

**Digital and Digitized Assets:
Federal and State Jurisdictional Issues**

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PREFACE

This White Paper was prepared by members of the Jurisdiction Working Group of the Innovative Digitized Products and Processes Subcommittee (“IDPPS”) and their colleagues, who generously contributed substantial time and effort to this ambitious undertaking. The authors have sought to provide a comprehensive explanation of federal and state laws that may apply to the creation, offer, use and trading of digital assets in the United States, along with summaries of key initiatives outside the United States. The White Paper also recommends an analytic framework for considering potential issues of jurisdictional overlap between the Commodity Futures Trading Commission and the Securities and Exchange Commission under the separate federal statutes they each are responsible for administering.

IDPPS was established in March 2018 as a subcommittee of the Derivatives and Futures Law Committee of the Business Law Section of the American Bar Association. We have over 80 members, comprised of attorneys who work extensively in the areas of derivatives law and securities law, and related legal fields. We are organized into three working groups, which include, in addition to the Jurisdiction Working Group, a Blockchain Modality Working Group and an SRO Working Group.

IDPPS was formed with the following objectives:

- To educate ourselves, policy makers and the public about current issues raised by innovative digitized products and processes, such as cryptocurrencies, smart contracts and blockchain or other distributed ledger technologies;
- To identify and study emerging legal and regulatory issues and their implications for such products and processes;
- To study and understand how the Commodity Exchange Act framework and other statutory and regulatory frameworks may intersect, and identify areas of conflict or other issues that overlapping laws may create; and
- To make appropriate recommendations to address material issues identified.

We offer our appreciation and thanks to the members of the Jurisdiction Working Group and their colleagues who contributed to the drafting of this White Paper. We hope that the White Paper will prove to be a valuable resource for legal practitioners and others who are active in the digital asset arena, as well as for policy makers.

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SECTION 3. FEDERAL SECURITIES REGULATION: SECURITIES ACT AND EXCHANGE ACT*

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The market for digital assets has grown rapidly in recent years, from a global market capitalization of nearly \$12 billion as of September 2016 to over \$100 billion as of December 2018—albeit down from a high of over \$800 billion in January 2018.²³⁷ At the same time, questions concerning the application of the federal securities laws to digital assets and the intermediaries that facilitate transactions in them have come into sharp focus. Enforcement cases relating to digital assets date from as early as 2013, but the SEC has only recently begun to delineate the application of its regulatory regime to this new asset class. The early SEC enforcement actions focused on run-of-the-mill fraud or other misconduct, where the digital nature of the instrument was not central to the case. For example, in 2013 the SEC charged an individual selling Bitcoin investments with running a Ponzi scheme in which new contributions of bitcoin by investors were allegedly used to cover the promised weekly 7% payments.²³⁸ A Bitcoin-related Ponzi scheme was also the subject of a 2014 case in which the SEC alleged that a Connecticut man purported to sell shares in a bitcoin mining operation, but in fact paid off

* This Section is current as of December 2018 and does not reflect subsequent developments. The authors of Section 3 wish to thank Ledina Gocaj and Adam Fovent for their substantial contributions to this Section.

²³⁷ *Global Charts: Total Market Capitalization*, COINMARKETCAP (last visited Dec. 12, 2018), <https://coinmarketcap.com/charts/>.

²³⁸ Press Release (No. 2013-132), SEC, SEC Charges Texas Man With Running Bitcoin-Denominated Ponzi Scheme (July 23, 2013), <https://www.sec.gov/news/press-release/2013-132>.

investors with new investors' funds.²³⁹ Similarly, in 2017, the SEC filed fraud charges against the founder of a purported bitcoin platform alleging that he raised money from investors by touting the backgrounds of non-existent senior executives and misrepresenting key facts about the company's operations.²⁴⁰ Although the underlying activities involved digital assets, these somewhat routine fraud cases did little to address the application of the federal securities laws to digital assets generally.

July 2017 marked the first time the SEC provided detailed guidance on the application of the federal securities laws to the issuance of digital assets in the absence of fraud allegations. In its Section 21(a) report concerning tokens issued by The DAO, a blockchain-based enterprise supported by the German corporation Slock.it UG, the SEC clarified that the agency would apply the traditional test outlined in *SEC v. W.J. Howey Co.*²⁴¹ to this new asset class to determine whether an instrument is an investment contract, and therefore a security.²⁴² Though refraining in that case from bringing enforcement charges, the SEC explained that the report was meant to:

caution the industry and market participants: the federal securities laws apply to those who offer and sell securities in the United States, regardless whether the issuing entity is a traditional company or a decentralized autonomous organization, regardless whether those securities are purchased using U.S. dollars or virtual currencies, and regardless whether they are distributed in certificated form or through distributed ledger technology.²⁴³

²³⁹ Complaint, *SEC v. Homero Joshua Garza*, Civil Action No. 3:15-cv-01760 (D. Conn. Dec. 1, 2015).

²⁴⁰ Press Release (No. 2017-123), SEC, SEC Files Fraud Charges in Bitcoin and Office Space Investment Schemes (June 30, 2017), <https://www.sec.gov/news/press-release/2017-123>; Complaint, *SEC v. Renwick Haddow, et al.*, Civil Action No. 17-cv-4950 (S.D.N.Y. June 30, 2017).

²⁴¹ 328 U.S. 293 (1946).

²⁴² DAO REPORT, *supra* note 70, at 11.

²⁴³ Press Release (No. 2017-131), SEC, SEC Issues Investigative Report Concluding DAO Tokens, a Digital Asset, Were Securities (July 25, 2017), <https://www.sec.gov/news/press-release/2017-131>.

Several months later, Munchee, a company that had developed an iPhone app for restaurant reviews, attempted to raise capital by selling its own digital asset, which the promoters said would in the future be accepted as payment by third parties and would increase in value.²⁴⁴ The SEC intervened before Munchee's ICO could be completed. Citing the DAO Report, the SEC concluded that Munchee's proposed issuance of tokens constituted an illegal securities offering and issued a cease-and-desist order.²⁴⁵ Alongside the order, Chairman Jay Clayton released a statement warning market participants that the SEC would continue to be proactive in overseeing this type of activity.²⁴⁶ In November 2018, the SEC again applied the *Howey* test in entering cease-and-desist orders against two ICO issuers, Paragon Coin, Inc.²⁴⁷ and Airfox.²⁴⁸

The SEC, however, has to date provided limited guidance on how it will apply the *Howey* test to the wider array of digital assets.²⁴⁹ Even less clear is how the requirements of the federal securities laws will be applied to intermediaries transacting in digital-asset securities. This Section aims to provide a roadmap of the open questions in this area. First, this Section describes

²⁴⁴ *Munchee Inc.*, Securities Act Release No. 10,445, Admin. Proc. File No. 3-18304¶2 (Dec. 11, 2017) [hereinafter *Munchee Order*], <https://www.sec.gov/litigation/admin/2017/33-10445.pdf>.

²⁴⁵ *Id.* ¶¶ 2838.

²⁴⁶ Jay Clayton, Chairman, SEC, Statement on Cryptocurrencies and Initial Coin Offerings (Dec. 11, 2017), <https://www.sec.gov/news/public-statement/statement-clayton-2017-12-11>.

²⁴⁷ *Paragon Coin, Inc.*, Securities Act Release No. 10,574, Admin. Proc. File No. 3-18897 (Nov. 16, 2018) [hereinafter *Paragon Order*], <https://www.sec.gov/litigation/admin/2018/33-10574.pdf>.

²⁴⁸ *CarrierEQ, Inc.*, Securities Act Release No. 10,575, Admin. Proc. File No. 3-18898 (Nov. 16, 2018) [hereinafter *Airfox Order*], <https://www.sec.gov/litigation/admin/2018/33-10575.pdf>.

²⁴⁹ The application of the *Howey* test to digital assets has not yet been considered in detail by the courts. Although it has been suggested that the SEC suffered a setback in its application of the *Howey* test to digital assets when Judge Curiel in the Southern District of California recently denied its application for a temporary restraining order, the decision was based on the narrow ground that the court could not yet make a determination under the *Howey* test on disputed issues of fact and without the benefit of full discovery. See *SEC v. Blockvest, LLC*, No. 18CV2287-GPB(BLM), 2018 WL 6181408 (S.D. Cal. Nov. 27, 2018). Courts have, however, generally accepted the application of *Howey* to digital assets. See, e.g., *Solis v. Latium Networks, Inc.*, No. 18-10255 (SDW) (SCM), 2018 WL 6445543 (D. N.J. Dec. 10, 2018); *U.S. v. Zaslavskiy*, No. 17-cr-00647-RJD, 2018 WL 4346339 (E.D.N.Y. Sept. 11, 2018); *Rensel v. Centra Tech, Inc.*, No. 17-cv-24500-JLK (S.D. Fla. June 6, 2018).

the primary legal test to determine whether a digital asset is an “investment contract” and therefore a security, as outlined by the Supreme Court in *Howey*, as well as its fact-intensive application to particular digital assets. The term “security,” as defined under the Securities Act and the Exchange Act, includes not only traditional “securities” such as stocks and bonds, but other instruments that fall into the catch-all category of “investment contracts.” The *Howey* test is therefore critical, as the federal securities laws will apply to a digital asset that is a “security.”

This Section then considers the implications for digital assets that are securities, laying out potentially applicable requirements under the Securities Act and the Exchange Act. Once it is determined that a particular digital asset is a security, a broad swath of federal securities laws and regulations may apply to its offer and sale, as well as to the intermediaries involved in transacting in these products. For example, digital assets that are securities must be sold only in offerings that comply with the registration and disclosure requirements of the Securities Act, unless the assets or sale qualify for an exemption. The SEC has focused on ensuring the protections of the Securities Act apply to ICOs, which, according to Chairman Clayton, are often simply “interests in companies, much like stocks and bonds, under a new label.”²⁵⁰ Under the Exchange Act, in turn, a determination that a digital asset is a security may implicate, depending on the activity, regulatory requirements applicable to securities broker-dealers, exchanges, alternative trading systems, transfer agents, or clearing agencies.

²⁵⁰ *Virtual Currencies: The Oversight Role of the U.S. Securities and Exchange Commission and the U.S. Commodity Futures Trading Commission: Hearing Before the Senate Committee on Banking, Housing, and Urban Affairs*, 115th Cong. 4 (2018) (Statement of Jay Clayton, Chairman, SEC) [hereinafter Clayton HUA Statement].

1. Digital Assets as Securities—The *Howey* Test

Due to the varying characteristics of digital assets, any analysis of whether a particular digital asset is a “security” is fact-intensive and must be applied on a case-by-case basis.²⁵¹ Securities Act section 2(a)(1) and Exchange Act section 3(a)(10) each define the term “security”; while the definitions differ slightly, courts do not draw meaningful distinctions between the meaning of the term under the two statutes.²⁵² Although the definitions of “security” capture a broad swath of instruments,²⁵³ most digital assets that are not specifically intended to be securities are only potentially captured by the catch-all term “investment contract.”

The analysis of whether an instrument is an “investment contract” is primarily based on the landmark 1946 Supreme Court decision in *Howey*. The case involved a company’s sale of 250 acres of citrus acreage to the public, along with a contract to service the groves and sell the produce for investors, while the proceeds of the sale would “help [it] finance additional development.”²⁵⁴ In holding that this transaction constituted an “investment contract”—and thus an illegal, unregistered securities offering—the Court laid out a four-part test that continues to

²⁵¹ See *Munchee* Order, *supra* note 244, at ¶ 35 (“Determining whether a transaction involves a security does not turn on labelling . . . but instead requires an assessment of the economic realities underlying a transaction.” (citation omitted)).

²⁵² See, e.g., *SEC v. Edwards*, 540 U.S. 389, 393 (2004); *Reves v. Ernst & Young*, 494 U.S. 56, 61 n.1 (1990).

²⁵³ Securities Act section 2(a)(1) defines “security” as:

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 . . . 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.

See also 15 U.S.C. § 78c(a)(10).

²⁵⁴ *Howey*, 328 U.S. at 295.

underpin the modern interpretation of the term “investment contract.” Under the *Howey* test, an investment contract exists when there is:

- (i) an investment of money;
- (ii) in a common enterprise;
- (iii) with a reasonable expectation of profits; and
- (iv) the expectation of profits is based upon the entrepreneurial or managerial efforts of others.²⁵⁵

Importantly, this test requires that any particular asset satisfy each of its four elements based on a fact-specific analysis of each asset. The Supreme Court emphasized both in *Howey* and subsequent opinions that the test “embodies a flexible rather than a static principle, one that is capable of adaptation to meet the countless and variable schemes devised by those who seek the use of the money of others on the promise of profits.”²⁵⁶ In the digital asset context, the SEC has repeatedly emphasized that it applies a facts-and-circumstances analysis to each individual token to determine whether it is a security.²⁵⁷ The SEC has also stressed that “form should be disregarded for substance,” and that the focus must be on the “economic realities underlying a transaction, and not on the name appended to it.”²⁵⁸

²⁵⁵ *Id.* at 301 (“The test is whether the scheme involves an investment of money in a common enterprise with profits to come solely from the efforts of others.”); see also *United Hous. Found., Inc. v. Forman*, 421 U.S. 837, 852–53 (1975) (expanding on *Howey* definition of an investment contract and holding that the “touchstone” of the test is “the presence of an investment in a common venture premised on a reasonable expectation of profits to be derived from the entrepreneurial or managerial efforts of others”).

²⁵⁶ *Edwards*, 540 U.S. at 393 (quoting *Howey*, 328 U.S. at 299).

²⁵⁷ See Clayton HUA Statement, *supra* note 250, at 37.

²⁵⁸ See DAO REPORT, *supra* note 70, at 11 (quoting *Tcherepnin v. Knight*, 389 U.S. 332, 336 (1967)); *United Hous. Found.*, 421 U.S. at 849; see also *Munchee Order*, *supra* note 244, ¶28 (quoting the same); Stephanie Avakian & Steven Peikin, Directors, SEC and CFTC Divisions of Enforcement, Joint Statement by SEC and CFTC Enforcement Directors Regarding Virtual Currency Enforcement Actions (Jan. 19, 2018), <https://www.sec.gov/news/public-statement/joint-statement-sec-and-cftc-enforcement-directors> (stating that “the SEC . . . will look beyond form, [to] examine the substance of the activity and prosecute violations of the federal securities . . . laws”).

The *Howey* test eschews any simplistic, one-size-fits-all application to digital assets. In a recent speech, the SEC’s Director of the Division of Corporation Finance, William Hinman, expressed his view that two of the most highly valued digital assets—bitcoin and Ether—are not securities under the *Howey* test.²⁵⁹ At the same time, and in an important departure from any prior SEC statements or analysis, Director Hinman emphasized that whether any particular digital asset is a security is not static and a digital asset that might have been sold in a securities offering can change its character over time and cease to be a security.²⁶⁰ The determination whether a digital asset is an investment contract at a particular time, therefore, will be unique not only to that digital asset but perhaps also to facts and circumstances at the time it is being sold or resold. This Section outlines the complex application of the four factors of the *Howey* test to digital assets.

(a) An “Investment of Money”

Perhaps the most straightforward element of the *Howey* test is the requirement that a party invest money in the enterprise. At a high level, this element requires the investor “to give up a specific consideration in return for a separable financial interest with the characteristics of a security.”²⁶¹ The Supreme Court has stated the consideration must be “tangible and definable.”²⁶² Government-issued “fiat” currency is plainly “specific consideration,” but the federal courts and the SEC in its DAO Report have stated that an investment of “money need not take the form of cash.”²⁶³ Specifically, in the DAO Report, the SEC determined that a purchase of DAO tokens

²⁵⁹ Hinman, *supra* note 47.

²⁶⁰ *Id.*

²⁶¹ *Int’l Bhd. of Teamsters v. Daniel*, 439 U.S. 551, 559 (1979).

²⁶² *Id.* at 560.

²⁶³ DAO REPORT, *supra* note 70, at 11 (citation omitted).

with payment made in Ether tokens, another digital asset, fulfilled this first element of the *Howey* test.²⁶⁴ Courts have similarly found that payment made in bitcoin, or other digital assets, may count as currency and therefore satisfy the “investment of money” prong of *Howey*.²⁶⁵

This element is more difficult in its application to those types of digital assets that are not initially sold in exchange for either fiat currency or digital assets, but are created through “mining.” As described in the table below, digital assets available on the market today can be acquired by a variety of methods, including mining. There are two primary types of mining: proof-of-work mining and proof-of-stake mining. For those digital assets that are created by proof-of-work mining, miners compete to resolve mathematical problems to validate transactions on the network in order to add new blocks to the blockchain. The first miner to solve the problem is rewarded by a new issuance of that digital asset. All bitcoins, for example, were and are initially created through mining alone, although non-miners can purchase bitcoin in secondary market transactions. Proof-of-work mining can be energy intensive and requires specialized, costly equipment to perform.²⁶⁶ Proof-of-stake mining is similarly a way to validate transactions on a blockchain, but rather than engaging in solving mathematical problems, holders of a particular digital asset compete to validate transactions by “staking” an amount of tokens they hold.²⁶⁷

²⁶⁴ *Id.* (citing *SEC v. Shavers*, No. 4:13-CV-416, 2014 WL 4652121, at *1 (E.D. Tex. Sept. 18, 2014)).

²⁶⁵ See, e.g., *Shavers*, 2014 WL 4652121, at *1; Complaint, *SEC v. ReCoin Grp. Found., LLC*, No. 1:17-cv-05725 (E.D.N.Y. Sept. 29, 2017), <https://www.courtlistener.com/recap/gov.uscourts.nyed.407676/gov.uscourts.nyed.407676.1.0.pdf>.

²⁶⁶ See Jason Evangelho, *Mining 101: An Introduction To Cryptocurrency Mining*, FORBES (Mar. 13, 2018, 4:24PM), <https://www.forbes.com/sites/jasonevangelho/2018/03/13/mining-101-what-exactly-is-cryptocurrency-mining/#56942555a83a>.

²⁶⁷ See *Proof of Work vs Proof of Stake: Basic Mining Guide*, BLOCKGEEKS (last visited Dec. 12, 2018), <https://blockgeeks.com/guides/proof-of-work-vs-proof-of-stake/>.

A digital asset’s mechanism of creation may also change over time, further complicating the application of this first element of the *Howey* test. An amount of Ether, in contrast to bitcoin, was initially created and sold in exchange for bitcoin in a “presale” before the Ethereum network was fully developed and launched.²⁶⁸ Since the Ethereum network launched, however, new Ether can be created only through proof-of-work mining, although existing and newly mined Ether can also be purchased on the secondary market.

Table: Selected digital assets and form of acquisition²⁶⁹

Digital Asset	Form of Acquisition
Bitcoin (BTC)	Proof-of-work mining
Ether (ETH)	Proof-of-work mining*
Ripple (XRP)	Sale or giveaway
Bitcoin cash (BCH)	Proof-of-work mining
EOS	Sale
Litecoin (LTC)	Proof-of-work mining
Zcash (ZEC)	Proof-of-work mining**
Stellar Lumens (XLM)	Sale or giveaway
Cardano (ADA)	Proof-of-stake mining***
IOTA (IOT)	Sale

* Ether was initially available for purchase through a presale. Since then, all Ether must either be purchased by mining or on the secondary market.

** A small portion of mined ZEC automatically is allocated to the founders of ZEC, among others.

*** Cardano was initially sold at a presale. Since then, Cardano is issued through proof-of-stake mining.

²⁶⁸ Vitalik Buterin, *Launching the Ether Sale*, ETHEREUM BLOG (July 22, 2014), <https://blog.ethereum.org/2014/07/22/launching-the-ether-sale/>.

²⁶⁹ See Benjamin Wallace, *The Rise and Fall of Bitcoin*, WIRED (Nov. 23, 2011, 2:52 PM), https://www.wired.com/2011/11/mf_bitcoin/; Buterin, *Launching the Ether Sale*, *supra* note 268; Shawn Gordon, *What is Ripple*, BITCOIN MAGAZINE (last visited Dec. 12, 2018), <https://bitcoinmagazine.com/guides/what-ripple/>; OCFX Cryptoasset Rankings & Metrics: EOS, MESSARI.IO (last visited Dec. 12, 2018), <https://onchainfx.com/asset/eos> (Not compatible with Internet Explorer browser); Joe Liebkind, *Meet Litecoin, a Faster Bitcoin That Gamers Love*, MONEY (Jan. 19, 2018), <http://money.com/money/5108447/meet-litecoin-a-faster-bitcoin-that-gamers-love/>; OCFX Cryptoasset Rankings & Metrics: Stellar (XLM), MESSARI.IO (last visited Dec. 12, 2018), <https://onchainfx.com/asset/stellar> (Not compatible with Internet Explorer browser); OCFX Cryptoasset Rankings & Metrics: Cardano (ADA), MESSARI.IO (last visited Dec. 12, 2018), <https://onchainfx.com/asset/cardano> (Not compatible with Internet Explorer browser); OCFX Cryptoasset Rankings & Metrics: Iota (IOT), MESSARI.IO (last visited Dec. 12, 2018), <https://onchainfx.com/asset/iota> (Not compatible with Internet Explorer browser). Table excludes acquisition through secondary market purchases.

Whether miners give up “tangible and definable” consideration to obtain digital assets such as to satisfy the “investment of money” element of the *Howey* test has yet to be answered by the SEC or the courts, and the concept of mining does not fit neatly into this first element of the *Howey* test. Proof-of-work miners could be viewed, however, as giving consideration in the form of their labor or the opportunity cost of the resources (including substantial electricity cost) expended to mine the digital assets. Courts have determined that, in specific circumstances, giving up resources that one would otherwise have can be consideration sufficient to fulfill this element of the *Howey* test. For example, in *Uselton v. Commercial Lovelace Motor Freight, Inc.*, the Tenth Circuit held the investment-of-money element was fulfilled when employees contributed to a voluntary stock ownership plan at their company because the employees “contributed their legal right to a portion of their wages . . . in return for the right to . . . participate in [the employer’s] profit-sharing plan.”²⁷⁰ In contrast, the Supreme Court held this element was not met in an earlier case, *International Brotherhood of Teamsters v. Daniel*.²⁷¹ In *Daniel*, employees similarly received a pension plan from their employer as part of their compensation package, but the plan was both “noncontributory” and “compulsory,” meaning that “by definition, [the employee] ma[de] no payment into the pension fund. He only accept[ed] employment, one of the conditions of which [was] eligibility for a possible benefit on retirement.”²⁷² Exchanging labor for a perceived return may therefore sometimes fulfill this element of the *Howey* test, but not—as the *Daniel* court noted—when “[o]nly in the most

²⁷⁰ 940 F.2d 564, 575 (10th Cir. 1991).

²⁷¹ 439 U.S. 551, 558–562 (1979).

²⁷² *Id.* at 558.

abstract sense may it be said that an employee ‘exchanges’ some portion of his labor in return for these possible benefits.”²⁷³

Nonetheless, the *Daniel* and *Useton* cases do not resolve the question for digital assets that are mined. In *Daniel* and *Useton*, the employees were giving up a percentage of a guaranteed and predetermined salary. When proof-of-work miners expend computational power to mine for bitcoin, however, they are generally giving up the opportunity cost of their time and resources. The question of whether such opportunity cost is “tangible and definable” consideration is more difficult to answer. Thus, although the “investment of money” element will likely be straightforward for those digital assets that are sold in exchange for fiat currency or other digital assets, mining adds an element of ambiguity in determining whether this element of the *Howey* test is met. The different characteristics of proof-of-work versus proof-of-stake mining may also affect the analysis of this element, particularly if the stakeholders in proof-of-stake mining could be said to receive a financial benefit from the ownership of the digital asset, much as a shareholder would receive a dividend.

Another question that has yet to be answered by the SEC or the courts is whether a digital asset that was not a security upon initial issuance (for example, because it was mined rather than sold by an issuer) can become an investment contract by virtue of secondary market trading. For example, although bitcoin is mined in the first instance, it is subsequently purchased and sold in the secondary market. One argument that the purchase and sale in the secondary market do not alter the nature of the underlying asset would hold that a contract’s character is determined upon initial issuance, and no “investment of money” was made in return for the issuance. For example,

²⁷³ *Id.* at 560.

precious metals, such as gold or silver, are similarly purchased and sold in the secondary market but are not characterized as securities.

(b) A Common Enterprise

Broadly, the “common enterprise” element focuses on the ties among individual owners of the asset. Courts have defined two different methods for fulfilling this element: horizontal commonality and vertical commonality. Under either method, the analysis of the “common enterprise” element is closely related to the final element of the *Howey* test regarding the reliance by purchasers on the efforts of others in order to realize their profit.

(1) Horizontal Commonality

Courts requiring horizontal commonality look to whether there is “a pooling of investors’ contributions and distribution of profits and losses on a pro-rata basis among investors.”²⁷⁴ In a traditional example of horizontal commonality, the Third Circuit found this element to have been met when a trust’s “solicitation and membership materials stated that [the trust] would pool participant contributions to create highly-leveraged investment power that would yield high rates of return while protecting the investors’ principal contributions.”²⁷⁵ Similarly, the First Circuit held that this element was met when the operator of a “fantasy investment game” pooled participants’ funds into a single account.²⁷⁶

Applying this factor to digital assets is a fact-specific inquiry. The relevant factors to assess whether there is horizontal commonality between investors in a digital asset include whether a centralized entity supports the digital asset, whether investors’ assets are pooled in a

²⁷⁴ *SEC v. Infinity Grp. Co.*, 212 F.3d 180, 188 (3d Cir. 2000).

²⁷⁵ *Id.*

²⁷⁶ *SEC v. SG Ltd.*, 265 F.3d 42, 49–53 (1st Cir. 2001).

central location, and whether any entity controls those pooled assets. An analysis of bitcoin, in particular, draws out the most important considerations for this factor. Purchasers of bitcoin are a disparate, unaffiliated group.²⁷⁷ The open-source Bitcoin network permits a purchase of bitcoin to be registered on a public ledger and allows the owners of bitcoin to exchange value over the network. Because all bitcoin are initially mined, there are no assets to pool in the traditional sense. Further, there is neither a central account that holds any assets nor any third party that can be said to have control over any assets. Holders of bitcoin may share in the market value fluctuations of the digital currency on a pro rata basis, but that feature alone would not seem to fulfill the element of horizontal commonality.

This element is also emblematic of how the *Howey* analysis of a digital asset may evolve over time. Ether's origin, for example, differs from the purely decentralized nature of bitcoin and even from Ether's current state. Ether was first sold in a presale of 60 million units of the digital currency in 2014.²⁷⁸ Whether or not purchasers in the initial sale could be considered to have pooled assets, after the presale new Ether could be generated only by mining. Therefore, much like the case of bitcoin, today it is difficult to argue that assets are pooled by miners of Ether.

(2) Vertical Commonality

In those circuits that use the test of vertical commonality, courts look to whether the success of the investors is dependent upon the efforts of the promoters.²⁷⁹ The example of bitcoin illustrates the close ties of vertical commonality with the final element of the *Howey* test

²⁷⁷ For general background on bitcoin, see Reuben Grinberg, *Bitcoin: An Innovative Alternative Digital Currency*, 4 HASTINGS SCI. & TECH. L.J. 160 (2011), <http://www.cs.ucsb.edu/~rich/class/cs293b-cloud/papers/bitcoin.legal.pdf>.

²⁷⁸ Nathan Reiff, *What is Ether? Is it the Same as Ethereum?*, INVESTOPEDIA, <https://www.investopedia.com/tech/what-ether-it-same-ethereum/> (last updated June 14, 2018).

²⁷⁹ See, e.g., *SG Ltd.*, 265 F.3d at 49–50.

regarding reliance on the efforts of a third party. In fact, some circuits have rejected the use of the vertical commonality test on the basis that it collapses the second and final elements of the *Howey* test.²⁸⁰ For entirely decentralized networks such as the Bitcoin network, it is difficult to say that investors are dependent upon an identifiable third party. Investors in bitcoin are dependent upon the efforts of all of the participants in the Bitcoin network generally in order to sustain the network, but the association between the various, dispersed network participants does not fit the usual paradigm applied by the courts that presumes a construct involving investors, on one hand, and promoters, on the other.

Characteristics that are indicative of vertical commonality in any digital asset would include whether the developers or promoters of the asset hold a significant stake in the asset, such that they would be incentivized to support the value of the asset and third-party holders would expect them to do so.²⁸¹ Bitcoin, for example, would not possess these characteristics.²⁸² There is no identifiable promoter of bitcoin whose role, interests or motivations upon which other owners would depend.

Whether Ether exhibits commonality is a more difficult question due to the digital asset's more centralized origins. Nonetheless, the SEC staff seems to have concluded that "putting aside the fundraising that accompanied the creation of Ether,"²⁸³ there is no longer a central party with a sufficient continuing role to fulfill the elements of the *Howey* test. For digital assets where there was an identifiable promoter, such as with Ether in its early stages, factors such as the

²⁸⁰ See, e.g., *Revak v. SEC Realty Corp.*, 18 F.3d 81, 88 (2d Cir. 1994).

²⁸¹ See Hinman, *supra* note 47 (asking "Would purchasers reasonably believe such efforts will be undertaken and may result in a return on their investment in the digital asset?").

²⁸² See *id.*

²⁸³ *Id.*

evolution of the role of the promoter since the inception of the currency and the extent to which efforts by the promoter are still necessary for the functioning of the currency will affect the analysis.

(c) A Reasonable Expectation of Profit

The final two elements of the *Howey* test are the most complex of the four and also those most indicative of a digital asset’s status as a security. The third element—a reasonable expectation of profit—is the “touchstone” of the Supreme Court’s decisions defining a security.²⁸⁴ To assess whether there is an expectation of profit, courts have traditionally defined profit as that derived from “capital appreciation resulting from the development of the initial investment,” for example, as in “the sale of oil leases conditioned on promoters’ agreement to drill [an] exploratory well.”²⁸⁵ Profit may also come from “a participation in earnings resulting from the use of investors’ funds,” such as through “dividends on the investment based on [a] savings and loan association’s profits.”²⁸⁶ Along these lines, the SEC determined that investors purchasing DAO tokens reasonably expected to earn profits because “the various promotional materials disseminated by Slock.it and its co-founders informed investors that the DAO was a for-profit entity whose objective was to fund projects in exchange for a return on investment.”²⁸⁷

Digital assets may attract investors seeking to profit from the investment, even though the assets also have credible, real consumptive uses that are independent of the expectation of profit.

²⁸⁴ *Forman*, 421 U.S. at 852.

²⁸⁵ *Id.*

²⁸⁶ *Id.*

²⁸⁷ DAO REPORT, *supra* note 70, at 11–12.

For example, some use bitcoin as a medium of exchange,²⁸⁸ and spending Ether is necessary for its owners to use the Ethereum network's smart contracts, which have broad practical applications such as permitting companies to share data securely or trigger the effectiveness of insurance policies.²⁸⁹

When considering the varying motivations of holders of an asset, courts have asked which of the uses is "incidental" to the other.²⁹⁰ Stated otherwise, the question for this element is whether "the purchase of a token looks a lot like a bet on the success of the enterprise and not the purchase of something used to exchange for goods or services on the network."²⁹¹ To draw out these different motivations for purchase, courts and the SEC have focused on the actions of the promoter (to the extent there is one), as well as on the behavior of purchasers.

Courts and the SEC will scrutinize any statements by the promoters promising a return on investment, as such statements would lead investors to expect profits.²⁹² In addition, the SEC might look to the characteristics of the investors targeted by promoters in order to ascertain whether there is a true consumptive use. Marketing and selling a digital asset to members of the general public might indicate that the promoters are marketing an item for its potential for profit, while marketing to groups that would be expected to use the digital asset for its consumptive

²⁸⁸ See Christine Armario & Fabiola Sanchez, *Venezuelans Seeing Bitcoin Boom as Survival, Not Speculation*, U.S. NEWS & WORLD REPORT (Dec. 13, 2017, 5:43 PM), <https://www.usnews.com/news/business/articles/2017-12-13/venezuelans-seeing-bitcoin-boom-as-survival-not-speculation>.

²⁸⁹ Michael del Castillo, *UBS to Launch Live Ethereum Compliance Platform*, COINDESK, <https://www.coindesk.com/ubs-launch-live-ethereum-platform-barclays-credit-suisse/> (last updated Dec. 12, 2017, 9:00 AM); Stan Higgins, *AXA Is Using Ethereum's Blockchain for a New Flight Insurance Product*, COINDESK, <https://www.coindesk.com/axa-using-ethereums-blockchain-new-flight-insurance-product/> (last updated Sept. 14, 2017, 12:49 PM).

²⁹⁰ See *SG Ltd.*, 265 F.3d at 54.

²⁹¹ Hinman, *supra* note 47.

²⁹² See, e.g., Brief of SEC In Support of the U.S. in Opposition to Defendant's Motion to Dismiss Indictment at 13, *U.S. v. Zaslavskiy*, 17-CR-0647 (RJD) (E.D.N.Y. filed Mar. 19, 2018).

uses would indicate the promoters recognize that consumptive use is a significant driver of the demand for the currency.²⁹³

Promoters may also reveal an intent to sell digital assets for investment purposes by, for example, selling the assets in increments that correlate with investment, not consumptive, uses. Conversely, promoters could “buil[d] in incentives that compel using the tokens promptly on the network, such as having the tokens degrade in value over time,”²⁹⁴ which would seemingly discourage long-term holdings of the assets and indicate that the promoters are seeking users, not investors.

Even when digital assets have purported practical uses, an important aspect of the inquiry for this element of the *Howey* test will be the extent of development and widespread application of those uses. The more proven, actual uses by current holders of the digital asset, the less likely it is that expectation of profit is a motivation of holders of the asset. On the other hand, where the digital asset being sold has only contemplated or speculated future uses, an argument that purchasers had consumptive, rather than investment, intent will be difficult to sustain. Indeed, in its recent cease-and-desist order against Paragon Coin, Inc. for conducting an unregistered securities offering,²⁹⁵ the SEC observed that while potential purchasers of Paragon’s PRG digital asset were told it could be used in the future to buy goods or services, “no one was able to buy any good or service with PRG before or during the offering other than pre-ordering Paragon merchandise.”²⁹⁶

²⁹³ See Hinman, *supra* note 47.

²⁹⁴ *Id.*

²⁹⁵ *Paragon Order*, *supra* note 247.

²⁹⁶ *Id.* at ¶ 22.

(d) The Entrepreneurial or Managerial Efforts of the Promoter or Other Third Parties

The final and frequently most important element of the *Howey* test asks “whether the efforts made by those other than the investor are the undeniably significant ones, those essential managerial efforts which affect the failure or success of the enterprise.”²⁹⁷ Traditionally, in separating securities from commodities, courts have asked whether the increase in value of the instrument purchased derives from the efforts of an identifiable third party or from general market fluctuations. For example, in *Noa v. Key Futures, Inc.*, the Ninth Circuit held that contracts for the sale of silver were not securities because purchasers did not rely upon the efforts of others to realize their profits: “[o]nce the purchase of silver bars was made, the profits to the investor depended upon the fluctuations of the silver market, not the managerial efforts of [the sellers].”²⁹⁸ Similarly, the Ninth Circuit, in *SEC v. Belmont Reid & Co., Inc.*, held that investors purchasing gold coins on a pre-payment basis were not relying upon the managerial efforts of the promoter because their profits depended upon “the world gold market” and not the skills of the promoters.²⁹⁹ The gold purchasers acted as ordinary buyers relying on the seller to deliver the goods that they purchased.³⁰⁰ In contrast, the Second Circuit in *Glen-Arden Commodities, Inc. v. Costantino* held that purchasers in whiskey warehouse receipts relied upon the managerial efforts of others because they “entrust[ed] the promoters with both the work and the expertise to make the tangible investment pay off.”³⁰¹ The promoters of the interests in the whiskey and casks—the

²⁹⁷ *SEC v. Glenn W. Turner Enters., Inc.*, 474 F.2d 476, 482 (9th Cir. 1973).

²⁹⁸ 638 F.2d 77, 79 (9th Cir. 1980).

²⁹⁹ 794 F.2d 1388, 1391 (9th Cir. 1986).

³⁰⁰ *Id.*

³⁰¹ 493 F.2d 1027, 1035 (2d Cir. 1974).

warehouse receipts which were akin to a commodity future—promised the investors that they would find buyers in the future and investors would double their money in four years.³⁰²

In considering how this element applies to digital assets, analyzing the case of bitcoin is illustrative. Bitcoin miners profit by obtaining new tokens as a result of their own mining efforts. Certainly, a portion of their profits relies upon the greater network of miners and users on the Bitcoin network, but such reliance on the continued existence of this network is far from the reliance on the “essential managerial efforts” of others and closer to the reliance on the world gold market that was deemed not to be sufficient to fulfill this factor in *Belmont Reid*.

Nonetheless, few digital currencies in recent years have replicated the extensive decentralization of bitcoin, with many being sold specifically to finance promoters’ efforts at building a new system or service or based on the expectation that the promoters will support the project after the sale. For example, in the DAO Report, the SEC stated that “[t]he expertise of The DAO’s creators and Curators was critical in monitoring the operation of The DAO, safeguarding investor funds, and determining whether proposed contracts should be put for a vote.”³⁰³ Further, “[a]lthough DAO Token holders were afforded voting rights,” those voting rights “did not provide them with meaningful control over the enterprise, because (1) DAO Token holders’ ability to vote for contracts was a largely perfunctory one; and (2) DAO Token holders were widely dispersed and limited in their ability to communicate with one another.”³⁰⁴

Determining whether the role of the creator of a particular token rises to the level of essential managerial efforts is a fact-specific analysis. At a minimum, the analysis must take into

³⁰² *Id.*

³⁰³ DAO REPORT, *supra* note 70, at 12–13.

³⁰⁴ *Id.* at 13.

account whether there is an identifiable individual or group promoting the asset, and then assess the specific role of that party. A minimal role, without more, is unlikely to be sufficient to constitute “efforts of others” upon which purchasers can rely. For example, in *Belmont Reid*, the gold purchasers relied upon the promoter to mine gold in order to produce gold coins.³⁰⁵ The Ninth Circuit held that this reliance did not change the fact that the investors’ profit was determined by the world gold market.³⁰⁶ Instead, the reliance was like “any sale-of-goods contract in which the buyer pays for advance delivery and the ability of the seller to perform is dependent, in part, on both his managerial skill and some good fortune.”³⁰⁷

Recent enforcement actions brought by the SEC against the issuers and promoters of ICO tokens provide further insight into when the SEC believes that the role of the creator of a particular digital asset rises to the level of “essential managerial efforts.” In its November 16, 2018, cease-and-desist order against Paragon Coin, Inc., the SEC placed particular emphasis on Paragon’s stated plans to create an “ecosystem” of uses and applications that it said would increase the value of its token.³⁰⁸ Likewise, in its cease-and-desist order entered on the same date against Airfox, which had sold a digital asset (AirTokens) through an ICO, the SEC reasoned that investors’ expected profits “were to be derived from the significant entrepreneurial and managerial efforts of others—specifically AirFox and its agents—who were to create the ecosystem that would increase the value of AirTokens, and facilitate secondary market trading.”³⁰⁹

³⁰⁵ *Belmont Reid*, 794 F.2d at 1389.

³⁰⁶ *Id.* at 1391.

³⁰⁷ *Id.*

³⁰⁸ *Paragon Order*, *supra* note 247, at ¶ 34.

³⁰⁹ *Airfox Order*, *supra* note 247, at ¶ 22.

Pinpointing whether purchasers are relying upon the efforts of others is important because the separation (and resulting information asymmetries) between those investors and promoters is what underlies the disclosure requirements of securities offerings, discussed in more detail below.³¹⁰ The protections of the federal securities laws are needed where investors rely upon the efforts of a third party to realize gains from an investment because, in that scenario, “learning material information about the third party—its background, financing, plans, financial stake and so forth—is a prerequisite to making an informed investment decision.”³¹¹

Given the SEC staff’s position on Ether, the SEC seems prepared to take into account how reliance on the efforts of others may change over the course of a digital token’s lifecycle.³¹² Although the SEC has not spoken with specificity as to how this element of the *Howey* test applies to Ether, Ether’s evolution illustrates how the role of founders can change and potentially affect the *Howey* analysis. The initial developers of Ether and the Swiss entity that managed the presale and dissolved upon its conclusion—the Ethereum Switzerland GmbH³¹³—had a role in the establishment of the blockchain and the presale.³¹⁴ Ether was purposefully set up, however, to be an open-source, consensus-based blockchain that would not be controlled by any one holder of Ether. Three years after its initial sale, over 30,000 developers participate in the

³¹⁰ See also Hinman, *supra* note 47.

³¹¹ *Id.*

³¹² *Id.*

³¹³ *Terms and Conditions of the Ethereum Genesis Sale*, ETHEREUM.ORG, 3 (July 21, 2014), <https://github.com/ethereum/www/blob/master-postsale/src/extras/pdfs/TermsAndConditionsOfTheEthereumGenesisSale.pdf>.

³¹⁴ Gabriel T. Rubin, *CFTC Official Urges SEC to Clarify Ether’s Status*, WALL ST. J. (May 14, 2018, 4:04 PM), <https://www.wsj.com/articles/cftc-official-urges-sec-to-clarify-ethers-status-1526328264>.

Ethereum platform,³¹⁵ a large and disperse enough group that holders of Ether can be said to rely significantly less upon the efforts of any identifiable others today than at the time of the pre-sale.

2. Implications for the Requirements of the Securities Act and Exchange Act

Although ICO in the digital asset space has “grown rapidly, gained greater prominence in the public conscience and attracted significant capital” over the past few years, the risks inherent in any under-regulated space “are high and numerous—including risks caused by or related to poor, incorrect or non-existent disclosure, volatility, manipulation, fraud and theft.”³¹⁶ The SEC’s goal in regulating securities is to mitigate these risks while facilitating capital formation through increased transparency,³¹⁷ and its authority to do so comes primarily from two statutes: the Securities Act and the Exchange Act. If a particular digital asset is classified as a security, dealings or transactions in that digital asset would be subject to the requirements of these statutes. This Section analyzes those requirements and exemptions that may be available to parties transacting in or facilitating transactions in digital assets. It also references some of the challenges of applying existing regulations to this new asset class.

(a) The Securities Act

The Securities Act regulates the offer and sale of digital assets deemed securities and

³¹⁵ Michelle Castillo, *Despite \$319 to 10 cents flash crash, ethereum still has massive potential, says digital currency expert*, CNBC.COM, <https://www.cnbc.com/2017/06/23/ethereum-has-massive-potential-blockchain-expert-william-mougayar.html> (last updated June 23, 2017, 11:31 AM).

³¹⁶ Clayton HUA Statement, *supra* note 250, at 37.

³¹⁷ *Id.* (stating that the agency’s goals are “to protect investors, maintain fair, orderly and efficient markets and facilitate capital formation.”). Other regulators have described their goals in similar terms. *See, e.g.*, Jay Clayton & J. Christopher Giancarlo, *Regulators are Looking at Cryptocurrency*, WALL ST. J.: OPINION (Jan. 24, 2018, 6:26 PM), <https://www.wsj.com/articles/regulators-are-looking-at-cryptocurrency-1516836363> (describing the combined roles of the SEC and CFTC as “to set and enforce rules that foster innovation while promoting market integrity and confidence.”).

requires either registration or exemption for the sale of such assets.³¹⁸ It focuses primarily on ensuring transparency and preventing fraud by making it “unlawful [with certain exceptions] for any person . . . to offer to sell . . . any security, unless a registration statement has been filed as to such security”³¹⁹ and the sale is accompanied by a prospectus containing certain required information.³²⁰

In practical terms, Section 5 of the Securities Act requires that before selling a security to the public, an issuer must register the securities with the SEC on Form S-1 or satisfy an exemption from registration, such as offering the securities in a private placement in accordance with Regulation D. Form S-1 requires that issuers provide extensive disclosure related to both the security being offered and the registrant itself, including details about the financial health of the company, how it will use the proceeds from the sale, and the risk factors inherent in the security.

With respect to digital assets, these disclosure requirements, and the concerns animating them, would be especially important for promoters of digital assets who use ICOs in place of conventional securities offerings. Some commenters have argued that in “the wild west of ICOs,” the disclosure requirements in Section 5 are particularly crucial.³²¹ Indeed, they are the primary means by which the SEC can ensure “transparency in [] securities markets” by “reduc[ing] opacity and, thereby, enhanc[ing] . . . efforts to deter, mitigate, and eliminate

³¹⁸ See 15 U.S.C. § 77b(a)(3).

³¹⁹ *Id.* § 77e(c).

³²⁰ *Id.* § 77j.

³²¹ Maksymilian Ewendt, *The Wild West of Initial Coin Offerings*, N.C. J.L. & TECH. (Feb. 5, 2018), <http://ncjolt.org/wild-west-initial-coin-offerings/>.

fraud.”³²² This concern about opacity ties into the final element of the *Howey* test—reliance on the efforts of others—because the more holders of digital assets rely on the efforts of others, the larger the concerns about information asymmetries between the promoters and investors.³²³

The link between failure to disclose accurate information and fraud becomes apparent when examining past SEC enforcement actions. Many of those targeted by the SEC have attempted to issue tokens while making false statements about their activities with the intent of creating an inflated impression of the value of the digital asset. For example, according to the SEC, the co-founders of Centra, which conducted an ICO that raised over \$32 million in 2017, claimed that funds raised from their “CTR Token” would help “build a suite of financial products . . . that would allow users to instantly convert hard-to-spend cryptocurrencies into U.S. dollars or other legal tender.”³²⁴ The SEC alleged that in making these statements the co-founders claimed to have agreements in place with Visa and Mastercard to create debit cards serving this function.³²⁵ Although the statements were allegedly false, such statements, along with Centra’s marketing and promotion efforts more generally, supported the value of the ICO. The SEC charged Centra’s co-founders with violating the anti-fraud and registration provisions of the Securities Act.³²⁶

³²² Chairman Clayton, Chairman, SEC, Governance and Transparency at the Commission and in Our Markets, Remarks at the PLI 49th Annual Institute on Securities Regulation (Nov. 8, 2017), <https://www.sec.gov/news/speech/speech-clayton-2017-11-08>.

³²³ Hinman, *supra* note 47 (“The impetus of the Securities Act is to remove the information asymmetry between promoters and investors.”).

³²⁴ Press Release (No. 2018-53), SEC, SEC Halts Fraudulent Scheme Involving Unregistered ICO (Apr. 2, 2018), <https://www.sec.gov/news/press-release/2018-53>.

³²⁵ *Id.*

³²⁶ Amended Complaint, *SEC v. Sohrab Sharma*, No. 18 Civ. 02909 (DLC) (S.D.N.Y. filed Apr. 20, 2018).

Several exemptions are potentially available to market participants depending upon the nature of the transaction, amount of the offering, and participants involved. The Securities Act section 4(a)(1) exemption, for example, applies to transactions by anyone other than an issuer, underwriter, or dealer.³²⁷ However, if a person purchases from an issuer “with a view to, or offers or sells for an issuer in connection with, the distribution of any security,” including digital assets deemed securities, then he or she is operating as an underwriter and cannot rely on the Securities Act section 4(a)(1) exemption.³²⁸

Transactions not involving a public offering may qualify for the exemption under Securities Act section 4(a)(2),³²⁹ including by relying on the safe harbor in Regulation D.³³⁰ SEC Rule 506 of Regulation D provides that private placements of securities would be deemed to meet the Securities Act section 4(a)(2) exemption so long as certain conditions are met, primarily that the issuer’s securities are sold only to “accredited investors,” a term that includes, among others, most entities with more than \$5 million of assets and individuals that meet certain minimum income or net worth tests.³³¹ For example, in 2017, Overstock.com’s blockchain-focused subsidiary, t0, Inc., proposed to sell \$250 million of preferred equity in the form of blockchain tokens.³³² Although t0 conceded the tokens were securities, it sought to issue the

³²⁷ 15 U.S.C. § 77d(a)(1).

³²⁸ *Id.* § 77b(a)(11) (defining underwriters).

³²⁹ *Id.* § 77d(a)(2).

³³⁰ 17 C.F.R. §§ 230.500–508.

³³¹ *Id.* § 230.501; see *Fast Answers: Rule 506 of Regulation D*, SEC, <https://www.sec.gov/fast-answers/answers-rule506htm.html> (last updated Nov. 27, 2017).

³³² Michael del Castillo, *Overstock: \$250 Million tZero ICO Under SEC Review*, COINDESK (Mar. 2, 2018, 9:11 AM), <https://www.coindesk.com/overstock-confirms-250-million-tzero-ico-sec-review/>.

tokens in a private placement offering under Regulation D of the Securities Act.³³³

Other firms have sought to conduct ICOs of digital assets that may be deemed securities in reliance on Regulation D through a construct called a Simple Agreement for Future Tokens (“SAFT”).³³⁴ Generally, SAFT purchasers invest in a blockchain company, but instead of receiving debt or equity securities, they receive a promise that the company will, at some point in the future once it has been developed, deliver to the investors a token that will have some feature on the promised blockchain system.³³⁵ The theory underlying the SAFT structure is that once the network is developed and the fully functional tokens are delivered, token recipients should no longer be relying on the efforts of the promoters, and as a result, the digital asset would not be a security under *Howey*.³³⁶ In practice, however, determining whether the digital asset that is ultimately delivered pursuant to a SAFT itself constitutes a security is still governed by the *Howey* analysis, which will look at the economic realities of the digital asset at that point in time.³³⁷

The SEC’s recent issuance of subpoenas to ICO companies applying the SAFT framework suggests that the agency may be considering whether tokens sold through a SAFT

³³³ T0.COM, INC., Confidential Private Placement Offering Memorandum, as Amended, Supplemented and Restated (Form 8-K, Ex. 99.1) (Mar. 1, 2018), https://www.sec.gov/Archives/edgar/data/1130713/000110465918013731/a18-7242_1ex99d1.htm.

³³⁴ The notion of SAFTs derived from Simple Agreements for Future Equity (“SAFE”), an agreement typically used in venture capital, which gives investors rights to future equity without a determined price per share at the time of initial investment. Pete Rizzo, *SAFT Arrives: ‘Simple’ Investor Agreement Aims to Remove ICO Complexities*, COINDESK (Oct. 3, 2017, 11:17 AM), <https://www.coindesk.com/saft-arrives-simple-investor-agreement-aims-remove-ico-complexities/>.

³³⁵ See, e.g., PROTOCOL LABS AND COOLEY LLP, SAFT PROJECT: TOWARD A COMPLIANT TOKEN SALE FRAMEWORK (2017), <https://saftproject.com/static/SAFT-Project-Whitepaper.pdf>.

³³⁶ 328. U.S. 293 (1946).

³³⁷ Hinman, *supra* note 47, at n.15.

structure continue to be securities.³³⁸ If the SAFT-derived tokens are securities, even if initially sold in an exempt offering under Regulation D, questions arise as to whether investors who received the digital assets can resell them without registration. As previously noted, Securities Act section 4(a)(1) exempts from registration transactions by a person who is not an issuer, underwriter or dealer. Although an investor may rely on this exemption to resell securities, they would need to ensure that they would not be deemed to be an “underwriter,” *i.e.*, someone who purchased the securities from the issuer with a view to distribution.³³⁹ Persons not affiliated with the issuer who have held the securities for at least one year may be able to rely on a safe harbor from “underwriter” status under SEC Rule 144.³⁴⁰ When considering whether the one-year period begins with the investment in the SAFT or the delivery of the underlying tokens, a complicating factor is the question whether the holding periods can be “tacked” together.

Another alternative for issuers of digital-asset securities is the so called “Regulation A-Plus,” adopted under the Jumpstart Our Business Startups Act of 2012 (the “JOBS Act”). The JOBS Act tasked the SEC with implementing rules to exempt small issues from registration requirements.³⁴¹ Regulation A-Plus provides for two tiers of offerings, with Tier 1 encompassing offerings of up to \$20 million in a 12-month period with no more than \$6 million in offers by selling security holders that are affiliates of the issuer, and Tier 2 encompassing offerings of

³³⁸ Brady Dale, *What If the SEC Is Going After the SAFT?*, COINDESK (Mar. 6, 2018, 1:28 PM), <https://www.coindesk.com/sec-going-saft/>.

³³⁹ 15 U.S.C. § 77b(a)(11) (defining underwriters).

³⁴⁰ 17 C.F.R. § 230.144. The application of SEC Rule 144 to digital assets that were sold without reliance on an exemption is less clear. By its terms, SEC Rule 144 is available only with respect to “restricted securities,” which is generally defined as either (i) securities acquired directly or indirectly from the issuer, or from an affiliate of the issuer, in a transaction or chain of transactions not involving any public offering, or (ii) securities sold in reliance on particular exemptions from Securities Act section 5. If the securities were initially sold in a public offering without reliance on an exemption, they may not be “restricted securities” under SEC Rule 144 and holders may not be eligible for the safe harbor from status as an “underwriter.”

³⁴¹ *See* 15 U.S.C. § 77c(b)(2).

securities of up to \$50 million in a 12-month period with no more than \$15 million in offers by selling security holders that are affiliates of the issuer.³⁴²

Certain basic requirements apply to both Tier 1 and Tier 2 offerings under Regulation A-Plus, such as the requirement that an issuer file an offering statement with the SEC and have it qualified before the issuer may begin selling securities.³⁴³ Tier 2 offerings are subject to additional disclosure and reporting requirements.³⁴⁴ Accordingly, a Regulation A-Plus offering requires issuers of digital assets to engage more closely with the SEC than they would under a Regulation D offering, primarily because the SEC must “qualify” the offering statement.³⁴⁵

A central benefit of a Regulation A-Plus offering is that securities issued in such an offering are not subject to resale restrictions, at least under the federal securities laws.³⁴⁶ The possibility of immediate trading may encourage the development of a vibrant secondary market.³⁴⁷ However, Regulation A-Plus pre-empts state securities laws (which may separately require registration) only “with respect to primary offerings of securities by the issuer or secondary offerings by selling security holders that are qualified pursuant to Regulation A and offered or sold to qualified purchasers pursuant to a Tier 2 offering.”³⁴⁸ Tier 1 offerings and

³⁴² 17 C.F.R. § 230.251(a).

³⁴³ See *id.* § 230.251(d); ANZHELA KNYAZEVA, SEC STAFF PAPER REGULATION A+: WHAT DO WE KNOW SO FAR?, (2016), https://www.sec.gov/files/Knyazeva_RegulationA%20.pdf.

³⁴⁴ See, e.g., 17 C.F.R § 230.257(b).

³⁴⁵ *Id.* § 230.251(d).

³⁴⁶ Knyazeva, *supra* note 343, at 26.

³⁴⁷ Aaron Kaplan, *Reg A-Plus is Perfect for Initial Coin Offerings*, LAW360 (Jan. 10, 2018, 4:42 PM), <https://www.law360.com/articles/1000365/reg-a-plus-is-perfect-for-initial-coin-offerings>.

³⁴⁸ *Securities Act Rules: Compliance and Disclosure Interpretations*, SEC at Question 182.10, <https://www.sec.gov/divisions/corpfin/guidance/securitiesactrules-interps.htm> (last updated Nov. 6, 2017).

resales of securities purchased in Tier 2 offerings will still require a state-by-state analysis.³⁴⁹ In addition, by its terms, Regulation A-Plus is limited to “eligible securities,” defined as “[e]quity securities, debt securities, and securities convertible or exchangeable to equity interests, including any guarantees of such securities.”³⁵⁰ As the SEC has classified certain digital assets as “investment contracts” under the *Howey* test, it is not clear whether the SEC will treat digital assets as equity securities for purposes of Regulation A-Plus eligibility.

Even if a digital asset is exempt from the registration requirements, the digital asset may nevertheless be subject to other requirements under the Securities Act. For example, Securities Act section 17(a) makes it unlawful for any person to use fraudulent means to effect any securities sale, including making “any untrue statement of material fact or any omission to state a material fact necessary in order to make the statements made . . . not misleading.” This provision applies regardless of whether the security has been registered.³⁵¹

Securities Act section 17(b) likewise makes it unlawful for any person to publish, give publicity to, or circulate any advertisement for a security in exchange for consideration from the issuer, underwriter, or dealer of that security without fully disclosing the receipt of that consideration.³⁵² Paid promotions or endorsements of digital assets that constitute securities may thus be unlawful absent full disclosure of any underlying consideration being paid for the promotion. Indeed, in December 2018, the SEC brought enforcement actions for violation of

³⁴⁹ *Id.*

³⁵⁰ 17 C.F.R. § 230.261(c).

³⁵¹ *See* 15 U.S.C. § 77q(c).

³⁵² *Id.* § 77q(b).

Securities Act section 17(b) against boxer Floyd Mayweather Jr.³⁵³ and music producer DJ Khaled.³⁵⁴ The SEC alleged that Mayweather and Khaled had both received consideration from ICO issuers in exchange for promoting the relevant ICOs through social media posts, but failed to disclose their receipt of consideration.³⁵⁵

(b) The Exchange Act

While the Securities Act focuses on the registration of securities, the Exchange Act regulates secondary trading of securities. The Exchange Act imposes registration requirements and substantive regulations on the financial intermediaries that engage in or facilitate the trading of securities, including broker-dealers, exchanges, transfer agents, and clearing agencies. If a particular digital asset is determined to be a security, then market participants that act in these capacities in connection with the digital asset may be subject to registration and regulation as they would with any other security. Although the SEC's initial enforcement actions and public statements involving digital assets largely focused on Securities Act violations, Exchange Act considerations are more recently the focus of attention.³⁵⁶ For example, in September 2018, the SEC brought its first enforcement action against a person who allegedly acted as an unregistered

³⁵³ *Floyd Mayweather Jr.*, Securities Act Release No. 10,578, Admin Proc. File No. 3-18906 (Nov. 29, 2018), <https://www.sec.gov/litigation/admin/2018/33-10578.pdf>.

³⁵⁴ *Khaled Khaled*, Securities Act Release No. 10,579, Admin. Proc. File No. 3-18907 (Nov. 29, 2018), <https://www.sec.gov/litigation/admin/2018/33-10579.pdf>.

³⁵⁵ Press Release (No. 2018-268), SEC, Two Celebrities Charged With Unlawfully Touting Coin Offerings (Nov. 29, 2018), <https://www.sec.gov/news/press-release/2018-268>.

³⁵⁶ *See, e.g.*, Press Release (No. 2014-273), SEC, SEC Sanctions Operator of Bitcoin-Related Stock Exchange for Registration Violations (Dec. 8, 2014), <https://www.sec.gov/news/press-release/2014-273>; Press Release (No. 2018-23), SEC, SEC Charges Former Bitcoin-Denominated Exchange and Operator with Fraud (Feb. 21, 2018), <https://www.sec.gov/news/press-release/2018-23>.

broker-dealer in connection with the sale of ICO tokens and facilitation of secondary market trading in the digital assets.³⁵⁷

This subpart highlights certain of the Exchange Act requirements for securities market intermediaries and infrastructure. While the secondary market infrastructure for traditional securities is highly regulated, much of the digital asset trading infrastructure was established without regard to the securities laws. In addition, some of the Exchange Act requirements, and the rules and regulations thereunder, do not apply neatly to digital assets as a class. The application of the Exchange Act requirements to these mostly unregulated activities may also significantly impact this business, and as a result, discourage transactions in digital assets that may be securities.³⁵⁸

(1) Brokers and Dealers

Exchange Act section 15 makes it “unlawful for any broker or dealer . . . to induce or attempt to induce the purchase or sale of, any security . . . unless such broker or dealer is registered” with the SEC.³⁵⁹ Brokers and dealers (typically referred to as “broker-dealers”), and associated natural persons (“associated persons”), are subject to extensive regulations.

A “broker” is a person “engaged in the business of effecting transactions in securities for the account of others.”³⁶⁰ This definition has been expansively interpreted by the SEC and courts.

³⁵⁷ *TokenLot LLC*, Securities Act Release No. 10,543, Exchange Act Release No. 84,075, Investment Company Act No. 33,221, Admin. Proc. File No. 3-18739 (Sept. 11, 2018) [hereinafter *TokenLot Order*].

³⁵⁸ Cf. Paul Vigna, *Crypto Investing Comes with a Big Risk: The Exchanges*, WALL ST. J. (Mar. 3, 2018, 7:00 AM), <https://www.wsj.com/articles/crypto-investing-comes-with-a-big-risk-the-exchanges-1520078400> (describing risks of using unregulated exchanges).

³⁵⁹ 15 U.S.C. § 78o(a)(1). Unless an exemption is available, non-U.S. firms “that, from outside the United States, induce or attempt to induce trades by any person in the United States” may also be subject to U.S. broker-dealer registration. See Registration Requirements for Foreign Broker-Dealers, Exchange Act Release No. 27,017, 54 Fed. Reg. 30,013 (July 18, 1989).

³⁶⁰ 15 U.S.C. § 78(a)(4)(A).

In addition to those persons executing securities transactions and holding custody of customers' funds and securities, a person or entity may be deemed a broker if it assists issuers with structuring a securities offering, identifies potential purchasers, or advertises a securities offering, among other things.³⁶¹ The SEC has highlighted that a person who is compensated through the receipt of commissions or similar transaction-based fees in connection with securities activity is likely acting as a broker.³⁶²

A person is a “dealer” if it is “engaged in the business of buying and selling securities . . . for such person’s own account,” but only insofar as such transactions are part of that person’s “regular business.”³⁶³ Importantly, a person must both buy and sell securities in order to qualify as a dealer. The SEC and courts have distinguished between dealers and traders, who also buy and sell securities, based on whether the dealer is buying and selling as a business, rather than as an investor.³⁶⁴ Indicia of dealer activity include whether the person holds itself out as willing to buy or sell securities on a continuous basis or provides liquidity to the market (as a market maker), is involved in originating new securities (such as an underwriter), has regular customers or clientele, has a regular turnover inventory of securities, and provides securities-related services in connection with its transactions (such as providing advice or extending credit).³⁶⁵

The SEC recently has focused on broker-dealer requirements relating to digital asset activity. In September 2018, the SEC entered a cease-and-desist order against TokenLot LLC

³⁶¹ ROBERT L.D. COLBY, LANNY A. SCHWARTZ & ZACHARY J. ZWEIHORN, *What Is a Broker-Dealer?*, in BROKER-DEALER REGULATION 2-1, 2-12 (2016), https://www.davispolk.com/files/whats_a_broker_dealer_2.pdf.

³⁶² *Id.* 2-18.

³⁶³ 15 U.S.C. § 78c(a)(5)(A)–(B).

³⁶⁴ COLBY, SCHWARTZ, & ZWEIHORN, *supra* note 361, at 2-59.

³⁶⁵ *Id.*

and its owner-operators, Lenny Kugel and Eli Lewitt, for unregistered broker-dealer activity.³⁶⁶ TokenLot operated a website that it marketed as an “ICO Superstore” and through which it sold digital assets both in connection with ICOs and secondary market trading.³⁶⁷ More than 6,100 individual investors placed over 8,400 purchase orders on the TokenLot platform.³⁶⁸ The SEC alleged that TokenLot and its operators acted as brokers by facilitating the sale of digital assets as part of other entities’ ICOs, including by marketing the digital assets, accepting investors’ orders, accepting payment for orders, and working with issuers to transfer digital assets to investors after payment.³⁶⁹ The SEC alleged that TokenLot and its operators also acted as dealers by purchasing digital assets for accounts in TokenLot’s name, often at a discount to the ICO price, and then selling the digital assets to investors for profit immediately or at a later time after being held in inventory.³⁷⁰ The SEC concluded that TokenLot and its operators violated the Exchange Act by engaging in such activity without the required broker-dealer registration.

Registration and operation of a broker-dealer is not a light undertaking. Firms seeking to comply with the broker-dealer registration requirements face a high compliance burden—made more difficult by the fact that the relevant rules were designed for traditional securities, custody and transfer models. Broker-dealers are subject to an extensive list of regulatory requirements, including, without limitation:

- minimum regulatory capital requirements;
- restrictions on the distribution of assets to affiliates;

³⁶⁶ *TokenLot Order*, *supra* note 357.

³⁶⁷ *Id.* ¶¶ 3, 6.

³⁶⁸ *Id.* ¶ 6.

³⁶⁹ *Id.* ¶¶ 11–12.

³⁷⁰ *Id.* ¶ 13.

- regulation concerning the handling of customers' funds and securities;
- restrictions on margin lending;
- significant event and financial reporting as well as annual financial audits;
- books and records obligations;
- supervision and surveillance requirements;
- anti-money-laundering and know-your-customer requirements;
- restrictions on communications with the public;
- requirements to obtain FINRA approval for material changes in business or certain changes in ownership; and
- general adherence to high standards of commercial honor and just and equitable principles of trade.³⁷¹

In addition to registration with the SEC, broker-dealers are also generally required to become members of FINRA and register with applicable states. Natural persons seeking to become associated with a broker-dealer must pass qualifying examinations administered by FINRA, subject themselves to fingerprinting and provide disclosure of extensive background information. Registered individuals may be subject to restrictions on the business activities that they engage in outside the scope of their association with the broker-dealer, including personal securities transactions, must meet continuing education requirements, and are subject to various ongoing reporting requirements.³⁷² Broker-dealers and associated natural persons are subject to examination and enforcement by the SEC, applicable states, FINRA and any other self-regulatory organization of which the broker-dealer is a member.³⁷³

³⁷¹ See COLBY, SCHWARTZ, & ZWEIHORN, *supra* note 361, at 2-6 to 2-9.

³⁷² *Id.*

³⁷³ *Id.*

(2) Exchanges and Alternative Trading Systems

Among other things, the Exchange Act regulates the activities of securities exchanges. Exchange Act section 3(a)(1) defines an exchange as any entity that “constitutes, maintains, or provides a market place or facilities for bringing together purchasers and sellers of securities,” although the term does not include persons that merely route orders or operate single-dealer platforms.³⁷⁴ Exchange Act section 5 makes it “unlawful for any . . . exchange, directly or indirectly, . . . to effect any transaction in a security” unless it is registered with the SEC as a national securities exchange.³⁷⁵

Many existing digital asset trading platforms, which maintain limit order books of bids and offers for digital assets and match buyers with sellers, would appear to be acting as an “exchange,” if the digital assets traded on the platforms are securities.³⁷⁶ Indeed, in November 2018, the SEC brought an enforcement action against Zachary Coburn, the former operator of the EtherDelta online platform, on the basis that EtherDelta had operated as an unregistered exchange in violation of the Exchange Act.³⁷⁷ Although ostensibly a “decentralized” exchange operating through a smart contract, EtherDelta’s website provided a user-friendly interface that allowed buyers and sellers to access a secondary market for certain digital tokens, particularly

³⁷⁴ See 17 C.F.R. § 240.3b-16.

³⁷⁵ 15 U.S.C. § 78e.

³⁷⁶ See Public Statement, SEC, Statement on Potentially Unlawful Online Platforms for Trading Digital Assets (Mar. 7, 2018) [hereinafter SEC Statement on Digital Asset Trading Platforms], <https://www.sec.gov/news/public-statement/enforcement-tm-statement-potentially-unlawful-online-platforms-trading>. A non-U.S. exchange may also become subject to registration with the SEC if it “provides direct electronic access to persons located in the U.S.” See, e.g., Report of Investigation Pursuant to Section 21(a) of the Securities Exchange Act of 1934: Eurex Deutschland, Exchange Act Release No. 70,148 (Aug. 8, 2013) [hereinafter Eurex Report], <https://www.sec.gov/litigation/investreport/34-70148.pdf>.

³⁷⁷ *Zachary Coburn*, Exchange Act Release No. 84,553, Admin. Proc. File No. 3-18888 (Nov. 8, 2018) [hereinafter EtherDelta Order].

Ether and ERC20 Tokens (including many digital assets issued in ICOs).³⁷⁸ EtherDelta’s website provided access to the EtherDelta order book, allowing users to enter buy or sell orders for supported digital assets at a specified price and with a specified time for the order to remain open.³⁷⁹ Between July 12, 2016, and December 15, 2017, more than 3.6 million orders were traded on EtherDelta platform.³⁸⁰ In this regard, the SEC alleged that EtherDelta operated as a market place for bringing together the orders of multiple buyers and sellers in digital assets that constituted securities, and thereby itself constituted an exchange for the purposes of the Exchange Act.³⁸¹ By not registering as an exchange, or qualifying for an exemption from registration, Coburn operated EtherDelta in violation of the Exchange Act.³⁸²

The activities of registered national securities exchanges are subject to extensive regulation by the SEC. The exchange’s rules and stated policies, practices, and interpretations, are subject to filing with and, in most cases, approval by, the SEC before they can become effective.³⁸³ A national securities exchange’s rules, among other things, must be “designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade . . . and, in general, to protect investors and the public interest.”³⁸⁴ National securities

³⁷⁸ *Id.* ¶¶ 1, 2.

³⁷⁹ *Id.* ¶ 2.

³⁸⁰ *Id.* ¶ 4.

³⁸¹ *Id.* ¶ 26.

³⁸² *Id.* ¶ 27.

³⁸³ 15 U.S.C. § 78s(b)(1).

³⁸⁴ *Id.* § 78f(b)(5).

exchanges are also themselves SROs and must therefore enforce their members' compliance with the exchanges' rules and the federal securities laws.³⁸⁵

In practice, firms wishing to offer a trading platform for digital assets may find that doing so through a registered national securities exchange is impractical. In addition to the extensive regulatory obligations imposed on exchanges, status as a national securities exchange may also limit the business that the platform can undertake. Only registered broker-dealers and their natural person associated persons—rather than direct investors—may become members of a national securities exchange.³⁸⁶ In addition, only securities registered under the Exchange Act may be traded on national securities exchanges.³⁸⁷

Given the regulatory burden of operating as a national securities exchange and the limitations on the kinds of securities that may be traded, many have considered operating trading platforms for digital assets as an ATS operated by a registered broker-dealer. Although a broker-dealer would meet the definition of an “exchange” by providing a marketplace for bringing together purchasers and sellers of securities, a broker-dealer (although not others) may rely on an exemption from exchange status if it operates an ATS in compliance with Regulation ATS.³⁸⁸ While ATS registration is less burdensome than registration and regulation as a national securities exchange, ATSs are subject to regulation as a broker-dealer and cannot engage in all the same activities as national securities exchanges.³⁸⁹ In particular, under Regulation ATS,

³⁸⁵ *Id.* § 78s(g)(1).

³⁸⁶ *Id.* § 78f(c)(1).

³⁸⁷ *Id.* § 78l(a).

³⁸⁸ *See* 17 C.F.R. § 240.3a1-1(a)(2).

³⁸⁹ ATSs that effect five percent of the trading volume with respect to a particular non-exchange listed equity security may, however, become subject to Regulation SCI, a regulation that seeks to ensure the operational integrity
(*cont'd*)

ATSs cannot “[s]et rules governing the conduct of subscribers other than the conduct of such subscribers’ trading on such organization” or “[d]iscipline subscribers other than by exclusion from trading.”³⁹⁰ ATSs must register as broker-dealers with the SEC in addition to filing Form ATS, and must become members of the requisite SRO.³⁹¹

At least one firm has structured an ATS to facilitate secondary market trading in digital asset securities, although limited to one particular security with limited functionality. In 2016, Overstock.com registered and issued preferred stock as “digital securities.” These securities would “have the same rights, preferences and privileges as traditional securities of the same class, but . . . [their] ownership and transfer [is] recorded on a proprietary ledger that will be publicly distributed.”³⁹² Overstock arranged for these securities to be available for secondary-market trading on its subsidiary broker-dealer’s ATS, although unlike open networks like Bitcoin, which allow anyone to open a wallet and hold the asset, the Overstock system is a “closed trading platform” where “only customers of the sole broker-dealer that will be licensed to provide access to the . . . digital securities trading platform . . . will be able to buy and sell [the] digital securities.”³⁹³

(3) Clearing Agencies and Transfer Agents

One of the primary innovations of blockchain technology is that settlement of transactions in digital assets can occur without involving or relying on a particular intermediary.

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and continuing availability of critical securities market infrastructure. See 17 C.F.R. § 240.1000 (clause (2) of definition of SCI alternative trading system).

³⁹⁰ 17 C.F.R. § 242.300(a)(2).

³⁹¹ *Id.* § 242.301(b); see also SEC Statement on Digital Asset Trading Platforms, *supra* note 376.

³⁹² Overstock.com, Prospectus Supplement (Form 424B2) (Nov. 14, 2016), <https://www.sec.gov/Archives/edgar/data/1130713/000104746916016691/a2230280z424b2.htm>.

³⁹³ *Id.*

When the digital asset is a security, however, this innovation raises a round hole, square peg problem, as the federal securities laws assume that intermediaries are involved in settlement, and seek to regulate those intermediaries. In particular, Exchange Act section 17A(b)(1) requires a person acting as a “clearing agency” to register with the SEC. A clearing agency operates as an SRO,³⁹⁴ and is subject to a regulatory regime similar to national securities exchanges—including that it must adopt and operate in accordance with rules that are subject to filing and, typically, approval by the SEC.³⁹⁵

A person is a “clearing agency” if, among other things, the person acts as an intermediary to “permit[] or facilitate[] the settlement of securities transactions . . . without physical delivery of securities certificates.”³⁹⁶ With regard to traditional exchange-traded securities, the Depository Trust Company and its affiliate, the National Securities Clearing Corporation, are each registered clearing agencies that, together, net down a large number of transactions and maintain records of changes in beneficial ownership among their participants.³⁹⁷

For digital assets that are securities, where transactions settle on a blockchain through the activities of miners, it is unclear who—if anyone—might be acting as a clearing agency. At first glance, the miners might fit this definition as they most directly facilitate settlement, but because their operations are decentralized and uncoordinated, it is difficult to imagine how, practically, they could be subject to registration with the SEC. Further, miners may not even be aware that

³⁹⁴ 15 U.S.C. § 78c(a)(26).

³⁹⁵ *Id.* § 78s(b)(1).

³⁹⁶ *Id.* § 78c(a)(23). The definition of “clearing agency” excludes a bank or broker-dealer that would “be deemed to be a clearing agency solely by reason of functions performed by such institution as part of customary banking, brokerage, [or] dealing” activities.

³⁹⁷ See *Clearing Agencies*, SEC, <https://www.sec.gov/divisions/marketreg/mrclearing.shtml> (last updated Dec. 18, 2018).

they are facilitating settlement of securities; for example, many ICO tokens have been built as ERC-20 smart contracts on the Ethereum network, rather than being separately mined. Where these tokens are securities, Ether miners may unwittingly be facilitating the settlement of securities transactions. The firm that created the system in the first place, or the firm that seeks to use an existing system for securities settlement, may alternatively be considered to be clearing agencies.

The SEC staff has identified this issue, although its views are not yet known. In connection with Overstock's digital securities offering described above, the SEC staff asked "whether [Overstock] anticipate[s] interaction with or involvement of a registered clearing agency."³⁹⁸ In part based on the unique structure of its offering, Overstock argued that no clearing agency was involved because (i) changes of ownership were actually reflected on the books of the issuer maintained by its transfer agent, and (ii) certain other functions were performed by a registered broker-dealer that may benefit from the exemption for certain broker-dealer functions.³⁹⁹ However, the SEC staff again made at least a passing reference to the issue in a March 2018 warning that the activities of certain online trading platforms "may trigger other registration requirements under the federal securities laws, including broker-dealer, transfer agent, or clearing agency registration, among other things."⁴⁰⁰

Status as a "transfer agent" is also potentially triggered by activities involving the settlement of securities over a blockchain, although registration may not actually be required. A "transfer agent" is a person that, on behalf of an issuer, among other things, "register[s] the

³⁹⁸ OVERSTOCK.COM, INC., AMENDMENT NO. 1 TO REGISTRATION STATEMENT ON FORM S-3/A, File No. 333-203607 (2015), <https://www.sec.gov/Archives/edgar/data/1130713/000110465915055326/filename1.htm>.

³⁹⁹ *Id.*

⁴⁰⁰ SEC Statement on Digital Asset Trading Platforms, *supra* note 376.

transfer of . . . securities” or “transfer[s] record ownership of securities by bookkeeping entry without physical issuance of securities certificates.”⁴⁰¹ As with clearing agencies, this statutory definition could apply to various parties involved in the settlement of securities transactions over a blockchain.

Although registration as a transfer agent triggers certain regulatory requirements, merely acting as a transfer agent does not always require registration. Under Exchange Act section 17A(c)(1), unless registered, a transfer agent may not engage in transfer agent activities with respect to securities registered under Exchange Act section 12, or certain securities exempt from section 12 registration.⁴⁰² Because most digital assets have not been registered under Exchange Act section 12, transfer agent registration may not be a current concern, although it may become one should firms seek in the future to register securities that will settle over a blockchain.⁴⁰³

* * *

This Section has sought to explore the regulatory questions and potential hurdles for firms dealing in digital assets that are determined to be securities. The *Howey* test as applied to digital assets is still very much under development by the SEC and the courts, but it is evident at this early stage that the analysis is necessarily fact-specific and requires a close understanding of

⁴⁰¹ 15 U.S.C. § 78c(a)(25).

⁴⁰² See also Transfer Agent Regulations, Exchange Act Release No. 76,743, 80 Fed. Reg. 81,948, 81,960 (Dec. 31, 2015) (“Section 17A(c)(1) of the Exchange Act requires any person performing any of these functions with respect to any security registered pursuant to Section 12 of the Exchange Act or with respect to any security which would be required to be registered except for the exemption contained in subsection (g)(2)(B) or (g)(2)(G) of Section 12 . . . to register.”).

⁴⁰³ In the case of Overstock’s registered preferred stock digital securities, ComputerShare Trust Company, a registered transfer agent was used and, notwithstanding the blockchain aspects of the offering, ultimately the securities were “issued as book-entry digital securities directly registered in the stockholder’s name in the stockholder books and records maintained for us by Computershare.” Overstock.com, Prospectus Supplement (Form 424B2) (Nov. 14, 2016), <https://www.sec.gov/Archives/edgar/data/1130713/000104746916016691/a2230280z424b2.htm>.

the underlying blockchain technology and the operations of the promoter at present and over time. This Section has outlined several issues facing intermediaries dealing in digital assets once a *Howey* analysis suggests the asset is likely to be viewed as a security by the SEC, including the often high and unexpected burdens associated with registration as a broker-dealer or national securities exchange. The federal securities laws will no doubt develop to take into account the particular characteristics of this burgeoning industry. Until then, market participants must carefully try to assess how the traditional federal securities laws will be applied to the rapidly developing technology of digital assets.