THE REVIEW OF

SECURITIES COMMODITIES REGULATION

AN ANALYSIS OF CURRENT LAWS AND REGULATIONS AFFECTING THE SECURITIES AND FUTURES INDUSTRIES

Vol. 58 No. 11

June 11, 2025

TOKENIZING TRADITIONAL MARKETS

Traditional financial services firms are beginning to implement tokenization initiatives to increase speed and efficiency, offer new products, and access a broader customer base. When firms tokenize real-world assets on a blockchain, they must consider the regulatory implications and risks associated with tokenization. This article examines the concept of tokenization, the current regulatory implications for creators of tokenized assets, and the application of existing SEC and CFTC rules and regulations to those who hold, transfer, or otherwise transact in tokenized assets under the existing legal and regulatory framework. As this framework evolves under the Trump Administration, the industry may benefit from more legal certainty related to tokenized RWAs.

By Sarah Riddell, Cheryl Isaac, Rich Kerr, and Joshua Durham*

Tokenization of real-world assets ("RWAs")¹ has the potential to bring a sea change to the financial services industry. By 2030, some predict that 5-10 percent of all assets will be held in digital form, with the market for tokenized assets reaching between \$10 trillion and \$16 trillion.² Among the many reasons for the trend towards tokenization is that tokenized assets can be transferred with more speed, efficiency, and transparency than traditional assets, while also reducing or eliminating the costs of intermediaries.³ The simultaneous execution and

settlement of tokenized trades may be able to foster the growth of continuous (24/7) trading.⁴ By tokenizing RWAs, these assets can be fractionalized to enable broader access by investors to new types of asset classes.⁵ Investments in wine, art, and other RWAs can be made by multiple persons when the asset is fractionalized.⁶

- ¹ RWAs in this context include U.S. Treasuries and other securities, real estate, commodities, infrastructure, natural resources, art, and other similar assets.
- ² CHAINLINK, *Beyond Token Issuance* (Apr. 2024), https://go.chain.link/reports/tokenized-asset-report.
- ³ ORG. FOR ECON. COOP. & DEV., TOKENISATION OF ASSETS AND DISTRIBUTED LEDGER TECHNOLOGIES IN FINANCIAL MARKETS, OECD Bus. & Fin. Pol'y Papers, No. 75, 8, 16 (Jan. 9, 2025), https://www.oecd.org/en/publications/tokenisation-of-assets-

footnote continued from previous column...

- and-distributed-ledger-technologies-in-financial-markets_40e7f217-en.html.
- ⁴ GLOB. FIN. MKTS. ASS'N, IMPACT OF DISTRIBUTED LEDGER TECHNOLOGY IN GLOBAL CAPITAL MARKETS, 12, https://www.gfma.org/wp-content/uploads/2023/05/impact-of-dlt-on-global-capital-markets-full-report.pdf.
- ⁵ *Id.* at 51.
- 6 *Id*.

* SARAH V. RIDDELL is a partner in K&L Gates LLP's Chicago office, CHERYL ISAAC is a partner in the same firm's Washington, D.C. office, RICHARD F. KERR is a partner in their

Boston office, and JOSHUA L. DURHAM is an associate in K&L Gates LLP's San Francisco office. Their e-mail addresses are sarah.riddell@klgates.com, cheryl.isaac@klgates.com, richard.f.kerr@klgates.com, and josh.durham@klgates.com.

FORTHCOMING

• INTO THE BREACH: STATE REGULATORS, PRIVATE LITIGANTS, AND SECURITIES ENFORCEMENT

RSCR Publications LLC

Published 22 times a year by RSCR Publications LLC. Executive and Editorial Offices, 2628 Broadway, Suite
29A, New York, NY 10025-5055. Subscription rates: \$1,197 per year in U.S., Canada, and Mexico; \$1,262 elsewhere (air mail delivered). A 15% discount is available for qualified academic libraries and full-time teachers. For subscription information and customer service call 609-683-4450; fax 609-683-7291; write Subscriber Services, RSCR Publications, PO Box 585, Kingston NJ 08528; e-mail cri.customer.service@comcast.net; or visit our website at www.rscrpubs.com. General Editor: Michael O. Finkelstein; tel. 212-876-1715; e-mail mofinkelstein@gmail.com. Associate Editor: Sarah Strauss Himmelfarb; tel. 301-294-6233; e-mail sarah.s.himmelfarb@gmail.com. To submit a manuscript for publication contact Ms. Himmelfarb. Copyright © 2025 by RSCR Publications LLC. ISSN: 0884-2426. All rights reserved. Reproduction in whole or in part prohibited except by permission. For permission, contact Copyright Clearance Center at www.copyright.com. The Review of Securities & Commodities Regulation does not guarantee the accuracy, adequacy, or completeness of any information and is not responsible for any errors or omissions, or for the results obtained from the use of such information.

The benefits of tokenization are far-reaching, but so are the regulatory implications. A tokenized product must be thoughtfully designed with an understanding of different and, at times, competing, regulatory regimes, including those relating to money transmission, securities, derivatives, and more, that may be even more burdensome depending on a firm's registration status with the U.S. Securities and Exchange Commission ("SEC") or the U.S. Commodity Futures Trading Commission ("CFTC").

Market participants that are considering whether to create or transact in tokenized RWAs not only need to consider current laws and regulations, but will need to monitor the evolving legislative and regulatory landscape. One of the Trump Administration's stated priorities is to foster the growth of digital assets and create legal certainty for market participants. In the first two months since President Trump took office, the SEC established a crypto task force under the leadership of Commissioner Hester Peirce, President Trump issued an Executive Order on digital assets directing the U.S. Federal regulatory agencies to take specific steps towards establishing regulatory clarity for digital assets, Acting CFTC Chair Caroline Pham wrote an op-ed describing her views on digital assets regulation, and both chambers of Congress released stablecoin legislative proposals. There are reasons to be optimistic about the future of tokenization, and myriad opportunities to engage with lawmakers and regulators on these topics as the legal and regulatory environment shifts.

Below, we examine the concept of tokenization: what it is, the current regulatory implications for creators of tokenized assets, and the application of existing SEC and CFTC rules and regulations to certain registrants who hold, transfer, or otherwise transact in tokenized assets. The ideas and analyses discussed herein represent our views as of this moment in time and will evolve as the legal and regulatory environment evolves. New developments — many of which are expected in the coming months and years — may eliminate grey areas or legal uncertainty involving the use of tokenized RWAs, and market participants should be sure to keep apprised of the state and federal initiatives, proposals, guidance, and rules as they develop.

I. WHAT IS TOKENIZATION?

Tokenization refers to a technological and legal process of attaching enforceable rights to entries on a distributed ledger (e.g., a blockchain),⁷ such that tokenization creates a "digital twin" that represents an underlying asset.⁸ A token — held on a public or private distributed ledger technology ("DLT") — stores information about the token's ownership history and details about transactions.⁹

Tokenization occurs on distributed ledgers, which are often in the form of blockchains. While there is no standard definition of DLT, it can be thought of as technology that enables counterparties to enter into transactions without a central authority maintaining a ledger because those that validate the transactions create the ledger. According to the U.S. Government Accountability Office, DLT is:

a secure way of conducting and recording transfers of digital assets without the need for a central authority. DLT is "distributed" because multiple participants in a computer network (individuals, businesses, etc.), share and synchronize copies of the ledger. New transactions are added in a manner that is

⁷ INT'L SWAPS & DERIVATIVES ASS'N, GUIDANCE FOR MEMORANDUM OF LAW EXAMINING THE VALIDITY AND ENFORCEABILITY OF COLLATERAL ARRANGEMENTS USING THE ISDA MODEL PROVISIONS FOR TOKENIZED COLLATERAL (May 21, 2024), https://www.isda.org/a/ox1gE/ISDA-Tokenized-Collateral-Guidance-Note-052124.pdf.

⁸ GLOB. MKTS. ADVISORY COMM., CFTC, RECOMMENDATIONS TO EXPAND USE OF NON-CASH COLLATERAL THROUGH USE OF DISTRIBUTED LEDGER TECHNOLOGY, 6 (Nov. 21, 2024).

⁹ Nikou Asgari, *Wall Street's Token Crypto Gesture*, Fin. TIMES (Sep. 22, 2023), https://www.ft.com/content/2f1badb9-9e13-4798-b12c-cd544694a5ee.

¹⁰ COMM. ON PAYMENTS & MKT. INFRASTRUCTURE, BANK FOR INT'L SETTLEMENTS, DISTRIBUTED LEDGER TECHNOLOGY IN PAYMENT, CLEARING AND SETTLEMENT, 2 (Feb. 2017), https://www.bis.org/cpmi/publ/d157.pdf.

cryptographically secured, permanent, and visible to all participants in near real-time. 11

Blockchain technology, as a form of DLT, has become appealing for the financial services industry because it can execute instantaneous and continuous (24/7) settlements of trades; reduce the operational cost of or the need for intermediaries; and provide a distributed audit trail of economic activity, among other capabilities.¹²

A blockchain generally may be either a public or private chain and either a permissionless or permissioned chain.

- Public vs. Private Chain: A public blockchain has a
 chain of transactions, accounts, and other economic
 activity that is viewable by anyone, whereas a
 private blockchain does not have a chain that is
 viewable by the public. Instead, a private blockchain
 is viewable by select entities, like trusted
 participants, or viewable by no one.
- Permissioned vs. Permissionless Chain: A
 permissionless blockchain allows participation by
 anyone (e.g., including users and nodes that validate
 transactions), whereas permissioned blockchains
 require a central administrator to authorize a person
 before the person may participate on the chain. 13

While each type of blockchain has its advantages and drawbacks, tokenization generally benefits from private and/or permissioned chains. Although some benefits of public blockchains include that they attract more developers and offer greater liquidity, enterprises may

decide to implement private blockchains for controlled access to sensitive non-public data. ¹⁴ Moreover, permissionless blockchains often have uptime or throughput issues, so enterprises may choose permissioned blockchains to maintain control over their networks, ¹⁵ which fosters legal compliance. ¹⁶ However, a drawback of both private and permissioned chains is that they often must integrate with other blockchain platforms (i.e., interoperate) at some level to fully realize the goals of tokenization. ¹⁷

II. CHOOSE YOUR OWN ADVENTURE: TOKENIZING AND COMPLYING WITH STATE AND FEDERAL LAW

Similar to a "Choose Your Own Adventure" book, the regulatory status of a tokenized RWA largely depends on the path a business takes when creating a token. The

- 14 See, e.g., Anutosh Banerjee et al., Tokenization: A digital-asset déjà vu, McKinsey & Co., n.3 (Aug. 15. 2023), https://www.mckinsey.com/industries/financial-services/our-insights/tokenization-a-digital-asset-deja-vu ("Public permissionless blockchains currently attract more developers than private blockchains by orders of magnitude, but enterprises may elect to employ a private instance to regulate access to transactions and data to implement more rigorous governance.").
- ¹⁵ Id. ("Also, blockchain technology, particularly the public permissionless versions of it, has been hindered by limited system uptime at high transaction throughputs — a deficiency that is unacceptable to support tokenization of certain use cases, particularly in mature capital markets.").
- ¹⁶ BASEL COMM. ON BANKING SUPERVISION, BANK FOR INT'L SETTLEMENTS, NOVEL RISKS, MITIGANTS AND UNCERTAINTIES WITH PERMISSIONLESS DISTRIBUTED LEDGER TECHNOLOGIES, Working Paper 44, at 9 (Aug. 28, 2024), https://www.bis.org/bcbs/publ/wp44.pdf ("Technology to address privacy, confidentiality, and consumer protection risks is being developed. Some potential solutions, such as zero-knowledge proofs, may take the form of permissioned chains 'one level up' from the primary blockchain. In such a configuration, the primary chain is referred to as a layer chain, while the chain one level up is referred to as a layer 2 chain. Alternatively, a separate blockchain that communicates with the permissionless primary blockchain, called a sidechain, may be employed.").
- 17 See, e.g., Banerjee, supra note 14 ("Finally, the fragmented (private) blockchain infrastructure including developer tooling, token standards, and smart-contract guidelines creates interoperability challenges across financial institutions. This introduces new risks (such as bridging protocols between blockchains), fragmentation of liquidity, and challenges in harmonizing data across systems to deliver necessary reporting.").

¹¹ U.S. Gov't & Accountability Off., Science & Tech Spotlight: Blockchain & Distributed Ledger Technologies (Sep. 2019), https://www.gao.gov/assets/gao-19-704sp.pdf.

ORG. FOR ECON. COOP. & DEV., TOKENISATION OF ASSETS AND DISTRIBUTED LEDGER TECHNOLOGIES IN FINANCIAL MARKETS, OECD Bus. & Fin. Pol'y Papers, No. 75, 8 (Jan. 9, 2025), https://www.oecd.org/en/publications/tokenisation-of-assets-and-distributed-ledger-technologies-in-financial-markets_40e7f217-en.html; GLOB. FIN. MKTS. ASS'N, IMPACT OF DISTRIBUTED LEDGER TECHNOLOGY IN GLOBAL CAPITAL MARKETS, 87, https://www.gfma.org/wp-content/uploads/2023/05/impact-of-dlt-on-global-capital-markets-full-report.pdf.

¹³ Private permissionless chains often support "privacy coins," such as Monero. Anyone may transact on the blockchain, but no transaction or account activity is viewable by anyone.

purpose of a token and the underlying asset supporting the token's value are critical factors used to determine the token's regulatory status. The status of the entity involved in a token transaction is another important factor when considering compliance obligations. In this section, we discuss legal and regulatory considerations applicable to creators of tokenized assets; brokerdealers, and futures commission merchants holding or transferring tokenized assets; and other types of financial institutions.

A. Considerations for Creators of Tokenized Assets

1. Money Services Legal Implications for Creators of Tokenized Assets

Under the existing legal framework, creating a tokenized asset may implicate money services laws, including money transmission and virtual currency business activity. Thus, when issuing a token, compliance with various state and federal laws must be considered. The Financial Crimes Enforcement Network ("FinCEN"), 18 49 states, 19 the District of Columbia, and five territories have laws that require any party that wants to engage in the business of money transmission to obtain a license prior to doing so. 20

At the federal level, a person engaged in money transmission, i.e., a money transmitter, is considered a money services business, subject to certain exceptions.²¹ For example, a person registered with and functionally regulated or examined by the SEC or CFTC is excluded from the definition of money services business.²²

FinCEN defines money transmission services as "the acceptance of currency, funds, or other value that substitutes for currency from one person and the transmission of currency, funds, or other value that substitutes for currency to another location or person by any means."²³

FinCEN does not limit the phrase "value that substitutes for currency;" therefore, this term could encompass a token, depending on the facts and circumstances.²⁴ A person could be a money transmitter if the person issues digital tokens that evidence ownership of securities, commodities, or futures contracts that serve as value that substitutes for currency

footnote continued from previous column...

service through a clearance and settlement system by agreement with the creditor or seller;

- (C) operates a clearance and settlement system or otherwise acts as an intermediary solely between BSA-regulated institutions. This includes but is not limited to the Fedwire system, electronic funds transfer networks, certain registered clearing agencies regulated by the Securities and Exchange Commission ("SEC"), derivatives clearing organizations, or other clearinghouse arrangements established by a financial agency or institution;
- (D) physically transports currency, other monetary instruments, other commercial paper, or other value that substitutes for currency as a person primarily engaged in such business, such as an armored car, from one person to the same person at another location or to an account belonging to the same person at a financial institution, provided that the person engaged in physical transportation has no more than a custodial interest in the currency, other monetary instruments, other commercial paper, or other value at any point during the transportation;
- (E) provides prepaid access; or
- (F) accepts and transmits funds only integral to the sale of goods or the provision of services, other than money transmission services, by the person who is accepting and transmitting the funds.

Id. § 1010.100(ff)(5)(ii).

¹⁸ FinCEN is a bureau of the U.S. Department of the Treasury whose mission is to safeguard the financial system from illicit use and combat money laundering.

¹⁹ Montana is the lone state without a money transmitter licensing regime.

For example, Alabama law states that "[a] person may not engage in the business of money transmission or advertise, solicit, or hold itself out as providing money transmission unless the person. . . is licensed under this chapter." ALA. CODE 1975 § 8-7A-5(a).

²¹ 31 C.F.R. § 1010.100(ff)(5).

²² *Id.* § 1010.100(ff)(8). The definition of money transmitter excludes a person that only:

⁽A) provides the delivery, communication, or network access services used by a money transmitter to support money transmission services;

⁽B) acts as a payment processor to facilitate the purchase of, or payment of a bill for, a good or

²³ *Id.* § 1010.100(ff)(5)(i)(A).

²⁴ See, e.g., FINCEN GUIDANCE, APPLICATION OF FINCEN'S REGULATIONS TO CERTAIN BUSINESS MODELS INVOLVING CONVERTIBLE VIRTUAL CURRENCIES, 4 (FIN-2019-G001) (May 9, 2019), https://www.fincen.gov/sites/default/files/2019-05/FinCEN% 20Guidance% 20CVC% 20FINAL% 20508.pdf.

in a money transmission transaction.²⁵ Moreover, unless an exception applies, an "administrator" — someone that issues or puts into circulation a "convertible virtual currency" ("CVC") and that has the authority to redeem that CVC — is a money transmitter if it: (1) accepts and transmits a CVC or (2) buys or sells CVC for any reason.²⁶ FinCEN defines CVC as a type of "virtual currency" (i.e., "a medium of exchange that can operate like currency but does not have all the attributes of 'real' currency (as defined in FinCEN regulations), such as legal tender status") that either acts as a substitute for currency or has an equivalent value in currency.²⁷

In addition to federal law, token issuers need to consider whether they implicate state law. A growing number of states have money services laws or regulations that are explicitly aimed at virtual currency business activity, including New York, ²⁸ Louisiana, ²⁹ and California. ³⁰ These laws generally require the licensure for virtual currency "administration," which in most cases would encompass the administration of tokens. ³¹

For example, the New York Department of Financial Services requires a person to obtain a license (i.e., a "BitLicense") to engage in "virtual currency business activity," which includes any of the following activities involving the State of New York or a New York resident:

- receiving virtual currency for transmission or transmitting virtual currency, except where the transaction is undertaken for non-financial purposes and does not involve the transfer of more than a nominal amount of virtual currency;
- 2) storing, holding, or maintaining custody or control of virtual currency on behalf of others;
- ²⁵ *Id.* at 7.
- ²⁶ FINCEN GUIDANCE, APPLICATION OF FINCEN'S REGULATIONS TO PERSONS ADMINISTERING, EXCHANGING, OR USING VIRTUAL CURRENCIES (FIN-2013-G001) (Mar. 18, 2013), https://www.fincen.gov/sites/default/files/shared/FIN-2013-G001.pdf.
- ²⁷ *Id*.
- ²⁸ N.Y. COMP. CODES R. & REGS. TIT. 23, § 200.3.
- ²⁹ La. Stat. Ann. § 6:1384.
- ³⁰ Cal. Fin. Code § 3201.
- ³¹ See, e.g., N.Y. COMP. CODES R. & REGS. TIT. 23, § 200.2(q)(5); FIN. CODE § 3102(i)(1); LA. STAT. ANN. § 6:1382(28)(a).

- 3) buying and selling virtual currency as a customer business;
- 4) performing exchange services as a customer business; or
- 5) controlling, administering, or issuing a virtual currency.³²

The definition of "virtual currency" could encompass tokens if they are a "digital unit that is used as a medium of exchange or a form of digitally stored value" and they have a "centralized repository or administrator." ³³

Similar to New York, Louisiana also requires licensure for anyone who engages in "virtual currency business activity,"34 which is defined to include "[e]xchanging, transferring, or storing virtual currency or engaging in virtual currency administration, whether directly or through an agreement with a virtual currency control services vendor."35 The term "virtual currency administration" in Louisiana is defined as "issuing virtual currency with the authority to redeem the currency for legal tender, bank credit, or other virtual currency."36 A digital asset is considered a virtual currency under Louisiana law if it is "a digital representation of value that is used as a medium of exchange, unit of account, or store of value, and that is not legal tender, whether or not denominated in legal tender."37

The California Digital Financial Assets Law ("DFAL"), which takes effect on July 1, 2026,³⁸ will require a person to hold a license (or be exempt from the law) to engage in or hold itself out as engaging in

³² N.Y. COMP. CODES R. & REGS. TIT. 23, § 200.2(q).

³³ Id. § 200.2(p) ("Virtual Currency means any type of digital unit that is used as a medium of exchange or a form of digitally stored value. Virtual Currency shall be broadly construed to include digital units of exchange that have a centralized repository or administrator; are decentralized and have no centralized repository or administrator; or may be created or obtained by computing or manufacturing effort.").

³⁴ La. Stat. Ann. § 6:1384.

³⁵ *Id.* § 6:1382(28)(a) (emphasis added).

³⁶ *Id.* § 6:1382(27).

³⁷ *Id.* § 6:1382(26)(a).

³⁸ CA A.B. 1934, https://leginfo.legislature.ca.gov/faces/ billNavClient.xhtml?bill_id=202320240AB1934 (extending licensure deadline to July 1, 2026).

"digital financial asset business activity." Digital financial asset business activity includes, in relevant part: "[e]xchanging, transferring, or storing a digital financial asset *or engaging in digital financial asset administration*, . . ." For token issuers, the phrase "digital financial asset administration" is important. It means "issuing a digital financial asset with the authority to redeem the digital financial asset for legal tender, bank or credit union credit, or another digital financial asset. In the term "digital financial asset" is defined under DFAL to mean "a digital representation of value that is used as a medium of exchange, unit of account, or store of value, and that is not legal tender, whether or not denominated in legal tender."

In the context of a token, the key moments that could implicate money transmission services are when the token is minted and burned. Minting a token for cash, for example, requires receiving a fiat currency, like USD, and then issuing (i.e., "minting") a corresponding token. Burning a token is the reverse process, where one redeems his USD with the token issuer, who then destroys (i.e., "burns") the corresponding token. If the issuer mints or burns a token and subsequently transmits currency or other value, such as the token itself, to a person other than the person who bought or redeemed the token, the token issuer may be viewed as receiving money or monetary value for transmission to another person or place.⁴³ In this scenario, the token issuer would need to consider whether it is a money transmitter subject to licensing requirements under federal and state law or whether it may avail itself of an exemption. The facts and circumstances of the token are critical to this determination.

Even if a token issuer is not considered a money transmitter it might be captured by state law. A token based on a RWA may be viewed as a form of digitally stored value and, assuming it has a centralized repository or administrator, would be considered a virtual currency under New York regulations. A person administering or issuing a tokenized RWA likely would be captured under the BitLicense requirements if the person's token activities involve New York or a New York resident. In Louisiana and California, a token issuer that has the authority to redeem the token for legal tender, bank

credit, or other virtual currency might be subject to licensing requirements. Again, whether a token issuer is subject to state licensing requirements is a facts and circumstances determination. Token issuers will need to consider these virtual currency licensing regimes when doing business in these states or with residents of these states.

Pending and yet-to-be-introduced legislation could change the legal landscape for token issuers. While federal legislation specific to tokenized RWAs has not been introduced yet, Congress has introduced a number of federal proposals for stablecoin-specific licensing regimes,⁴⁴ a digital asset working group has been established under Executive Order 14178,⁴⁵ and other regulatory endeavors to give certainty to digital asset issuers and exchanges have been introduced.⁴⁶ While much remains to be seen, these efforts could result in legal and regulatory certainty for tokenizing RWAs.

2. Tokens as "Securities"

Tokens may be securities, for example, when both the underlying asset of a tokenized RWA is a security⁴⁷ or

 $^{^{39}}$ Cal. Fin. Code \S 3201.

⁴⁰ *Id.* § 3102(i)(1) (emphasis added).

⁴¹ *Id.* § 3102(h).

⁴² *Id.* § 3102(g)(1).

⁴³ 31 C.F.R. § 1010.100(ff)(5)(i)(A).

See, e.g., STABLE Act of 2025, Discussion Draft, 119th Cong. (2025), https://files.constantcontact.com/9f2b5e3d701/6c1f8aa0-095c-4a22-9982-2f4380d0b531.pdf; Guiding and Establishing National Innovation for U.S. Stablecoins (GENIUS) Act, LIP25082 FSF, 119th Cong. (2025), https://www.hagerty.senate.gov/wp-content/uploads/2025/02/GENIUS-Act.pdf.

⁴⁵ Exec. Order No. 14178, 90 Fed. Reg. 8,647 (Jan. 31, 2025), https://www.federalregister.gov/documents/2025/01/31/2025-02123/strengthening-american-leadership-in-digital-financialtechnology.

⁴⁶ SEC COMM'R HESTER PEIRCE, STATEMENT, THERE MUST BE SOME WAY OUT OF HERE (Feb. 21, 2025).

⁴⁷ See, e.g., WYO. STAT. ANN. § 34-29-101(a)(i), (iii); see also Del. Code Ann. Tit. 8, § 224. Stocks used to be traded as physical certificates that had to be received, processed, recorded, and delivered for every single trade. This laborintensive process resulted in the great "Paper Crunch" where stock trades became backed up, undelivered. Physical delivery of paper certificates was not scalable. To overcome this structural flaw, the securities industry moved toward "immobilization," where certificated securities were pooled in one central depository, followed by "dematerialization," where those physical certificates were replaced with electronic book entries. Trades eventually became simple ledger entries without the need to trade stock certificates. However, central depositories holding pooled securities are the actual registered owners of stock, holding legal title, whereas traders are merely beneficial owners. By centralizing trading of electronic stocks

when the token is offered and sold as part of a securities transaction.⁴⁸ In both cases, issuers must consider additional legal authority. The SEC has jurisdiction over tokens that constitute "securities" under the federal securities laws. Whether a token is a "security" often depends on the facts and circumstances of the offer and sale of the particular asset.

Security classification, including in the context of tokens offered on blockchains, is usually determined by application of the *Howey* test for investment contracts.⁴⁹ In *SEC v. W.J. Howey Co.*, the U.S. Supreme Court established the test for determining whether a transaction is an "investment contract" and thus, a "security" within the SEC's jurisdiction.⁵⁰ Under *Howey*, a financial interest is an "investment contract" if it involves: (1) an investment of money, (2) in a common enterprise, (3) with the expectation of profits, (4) to be derived solely from the efforts of others. All elements of the *Howey* test must be present for a product to be deemed to be an investment contract. In 2019, the SEC issued a "Framework for 'Investment Contract' Analysis of Digital Assets" (the "SEC Framework"), which

footnote continued from previous page...

in one ledger, physical ownership via delivery was replaced with a mere promise to honor a trader's security entitlement to the generalized pool of securities held by the central depository. By tokenizing securities, one moves back to the direct ownership model of stock certificates, which may reduce the need for central depository intermediaries, thus increasing operational efficiency.

- ⁴⁸ DIV. OF CORP. FIN., SEC, FRAMEWORK FOR "INVESTMENT CONTRACT" ANALYSIS OF DIGITAL ASSETS (updated July 5, 2024), https://www.sec.gov/about/divisions-offices/divisioncorporation-finance/framework-investment-contract-analysisdigital-assets.
- Alternatively, the *Reves* test dictates whether a note a promise to pay a specified sum is a security. *See Reves v. Ernst & Young*, 494 U.S. 56 (1990). Under *Reves*, all notes are presumptively securities. However, that presumption is rebuttable in two ways. First, the seller of a note can establish that a note bears a "family resemblance" to one of the constituents of a judicially created list of notes that are not securities. *Id.* at 65. In determining whether a note bears a family resemblance to a category on that list, courts evaluate: (1) the motivations of the buyer and seller, (2) the plan of distribution, (3) the reasonable expectations of the investing public, and (4) risk-reducing factors. *Id.* at 66-67. Second, if a note is not sufficiently similar to an item on the relevant list, a court must decide whether to add another category to the list by examining the four factors discussed above. *Id.* at 67.

purported to provide industry participants with key considerations for analyzing digital assets under the *Howey* test, and notably identified that "reasonable expectation of profits" in "reliance on the efforts of others" is especially relevant in the context of digital assets. ⁵¹ While the SEC Framework was helpful in explaining the SEC's views with respect to applying *Howey*, it also acknowledged that application remains a facts and circumstances test. As such, whether or not a digital asset is a security under *Howey* remains an interpretative question.

This interpretation of facts and circumstances under the *Howey* conundrum was perhaps most starkly demonstrated by the court's decision in SEC v. Ripple Labs, Inc., et al. 52 While not directly a tokenization case, the court's decision demonstrates how differing facts and circumstances, even with respect to the same asset, may result in a different determination. In Ripple, the court found that a permissioned blockchain's virtual currency, XRP, was "little more than alphanumeric cryptographic sequence" and thus not inherently a security.⁵³ However, Ripple Labs, Inc. ("Ripple"), the issuer, offered XRP in two ways: primary and secondary market sales. This distinction was critical to the court's holding, and the court found that when Ripple marketed a sale directly to purchasers, this sale gave rise to an investment contract.⁵⁴ Specifically, the court considered primary sales, directly from Ripple, to be investment contracts because Ripple's representations to the primary purchasers made it reasonable for purchasers to believe that Ripple would "use the capital it received from its sales to improve the XRP ecosystem and thereby increase the price of XRP."55 Secondary purchasers, however, engaged in "blind bid/ask transactions," such that they would not know whether their payments were

⁵⁰ 328 U.S. 293 (1946).

⁵¹ DIV. OF CORP. FIN., *supra* note 48.

⁵² SEC v. Ripple Labs, Inc., 1:20-cv-10832 (S.D.N.Y. filed July 13, 2023), https://www.nysd.uscourts.gov/sites/default/ files/2023-07/SEC%20vs%20Ripple%207-13-23.pdf.

⁵³ Id

⁵⁴ See also SEC v. Coinbase, Inc., 23 Civ. 4738 (S.D.N.Y. Mar. 27, 2024), https://www.courtlistener.com/docket/67478179/105/securities-and-exchange-commission-v-coinbase-inc/ ("[T]he SEC does not appear to contest that tokens, in and of themselves, are not securities . . . The appropriate question, therefore, is whether transactions in which a particular token is implicated qualify as investment contracts."). The SEC voluntarily dismissed its enforcement action against Coinbase. Stipulation and Order of Voluntary Dismissal, 23 Civ. 4738 (S.D.N.Y. filed Feb. 28, 2025).

⁵⁵ *Id.* at 23.

made to Ripple.⁵⁶ Thus, the court concluded that the *Howey* test was not satisfied because, without knowing who the seller was, secondary purchasers could not have a reasonable expectation of profits (from the secondary sale) derived from the original issuer (Ripple).⁵⁷

As such, for tokens whose underlying asset is not a security, the status of these tokens is in a grey area and only made more so by the court's holding in *Ripple*. Recent regulatory initiatives could clarify the regulatory status of tokenized RWAs and other digital assets. The SEC's new Crypto Task Force is working to "draw clear regulatory lines, appropriately distinguish securities from non-securities, craft tailored disclosure frameworks, [and] provide realistic paths to registration for both crypto assets and market intermediaries." As part of this initiative, SEC Commissioner Hester Peirce introduced a potential taxonomy for digital assets that characterizes digital assets into four categories, including:

- 1) crypto assets that are securities because they have the intrinsic characteristics of securities;
- 2) crypto assets that are offered and sold as part of an investment contract, which is a security, even though the crypto asset may not itself be a security;
- 3) tokenized securities; and
- all other crypto assets that are not securities, which currently is the largest category, according to Commissioner Peirce.⁵⁹

Commissioner Peirce's proposed taxonomy is consistent with a facts and circumstances approach in determining whether a tokenized RWA is a security. A tokenized RWA's regulatory status should be determined by its purpose and underlying asset. Under the proposed taxonomy, a tokenized RWA would be a security if it is offered and sold as an investment contract (i.e., category 2 under the taxonomy) or if the underlying asset referenced by a token is a security itself (i.e., category 3 under the taxonomy). All other tokenized RWAs would likely fall under category 4: non-

securities.⁶⁰ Notably, in the announcement of the taxonomy discussed above, Commissioner Peirce requested insight from the industry on more than 40 specific questions related to digital assets, including a number related to the tokenization issues discussed in this article.⁶¹ Similar to the money transmission analysis for tokenized RWAs, the securities status of a tokenized RWA could be clarified if current regulatory efforts are successful.⁶²

B. Regulatory Considerations for Certain SEC and CFTC Registrants

As described above, a creator of a tokenized asset must consider various state and federal laws. Any market participant holding, transferring, or posting a tokenized asset as collateral will also need to consider its own regulatory obligations. In most cases, existing laws and regulations do not contemplate tokenization, and it is necessary to analyze and interpret the application of legal frameworks that were intended for traditional assets. In that vein, securities and derivatives market participants will need to determine how to comply with their existing SEC and CFTC obligations if they accept tokenized RWAs from customers or otherwise use or transact in these assets. In this section, we focus on the regulatory implications for SEC-registered brokerdealers and investment advisers, as well as CFTCregistered futures commission merchants ("FCMs") and derivatives clearing organizations ("DCOs"), as it relates to certain increasingly popular uses of tokenized assets.

1. Broker-Dealers and Investment Advisers

Much like the creators of a digital asset have to consider the status of the digital asset under applicable law and regulation, so do the industry participants that may invest in, trade, or otherwise purchase or sell a digital asset for their own account or the accounts others. This is particularly true in the context of SEC-registered broker-dealers and investment advisers whose authority

⁵⁶ *Id*.

⁵⁷ *Id*.

⁵⁸ SEC, CRYPTO TASK FORCE (last accessed Feb. 24, 2025), https://www.sec.gov/about/crypto-task-force.

⁵⁹ PEIRCE, *supra* note 46.

⁶⁰ Category 1 of the taxonomy would likely encompass notes, which are not often tokenized, but the *Reves* analysis may still be necessary. *Supra* note 49.

⁶¹ PEIRCE, supra note 46.

We note that these matters may also be moved forward by regulatory action taken at the federal level in response to President Trump's executive order issued on January 23, 2025, directing the federal agencies, including the SEC, to take specific actions with respect to digital asset regulation, including delivery of a report to the president on regulatory and legislative proposals by July 22, 2025. Exec. Order No. 14178, 90 Fed. Reg. 8,647.

with respect to digital assets may hinge on their categorization.

Under the federal securities laws a person who sells securities for the accounts of others must register as a broker pursuant to Section 3(a)(4) of the Securities Exchange Act of 1934.⁶³ As such, whether or not a broker-dealer is required to be involved in a digital asset transaction depends upon the broker-dealer's evaluation of the facts and circumstances of the digital asset under the *Howey* test.⁶⁴ If the digital asset is not a security, then no broker-dealer is required, however, notwithstanding that a broker-dealer may not be required when a digital asset is not a security, a broker-dealer may, depending on the authorities granted to it in its membership agreement with the Financial Industry Regulatory Authority, Inc. ("FINRA"), be permitted to trade in, or provide other services to its customers, with respect to non-security digital assets (e.g., Bitcoin, meme coins).65 When a broker-dealer does determine to provide digital asset services to its customers, including trading recommendations, the broker-dealer has suitability and Regulation Best Interest obligations to its customers, including the obligation to understand the risks, rewards, and costs associated with the digital asset. 66 Similarly, the determination of whether a digital asset is a security is an integral part of an investment adviser's analysis regarding whether or not it can or should advise clients with respect to digital assets.

It is important to note that if a digital asset is not determined to be a security, then a person is not required to be registered as an investment adviser to provide advice with respect to the asset.⁶⁷ However, an investment adviser may choose to provide advice or other services with respect to non-security digital assets subject to its overarching regulatory obligations. Among the most important of those obligations is the investment adviser's status as a fiduciary to clients.⁶⁸ Inherent in that duty is to understand the risks, rewards, costs, and other characteristics of investment instruments with respect to which it provides client advice. Given these obligations, the broker-dealer's or investment adviser's determination of whether the digital asset is a security is key to being able to understand the instrument and perform its duties to customers.

One issue with respect to digital assets that has received attention with respect to broker-dealers and investment advisers is the concept of custody. In the broker-dealer context, the challenges with respect to custody have proven extremely difficult. First, the SEC's statement with respect to Custody of Digital Asset Securities by Special Broker-Dealers issued in 2020,⁶⁹ which permitted broker-dealers to custody digital assets securities only if they did not custody non-securities digital assets, made the determination of security status a gating factor for relying on the statement.⁷⁰ To date,

⁶³ 15 U.S.C. § 780 (unregistered broker-dealer).

⁶⁴ SEC v. Bittrex Inc, 2:23-cv-00580 (W.D. Wash. Apr. 17, 2023) ECF No. 54, https://storage.courtlistener.com/recap/gov. uscourts.wawd.321164/gov.uscourts.wawd.321164.54.0.pdf; SEC v. Binance Holdings Ltd., 1:23-cv-01599 (D.D.C. filed June 28, 2024), https://www.courtlistener.com/docket/67474542/248/securities-and-exchange-commission-v-binance-holdings-limited/; SEC v. Payward, Inc., 3:23-cv-06003 (N.D. Cal. filed Nov. 20, 2023), https://www.sec.gov/files/litigation/complaints/2023/comp-pr2023-237.pdf; SEC v. Coinbase, Inc., 23 Civ. 4738 (S.D.N.Y. Mar. 27, 2024), https://www.courtlistener.com/docket/67478179/105/securities-and-exchange-commission-v-coinbase-inc/.

⁶⁵ DIV. OF CORP. FIN., SEC, STAFF STATEMENT ON MEME COINS (Feb. 27, 2025), https://www.sec.gov/newsroom/speechesstatements/staff-statement-meme-coins.

⁶⁶ FINRA Rule 2111; 17 C.F.R. § 240.151-1.

⁶⁷ Under Section 202(a)(11) of the Advisers Act, an "investment adviser" is: "any person who, for compensation, engages in the business of advising others, either directly or through publications or writings, as to the value of securities or as to the advisability of investing in, purchasing, or selling securities, or who, for compensation and as part of a regular business, issues or promulgates analyses or reports concerning securities."

⁶⁸ SEC v. Cap. Gains Rsch. Bureau, Inc., 375 U.S. 180 (1963).

⁶⁹ Custody of Digital Asset Securities by Special Purpose Broker-Dealers, 86 Fed. Reg. 11,627 (effective Apr. 27, 2021), https://www.federalregister.gov/documents/2021/02/26/2020-28847/custody-of-digital-asset-securities-by-special-purpose-broker-dealers. See also FINRA, CRYPTO ASSETS (last accessed Feb. 24, 2025), https://www.finra.org/rules-guidance/key-topics/crypto-assets ("FINRA follows the SEC's guidance — including the [special purpose broker-dealer] Statement, the Joint Staff Statement on Broker-Dealer Custody of Digital Asset Securities (July 8, 2019), and the No-action Letter, ATS Role in the Settlement of Digital Asset Security Trades (September 25, 2020) — when assessing a firm's proposed crypto asset business lines under applicable rules.").

We note that currently registered broker-dealers could provide custody for non-securities digital assets and digital asset securities if permitted to do so under their existing membership agreement with FINRA. However, to our knowledge, FINRA has been hesitant to agree to such authority in the absence of regulatory clarity and few broker-dealers have sought such authority.

there have only been two broker-dealers approved as digital asset security custodians. Second, the implementation of Staff Accounting Bulletin 121 (now rescinded, as discussed below) made maintaining custody of digital assets extremely capital-intensive for broker-dealers and other custodians. These two factors have limited the number of broker-dealers willing or able to provide custody services for client digital assets.

With respect to investment advisers, the concept of custody has also been an issue. Specifically, under Rule 206(4)-2 under the Advisers Act (the "Custody Rule"), an investment adviser is required to either maintain custody of client "funds or securities" with a qualified custodian as defined in the Custody Rule or be deemed to have custody in its own right and be required to satisfy additional regulatory requirements. The Custody Rule, however, lacks clarity with respect to digital assets and without answers to the open questions, investment advisers have been hesitant to risk compliance violations when the SEC examines compliance with the Custody Rule as applied to digital assets.⁷³ Regardless of how digital assets are stored, the SEC may also examine technical security procedures, risks around private key access, and the reliability of software used to interact with digital asset networks creating regulatory risk.⁷⁴

Some of the questions that remain open under the Custody Rule and are ripe for consideration by the SEC's new Crypto Task Force include: (1) do digital assets constitute funds or securities for purposes of the Custody Rule; (2) if they do constitute funds or securities, what method of custody constitutes possession under Custody Rule for digital assets; and (3) what types of institutions constitute qualified custodians under the Custody Rule.⁷⁵

The challenges from a custody perspective, however, may be addressed in the near term. Commissioner Peirce, in announcing the SEC's new Crypto Task Force's priorities, identified both the treatment of special purpose broker-dealers and custody solutions for investment advisers as two of the top 10 priorities. Moreover, on the same day of President Trump's digital assets executive order, the SEC rescinded SAB 121.⁷⁶ However, there are lingering considerations for both broker-dealers and investment advisers, most of which start with correct asset classification by the broker-dealer or investment adviser.

2. Futures Commission Merchants and Derivatives Clearing Organizations

One potential benefit of tokenized RWAs that has received a significant amount of attention in derivatives markets is the use of tokenized collateral to fulfill regulatory margin obligations for futures trading on CFTC-registered derivatives exchanges. The Commodity Exchange Act and CFTC regulations⁷⁷ allow market participants to post non-cash assets as collateral for futures contracts, subject to certain conditions designed to mitigate credit, market, and liquidity risks. ⁷⁸ Despite their eligibility, non-cash assets

⁷¹ Prometheum Ember Capital is the First SEC Qualified Custodian for Digital Assets Securities, Bus. Wire (May 23, 2023), https://www.businesswire.com/news/home/ 20230523005313/en/Prometheum-Ember-Capital-is-the-First-SEC-Qualified-Custodian-for-Digital-Assets-Securities/; tZERO Receives Landmark Approval To Custody Digital Securities and Support End-to-End Digital Securities Lifecycle in the United States PR Newswire (Sep. 10, 2024), https://www.prnewswire.com/news-releases/tzero-receiveslandmark-approval-to-custody-digital-securities-and-supportend-to-end-digital-securities-lifecycle-in-the-united-states-302242412.html.

⁷² SEC Staff Accounting Bulletin No. 121, Release No. SAB 121 (effective Apr. 11, 2022), https://www.sec.gov/rulesregulations/staff-guidance/staff-accounting-bulletins/staffaccounting-bulletin-121.

^{73 17} C.F.R. § 275.206(4)-2. See also SEC STAFF LETTER, ENGAGING ON NON-DVP CUSTODIAL PRACTICES AND DIGITAL ASSETS (Mar. 12, 2019), https://www.sec.gov/investment/nondvp-and-custody-digital-assets-031219-206; STAFF STATEMENT ON WY DIVISION OF BANKING'S "NAL ON CUSTODY OF DIGITAL ASSETS AND QUALIFIED CUSTODIAN STATUS" (Nov. 9, 2020), https://www.sec.gov/news/public-statement/statement-imfinhub-wyoming-nal-custody-digital-assets.

⁷⁴ SEC, DIV. of EXAMINATIONS, THE DIVISION OF EXAMINATIONS' CONTINUED FOCUS ON DIGITAL ASSET SECURITIES (Feb. 26, 2021), https://www.sec.gov/files/digital-assets-risk-alert.pdf.

On February 15, 2023, the SEC proposed reforms to amend and redesignate the Custody Rule as new Rule 223-1 under the Advisers Act. Under the proposal, Rule 223-1 would, among other things, amend the definition of qualified custodian and impose additional conditions under which specified institutions can serve as qualified custodians of client assets. Safeguarding Advisory Client Assets, File Number S7-04-23 (Feb. 15, 2023). As of the date of this memo, the SEC has not issued a final rule, and it is our understanding that it is unlikely to do so.

⁷⁶ SEC, *supra* note 72; SEC, Staff Accounting Bulletin No. 122, Release No. SAB 122 (effective Jan. 1, 2025), https://www.sec.gov/rules-regulations/staff-guidance/staff-accounting-bulletins/staff-accounting-bulletin-122.

⁷⁷ See, e.g., 17 C.F.R. §§ 1.11, 1.20-1.30, 1.58, 30.7; Section 7 of NFA Financial Requirements; Chapter 9 of CME's Rulebook.

⁷⁸ See, e.g., 17 C.F.R. § 39.10(g)(10).

often are not used in this manner because the length of time to transfer and settle these transactions would not permit a market participant to satisfy margin calls by the cutoff time. Tokenization provides faster settlements without traditional intermediaries, which may enable non-cash collateral to be used more frequently in tokenized form.

In its "Recommendations to Expand Use of Non-Cash Collateral Through Use of Distributed Ledger Technology," which were advanced to the CFTC in November 2024, the CFTC's Global Markets Advisory Committee ("GMAC") stated as follows:

Use of DLT in these ways can facilitate realtime, 24/7/365 transfers of the asset without costly or complex linkages across multiple intermediaries. Importantly, the use of DLT has the potential to both increase the velocity of transfer of assets currently utilized as collateral, as well as the potential to expand the pool of assets available for use. Use of DLT can also permit peer-to-peer transfers, meaning that a person owning the asset can transfer or pledge that asset without transacting through a broker or engaging in a redemption or subscription process with the issuer. . . . As a result of these benefits, use of DLT can help address the challenges to noncash collateral described above by enabling the direct pledge or transfer of eligible assets without the need to convert those assets into cash. Consequently, use of DLT can facilitate asset transfers to meet margin calls during times of market stress without fire sales to generate cash collateral.⁷⁹

To accept tokenized collateral from customers, FCMs and DCOs need to consider their CFTC regulatory obligations, including conducting due diligence and meeting their customer protection responsibilities. Before a DCO can accept tokenized RWAs as collateral, and before an FCM can post such collateral with a DCO, the DCO must demonstrate that the tokenized RWA has "minimal credit, market, and liquidity risks."80 The CFTC requires a DCO to "establish standards and procedures that are designed to protect and ensure the safety of funds and assets belonging to clearing members and their customers."81 In connection with safeguarding assets, a DCO may only accept assets as initial margin if they have minimal credit, market, and liquidity risks.⁸² Before accepting tokenized RWAs, a DCO must determine that the token satisfies these requirements and updates its policies and procedures accordingly. GMAC's report on tokenized collateral provides that the eligibility of tokenized collateral should be determined by whether the underlying RWA falls into a category that displays these qualities (i.e., minimal credit, market, and liquidity risks).83

Assuming that a DCO determines to accept a tokenized RWA as collateral, the next question is how the tokenized assets will be held in customer segregated accounts in compliance with the CFTC's customer protection regime. Broadly speaking, an FCM and DCO must hold customer funds only in certain depositories (i.e., at a bank or trust company, another FCM, or a DCO) that provide a written acknowledgment letter as prescribed in the regulations prior to or contemporaneously with opening the account and that agree to respond to requests from appropriate CFTC

footnote continued from previous column...

trading in digital asset derivatives, with such "reasonableness" determined by the FCM and documented in its books and records. *Id.* This guidance is limited in scope to digital asset margins to support physically delivered digital derivatives, and, in our view, should not be applied to tokenized RWA collateral.

⁷⁹ CFTC, GLOB. MKTS. ADVISORY COMM., RECOMMENDATIONS TO EXPAND USE OF NON-CASH COLLATERAL THROUGH USE OF DISTRIBUTED LEDGER TECHNOLOGY (Nov. 21, 2024) (hereinafter "GMAC Report"). Although the CFTC has not addressed whether an FCM or DCO may accept tokenized RWAs as collateral, staff provided guidance to FCMs on how they could hold digital assets as customer funds in 2020. Accepting Virtual Currencies from Customers into Segregation, CFTC Letter No. 20-34 (Oct. 21, 2020), https://www.cftc.gov/ csl/20-34/download. The guidance permits an FCM to accept digital assets only where (1) the digital asset is intended to margin, guarantee, or secure the customer's trading in derivatives that provide for the physical delivery on that digital asset and the relevant DCO has determined the digital asset to be an acceptable form of collateral for such derivatives contracts and (2) the amount of digital assets that the FCM accepts reasonably relates to the customer's level of quarterly

⁸⁰ 17 C.F.R. § 39.13(g)(10).

⁸¹ *Id.* § 39.15.

⁸² Id. § 39.13(g)(10).

⁸³ GMAC Report at 8.

staff, among other things.⁸⁴ Customer funds must be immediately available for withdrawal upon demand.⁸⁵

The GMAC Report did not analyze whether a token wallet on a blockchain is considered sufficiently segregated and is an acceptable depository for customer funds.86 Rather, GMAC recommended that an FCM or DCO wishing to accept tokenized RWAs as collateral apply its existing policies and procedures to satisfy applicable requirements.⁸⁷ Provided that a wallet constitutes an acceptable depository and the blockchain or wallet administrator can comply with the acknowledgment letter requirements, a DCO or FCM will need to incorporate this new type of depository into its existing policies and procedures, including those describing how it will safeguard tokenized customer collateral. They both need to perform diligence related to the relevant "depository" of the tokenized collateral, any new technology, and information security. 88 The CFTC requires a DCO to establish and maintain an appropriate risk management framework and a "program of risk analysis and oversight" for its operations and automated systems.⁸⁹ The risk management framework must identify the risks to which a DCO is exposed and address how those risks will be monitored and managed, among other requirements. 90 Similarly, an FCM must maintain a risk management program, with a risk management unit that is authorized to carry out this program. 91 Part of an FCM's risk management program requires it to ensure that customer segregated funds are properly segregated by performing initial and ongoing evaluation of depositories holding customer funds and complying with related obligations. 92 DCOs are subject to system safeguards requirements, too. For example, a DCO must develop secure automated systems, perform cybersecurity threat analyses, and conduct ad hoc testing

to identify vulnerabilities that could interfere with the DCO's security, operations, and other responsibilities. 93 FCMs are subject to similar requirements under the National Futures Association's (the "NFA") guidance on information systems security. 94

The CFTC also requires a DCO to have a legal framework providing for the DCO's enforceable interest in collateral. ⁹⁵ Accordingly, a DCO accepting tokenized collateral will need to determine how the Uniform Commercial Code ("UCC") applies to tokens and how it will obtain a perfected security interest in this collateral. Despite not being subject to these regulatory obligations, FCMs will need to consider similar implications when they accept tokenized RWAs. The UCC's new Article 12 addresses tokenized collateral but many states, including New York, have not adopted this article yet. Thus, a DCO or FCM will need to rely on other parts of the UCC when obtaining a security interest in tokenized collateral until they can reasonably rely on Article 12.

The recommendations to the CFTC under the GMAC Report are a step forward for market participants to begin tokenizing RWAs and using them to support their derivatives trading activities. Although the regulatory landscape is not entirely certain, the benefits of being able to post non-cash collateral with an FCM or DCO to support futures trading and freeing up cash collateral for other purposes are significant, and tokenization of RWAs may be permissible under existing laws and regulations.

III. CONCLUSION

The tokenization of RWAs has myriad benefits, some of which are already being borne out in global financial markets. Because existing U.S. laws and regulations were not drafted with these novel assets in mind, it is necessary to take existing rules and apply them to scenarios that were not contemplated at the time of their creation. Numerous market participants and financial trade associations are engaging with regulators to launch novel tokenization projects and push for regulatory clarity, where needed. \blacksquare

^{84 17} C.F.R. § 1.20(d), (g).

⁸⁵ Id. § 39.13(g)(10) (a DCO must hold clearing member and customer funds in a manner that minimizes the risk of loss or of delay in the DCO's access to such funds); id. § 1.20(h) (customer funds deposited with a bank or trust company must be immediately available for withdrawal upon demand of the FCM or DCO).

⁸⁶ GMAC Report at 12.

⁸⁷ *Id*.

^{88 17} C.F.R. §§ 1.11(e)(3)(i), 39.18.

⁸⁹ *Id.* §§ 39.13(b), 39.18(b).

⁹⁰ *Id.* § 39.13(b).

⁹¹ *Id.* § 1.11(d)-(e).

⁹² *Id.* § 1.11(e)(3)(i).

⁹³ *Id.* § 39.18(e)(8).

⁹⁴ FCMs must comply with the NFA's guidance on information systems security programs, which requires FCMs to have written cybersecurity programs. NFA Interpretive Notice 9070 (Aug. 20, 2015, updated effective Sep. 30, 2019), https://www.nfa.futures.org/rulebooksql/rules.aspx?Section=9 &RuleID=9070.

^{95 17} C.F.R. § 39.27(b)(3).

The Review of Securities & Commodities Regulation

General Editor

Michael O. Finkelstein

Associate Editor

Sarah Strauss Himmelfarb

Board Members

Jay G. Baris

Sidley Austin LLP

New York, NY

John C. Coffee, Jr.

Columbia Law School

New York, NY

Ralph C. Ferrara

Proskauer Rose LLP Washington, DC

Rita M. Molesworth

Willkie Farr & Gallagher LLP

New York, NY

Anna T. Pinedo

Mayer Brown New York, NY

Norman S. Poser

Brooklyn Law School

Brooklyn, NY

Benjamin P. Saul

GreenbergTraurig, LLP

Washington, DC