Low to moderate risk due to speculative nature, potential low liquidity, and potential fraud.

Meme/Community Tokens	<p>Consumer/Market Concerns: Fraud, market manipulation, and intellectual property theft.</p> <p>Description: Tokens without functionality, generally driven by online communities, social media, or pop culture.</p> <p>Characteristics: Speculative, community-driven.</p> <p>Risk/Return: Moderate to high risk due to the prevalence of fraudulent schemes (rug pulls, pump-and-dump schemes).</p> <p>Consumer/Market Concerns: Fraud, market manipulation, and information asymmetry.</p>
Fundraising Token	<p>Description: Issued to raise capital for ventures, often through Initial Coin Offerings (“ICOs”) or similar methods. These transactions may involve the pre-sale of tokens before the digital asset is fully developed whereby the fundraising token is a placeholder token (also referred to as an IOU token), or the sale of an existing digital asset. In exchange for their capital or assets (investment), purchasers entrust the issuer/promoter with managing their investment and undertaking the venture on their behalf (e.g., developing the protocol and associated network) with the purchaser’s right to receive the proceeds from those efforts.</p> <p>Characteristics: Can be risky with high reward potential. These transactions are not agreements to purchase digital assets for a predetermined price in the future (forward or futures contracts), but are a capital raising vehicles in which proceeds are used for similar purposes as capital raises for traditional equity and debt instruments.</p> <p>Risk/Return: High risk with potential for fraud and loss of funds.</p> <p>Consumer/Market Concerns: Fraud, market manipulation, and information asymmetry.</p>
Tokenized Security Tokens	<p>Description: Digital tokens representing ownership of financial instruments such as equity or debt.</p> <p>Characteristics: Subject to securities regulations, due to underlying asset.</p> <p>Risk/Return: Risk mirrors that of the underlying asset, which reflects the entity in which (or against which) the asset is issued.</p> <p>Consumer/Market Concerns: Same investor protection and market integrity concerns as all securities.</p>

Tokenized Real-World Assets

Description: Digital representations on a DLT of physical or tangible assets (such as real estate, gold, or art). These assets are backed by real-world value, meaning the DLT token represents actual ownership or rights to the underlying asset.

Characteristics: Enables fractional ownership, reduced barriers to entry, enhanced liquidity. Used to fractionalize ownership of RWAs, enabling easier trade and access.

Risk/Return: Risk mirrors that of the underlying asset and the structure of fractionalization.

Consumer/Market Concerns: Transparency in ownership rights, disclosures, and asset backing verification.

Decentralized Finance (“DeFi”) Tokens

Description: Digital assets used within decentralized financial platforms and applications to facilitate lending, borrowing, trading, staking, and liquidity provision. Typically used in DeFi protocols to provide governance, participate in yield farming, or earn interest. DeFi tokens have specific utilities within their respective platforms.

Characteristics: Facilitates decentralized financial services without intermediaries.

Risk/Return: Potential for high risk due to smart contract vulnerabilities, information asymmetry until there is no controlling entity or group of holders.

Consumer/Market Concerns: Unfair lending practices, inadequate consumer disclosures, smart contract security risks, illicit finance (money laundering), and use of platform to facilitate unlawful activities.

Access Tokens

Description: Digital assets used to access a product or service. These have been referred to as utility tokens, non-security tokens, and a variety of other names.

Characteristics: Typically for platform usage, access, or service provision.

Risk/Return: Potential for high returns, especially during growth and higher risk periods. Often subject to higher volatility. Depending on the function, they may have lower return potential compared to purely speculative tokens. More stability depending on strength/popularity of functional use (e.g., integrated and necessary for many other DLT networks).

Consumer/Market Concerns: Fraud, misleading claims, and lack of clarity regarding duties and rights based on governance structures.

Privacy Coins

Description: Digital assets that focus on providing enhanced privacy and anonymity for users. These digital assets use advanced cryptographic techniques to obscure transaction details, ensuring that users' transaction histories and balances remain confidential.

Characteristics: Aim to offer higher levels of privacy than traditional cryptocurrencies, and use technologies such as ring signatures, zero-knowledge proofs, and stealth addresses to protect users' identities and transaction information.

Risk/Return: Moderate risk depending on verification standards.

Consumer/Market Concerns: Data privacy, identity verification standards, identity theft, and illicit use; balancing compliance with global identity protection laws while maintaining decentralized principles.

Carbon Credits and Environmental Assets

Description: Digital representations of carbon credits or other environmental assets, often issued as tokens on a DLT. They allow individuals or organizations to buy, sell, or trade carbon offsets to help mitigate their environmental impact, such as reducing greenhouse gas emissions.

Characteristics: Carbon credit tokens are used to incentivize environmentally-friendly behavior and can be traded on decentralized platforms. They help track emissions reductions and ensure transparent, verifiable environmental contributions. DLT is used for transparency and traceability in carbon offset trading.

Risk/Return: Moderate risk depending on verification standards.

Consumer/Market Concerns: Legitimacy, greenwashing, and lack of verifiable tracking systems.

Identity/ Reputation Tokens

Description: Represent digital identities or reputational scores for individuals, organizations, or services. These tokens are used to establish trust and credibility in decentralized networks (e.g., DeFi platforms or DAOs).

Characteristics: Help verify an individual's identity or reputation in digital ecosystems, ensuring that users are accountable and trustworthy

within the network. They can be used to prove user identity for services, financial transactions, or voting rights.

Risk/Return: Moderate risk—while these tokens enhance trust, they are vulnerable to misuse, identity fraud, and data privacy concerns.

Consumer/Market Concerns: Data privacy, identity verification standards, and identity theft; balancing compliance with global identity protection laws while maintaining decentralized principles.

Governance Tokens

Description: Provide holders with voting rights on protocol upgrades, project decisions, and the overall direction of a DLT network or decentralized application (“dApp”). These tokens allow for decentralized decision-making, enabling users to participate directly in the governance process.

Characteristics: Usually issued by DAOs or DeFi projects. Holders can vote on various proposals that influence the future development of the project, such as tokenomics changes, platform upgrades, or community initiatives.

Risk/Return: Generally lower risk but potential lack of transparency may increase risk.

Consumer/Market Concerns: Unfair voting processes, governance takeovers, and potential for manipulation particularly related to controlling ownership of tokens and associated information asymmetry.

Central Bank Digital Currencies (“CBDCs”)

Description: Digital currencies issued and backed by central banks.

Characteristics: Government-controlled, combining cryptocurrency benefits with fiat stability. They aim to enhance payment systems, reduce transaction costs, and provide an alternative to private cryptocurrencies. They can be issued in both retail and wholesale forms.

Risk/Return: Low risk, but raises concerns over surveillance and impact on financial stability.

Consumer/Market Concerns: Privacy, monetary policy implications, and consumer protections.

Synthetic Assets (“Synths”)

Description: Digital assets that represent the price movements of another asset (e.g., stocks, commodities, or currencies) without owning or representing the underlying asset itself. Instead, a synth derives its value from the price of the underlying asset through a contract or algorithm and is a type of derivative product.

Characteristics: Decentralized, collateral-backed, offering exposure to underlying asset price movements. Used for speculation, hedging, or exposure to the price movements of assets without needing to own them directly.

Risk/Return: Generally similar risk as the underlying asset except potential heightened risk if low liquidity in the synth itself.

Consumer/Market Concerns: Information asymmetry, derivatives risks, smart contract risks (inherently subject to vulnerabilities), and oracle risks (oracle is the source of data so it must be reliable/not susceptible to manipulation or hacking).

Virtual or Metaverse Assets

Description: Digital goods, land, or properties that exist within virtual worlds or metaverse platforms. These assets may be represented by NFTs, and their value is derived from the demand for virtual spaces, digital real estate, or in-game assets in these online ecosystems.

Characteristics: Can be traded, used, or monetized within virtual worlds. They allow users to own digital property, interact with other users in virtual spaces, or create and sell digital goods (e.g., accessories for avatars).

Risk/Return: Potential for low liquidity on-platform and no liquidity if traded outside the platform; speculative and return is dependent on platform success.

Consumer/Market Concerns: Fraud prevention, consumer protection, and potential for digital property disputes.

Gaming Assets/ Play-to-Earn ("P2E") Tokens

Description: Digital assets that exist within video games, virtual worlds, or gamified environments. These assets can include in-game items, characters, skins, or other assets that have real-world value or can be traded across platforms.

Characteristics: Often represent ownership of digital items within a game or platform and can be bought, sold, or traded on secondary markets. P2E games allow players to earn rewards or tokens that can be exchanged for other digital assets or fiat money. DLT integration allows for ownership of the gaming assets and more transparent gameplay economies.

Risk/Return: Potential for low liquidity on-platform and potential no liquidity if traded outside of platform. Risk/return is speculative and is dependent on platform success.

Layer 2 Tokens

Consumer/Market Concerns: Fraud prevention, consumer protection (including in-game mechanics), and potential for ownership disputes.

Description: These digital assets are inherent to Layer 2 blockchains or DLT, which are built on top of primary DLT (Base Layer or Layer 1), and may enable functionality such as faster transactions, enhanced security, lower fees, or interoperability between different DLT networks.

Characteristics: Enhance or enable functionality of a DLT network while maintaining the characteristics of the protocol. These tokens are essential for scaling dApps and DLT networks, making them more usable in real-world applications.

Risk/Return: Potential for high returns, especially during growth. Often subject to higher volatility. Depending on additional functionality, may have lower return potential compared to purely speculative tokens. More stability depending on strength/popularity of functional use (e.g., integrated and necessary for many other DLT networks).

Consumer/Market Concerns: Fraud, market manipulation, information asymmetry if there is a controlling entity or group, illicit use (e.g., money laundering); security standards for interoperability with Base Layer and other DLT networks.

Yield-Bearing Tokens

Description: Represent assets that generate rewards (often other digital assets) through interest, staking, or other forms of yield generation. They are often issued by DeFi platforms or staking protocols, where they represent participation in a particular income-generating activity.

Characteristics: Can be used in DeFi protocols to earn interest, rewards, or staking yields. They may be locked or staked for a specific period and can appreciate in value or provide periodic payouts based on the underlying platform's performance.

Risk/Return: Potentially high risk due to potential platform insolvency and hacking risks, and risk of loss and low to no liquidity. Potential for high returns.

Consumer/Market Concerns: Inadequate disclosures on risks and returns, inadequate collateralization, fraud, market manipulation, information asymmetry if there is a controlling entity or group, illicit use (e.g., money-laundering concerns).

Staking Rewards

Description: Staking involves locking up digital assets (yield-bearing tokens) on a DLT network to help secure the network and validate transactions in exchange for staking rewards. The more tokens a user stakes, the higher their chances of being selected to validate and earn rewards. Users can delegate their assets to a service provider, who selects validators and manages the logistics of staking on their behalf.

Characteristics: Depending on its structure, it is often akin to a service agreement (as opposed to a security transaction). The rewards may be earned through network participation in its functional operation, as opposed to a customer generating profits based on the service provider's management of those funds. The staking service enables a technical process and may select a validator, but it does not make investment decisions. These transactions may be structured in a way as to implicate other regulatory regimes, such as the securities laws.

Risk/Reward: Low to moderate risk of slashing penalties (losing staked assets due to network rule violations), lock-up periods, and exposure to the underlying asset's volatility.

Consumer/Market Concerns: Fraud and information asymmetry if the staking is concentrated in a few large validators. Liquidity issues due to long unbonding periods (time between user deciding to unstake and assets becoming accessible). Risk of loss, fraud, and transparency concerns related to custody.

Liquidity Provider (“LP”) Tokens

Description: LP tokens represent a liquidity provider's share in a liquidity pool. Liquidity pools are smart contracts that hold assets to facilitate decentralized trading, lending, or financial activities. Providers deposit assets into the pool to ensure liquidity for transactions. In return, they receive LP tokens, which often serve as proof of ownership and can be used to claim their share of the pool's assets and rewards at any time.

Characteristics: Created and managed by decentralized smart contracts on DeFi platforms, which facilitate transactions by ensuring liquidity. They do not typically represent ownership in a company or entitle holders to profits from a third party's efforts; instead, they often reflect shared ownership and an operational role in the platform's governance and function. Depending on the structure and assets involved, LP tokens may be classified as functional digital assets (e.g., enabling platform operations), commodity pools, securities (e.g., profit-sharing agreements), or other asset types.

Risk/Reward: Higher risk related to impermanent loss (when the value of deposited assets changes relative to holding them), smart contract vulnerabilities, and potential pool insolvency.

Consumer/Market Concerns: Complexity and users' understanding of the structure from a financial and technological perspective; liquidity provision, such as liquidity concentrated among only a few providers, which may result in their disproportionate influence over the price and operations of the automated market maker ("AMM");³⁰ and risk of liquidity withdrawal leading to pool collapse, especially in volatile markets.

Tokenized Intellectual Property ("IP")

Description: This refers to digital representations of IP, such as patents, trademarks, copyrights, and other intangible assets, on a DLT. Tokenizing IP allows for fractional ownership, transparent licensing, and more efficient transfer of rights.

Characteristics: Allows creators and owners to issue tokens representing ownership stakes or rights to a piece of IP. This can make the licensing process more transparent and accessible and open new monetization models for creators. The structure may implicate different asset classifications.

Risk/Return: Low risk based on IP enforcement and legal frameworks.

Consumer/Market Concerns: Definition of ownership rights and clarity around dispute resolution mechanisms.

Tokenized Fund Shares/Investment Tokens

Description: Tokenized fund shares represent fractional ownership in investment funds, such as mutual funds or hedge funds, via DLT-based tokens. These tokens give investors exposure to a diversified portfolio without the need for traditional financial intermediaries.

Characteristics: Can be traded on DLT platforms, providing liquidity and fractional ownership of traditionally illiquid assets like private equity or hedge funds. This may facilitate more accessible investment in high-value or institutional-grade assets.

³⁰ AMMs use liquidity pools and mathematical formulas to facilitate decentralized trading. Prices adjust automatically based on the ratio of assets in the pool, with trades directly executed by the AMM, removing the need for an order book or third-party market maker.

Risk/Return: Risk mirrors that of the underlying assets, but the tokens may have limited secondary market liquidity, making it difficult to exit their holdings quickly.

Consumer/Market Concerns: Custodial risk if the token is backed by assets held in custodial accounts and transparency into the underlying assets, management strategies, and real-time performance of the fund.

Social Media and Content Creation Tokens

Description: Digital assets designed to be used within platforms focused on social media or content creation. These tokens enable creators, users, and viewers to interact, reward, or monetize content in various ways. They generally serve as a medium of exchange, incentive, or governance within these ecosystems.

Characteristics: Represent a shift from traditional ad-driven business models to user-driven economies, creating new ways for users and creators to exchange value directly. They enable monetization via tipping, exclusive content, or paid memberships and provide governance rights, allowing token holders to vote on platform decisions. These tokens can also represent ownership stakes, access to services, or digital assets, enhancing community involvement and incentivizing active participation without relying on intermediaries.

Risk/Reward: There may be more volatility due to market sentiment or platform changes, risk of reduced user engagement or platform failure, and token value loss. There is the potential for high returns if the platform grows and the token value appreciates. Creators and users can also monetize content or engagement and gain access to content, rewards, and other benefits.

Consumer/Market Concerns: Information asymmetry, fraud, and manipulation.

Cross-Chain Assets

Description: Digital assets that exist on multiple DLT networks or allow for interaction between different DLT ecosystems, thus creating interoperability between various DLT networks.

Characteristics: Allow for greater flexibility and liquidity by enabling seamless movement of digital assets between different DLT ecosystems, reducing the siloed nature of some DLT networks.

Risk/Return: Moderate risk due to security vulnerabilities in cross-chain bridges and volatility of the underlying assets enhanced by market fluctuations across different chains. Increase potential for diversification with access to a broader range of assets and liquidity

across chains, and reduce reliance on a single DLT network's performance.

Consumer/Market Concerns: Security standards for cross-chain interoperability, information asymmetry, fraud, and manipulation regarding multiple assets, DLT networks, and liquidity pools.

VIII. Securities Law Principles And Modifications Applied In The Framework

We identified existing regulatory barriers that hinder the establishment of clear and practical classifications and negatively impact market structure. The current definition of an investment contract is a prominent impediment that has led to significant confusion, inconsistent and unpredictable application, and unintended consequences, including the improper classification of assets as securities. The proposed modification aims to resolve these issues. Similarly, the term decentralization as a predominant defining characteristic has led to confusion and inconsistent application, which has diverted attention from when and to what extent it is relevant or required. We propose framing decentralization within the well-established concept of control, providing a clearer and more consistent regulatory approach, particularly in terms of potential consumer protection and market integrity risks. Additionally, the definition of an accredited investor imposes unnecessary restrictions on market access—both for those seeking capital and those wishing to invest—resulting in unfairness and inefficiencies that distort market incentives. To mitigate these constraints on market structure, we propose a revised approach to the accredited investor definition. Furthermore, fundamental principles underlying securities laws—such as the concepts of an investment contract, accredited investor, and control—offer valuable insights into market structure challenges and potential regulatory solutions.

A. Revised Definition Of “Investment Contract”

The definition of an investment contract and the application of the *Howey* test have long been problematic, and the test's application to digital assets has lacked practical and predictable boundaries for determining what qualifies as a security. Under *SEC v. W.J. Howey Co.*,³¹ an arrangement must include each of the following to qualify as an investment contract: (1) an investment of money; (2) in a common enterprise; (3) with a reasonable expectation of profits based on the managerial efforts of others.

The investment contract definition should be revised to make clear that a *quid pro quo* exchange is required. First, there must be the provision of capital or other assets—this constitutes the investment (“*quid*”). Second, there must be a legally recognized right or contractual claim to both another party’s future efforts to manage a venture on behalf of the investor, and the proceeds of those obligated efforts (e.g., income, revenue, profit)—this represents legal entitlement (“*quo*”).

³¹ 328 U.S. 293 (1946).

Securities Principles and Historical Context³²

In rethinking the standard for an investment contract, we began with first principles. By considering the context and purposes of the federal securities law, we can more clearly define the fundamental nature of an investment contract.³³ These laws were established in response to a disastrous stock market crash that devastated the Nation’s economy, causing widespread bank closures, the loss of deposits and savings, restricted access to credit, soaring unemployment, increased bankruptcies, and poverty spread across the Nation. To put this into perspective, the market value of stocks listed on the New York Stock Exchange peaked at over \$89.6 billion on September 1, 1929. By November 1, 1929, it had plummeted by approximately \$18 billion, and by July 1, 1932, it had dropped to around \$15.6 billion—representing a loss of \$74 billion from the peak.³⁴

The federal securities laws were designed to address the primary causes of that financial collapse, namely, lack of transparency for investors that resulted in information asymmetry between buyers and promoters and misuse of confidential, nonpublic information by insiders and major stockholders.³⁵ Consequently, the securities regime became heavily focused on disclosure requirements, with enforcement mechanisms in place to address fraud.

The investment contract category has been used to encompass unconventional investments where investors face practical challenges in evaluating and overseeing the actions of those entrusted with managing their capital or assets. It was not intended to regulate an entire industry or technology, and it is ill-suited to do so. Even though Congress crafted the definition of “security” broadly to include “virtually any instrument that might be sold as an investment,” it did not intend the federal securities laws to serve as a sweeping remedy for all forms of fraud.³⁶

While the definition of an investment contract is now amorphous, in the 1930s, when the Securities Act and Exchange Act were drafted, it was commonly understood to refer to the sale of an investment opportunity through the purchase of a contract.³⁷ Common investment opportunities included real estate, bonds, insurance, diamonds, and mining ventures, which were all advertised to the public with rights to guaranteed returns, such as profit shares or fixed weekly earnings.

³² More fulsome historical context can be found at Amicus Curiae Br. of The Digital Chamber In Support of Pls.’ Mot. for Summ. J. *Lejilex v. SEC*, Case No. 4:24-cv-00168 (N.D. Tex. Jul. 10, 2024) (“TDC Amicus Br.”).

³³ See generally, Guillén, Teresa Goody, “10 Commandments for Federal Securities Laws.” *CoinDesk*, (Feb. 3 2025), <https://sg.finance.yahoo.com/news/10-commandments-federal-securities-laws-220211311.html>.

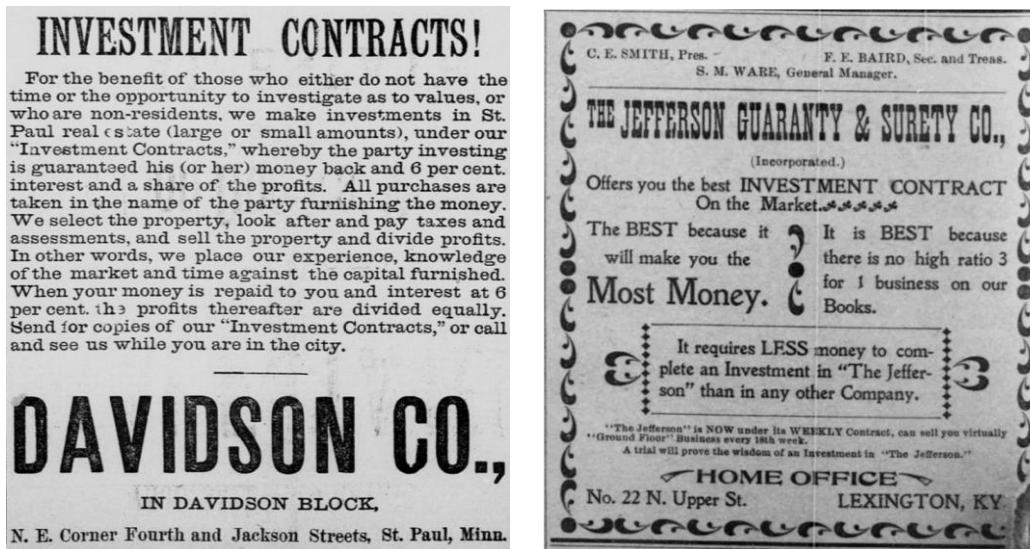
³⁴ *Stock Exchange Practices Report of the Committee on Banking and Currency*, S. Res. 84, 72d Cong., 76 Cong. Rec. 5241 (1932); S. Rep. 73-1455, at 7 (1934) (“Stock Exchange Report”).

³⁵ James M. Landis, *Legislative History of the Securities Act of 1933*, 28 Geo. Wash. L. Rev. 29, 30 (1959); 78 Cong. Rec. 7693 (1934) (statement of Rep. John J. Cochran); 78 Cong. Rec. 7863 (1934) (statement of Rep. Charles A. Wolverton); Stock Exchange Report, at 68.

³⁶ *Reves v. Ernst & Young*, 494 U.S. 56, 61 (1990) (citations omitted).

³⁷ Edward Lee, *The Original Public Meaning of Investment Contract*, 58 U.C. Davis L. Rev. 667 (2024) (“Lee”); see also Jonathan R. Macey and Geoffrey P. Miller, *Origin of the Blue Sky Laws*, 70 Tex. L. Rev. 347, 352 (1991), and Montreville J. Brown, *A Review of the Cases on “Blue Sky” Legislation*, 7 Minn. L. Rev. 431, 431 (1923).

Illustrative advertisements from 1887 and 1901 provide examples of the types of investment contracts in common use at the time.³⁸



Another source of guidance for redefining an investment contract comes from the 1933 dictionary definitions, which reinforce the essential *quid pro quo* nature of an investment contract:

- **Investment** (Oxford Dictionary): “[c]onversion of money or circulating capital into some species of property from which an income or profit is expected to be derived in the ordinary course of trade or business.”³⁹ This is consistent with the legal definition of “invest” (Black’s Law Dictionary): “loan[ing] of money upon securities of a more or less permanent nature, or to place it in business ventures or real estate, so that it may produce a revenue or outcome.”⁴⁰
- **Contract** (Oxford Dictionary): “a mutual agreement between two or more parties that something shall be done or forborne by one or both; a compact, covenant, [or] bargain”; “[a]n agreement enforceable by law, [or] an accepted promise to do or forbear.”⁴¹ This is similar to the legal definition (Black’s Law Dictionary): “[a] promissory agreement between two or more persons that creates, modifies, or destroys a legal relation.”⁴²

Central to these definitions are two fundamental features: the provision of money or assets, representing the initial investment or contribution of resources, and the establishment of a legal right or promise to income, revenue, or profit that arises from that contribution.

³⁸ *Id.* at 32 and 38 (cited in TDC Amicus Br.).

³⁹ 5 OXFORD ENGLISH DICTIONARY, at 458 (1st ed. 1933).

⁴⁰ BLACK’S LAW DICTIONARY, at 1006 (3d ed. 1933). This version of Black’s Law Dictionary is also the version in effect in 1946, the year that the *Howey* decision was rendered.

⁴¹ OXFORD ENGLISH DICTIONARY, at 458.

⁴² BLACK’S LAW DICTIONARY at 421.

It is also helpful to review historical occasions when the SEC analyzed an analogous asset or applied the investment contract framework. A particularly insightful instance is its analysis concluding that trading stamps were not securities in 1958, which was 12 years after the *Howey* decision and 25 years after the Securities Act was enacted. Trading stamps were small, colorful coupons with adhesive backings provided to customers as a reward mechanism and were a widely used marketing tool used by merchants.⁴³ Individually, each stamp held minimal monetary value—typically just a few pennies. In 1956, over 168 billion trading stamps were distributed, and there was a significant trading stamps market, including a secondary market.⁴⁴

Merchants purchased these stamps from issuers and distributed them to customers, who could collect and redeem them for cash or valuable items such as furniture or toys.⁴⁵ In the stamp ecosystem, merchants controlled the distribution, which they significantly altered by offering promotions like “double” or “triple” stamp days,⁴⁶ and stamp issuers determined the value of the merchandise for which stamps could be redeemed.⁴⁷ Under recent applications of the *Howey* test and the SEC Staff’s 2019 digital asset framework,⁴⁸ these stamp transactions would be classified as investment contracts, requiring that offers and sales of stamps be registered or conducted pursuant to an exemption. Because it is impossible to register and trade stamps on a national securities exchange, nonaccredited investors would have been excluded—for their own protection—from purchasing these gummy-backed stickers and participating in the stamp ecosystem. It is instructive that the SEC did not even consider the investment contract analysis potentially applicable here, and only considered whether the stamps were evidence of indebtedness. Also significant is the SEC’s prudent determination to refrain from exercising jurisdiction, recognizing that similar arguments could apply to items like streetcar tokens, meal tickets, and gift certificates—which the legislative history shows Congress did not intend to regulate as securities.⁴⁹

B. The Application Of The Principle Of Control

Because DLT allows data to be recorded, stored, and shared across a distributed network, it removes the need for central authorities for managing and verifying data. The elimination of

⁴³ See Alan Morrell, *Whatever Happened to . . . Trading Stamps?*, Rochester Democrat and Chronicle (Jul. 31, 2015), <https://www.democratandchronicle.com/story/news/local/rocroots/2015/07/31/whatever-happened-trading-stamps/30963275>.

⁴⁴ Arthur C. Canady, *Trading Stamps—The Great American “Pastetime,”* 12 Fla. L. Rev. 213, 215 (1959) (“Canady”); see, e.g., Jeff Lonto, *The Trading Stamp Story*, Studio Z-7, <http://www.studioz7.com/stamps.html>.

⁴⁵ SEC Interpretative Rel., *The Commission’s Statement Regarding Trading Stamps*, 17 C.F.R. § 231.3890 (Jan. 24, 1958), <https://www.govinfo.gov/content/pkg/FR-1958-01-25/pdf/FR-1958-01-25.pdf> (“SEC Stamps Rel.”).

⁴⁶ Canady, at 215.

⁴⁷ *Id.*

⁴⁸ SEC staff, *Framework for “Investment Contract” Analysis of Digital Assets, Strategic Hub for Innovation and Financial Technology of the SEC* (2019), <https://www.sec.gov/about/divisions-offices/division-corporation-finance/framework-investment-contract-analysis-digital-assets>.

⁴⁹ *Id.* The commission noted that, if trading stamps were used for capital raising activities, its position might be different.

centralization is often referred to as decentralization. Decentralization has been used to refer to the distribution of control, decision-making, token issuance, token allocation, and/or data storage across a network of participants rather than being concentrated in a single entity or authority, among other things. Control is the foundational principle that underpins all these aspects, as it is essentially deconcentrating or distributing control. The concept of control is well-established within legal frameworks and offers a clearer, more concrete meaning compared to the more abstract and evolving notion of decentralization. Control is an important part of the analysis of distributed ledgers as a new business model, discussed in Section II.

There are various applications of control we glean from existing legal principles, whether it is controlling the computer code, the network, or the overall ecosystem. For example, the determination of whether the ownership interests in a typical organization are securities is guided by the legal form but ultimately depends on the economic realities of the parties' relationship. A nominal general partner may be able to assert a security interest by demonstrating the inability to exercise meaningful control over the partnership. This could be evidenced by: (1) the lack of legal control, where the partnership agreement distributes power in a way that significantly limits the investor's influence; (2) the absence of capacity to control, where the investor is too inexperienced or lacks the necessary business acumen to effectively exercise their partnership powers; and (3) the lack of practical control, where the partner is overly reliant on the unique managerial abilities of the promoter and is incapable of replacing the manager or exercising meaningful partnership authority.⁵⁰

The lack of purchasers' meaningful control leads to concerns of transparency and information asymmetry between the purchaser and issuer/promoter. The already-existing concepts of "control," "majority-owned subsidiary," "affiliate," and "associate" in federal securities laws are valuable for understanding governance and ownership structures.⁵¹ These are also helpful concepts for crafting and evaluating legal frameworks and tests applicable to digital assets and decentralization. "Control" refers to the ability to directly or indirectly direct an entity's management and policies through voting securities, contracts, or other means. A "majority-owned subsidiary" is an entity where a parent or related subsidiary holds over 50% of voting rights. An "affiliate" denotes shared control, in that a person "controls or is controlled by, or is under common control with" a specified party. Significant relationships are captured by the term "associate," including the relationship between an entity and its officer or partner of the entity, the beneficial ownership of 10% of certain stock, or familial ties with officers and directors, all of which may impact governance and decision-making. While these definitions do not lend themselves to many digital assets, the authority, influence, and control concepts are transferable to various systems.

In contexts when it is determined that disparities in control create risks, those risks often relate to information asymmetry, and potential fraud and manipulation. In those circumstances, when

⁵⁰ See *Willaimson v. Tucker*, 645 F.2d 404 (5th Cir. 1981).

⁵¹ 17 CFR § 230.405 (defining terms, including "control," "majority-owned subsidiary," "affiliate," and "associate," that are described in this paper).

additional regulatory oversight and safeguards are required, the focus is often on disclosure and transparency to mitigate those risks. This includes identifying the controlling and managing persons or entities and providing purchasers with significant information regarding business or venture plans, risk, use of capital and proceeds, and the beneficial ownership of controlling and managing persons as well as large asset holders. For example, the SEC imposes rigorous disclosure requirements to ensure transparency and provide investors with the information needed to assess their investments, such as ownership in a company. Stockholders who, individually or as a group, acquire more than 5% of a registered class of equity securities must promptly disclose their background and investment intentions. This enables investors and companies to monitor potential influences on management and corporate policies. Additionally, officers, directors, and shareholders owning 10% or more of an SEC-reporting company's equity securities must promptly report transactions involving those securities, facilitating transparency, accountability, and oversight.⁵²

Control in DLT networks is a multifaceted issue that impacts not only the structure and functionality of these networks but also consumer trust, market adoption, and effective and practical regulatory requirements. It is important to evaluate how control is distributed or concentrated across different aspects to appropriately balance innovation, freedom, competition, consumer protection, and market integrity. The issues where control may play a significant role include:

- **Consensus Mechanisms:** Control over transaction validation and network operations is governed by consensus algorithms, such as proof of work (“PoW”), proof of stake (“PoS”), Gossip protocol, and distributed hash table (“DHT”). These mechanisms ensure that no single entity can unilaterally control the network. However, if a small group of participants or mining pools dominate the consensus process, they may have the ability to disproportionately influence decisions, leading to centralization and undermining the decentralized nature of the system.
- **Permissionless versus Permissioned Control:** Permissionless DLT networks (e.g., Bitcoin, Ethereum) allow anyone to participate in validation and decision-making, increasing decentralization. But if too many resources are required to participate (e.g., costly mining equipment or high staking requirements), this can concentrate control among a smaller group, which limits decentralization. Permissioned DLT networks (e.g., Hyperledger Fabric, Corda) restrict access to specific entities, often for regulatory, operational, or privacy reasons. This inherent control structure can prevent true decentralization, as a select group of entities can control decisions and data, reducing the distribution of power and consensus.

⁵² The SEC disclosure and reporting requirements discussed are located in the Securities Act, the Exchange Act, and the rules and regulations promulgated thereunder, including Exchange Act Sections 13(d), 13(g), and 16 and Regulation S-K.

- **Smart Contract Automation:** Decentralized control is enhanced by smart contracts, which automatically execute transactions based on predefined conditions without intermediaries, reducing reliance on centralized control. However, the creators of the smart contracts or the platforms that deploy them may retain influence in the form of the ability to modify or override the contracts after deployment, leading to centralized control over processes meant to be autonomous.
- **Node Distribution and Governance Influence:** A greater number of independent nodes with more widely distributed information throughout the network strengthens decentralization, preventing any single entity from gaining excessive control. If too many nodes are controlled by a few entities, this could give those entities disproportionate influence over the network's operations. Some networks implement delegated governance models where certain participants (e.g., validators, stakers) have greater control over protocol upgrades or decision-making. While this can improve efficiency, it also concentrates control among a limited group of participants, undermining the egalitarian nature of full decentralization.
- **Censorship Resistance:** No central authority can unilaterally censor transactions, making decentralized control of DLT networks resistant to external control. However, if a small group of miners, validators, or stakers controls the majority of the network's resources, they could potentially block or change transactions, which compromises the fundamental principle of censorship resistance.
- **Forking as a Form of Control:** If users disagree with network changes or governance decisions, they can initiate a hard fork or soft fork on some DLT networks (e.g., blockchain) to create a separate version of the blockchain, effectively shifting control to a new community. While forking can be a tool for decentralization, it can also serve as a mechanism for a group to seize control of the network and create a split, leading to potential fragmentation and less coherence across the blockchain ecosystem.

Understanding these dimensions of control is critical for navigating the challenges and opportunities in DLT ecosystems. And it can also provide guidance and well-established terminology to DLT concepts, such as decentralization and centralization.

C. Revised Approach To “Accredited Investor” Definition

To foster greater inclusivity within financial markets, the criteria for accredited investor status should be updated to include alternative pathways to qualification. Market participation should be permitted by basic financial literacy or access to expert advice. The test alternative would be simple and accessible, akin to a driver's license test, assessing basic knowledge of financial markets, investment products, and associated risks. It would ensure investors are able to make informed decisions without approaching the rigor of professional licensing exams.

Alternatively, individuals could qualify by working with certified financial professionals, such as investment advisers or financial planners, who have a responsibility to act in their clients' best

interests. This enables participation through relying on the expertise and ethical commitment of their adviser.

The evolution of financial markets calls for increased inclusivity, both for those seeking to raise capital and for those who wish to invest. Historically, access to key economic rights and opportunities was often tied to property ownership or the accumulation of wealth. Over time, these criteria served as the gatekeepers to participation in various financial activities. However, in today's complex and interconnected economy, such measures are increasingly becoming antiquated.

Wealth thresholds are not a proxy for sophistication in investing. Many individuals possess extensive financial acumen gained through education or experience, yet because they do not meet income or net worth requirements, they are barred from accessing certain investment opportunities. For some academics, nonprofit workers, and public service employees, wealth accumulation may not align with their knowledge and capacity to invest responsibly. Indeed, if it were not for the locality pay adjustment for the Washington, D.C. area, SEC Commissioners would not meet the salary thresholds to be accredited investors.⁵³ It is nonsensical that many of the government employees who develop and regulate our financial markets, pursuant to the accredited investor definition, would be deemed incapable of protecting themselves in the markets. This perverse disconnect excludes talented and informed individuals from participating in wealth-building opportunities that could benefit not only them but also the broader economy.

At its core, an enduring American principle is that individuals should retain the freedom to make choices about how to manage their own money. The presumption that people must be shielded from potential mistakes—based solely on their income or financial standing—undercuts this principle. While ensuring investor protections is important, denying access to opportunities based on wealth or salary assumes a uniform lack of judgment or competence that is neither fair nor accurate. Such restrictions inadvertently undermine the ideals of meritocracy and the “American Dream.”

Together, these pathways prioritize financial literacy and informed decision-making over arbitrary wealth requirements. This proposal reflects a commitment to democratizing access while maintaining a focus on investor protection.

⁵³ SEC Commissioners are classified under Level IV of the Executive Schedule, with an annual salary of \$191,900. The SEC Chairman is classified under Level III, which only surpassed the \$200,000 threshold in 2024. Since the Commissioners are located in the D.C. area, they receive a 33.26% locality pay adjustment. *See generally U.S. Government Policy and Supporting Positions (Plum Book)*, S. Prt. No. 118-27 (2024), <https://www.govinfo.gov/content/pkg/GPO-PLUMBOOK-2024/pdf/GPO-PLUMBOOK-2024.pdf>; *U.S. Government Policy and Supporting Positions (Plum Book)*, S. Prt. No. 116 (2020), <https://www.govinfo.gov/content/pkg/GPO-PLUMBOOK-2020/pdf/GPO-PLUMBOOK-2020.pdf>.

IX. Classification Of Specific Digital Assets

The classification chart of specified digital assets is located in Exhibit 1. In that chart, we identify which of the twelve digital asset classes each identified digital asset fits, or may fit, within.

X. Identifying Appropriate Legal And Regulatory Regimes

In developing a comprehensive regulatory framework, it is important to identify which of the twelve asset classes naturally fall within the jurisdiction of a specific existing regulatory regime. Below are the most salient federal regulatory regimes for purposes of the digital asset classifications; however additional regulatory regimes may be applicable, including state law. With regard to state law, it is important to consider whether federal preemption should be extended to the extent it does not apply given the borderless nature of digital assets and implications for interstate commerce.

As an initial matter, society members are held to certain standards of conduct. One standard is the reasonable person standard,⁵⁴ which is a foundational principle in tort law and serves as a benchmark to evaluate whether an individual's actions meet the level of care required under specific circumstances. This standard embodies the hypothetical behavior of an ordinary, prudent person acting with rationality, caution, and foresight in comparable situations. The primary purpose of the standard is to establish an objective measure for assessing negligent conduct. It enables courts to determine whether a party breached their duty of care by failing to act as a reasonable person would under similar conditions and proximately caused harm to others that resulted in damages.

In addition, U.S. federal laws prohibit lying, cheating, and stealing to generally uphold fairness and integrity. These laws include key provisions against fraud, theft, and misrepresentation in both civil and criminal contexts. For example, the Wire Fraud Act and Mail Fraud Act criminalize deceit or false statements used to gain financial or personal advantage. Similarly, laws addressing embezzlement and larceny target the illegal appropriation of property or funds. These regulations ensure accountability and protect individuals, businesses, and the government from unethical behavior, reinforcing a broader commitment to trust and justice in society.

No additional regulatory regime is required to prohibit unreasonable and negligent actions, lying, cheating, or stealing.

⁵⁴ See *Blyth v. Company Proprietors of the Birmingham Water Works*, 11 Exch. 781, 156 Eng. Rep. 1047 (1856).

A. Securities And Exchange Commission

The SEC is the U.S. regulatory body responsible for enforcing federal securities laws and overseeing the securities industry. Its jurisdiction is limited to securities. Its stated mission is to protect investors, ensure fair, orderly, and efficient markets, and promote capital formation.⁵⁵ The primary federal statutes governing the federal securities law most relevant to this discussion are the Securities Act and the Exchange Act.⁵⁶ Generally, the Securities Act regulates the initial issuance and sale of securities, including registration, anti-fraud, and civil liability provisions. The Exchange Act regulates the secondary trading of securities, including trading on exchanges and over-the-counter markets. The SEC regulates traditional securities intermediaries, including securities brokers, exchanges, and clearing agencies.

The SEC has jurisdiction only over transactions involving securities, meaning its authority extends only to digital assets that implicate or fall under the purview of the securities laws. The securities laws generally require that the offer and sale of a security either be registered or conducted pursuant to an exemption from registration. Even if exempted from registration, certain disclosures from the issuer to the purchaser may be required, as well as other limitations on the transactions. Even when securities transactions are exempt, they are subject to the anti-fraud rules.

B. Commodity Futures Trading Commission

The jurisdiction of the Commodity Futures Trading Commission (“CFTC”) is first defined by the bounds of the definition of “commodity” under the CEA. A “commodity” includes an enumerated list of agricultural products and “all other goods and articles . . . and all services, rights, and interests . . . in which contracts for future delivery are presently or in the future dealt in.”⁵⁷ “[T]he existence of futures trading within a certain class” is sufficient for all items in that class to be considered commodities.⁵⁸

The CFTC has enforcement, as opposed to regulatory, jurisdiction over the cash or “spot” commodity market. That means the CFTC does not have a regulatory and registration regime for commodity spot markets, but it can bring enforcement actions for fraud and market manipulation in connection with interstate commerce involving spot commodity markets.

The CEA grants the CFTC exclusive jurisdiction over various financial instruments related to commodities, including commodity options, swaps, futures contracts, and foreign exchange

⁵⁵ *About*, U.S. Sec. & Exch. Comm'n (Jun. 29, 2024), <https://www.sec.gov/about>.

⁵⁶ There are additional federal securities laws, such as the Trust Indenture Act of 1939, Investment Company Act of 1940, Investment Advisers Act of 1940, Sarbanes-Oxley Act of 2002, and Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010.

⁵⁷ 7 U.S.C. § 1a(9).

⁵⁸ *CFTC v. My Big Coin Pay, Inc.*, 334 F. Supp. 3d 492, 498 (D. Mass. 2018) (applying a “middle of the ground” statutory reading that because futures contracts of bitcoin exists, all digital assets in the same class as bitcoin are also commodities, including the token, MBC).

trading.⁵⁹ The CFTC is charged with promoting markets that are open, competitive, and financially sound while protecting the public from fraud, manipulation, and abusive practices.

- **Commodity Options:** Financial contracts that give the holder the right, but not the obligation, to buy or sell a commodity (e.g., oil, gold, or agricultural products) at a predetermined price on or before a specified date.
- **Swaps:** Contracts in which two parties agree to exchange cash flows based on underlying assets or indices, such as interest rates, foreign currencies, or commodity prices. These can be complex financial products like interest rate swaps or credit default swaps.
- **Futures Contracts:** Agreements to buy or sell a commodity at a predetermined price on a specific future date. These contracts are widely used for hedging risks and speculating on price movements in markets such as agriculture, energy, and metals.
- **Foreign Exchange (“Forex”) Trading:** The trading of one currency for another. These contracts are used to settle cross-currency payments and hedge currency risk.

The CFTC also regulates participants in the derivatives markets, including futures commission merchants (“FCMs”), exchanges, clearinghouses, and swap dealers/major swap participants.

The CEA, Securities Act, and Exchange Act do not expressly state that jurisdiction of the CFTC and SEC are mutually exclusive, but in practice it has been treated as such.⁶⁰ Crypto has presented a somewhat rare circumstance in which the SEC has treated a cryptocurrency as a security while the CFTC has treated that same cryptocurrency as a commodity.⁶¹

C. Federal Trade Commission

The Federal Trade Commission (“FTC”) is primarily responsible for enforcing consumer protection and antitrust laws. Its regulations prohibit “unfair or deceptive acts or practices in or affecting commerce,” which includes fraud.⁶² The FTC’s jurisdiction covers interstate commerce and applies to individuals, businesses, and entities engaging in commerce. Additionally, the FTC oversees issues in privacy, digital transactions, and deceptive marketing practices, ensuring consumer rights are upheld in an evolving digital economy. The FTC has already used its authority

⁵⁹ 7 U.S.C. § 2(a)(1)(A).

⁶⁰ Section 2(a)(1) of the CEA states that “nothing contained in this section shall (I) supersede or limit the jurisdiction at any time conferred on the Securities and Exchange Commission or other regulatory authorities . . . or (II) restrict the Securities and Exchange Commission . . . from carrying out their duties and responsibilities” 7 U.S.C. § 2(a)(1). The definition of “security” in both the Securities Act of 1933 and the Exchange Act begin with “unless the context otherwise requires.” Securities Act, 15 U.S.C. § 77b(a)(1); Securities Exchange Act of 1934, 15 U.S.C. § 78c(3)(a)(10).

⁶¹ Teresa Goody Guillén and Joanna Wasick. *DOJ, CFTC and SEC Bring Separate Actions for the Same Conduct: Alleged Digital Asset Manipulation and Fraud Scheme on Mango Markets Platform*. BakerHostetler Client Alert (Feb. 24, 2023), <https://www.bakerlaw.com/insights/doj-cftc-and-sec-bring-separate-actions-for-the-same-conduct-alleged-digital-asset-manipulation-and-fraud-scheme-on-mango-markets-platform/>.

⁶² 15 U.S.C. § 45(a)(1).

in the crypto space, including in actions related to fake celebrity endorsements, scams, and misleading advertisements.

D. U.S. Department of the Treasury

The U.S. Department of the Treasury safeguards against financial crimes, leveraging its authority to promote global stability and maintain the integrity of the financial system. Through its specialized agencies—such as the Office of Foreign Assets Control (“OFAC”), the Financial Crimes Enforcement Network (“FinCEN”), and the Internal Revenue Service (“IRS”)—the Treasury enforces laws on sanctions, anti-money laundering (“AML”), and tax compliance. Each agency plays a distinct yet interconnected role in combating illicit activities and ensuring adherence to federal regulations.

Sanctions Enforcement: OFAC administers and enforces economic and trade sanctions against targeted individuals, entities, and jurisdictions. These sanctions are designed to restrict financial transactions and deter activities that threaten national security, such as terrorism financing, nuclear proliferation, and human rights abuses.

AML and Know Your Customer (“KYC”) Regulations: FinCEN combats money laundering and other financial crimes by implementing the Bank Secrecy Act (“BSA”). Under these regulations, financial institutions are required to implement KYC protocols, monitor suspicious transactions, and file reports on activities that raise red flags. These efforts target illicit financial flows and aim to prevent the misuse of financial systems for criminal activities, including drug trafficking and organized crime.

Tax Enforcement: The IRS focuses on ensuring compliance with tax law by detecting and addressing unreported income, tax evasion, and fraud.

E. Banking Regulators

The U.S. banking regulators oversee and regulate financial institutions to ensure the stability, safety, and fairness of the banking system. There are several key regulators with varying responsibilities and authority:

1. The Federal Reserve

As the central bank, the Federal Reserve (“Fed”) has broad authority over the U.S. banking system. It supervises and regulates commercial banks, bank holding companies, and savings and loan associations. The Fed plays key roles in monetary policy, setting interest rates and controlling the money supply. It supervises financial institutions to ensure sound practices and adequate capital. Additionally, as a lender of last resort, the Fed provides emergency funds to financial institutions during crises to maintain stability.

2. The Office of the Comptroller of the Currency

The Office of the Comptroller of the Currency (“OCC”) is responsible for regulating and supervising national banks and federal savings associations, focusing on their capital requirements, risk management, and compliance mechanisms. The OCC plays a key role in chartering national banks and overseeing their compliance with banking laws. It is tasked with ensuring banks operate safely, manage risks effectively, and maintain financial stability.

3. The Federal Deposit Insurance Corporation

The Federal Deposit Insurance Corporation (“FDIC”) regulates and supervises state-chartered banks that are not members of the Federal Reserve System and provides deposit insurance to protect consumers. The FDIC insures deposits up to \$250,000 per depositor, supervises banks for safety and compliance with consumer protection laws, and manages the resolution of failed banks to protect depositors.

F. Department of Justice

The DOJ is tasked with prosecuting financial crimes such as securities fraud, commodities fraud, crypto-related fraud, money laundering, and sanctions violations. The department collaborates with other regulators, including the SEC, CFTC, FTC, and Treasury, to enforce laws like the Securities Act, Exchange Act, CEA, the BSA, and the Racketeer Influenced and Corrupt Organizations Act (“RICO”). Its criminal enforcement role is central to upholding the law and maintaining integrity in financial systems.

XI. Considerations For Coordinated Comprehensive Regulation

After the initial digital asset classification and assessment of the regulatory regimes that are implicated for the various assets, we next identified issues that need to be addressed and proposed solutions. A few of the prominent issues are set forth below with relevant considerations.

A. Coordinated Agency And Legislative Action

In light of the significant setbacks faced by the digital asset industry,⁶³ it is crucial to develop an expedited, coordinated, and comprehensive regulatory regime. While numerous bills have been proposed in both the House and Senate, enacting major new legislation may not be necessary—there is likely a more swift approach. The SEC has broad exemptive authority under Section 28 of the Securities Act and Section 36 of the Exchange Act, which provides the agency the discretion to “conditionally or unconditionally exempt any person, security, or transaction, or any class or classes of persons, securities, or transactions” from the Acts and any rules and regulations

⁶³ See Hester M. Peirce, SEC Commissioner, *The Journey Begins*, U.S. Securities and Exchange Commission (Feb. 4, 2025), <https://www.sec.gov/>.

thereunder, as long as it deems the exemption to be in the public interest and consistent with the protection of investors.

Likewise, the CFTC has broad exemptive authority under Section 4(c) of the CEA, which allows the agency to exempt certain “agreement[s], contract[s], or transaction[s], (or classes thereof)” from regulation under the CEA if it determines that doing so is in the public interest or if it believes such an exemption would promote “responsible economic or financial innovation and fair competition.” Notably, this could not be used to grant the CFTC additional regulatory authority over the spot commodities markets, which would require Congressional action.

However, the SEC and CFTC could align with other stakeholders, including Congress and the Executive branch, to arrive at a collaborative regulatory framework that can be established using their broad, respective exemptive authority. Through collaborative efforts, these agencies can implement light-touch regulatory approaches in a way that is adaptable and conducive to the assets and technology, which avoids comprehensive new legislation that may take many years to implement. The collaborative agreements could then be codified into law, ensuring their long-term stability. While additional legislation may be necessary to grant additional authority, such legislation could be significantly limited in scope to provide a potentially more nimble and swift approach.

This is not a new approach; the SEC and CFTC took a similar approach to jurisdictional coordination⁶⁴ in the 1981 jurisdictional accord, known as the Shad-Johnson Accord, which was formalized into legislation in 1982.⁶⁵ The Accord effectively divided jurisdiction over derivative products between the two agencies based on the nature of the products. Specifically, the SEC retained jurisdiction over securities-related products, such as options on securities and securities indices, while the CFTC took jurisdiction over commodity futures.

While tax implications are not the primary focus of this discussion, they play a critical role in the industry’s growth, particularly in developing its infrastructure. Unfavorable or impractical tax treatments can hinder progress, making it essential to consider tax incentives and policies that support sustainable development while remaining practical and reasonable for industry participants.

B. Considerations For Regulatory Oversight Of Digital Asset Centralized Exchanges

Drawing from the lessons of the Pecora Commission, exchanges can play a pivotal role in safeguarding consumer protection and maintaining market integrity. “The function of an exchange is to maintain an open market for [assets], where supply and demand can freely meet at prices

⁶⁴ Bevis Longstreth, SEC Commissioner, *The SEC-CFTC Accord: Accommodation in the Public Interest, Remarks to the Securities and Commodities Laws Committees of the Chicago Bar Association*, U.S. Securities and Exchange Commission (Apr. 16, 1982), <https://www.sec.gov/news/speech/1982/041682longstreth.pdf>.

⁶⁵ Futures Trading Act of 1982, Pub. L. No. 97-444, 96 Stat. 2294 (1983).

uninfluenced by manipulation or control.”⁶⁶ This principle is especially pertinent as we consider the future of cryptocurrency exchanges. With the rapid evolution of digital assets, there is substantial potential to create a framework that fosters innovation while addressing the unique challenges posed by these markets, which can be facilitated by various market participants. Centralized exchanges are uniquely positioned to implement listing disclosures, monitor for fraud and manipulative conduct, and promote competition to enhance market participation and growth.

Workable regulation must take into account several considerations:

- Trading some digital assets is not possible or practical under current regulations, such as digital asset securities on national securities exchanges. While legacy exchanges should be updated to accommodate digital assets, it may be more expedient and efficient to facilitate the trading of digital assets on existing (and future) digital asset exchanges, with new or modified regulations to the extent necessary.
- To best capture efficiencies and reduce overly burdensome and costly duplicative regulatory compliance, to the extent possible, different classes of digital assets should be available to trade on the same platform.
- To the extent possible, existing registration and reporting regimes should be considered whether they are practical for, and provide relevant information regarding, digital assets and associated transactions. Disclosures should provide purchasers with information that is relevant to their purchase, e.g., value regarding a digital asset as opposed to the value of the equity of a company associated with developing the digital asset. Disclosures required by listing persons or issuers must be feasible on permitted exchanges.
- To the extent existing regulatory frameworks are ill-suited for digital assets and DLT, such as for digital asset securities, new regulatory frameworks should be created. The new frameworks should leverage technologies (e.g., DLT-enabled clearing), enhance efficiencies, and provide flexibility to adapt to new technologies and products. Notably, the SEC took a similar approach when promulgating Regulation ATS for alternative trading systems. These new, simplified, nimble, forward-looking frameworks and approaches can be a template that is followed to improve our existing regulatory frameworks for traditional assets and legacy markets.
- Market participants, including intermediaries, should not have to be subject to regulation by multiple regulators for the same conduct. Full registration with one regulator with notice registration to any others should suffice.
- Assets may transform over their life cycle, but the exact moment of transformation would be difficult to define and should not force a shift in regulatory oversight.

⁶⁶ *Stock Exchange Practices Report of the Committee on Banking and Currency*, S. Res. 84, 72d Cong., 76 Cong. Rec. 5241 (1932); S. Rep. 73-1455, at 81 (1934), <https://www.senate.gov/about/resources/pdf/pecora-final-report.pdf>.

- Technology and automation should be used to the benefit of market participants, increasing reliability and lowering both barriers to entry and ongoing cost of compliance. For example, AI tools can be deployed for advanced auditing and monitoring.

C. Considerations For Regulatory Oversight Of Spot Digital Assets Markets

Certain digital asset markets are particularly vulnerable to manipulation, fraud, and unfair trading practices. Markets operating outside established securities and derivatives regulatory frameworks often lack adequate disclosures, creating information asymmetry between issuers/promoters and purchasers. Specifically, the spot market for digital assets that are neither securities nor derivatives are not subject to the SEC or CFTC regulatory registration and reporting regime. Instead, the trading of those assets may be subject to Treasury Department regulations for AML and counter-terrorism financing and banking or money transmission licensing and regulations. Even in the absence of a specific regulatory regime, the government has the authority to bring enforcement actions for fraudulent or manipulative conduct, as well as unfair and deceptive practices. In conversations with industry participants, many expressed a preference for a light-touch regulatory framework for the spot market of non-security digital assets. Such an approach would offer protections for purchasers, particularly in terms of disclosures, thereby enhancing market integrity, without imposing burdensome or excessive regulation. The goal is not rigid control but a forward-thinking, practical approach that considers the industry's trajectory. As the digital asset market rapidly expands, its economic impact will only continue to grow. A proposed initial summary of certain market participants, consumer protection and market considerations, and potential regulatory considerations is annexed as Exhibit 2.

One potential approach is for spot digital assets to be subject to certain regulatory requirements based on the characteristics of their respective markets. Indicia that some regulatory oversight is warranted could be guided by retail access to the market, market depth, and trading volume. That is, some regulatory oversight may be triggered when secondary market trading of an asset is available to retail investors on a centralized or decentralized exchange or the asset is otherwise traded with significant volume and liquidity. While large volumes and deep liquidity are signs of a healthy trading environment, these also make the market more susceptible to manipulation, fraud, and other abuses if left unchecked. Without regulatory oversight, the market could be exploited by bad actors, and these markets may warrant additional, minimal consumer protections.

Certain concerns related to the integrity of digital asset markets should be considered in evaluating the necessity or appropriateness of regulation.

1. **Fair and Independent Price Discovery:** Prices should be determined equitably by the forces of supply and demand across multiple independent and unaffiliated trading venues. Price manipulation or biased pricing mechanisms can erode market integrity. If prices are shaped by a single entity or a small group of actors, it can result in artificial price levels and market distortions that disproportionately harm participants, especially retail investors. Independent price discovery is essential to guarantee that market prices accurately reflect the true supply and demand for assets.

In digital asset markets, where volatility and decentralized structures can make price discovery more complex, ensuring that prices reflect actual market activity is particularly crucial. This is often best achieved with transparency, surveillance, and rules that promote market fairness across all trading venues.

2. **Low Slippage and Tight Spreads:** Large trades should not significantly impact asset prices, and bid-ask spreads must remain narrow across platforms. Slippage, the difference between the expected and actual trade price, is particularly problematic in digital asset markets due to volatility and liquidity issues. Platforms should maintain sufficient liquidity to prevent large orders from causing price disruptions, allowing both retail and institutional traders to execute transactions with minimal price movement. Consideration should be given to mechanisms that incentivize competition, liquidity, and efficiency in the market, such as encouraging market makers to provide liquidity, using liquidity pools, and facilitating transparent pricing.
3. **Consumer Protection and Risk Disclosure:** Digital assets often carry high levels of risk due to their volatility and technological complexities. There are often information asymmetries associated with affiliated persons and entities who own significant amounts of the digital assets and/or effectively control the protocol or any part of the ecosystem as well as plans of operations.

Consideration should be given to clear and consistent risk disclosure standards that are relevant to the specific asset and its characteristics so that retail investors understand the potential risks associated with investing in digital assets. This could include warnings about price volatility, the speculative nature of many assets, and the potential for loss of capital. Educating retail investors about these risks can help them make more informed choices and reduce the likelihood of market manipulation targeting less experienced investors. To the extent a disclosure regime is created for non-security digital assets, or digital asset securities that do not represent a debt or equity instrument or transaction, regulators should consider adapting the disclosure requirements from SEC Regulation CF and tailoring them to digital asset securities. To the extent there are securities that are not typically classified as debt or equity instruments, there must be a clear, consistent methodology to determine how to treat the assets. Returning to first principles, to the extent an investor transfers their money or assets for the right to receive something in the future, that generally implies a debt obligation or evidence of indebtedness.

Relevant information for users of trading platforms includes financial health, trading volumes, and asset-backed reserves for platforms dealing with stablecoins or other asset-backed tokens.

4. **Auditability and Compliance:** Given the importance of technical security to prevent loss and protect privacy, consideration should be given to periodic, but not overly invasive, audits of smart contracts, financial records, and platform operations to detect potential vulnerabilities and prevent fraudulent activities, such as wash trading and market manipulation. Smart contract audits and any AI or automation should be audited to ensure that code is free of flaws or exploits that could compromise user funds. On-chain data could be leveraged to monitor for irregularities, such as unusual trading patterns or suspicious transactions, which would trigger targeted investigations. Combining automated, on-chain monitoring with light-touch regulatory oversight could effectively reduce the risk of fraud, improve market integrity, and ensure investor protection without stifling innovation in the sector.

When considering market monitoring or technological auditing requirements, it is important to strike a balance between consumer protection, cost-effectiveness, and competitive fairness. Excessive compliance costs can create barriers to entry, stifling innovation and reducing market competition.

To mitigate these concerns, policymakers should explore flexible regulatory approaches. This could include a combination of government-provided monitoring and auditing services as well as alternative compliance pathways for companies that prefer to limit direct disclosure to government entities. For instance, entities could meet certain regulatory requirements through approved third-party audits or certification programs. By offering multiple avenues for compliance, regulation can uphold consumer protection and market integrity without imposing undue financial burdens or inhibiting competition.

For digital assets without regulatory oversight, it is recommended that a clear, concise risk disclosure be required, similar in length and format to health warnings on products like cigarettes. The warning could read:

Warning: Purchasing digital assets is highly speculative and involves significant risk. Prices can fluctuate wildly, and you may lose all your money. These assets have limited regulatory oversight, and risks like fraud, market manipulation, or technical failures may result in financial loss. Only purchase what you can afford to lose.

XII. Conclusion And Next Steps

Achieving clarity in digital asset regulation requires a nuanced approach that fosters innovation while ensuring accountability. This discussion framework emphasizes the need for comprehensive classification of digital assets, aligning regulatory oversight with their unique characteristics, and developing adaptable policies to promote transparent, fair, and resilient markets. Regulatory strategies should draw from traditional business structures, considering DLT's decentralized and borderless nature, to provide agile yet effective oversight.

The next phase necessitates collaboration among regulators, industry leaders, policymakers, and academics to refine these proposals. Policymakers are encouraged to use this framework as a foundation for open dialogue, aiming to streamline regulatory processes while safeguarding consumer and market interests. Stakeholders across the digital asset ecosystem are invited to offer feedback, share insights, and identify gaps, ensuring the framework remains practical and responsive to emerging technologies.

By uniting efforts, we can establish a regulatory environment that fosters growth, innovation, and trust in the future of digital assets. Now is the time to synchronize strategies and create a robust, forward-thinking structure that empowers a dynamic and democratic digital economy.

Exhibit 1

Key:											
<input checked="" type="checkbox"/> Classification applies											
<input type="checkbox"/> Classification may apply											
Blank: Classification unlikely to apply											

Proposed Digital Asset Classification Chart

*Depending on the structure and facts and circumstances of the asset and transaction, the classification is subject to change.

Digital Asset	Digital Payment Units	Primary Digital Currencies	Functional Digital Assets	Digital Asset Commodities	Digital Asset Securities	Asset-Backed Stablecoins	Tokenized Real-World Assets	Non-Fungible Digital Assets	Tribal & Social Assets	Non-Functional Inert Assets	Other
Cryptocurrencies (BTC, ETH, & Altcoins)	—	—	—	—	—				✓		
Fiat-Backed Stablecoins	✓					✓					
Asset-Backed Stablecoins	✓					✓					
Algorithmic Stablecoins	✓										
Non-Fungible Tokens (NFTs)								✓	✓		
Meme/Community Tokens				—					✓	✓	
Fundraising Token (ICO)	—	—	—		✓				✓		
Tokenized Security Tokens					✓					—	
Tokenized Real-World Assets				—	—	—	✓		—		
Decentralized Finance (DeFi) Tokens	—	—	—	—	—	—			✓	—	
Access Tokens		—	✓	—					✓		
Privacy Coins		—	✓	—					✓		
Carbon Credits & Environmental Assets		—	✓	—					✓		

Exhibit 1

Digital Asset	Digital Payment Units	Primary Digital Currencies	Functional Digital Assets	Digital Asset Commodities	Digital Asset Securities	Asset-Backed Stablecoins	Tokenized Real-World Assets	Non-Fungible Digital Assets	Tribal & Social Assets	Non-Functional Inert Assets	Other
Identity / Reputation Tokens			✓					—	✓		
Governance Tokens		—	✓	—	—				✓		
Central Bank Digital Currencies (CBDCs)	✓					✓					
Synthetic Assets (Synths)			—	—	—		—				✓ Derivative
Virtual or Metaverse Assets		—	✓	—	—			—	✓		
Gaming Assets / Play-to-Earn Tokens		—	✓	—				—	✓		
Layer 2 Tokens (Overlaps with Cryptocurrencies, e.g., Altcoins)	—		✓	—	—				✓		
Yield-bearing Tokens	—	—	✓	—	—	—			✓		
Staking Rewards	—	—	—	—	—			—	✓	—	
Liquidity Provider (LP) Tokens			✓	—	—						
Tokenized Intellectual Property (IP)			✓				✓				
Tokenized Fund Shares / Investment Tokens					✓		—				
Social Media and Content Creation Tokens	—	—	✓	—	—			—	✓		
Cross-chain Assets	—	—	✓	—	—	—	—	—	✓		

Exhibit 2

Market Participant Chart

Category	Description & Role	Consumer Protection & Market Considerations	Potential Regulatory Considerations
Retail Participants	<ul style="list-style-type: none"> Individual, non-professional participants. Limited access to private markets (when in investor capacity). 	<ul style="list-style-type: none"> Market volatility and information asymmetry. Risk of investing in fraudulent or unsustainable projects. Increased exposure to market manipulation, insider trading and token dumping concerns. 	<ul style="list-style-type: none"> Disclosure of risks and information. Monitoring and fraud detection.
High-Net-Worth Participants	<ul style="list-style-type: none"> Access to private placements, hedge funds, and venture capital. Bring large amounts of liquidity. 	<ul style="list-style-type: none"> Market manipulation risks, and lack of transparency. Risk of investing in fraudulent or unsustainable projects. Increased exposure to market manipulation, insider trading and token dumping concerns. May have influence over governance mechanisms in DAOs or DeFi projects through size of holdings. 	<ul style="list-style-type: none"> Disclosure of risks and information. Monitoring and fraud detection. Transparency and disclosure for large/controlling digital asset holdings. Limits on concentration of ownership for governance tokens.
Institutional Investors	<ul style="list-style-type: none"> Organizations investing on behalf of others. Includes pension funds, mutual funds, insurance companies, and endowments. Bring liquidity and sophistication to the market, contributing to market maturity. 	<ul style="list-style-type: none"> Counterparty risk when dealing with unregulated exchanges or custodians. Risk of market disruption if large positions unwind suddenly. Risk of investing in fraudulent or unsustainable projects. Increased exposure to market manipulation, insider trading and token dumping concerns. May have potential conflicts in token projects or if institutions also operate exchanges, custodians, or DeFi protocols. May have influence over governance mechanisms in DAOs or DeFi projects through size of holdings. 	<ul style="list-style-type: none"> Transparency and disclosure for large/controlling digital asset holdings. Risk management and disclosure. Disclosure of potential conflicts. Third-party custody requirement for large institutional holdings.

Exhibit 2

Category	Description & Role	Consumer Protection & Market Considerations	Potential Regulatory Considerations
Private Market & Alternative Investors	<ul style="list-style-type: none"> Individuals or firms that invest in digital asset companies and DLT projects, offering capital in exchange for equity or tokens. Often focus on high-risk, high-reward investments in private markets. Includes venture capitalists (VCs), private equity (PE) firms, and hedge funds. Provide funding and strategic guidance to DLT projects, fostering innovation and growth. 	<ul style="list-style-type: none"> Counterparty risk when dealing with unregulated exchanges or custodians. Risk of market disruption if large positions unwind suddenly. Risk of investing in fraudulent or unsustainable projects. Increased exposure to market manipulation, insider trading, and token dumping concerns. May have influence over governance mechanisms in DAOs or DeFi projects through size of holdings. 	<ul style="list-style-type: none"> Transparency for investors regarding token allocations and vesting schedules. Limits on pre-sale allocations to prevent undue control. Disclosure of potential conflicts.
Centralized Digital Asset Exchange (CEX)	<ul style="list-style-type: none"> An exchange that is operated by a centralized entity that retains custody of crypto assets of customers. Act as intermediaries, providing liquidity and often offering additional services, such as staking, margin trading, or futures. 	<ul style="list-style-type: none"> Risks related to hacking, insolvency, and fraud risks. Potential for smart contract vulnerabilities. Lack of consumer protection for lost or stolen funds. May have conflicts of interest if exchange also acts as custodian, lender, market maker, or issuer. May possess dominance over price discovery. Potential self-dealing or preferential treatment of specific tokens. 	<ul style="list-style-type: none"> Licensing/registration and compliance requirements. Transparency and standards related to listings, de-listings, order book, and liquidity. Disclosure of information and risks. Disclosures and mitigation to address vertical integration, conflicts of interest, potential for anticompetitive behavior. Facilitate alternatives and user choice for certain services to avoid anti-competitive bundling. Monitoring for fraud and manipulation detection.
Decentralized Digital Asset Exchange (DEX)	<ul style="list-style-type: none"> A DeFi application enabling users can trade directly with each other, without an intermediary or central authority. Users retain full custody of their assets and interact through smart contracts or peer-to-peer (P2P) mechanisms. 	<ul style="list-style-type: none"> Risks related to hacking, insolvency, fraud risks, illicit finance. Potential for smart contract vulnerabilities. Lack of consumer protection and recourse for lost or stolen funds and lack of accountability. Lack of transparency and disclosures around platform functioning and design (fees, governance, token listings and de-listings). 	<ul style="list-style-type: none"> Due to decentralized nature, certain regulatory and reporting requirements generally are not feasible. Licensing, registration, and/or compliance requirements on DEX front-ends or core developers (differing requirements depending on governance structure). Transparency and standards related to listings, de-listings, order book, liquidity, smart contract risks,

Exhibit 2

Category	Description & Role	Consumer Protection & Market Considerations	Potential Regulatory Considerations
	<ul style="list-style-type: none"> May use liquidity pools (AMMs) or on-chain order books to facilitate trading. Typically allows permissionless access (anyone can trade without KYC/AML). Supports trading many digital assets (not available on CEX). 	<ul style="list-style-type: none"> Lower liquidity leading to high slippage, increased volatility, fragmented and disadvantageous pricing. 	<ul style="list-style-type: none"> and fees (potentially smart contract auditing AI apps). Disclosures of risks (potentially automated). If governance is centralized, ensuring transparency of conflicts of interest. Monitoring for fraud and manipulation detection (potentially vendor agreement through DAOs, etc.).
Miners & Validators	<ul style="list-style-type: none"> Entities responsible for securing DLT networks by validating transactions and maintaining the ledger. Ensure the integrity and security of DLT networks, rewarded with new coins or tokens. 	<ul style="list-style-type: none"> Centralization risks in mining pools or validator networks (51% attack, double-spending, transaction censorship, cartelization). MEV (maximal extractable value) exploits, as validators can front-run, sandwich attack. 	<ul style="list-style-type: none"> Disclosure of mining pool concentration, validator ownership, governance models, and staking delegation. Incentivize validator participation to reduce centralization of efforts and encourage competition. Ensuring transactions are processed fairly, preventing discriminatory treatment or censorship by miners or validators.
DLT Developers	<ul style="list-style-type: none"> Developers creating and maintaining DLT platforms and smart contracts. Contribute to the expansion of the digital asset space by improving scalability, security, and usability of DLT networks. 	<ul style="list-style-type: none"> Legal liability for flawed code leading to financial losses. Developers controlling both infrastructure and applications could lead to anti-competitive behavior. 	<ul style="list-style-type: none"> Security audits for major DLT upgrades. Open-source best practices. Clear liability standards and safe harbors. Disclosure and transparency of deployment of certain autonomous agents.
Digital Assets Custodians (Custodial Wallets)	<ul style="list-style-type: none"> Third-party services providing secure storage and management of digital assets, especially for institutional participants. Securely store large amounts of digital assets for individuals and institutions, reducing risk of theft or loss. 	<ul style="list-style-type: none"> Custodial failures leading to asset loss (fraudulent or mismanagement of client funds). If provides other service, potential conflicts of interest could arise (e.g., asset security, lending). Risk of liquidity shortfalls if custodian lends, stakes, or reinvests customer (pooled) assets. Dominance of a few large custodians reducing competition. Potential for smart contract vulnerabilities leading to loss of user funds. 	<ul style="list-style-type: none"> Licensing and asset reserve transparency and requirements. Periodic security audits and risk assessments. Segregation of customer funds from proprietary funds. Standards and ownership clarity for omnibus accounts.

Exhibit 2

Category	Description & Role	Consumer Protection & Market Considerations	Potential Regulatory Considerations
DeFi Protocols and Platforms	<ul style="list-style-type: none"> Platforms enabling peer-to-peer services like lending (including collateralized), borrowing, trading (including derivatives), and yield farming without centralized intermediaries. Create new financial products, enabling global access to services like loans, insurance, and DEXs. Uses liquidity pools, staking, or lending protocols to provide assets for activities. 	<ul style="list-style-type: none"> Risks related to hacking, insolvency, fraud, illicit finance. Lack of consumer protection and recourse for lost or stolen assets and lack of accountability. Lack of transparency and disclosures around platform functioning and design, including reward structure and recipients. Lower liquidity leading to high slippage, increased volatility, fragmented and disadvantageous pricing. Potential for smart contract vulnerabilities leading to loss of user funds. Difficulty verifying absence of centralized control. Potential market manipulation by large liquidity providers. 	<ul style="list-style-type: none"> Due to decentralized nature, certain regulatory and reporting requirements generally are not feasible. Security and operations audits for DeFi platforms. Risk disclosures for DeFi users (the extent feasible, potentially by front-ends, potentially automated, or initial disclosure from core developers). Transparency regarding governance, incentives and rewards, liquidity. If governance is centralized, ensuring transparency of conflicts of interest. Monitoring for fraud and manipulation detection (potentially vendor agreement through DAOs, etc.).
Digital Assets Wallet Providers (Noncustodial)	<ul style="list-style-type: none"> Providers offering software or hardware solutions for securely storing and managing digital assets. Enable users to store private keys and interact with DLT networks. 	<ul style="list-style-type: none"> Risk of hacking, phishing attacks, lack of recovery mechanisms if private keys are lost. Conflicts of interest if offering vertical services and potential for anti-competitive conduct. Centralization risks in wallet providers affecting ecosystem security. 	<ul style="list-style-type: none"> Security certification standards for wallet providers. Fraud protection measures for compromised wallets.
Digital Assets Payment Services	<ul style="list-style-type: none"> Services allowing businesses to accept digital asset payments. Bridge the gap between digital assets and fiat currencies, promoting broader digital asset adoption. 	<ul style="list-style-type: none"> Consumer protections for refund disputes and chargebacks. AML/KYC compliance concerns. Risk of preferential treatment if payment processors prioritize affiliated merchants. Dependence on intermediaries for transaction processing. Potential for smart contract vulnerabilities. 	<ul style="list-style-type: none"> Licensing and compliance requirements for payment processors. Consumer protection rules for dispute resolution. Transparency of affiliates and transparency and mitigation of conflicts of interest.
Digital Assets Payment Card Providers	<ul style="list-style-type: none"> Provide credit or debit cards that allow users to spend digital assets at merchants. Facilitate the use of digital assets in real-world transactions. 	<ul style="list-style-type: none"> Loss of funds due to fraud or improper card management. If major exchanges also issue cards, there may be conflicts in transaction routing. Market dominance by a few large issuers. 	<ul style="list-style-type: none"> Licensing and compliance standards (including fraud prevention measures). Clear consumer refund and recourse mechanisms. Transparency of affiliates and transparency and mitigation of conflicts of interest.

Exhibit 2

Category	Description & Role	Consumer Protection & Market Considerations	Potential Regulatory Considerations
Stablecoin Issuers	<ul style="list-style-type: none"> Entities that create and maintain stablecoins pegged to real-world assets. Provide stability in the volatile digital asset market. 	<ul style="list-style-type: none"> Lack of reserves transparency, redemption mechanisms, systemic risk in case of failure (risk of de-pegging leading to financial instability). If vertical integration potential for conflicts of interest and liquidity manipulation (e.g., exchanges issuing their own stablecoins) Few issuers controlling large portions of digital asset liquidity. 	<ul style="list-style-type: none"> Licensing and compliance requirements. Reserve transparency and requirements, and audit requirements. Consumer protections for refunds, dispute resolution, and redemption (including in the case of failure). Interoperability standards to facilitate interoperability across networks.
Digital Asset Managers	<ul style="list-style-type: none"> Firms or individuals managing digital asset portfolios on behalf of clients. Help clients manage their digital asset investments by constructing diversified portfolios and providing strategy advice. 	<ul style="list-style-type: none"> Potential conflicts of interest when managing client assets. Conflicts of interest if integration with other services (e.g., asset managers own trading platforms can front-run order). Market dominance by a few large players reducing competition. 	<ul style="list-style-type: none"> Registration and licensing requirements for asset managers. Duties to clients similar to traditional finance. Transparency requirements for fund holdings.
Digital Assets Hedge Funds	<ul style="list-style-type: none"> Hedge funds specializing in investments in digital assets associated with DLT, using strategies like active trading and arbitrage. Seek to generate high returns (e.g., capitalizing on price volatility, market inefficiencies, and emerging DLT network opportunities). 	<ul style="list-style-type: none"> High-risk investment strategies may lead to substantial losses, especially in volatile and illiquid markets. Lack of investor protections for digital asset investments. 	<ul style="list-style-type: none"> Applicable disclosure requirements for risks, hedge fund holdings, strategies, and conflicts of interest. Transparency of fees and expenses. Secure custody solutions.
Decentralized Autonomous Organizations (DAOs)	<ul style="list-style-type: none"> Community-governed entities that enable community decentralized decision-making (rather than centralized entity) within DLT-based projects. Often operate autonomously through smart contracts and collective decision-making structures. 	<ul style="list-style-type: none"> Governance attacks where a small group gains control. Legal ambiguity regarding DAO liability and enforcement. Large token holders disproportionately influencing decisions. Potential for smart contract vulnerabilities leading to loss of user funds (e.g., hacks or 	<ul style="list-style-type: none"> DAO legal entity frameworks for liability clarity. Transparency requirements for governance votes. Anti-manipulation mechanisms so voting power is not unduly influenced by few large stakeholders (e.g., vote caps, delegation restrictions). Some DAOs may need verification that participants are not known bad actors. Dispute resolution mechanisms. Security and smart contract audits.

Exhibit 2

Category	Description & Role	Consumer Protection & Market Considerations	Potential Regulatory Considerations
	<ul style="list-style-type: none"> Token holders vote on proposals related to governance, development, or financial decisions. 	<ul style="list-style-type: none"> exploitation of the DAO's funds or governance mechanisms). 	
Digital Asset Staking Providers	<ul style="list-style-type: none"> Platforms allowing users to stake digital assets to participate in proof-of-stake (PoS) consensus mechanisms. Enable participation in PoS networks and reward users for supporting the network, often pooling funds for efficiency. 	<ul style="list-style-type: none"> Custodial risks if staking providers mismanage user funds (includes slashing). Potential misleading claims about staking rewards. If staking pools become too large, they could dominate consensus mechanisms. Centralization risks if a few staking providers dominate governance. 	<ul style="list-style-type: none"> Disclosure and transparency requirements for staking service providers (fees, rewards, terms). Disclosures (including risks) about staking lock-up periods and yield expectations. Security standards and audits. Consumer protection and illicit finance requirements (e.g., if custodial or facilitate large-scale staking pools).
NFT Platforms and Marketplaces	<ul style="list-style-type: none"> Platforms facilitating the creation, buying, and selling of NFTs. Help creators and collectors engage in the digital economy by enabling the trading of unique, DLT-based assets. 	<ul style="list-style-type: none"> Risk of fraud and counterfeit NFTs. Lack of intellectual property protections. If NFT platforms also issue NFTs, they could manipulate pricing. Market manipulation via wash trading and artificial scarcity. 	<ul style="list-style-type: none"> IP verification standards for NFTs. Fraud and manipulation prevention. For certain transactions, transparency around NFT origin and history (creator, transaction history, and asset ownership).
Token Issuers	<ul style="list-style-type: none"> Organizations or projects creating and issuing new digital tokens or digital assets. Introduce new assets to the digital asset market, potentially offering investment opportunities in new projects. 	<ul style="list-style-type: none"> Risk of fraud and information asymmetry (scams, rug pulls). Information asymmetry (lack of disclosures). Conflicts of interest if combined with other business activities, e.g., exchanges issuing tokens (price manipulation, preferential listing), could distort market fairness (liquidity price discovery). Market manipulation if issuers control token supply and price dynamics. 	<ul style="list-style-type: none"> Disclosures for token issuance (risks, goals, token functionality, milestones, control, token supply, allocation, token limits and vesting, whitepaper standards, financial reviews or audits). Consumer protection measures for token pre-sales (application of securities laws to securities transactions, modified appropriately for digital assets). Fraud and manipulation prevention.

Exhibit 2

Category	Description & Role	Consumer Protection & Market Considerations	Potential Regulatory Considerations
DLT Auditors & Security Firms	<ul style="list-style-type: none"> Firms conducting security audits for smart contracts and protocols. Ensure DLT security and prevent vulnerabilities. 	<ul style="list-style-type: none"> Conflicts of interest in auditing firms providing consulting services to projects they review. Lack of standardization in security audits. Lack of legal recourse if an audited project is later exploited. Influence over market confidence in projects if a few firms dominate auditing. 	<ul style="list-style-type: none"> Standardized security auditing requirements (code review, penetration testing, stress testing). Liability frameworks for security auditors if negligence leads to financial harm. Accreditation and certification for auditors. Disclosures in reports (methodologies, limitations and risks of audit, unresolved vulnerabilities).
Digital Assets Market Makers	<ul style="list-style-type: none"> Liquidity providers ensuring smooth transactions on exchanges by placing buy and sell orders. Facilitate liquidity and reduced volatility by consistently placing buy and sell orders for assets. 	<ul style="list-style-type: none"> Market manipulation (wash trading) and front-running concerns. Conflicts of interest if affiliated with exchanges (price manipulation). Market dominance by a few large market makers could lead to unfair pricing. 	<ul style="list-style-type: none"> Transparency requirements for market-making activities (e.g., fee disclosures, trading volumes, order limits, other practices impacting price discovery). Monitoring to detect manipulative practices (e.g., spoofing, wash trading). Disclosure requirements (e.g., relationships with exchanges).
Digital Assets Oracles	<ul style="list-style-type: none"> Providers of external data to DLT networks; acting as intermediaries between off-chain data sources and on-chain smart contracts. Enable decentralized applications to access reliable data, triggering smart contract actions. 	<ul style="list-style-type: none"> Risk of inaccurate or manipulated data impacting smart contract outcomes. Single points of failure. Centralization risks if a few oracle providers dominate the space. Privacy concerns for hacked or misused data. 	<ul style="list-style-type: none"> Security and redundancy standards for oracle providers. Disclosure requirements on data sources and methodologies, conflicts of interest, verification of data, and other issues impacting validation of data. Depending on type of oracle, verification or auditing of data standards, data privacy and compliance requirements. Transparency in governance of oracles.
Cross-Chain Bridge Providers	<ul style="list-style-type: none"> Platforms enabling asset transfers between different DLT networks. Facilitate interoperability between DLT ecosystems, unlocking liquidity and cross-chain use cases. 	<ul style="list-style-type: none"> Potential for smart contract vulnerabilities leading to loss of user funds. Fraud risks in bridge operations. Centralization risks if bridges become dominant intermediaries for interoperability. Cross-chain consensus failures and scalability limitations (failed transaction, assets stuck in limbo, increased transaction fees). 	<ul style="list-style-type: none"> Security and audit requirements for cross-chain protocols. Consumer recourse mechanisms in case of exploits. Disclosure related to security, operations, governance, risks (transaction failures, security flaws, network issues). Depending on circumstances, potential requirements related to prevention of illicit finance.
Lending Platforms	<ul style="list-style-type: none"> Platforms allowing users to lend digital assets for interest or 	<ul style="list-style-type: none"> Counterparty risk if the platform collapses or mismanages funds. Over-leverage risks leading to liquidations. 	<ul style="list-style-type: none"> Capital adequacy requirements for lending platforms.

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	<ul style="list-style-type: none"> rewards or borrow assets by providing collateral. Provide liquidity and generate passive income for users while offering loans for borrowing purposes. 	<ul style="list-style-type: none"> Dominance by a few platforms may distort lending rates. Potential for smart contract vulnerabilities leading to loss of user funds. 	<ul style="list-style-type: none"> Transparency of platform operations (collateralization ratios, loan terms, fees, interest rate algorithms) and risks (liquidation, over-leverage). Fraud prevention, usury protection. Security, data privacy protections.
Digital Assets Tokenization Platforms	<ul style="list-style-type: none"> Platforms for converting real-world assets into DLT-based tokens. Enable fractional ownership and liquidity for traditional assets. 	<ul style="list-style-type: none"> Legal enforceability of tokenized ownership, counterparty risk. Centralization risks/lack of competition if one platform dominates tokenization. Market liquidity and price volatility risks. Fraud and manipulation, particularly by token issuer. 	<ul style="list-style-type: none"> Clarity on ownership rights for tokenized assets. Disclosure requirements for certain tokenized assets (underlying asset information, verification, and custody). Fraud and manipulation prevention.
Crowdfunding Platforms	<ul style="list-style-type: none"> Platforms facilitating fundraising for digital assets projects through token sales, ICOs, or Initial DEX Offerings (IDOs). Help digital assets projects raise capital by offering early access to tokens or digital assets in exchange for funding. 	<ul style="list-style-type: none"> Risk of fraud and information asymmetry (scams, rug pulls). Price volatility. Potential monopolization of the fundraising space by large platforms. 	<ul style="list-style-type: none"> Investor protection regulations for token sales (e.g., escrow requirements, disclosure standards). Disclosure requirements for securities transactions that are tailored to the digital asset (as opposed to equity and debt). Fraud and manipulation protection. Licensing and reporting for platforms.