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BLOCKCHAIN BASICS FOR INVESTMENT MANAGERS: A TOKEN OF APPRECIATION

Innovative digital financial products are attracting the attention of regulators concerned with their potential disruptive impact on the financial system and the risks they pose to investors. The authors discuss the basic background and current uses of blockchain technology, and then turn to the responses of regulators, most notably the SEC and the CFTC. The issues they address include digital tokens as securities, exchange trading of digital products, and requirements for investment advisers, investment companies, and commodity pool operators.

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The global blockchain frenzy is creating a new — and swiftly evolving — paradigm for investment managers and regulators alike. This “disruptive” technology is challenging traditional ideas about how issuers raise capital, how investors invest, how value is transmitted through the financial system and how regulators regulate and adapt to new technologies. As interest in blockchain technology soars as fast and as high as the price that one bitcoin has ascended in the past year, many players in the capital markets are applying existing securities laws to new digitally-driven financial products and services.

Blockchain technology, which has been likened to the “second generation” of the internet, has begun to fulfill its “promis[e] to disrupt business models and transform

industries,”¹ including through the introduction of digital assets and tokens, as well as related derivatives.

As regulators, investment managers, lawyers, and others develop and promote legally compliant practices with respect to these new financial innovations, guidance published by the U.S. Securities and Exchange Commission (the “SEC”) is likely to have far-reaching

¹ Tapscott, Don and Tapscott, Alex, *Realizing the Potential of Blockchain: A Multistakeholder Approach to the Stewardship of Blockchain and Cryptocurrencies*, World Economic Forum White Paper (Jun. 28, 2017), available at http://www3.weforum.org/docs/WEF_Realizing_Potential_Blockchain.pdf.

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implications for organizations, whether brick-and-mortar or virtual, that intend to raise money by selling digital tokens — including sales that may be construed as investment offerings. This guidance includes, among other things, a 21A Report released in July 2017 that focused on The DAO token sale (“The DAO Report”)² and a December 2017 Cease-and-Desist Order (the “Munchee Order”)³ with respect to the Munchee Inc. token sale.

This article analyzes how investment management laws may apply to innovative digital financial products. The issues are varied and often complex since many, if not most, of the relevant U.S. securities laws were written long before the invention of the internet, let alone blockchain technology, cryptocurrencies, or the like.

BASIC BLOCKCHAIN BACKGROUND⁴

What is blockchain? Blockchain (also known as distributed ledger technology, or “DLT”) is a technology that theoretically could allow almost anyone with a computer and an internet connection to effect and verify transactions in a decentralized manner.

With a traditional, centralized ledger system of transactions, a single trusted recordkeeper maintains a single master version, or “golden copy,” of a database or ledger on which all parties can rely. That single recordkeeper can be a government agency or regulator,

bank, transfer agent, or another financial intermediary or trusted party.

By contrast, a blockchain (or, at least, a public blockchain)⁵ can be compared to a giant, decentralized, publicly available database that is another type of “golden copy.” Additions to the distributed ledger are applied through encrypted codes, which are aggregated with all previous ledger entries, or blocks. The nature of the public blockchain allows anyone to enter a transaction that is nearly immutable and verifiable. Anyone with access to the computer protocol program (sometimes called a “node”) can see each blockchain transaction; each node sees the same, identical ledger entry. On certain public blockchains, such as the Bitcoin blockchain, various node operators can validate transactions and earn compensation for performing this power-consuming computer processing task. The term “mining” generally refers to the process (in a “proof of work” consensus system like Bitcoin) by which transactions are verified and added to the public blockchain, and a new unit of relevant cryptocurrency is awarded to the miner.⁶

To effect a transaction, a user simply adds a transaction using a public key, which is recorded on the ledger (*e.g.*, transfer one Bitcoin). By entering a private key, the transaction is recorded on the ledger that is particular to the sender and receiver (*e.g.*, transfer one Bitcoin to Jay). The record of the transaction is recorded as a string of data visible to everyone who can access the ledger, but the anonymity (or, more precisely, the pseudonymity) of the buyer and seller is preserved.

² Securities and Exchange Commission, *Report of Investigation Pursuant to Section 21(a) of the Securities Exchange Act of 1934: The DAO* (Release No. 81207 (July 25, 2017), available at <https://www.sec.gov/litigation/investreport/34-81207.pdf>).

³ Munchee Inc., Securities Act Rel. No. 10445 (December 11, 2017), available at <https://www.sec.gov/litigation/admin/2017/33-10445.pdf>.

⁴ We intend this summary to be an extremely simplified and generalized description of blockchain technology; it is included for illustrative, and not technical, purposes.

⁵ A private, or permissioned, blockchain, may be similar in many ways to a public blockchain, but access is limited to authorized users. For purposes of the background of this article, we focus primarily on public blockchains.

⁶ According to one source, Bitcoin mining consumes more electricity per year than Ireland. Hern, Alex, *Bitcoin mining consumes more electricity per year than Ireland*, The Guardian (Nov. 27, 2017), available at <https://www.theguardian.com/technology/2017/nov/27/bitcoin-mining-consumes-electricity-ireland>.

The transaction, or “block”⁷ of data, typically cannot be changed, because not only is it linked to the immediately preceding block, but each successive block in the chain also contains all of the information contained in the block that immediately preceded it. This appending and linking of successive blocks to one another forms a so-called immutable chain that is viewable by all nodes. Blocks are arranged in chronological order, so that in order to change the transactional information in the blockchain, generally you must add a new block to the chain (*i.e.*, an actor, whether “good” or “bad,” cannot typically modify the data in an existing block or a prior block). In addition, the blockchain theoretically is at all times viewable to many nodes simultaneously.

Blockchain technology often is described as “disruptive.” In addition to potentially disrupting or changing traditional business models, consumer behavior, and commercial assumptions more generally, blockchain innovations often specifically question and challenge the need for traditional intermediaries.

Blockchain technology presents a decentralized system that, many believe, eliminates or minimizes the need for a “trusted middleman” to effect, record, or confirm a transaction. In more traditional business models, the intermediary often charges a fee in order to serve as a trusted middleman.

WHAT IS BITCOIN AND HOW IS IT DIFFERENT FROM BLOCKCHAIN TECHNOLOGY?

When they think of blockchain, many people think of Bitcoin. This makes sense, because the Bitcoin blockchain was invented to provide a trusted, decentralized ledger to record Bitcoin transactions accurately without requiring a central bank or other traditional intermediary. In fact, Bitcoin is only one example of how blockchain technology may be used, and the Bitcoin blockchain is only one type of blockchain.

There are public blockchains, such as the Bitcoin blockchain and the Ethereum blockchain, and there are private, or permissioned, blockchains, which restrict access to authorized persons. Certain blockchains

support the use, to a greater or lesser extent, of so-called “smart contracts.”

A smart contract can be described as a self-executing computer code or protocol that use if/then logic to cause an event to happen upon the occurrence of another event. Some have defined a smart contract as “a consensual arrangement between at least two parties for an automated, independent commercial result from the satisfaction or non-satisfaction, determined objectively through code, of a specific factual condition.”⁸

Smart contracts may work hand-in-hand with data oracles. A data oracle “is an agent that finds and verifies real-world occurrences and submits this information to the blockchain to be used by smart contracts. The data could be the price of a currency, the weather at a given location, and the result of a sport event or an election.”⁹

In theory, when combined with blockchain technology and data oracles, smart contracts potentially can be used to cause transactions to occur and be recorded on the distributed ledger automatically, without requiring a centralized intermediary, or paper-based or manual confirmations, potentially streamlining processes and promoting efficiency. Myriad potential applications for blockchain technology and smart contracts have been proposed, including many relating to the financial services industry, as well as others.¹⁰

Many believe that blockchain technology also can be used to solve a growing number of real-world issues,¹¹ and we have begun to see certain use cases put into action:

⁸ Adlerstein, David M. *Are Smart Contracts Smart? A Critical Look at Basic Blockchain Questions*, Coindesk (Jun. 26, 2017), available at <https://www.coindesk.com/when-is-a-smart-contract-actually-a-contract/>.

⁹ Ethereum Developers — Tutorials and jobs for Ethereum enthusiasts, available at <https://ethereumdev.io/oracles-getting-data-inside-blockchain/>.

¹⁰ World Economic Forum, *The future of financial infrastructure: An ambitious look at how blockchain can reshape financial services* (Aug. 2016), available at http://www3.weforum.org/docs/WEF_The_future_of_financial_infrastructure.pdf.

¹¹ Klayman, Joshua Ashley, Peck, Geoffrey R, and Wojciechowski, Mark S., *Why the Delaware Blockchain Initiative Matters to All Investors*, Forbes (Sept. 20, 2017), available at <https://www.forbes.com/sites/groupthink/2017/09/20/why-the-delaware-blockchain-initiative-matters-to-all-dealmakers/#559ceaac7550>.

⁷ While we intentionally simplified this description, you can think of a block of data typically as containing a page of transactions, rather than a single transaction.

- *Tracking shipments.* Blockchain is being used to track shipments and supply chains of food and pharmaceuticals.¹²
- *Corporate records.* Effective August 1, 2017, the State of Delaware enacted blockchain-enabling legislation that permits companies to create and maintain corporate records, including their stock ledgers, on a blockchain.¹³ Prior to the effective date of the new law, the Delaware General Corporations Law “had contemplated that a corporate officer (a human being) would have charge of a corporation’s stock ledger. The amendments modified the corporate law to expressly allow performance of the administrative function of maintaining a corporation’s stock ledger by use of a network of databases (*i.e.*, a blockchain), with certain qualifying requirements.”¹⁴
- *Real estate transactions.* In October 2017, *Newsweek* reported that an apartment in the Ukraine became the first ever real property to be bought and sold through blockchain, using smart contracts on the Ethereum blockchain.¹⁵

Within the emerging world of digital financial markets, the sale and trading of digital tokens (including so-called cryptocurrencies, such as Bitcoin, as well as other digital tokens) present another type of blockchain technology use.

Despite much debate in the press, at their most basic, arguably, digital tokens are no more or less than numbered entries on a blockchain-based electronic ledger. These ledger entries may indeed be structured to look very much like traditional “securities” — representing promises to pay amounts in the future, or ownership or other interests in an entity, etc.

Digital tokens, however, also can represent units of value, which may make them look more like commodities; they can function as property records or warehouse receipts; or they can entitle owners to the right to use a software system, which makes them look more like licenses. Some digital tokens simply may represent data points in a larger data structure. This is what many lawyers and others mean when they caution that there is no single type, nor set of clear categories, of digital tokens. There is tremendous flexibility in how to structure digital tokens and what those digital tokens may represent.”¹⁶

While there are no clear or official definitions, digital tokens commonly are described as falling into one of a few different kinds of conceptual “categories.”

Digital currency. Satoshi Nakamoto, the mythical inventor of Bitcoin, has described digital currency as “an electronic payment system based on cryptographic proof instead of trust, allowing any two willing parties to transact directly with each other without the need for a trusted third party.”¹⁷

Digital currency (also known as “virtual currency”) operates on distributed ledger systems that capture “blocks” of transactions. It is a digital representation of value or a “store of value,” that comes in the form of a non-tangible unit. Unlike regular money (also known as “fiat currency”), digital currency is not issued or backed by a central government and thus is not legal tender. Rather, digital currency exists merely as computer-coded entries on a digital ledger (blockchain) visible to and verifiable by all nodes.

¹² Popper, Nathaniel and Lohr, Steve, *Blockchain: A Better Way to Track Pork Chops, Bonds and Bad Peanut Butter*, The New York Times (Mar. 4, 2017), available at https://www.nytimes.com/2017/03/04/business/dealbook/blockchain-ibm-bitcoin.html?_r=0.

¹³ An Act to Amend Title 8 of The Delaware Code Relating to the General Corporation Law, Delaware State Senate, 149th General Assembly, Senate Bill No. 69 (Jul. 21, 2017), available at <http://legis.delaware.gov/json/BillDetail/GenerateHtmlDocument?legislationId=25730&legislationTypeId=1&docTypeId=2&legislationName=SB69>.

¹⁴ Tinianow, Andrea and Klayman, Joshua Ashley, *Enabling or Crippling? The Risks of State-by-State Blockchain Laws*, Coindesk (Nov. 22, 2017), available at <https://www.coindesk.com/enabling-crippling-risks-state-state-blockchain-laws/>.

¹⁵ Cuthbertson, Anthony, *Blockchain Used to Sell Real Estate for the First Time*, Newsweek (Oct. 12, 2017), available at <http://www.newsweek.com/blockchain-sell-real-estate-first-time-ethereum-682982>.

¹⁶ Klayman, Joshua Ashley; Cohen, Lewis Rinaudo; and Sosnow, Robin, *There are Two Sides to the Initial Coin Offering Debate*, Crowdfund Insider (Oct. 31, 2017), available at <https://www.crowdfundinsider.com/2017/10/123863-perspective-two-sides-initial-coin-offering-debate/>.

¹⁷ Nakamoto, Satoshi, *Bitcoin: A Peer-to-Peer Electronic Cash System* (2008), available at <https://bitcoin.org/bitcoin.pdf>. Satoshi Nakamoto, widely credited for the invention of Bitcoin, is a mythical figure in the world of blockchain; it is not known whether he is a real person or a group of persons.

Virtual currencies have value that their holders assign on the basis of trust (as Satoshi Nakamoto said), which is not inherent. In part, holders assign value to digital currencies based on the fact that the digital currency transactions are immutably recorded on the blockchain and cannot be forged or faked. The most well-known digital currency is Satoshi Nakamoto's Bitcoin. Other so-called digital currencies may include Ether, ZCash, Ripple, and Litecoin, to name just a few. These are also sometimes referred to as digital "coins" but still are a type of digital "tokens."

Digital currencies can be viewed as a "store of value" in that they can be used to pay for goods or services if the merchant accepts them. They are accessible to anyone with an internet connection. For that reason, people who do not have access to bank accounts, or do not want them, potentially can participate in the financial system using digital currencies.

Utility tokens. Utility tokens¹⁸ generally refer to coins or tokens that serve a particular (non-incident) function, or give rights or access to goods, licenses, or services. A common form of a utility token gives the holder the right to use a computer program that provides a kind of service. An example of a so-called utility token is the Basic Attention Token (BAT), which pays people who read advertisements with BAT tokens, which they can spend on a network to run their own advertisements¹⁹

"Recently, terms like 'app coin,' 'app token,' 'utility token' and 'utility coin' have seemed to proliferate. But, what they all have in common is this: people use them interchangeably to mean 'a token that is not a security.'"²⁰ Notwithstanding this quote from a widely read website, it is important to remember that, as the Munchee Order made clear, even a token that has some utility (even if that token is fully "functional"²¹ at the moment that it is sold) still also may be a security. For example, the MUN token offered by Munchee Inc., a

creator of an iPhone app for people to review restaurant menus, was a self-described utility token, which we discuss below.

Investment or "Securities" tokens. In some cases, digital tokens may be securities, and a sale of digital tokens may be a sale of securities. This may be intentional or unintentional. Certain digital tokens may be structured purposely to resemble traditional equity or debt securities. A company trying to raise capital may issue security tokens that give the holder the right to participate in the company's profits, similar to the way in which a shareholder in a U.S.-based corporation may have a right to receive dividends or participate in management of a company through the right-to-vote shares.

In addition to those intentionally created security tokens, as will be described in greater detail below, a sale of certain digital tokens may be an unintentional sale of securities. A security token need not have attributes of a traditional security for the token sale to be deemed a sale of securities.

In fact, certain so-called utility tokens may be investment contracts (and, hence, securities) even if they do not resemble traditional debt or equity securities, or may be deemed to be securities as a result of the manner in which they are sold. Indeed, token sales that market or sell digital tokens for investment purposes or that otherwise satisfy certain tests, such as, under United States federal law, the *Howey* test (described below),²² are likely to be investment contracts, which are securities. As will be discussed in greater detail later in this article, this is a swiftly evolving area of law, and the SEC has signaled that many token sales are sales of securities.

In addition, many jurisdictions around the world have provided guidance stating that certain digital tokens may constitute securities.²³

¹⁸ A utility token is sometime called an "app coin," "app token," "utility token" or "utility coin," among other things.

¹⁹ Basic Attention Token (BAT), *Token Launch Research Report* (Oct. 30, 2017), available at http://strategiccoin.com/wp-content/uploads/sites/89/2017/10/BAT-StrategicCoin_1.1.pdf.

²⁰ Bennington, Ash, *Utility Coins or Crypto Assets? Token Terminology Is One Big Gray Area*, Coindesk (Sept. 5, 2017), available at <https://www.coindesk.com/utility-coins-crypto-assets-token-terminology-one-big-gray-area/>.

²¹ Some have noted that "functionality" is not a bright line when it comes to digital tokens. See n. 49, *infra*.

²² For purposes of this article, we will not consider U.S. state securities laws or other tests for whether something may be a security under U.S. law, such as the "family resemblance test" or the "risk capital test."

²³ This article will focus only on certain U.S. federal laws. For discussions of other jurisdictions, see, e.g., Garcia, Joey and Klayman, Joshua Ashley, *Gibraltar: Does Statement on Initial Coin Offerings Include New Regulatory Framework?*, Crowdfund Insider (Oct. 15, 2017), available at <https://www.crowdfundinsider.com/2017/10/123198-gibraltar-statement-initial-coin-offerings-include-new-regulatory->

BLOCKCHAIN AND INVESTMENT LAWS: FITTING A SQUARE PEG INTO A ROUND HOLE

By late 2017, the value of a single Bitcoin catapulted to more than \$19,000, from approximately \$800 at the beginning of the year, before retreating and springing back up again (and down and up). This rapid rise fueled a growing public fascination with blockchain, paralleled and arguably influenced further by an explosion of “initial coin offerings” (ICOs) and token offerings by companies that seek to raise capital or generate a market for their services. This surge of activity gave rise to the creation of private funds seeking to invest in virtual currencies and security tokens. Next on the horizon are public funds that invest in tokens.

This surge of ICOs and investor activity has drawn the attention of federal and state regulators, who must apply existing laws to the new technology and protect investors from potential fraud. On a much more granular level, sponsors, investment advisers, and ultimately fund directors and compliance officers are struggling, along with the regulators, to understand how existing laws governing investment management apply to the new paradigm.

Among other things, regulators, sponsors, and advisers must understand:

- What laws apply?
- Which state and federal regulators have jurisdiction?
- Do the tokens fall under the definition of “security” in the federal securities laws?
- Are token issuers or other service providers acting as broker-dealers or exchanges that must be registered?
- Are investment advisers that manage funds investing in tokens investment advisers that must register with the SEC?
- Are the issuers of tokens or the funds that invest in them investment companies that must register with the SEC?

- Are the issuers of tokens or the funds that invest in them commodity pools that must register with the Commodity Futures Trading Association?
- How can funds comply with anti-money laundering laws, custody rules, valuation guidelines, and other compliance rules and restrictions that apply to private funds and registered investment companies?
- What special responsibilities will directors of registered investment companies have in monitoring investments in tokens?

With this framework, we begin our analysis of how the investment management laws apply to blockchain-related transactions and investments.

THE REGULATORY LANDSCAPE

So far, regulation has focused primarily on protecting investors from fraud, anticipating vulnerability from cybersecurity attacks, and addressing anti-money laundering issues. More recently, the SEC has begun to address how to apply the substantive provisions of the securities laws to token sales and investment vehicles.

IRS. In 2014, the Internal Revenue Service (IRS) addressed the tax treatment of virtual currencies. Among other things, the IRS said that it will treat virtual currencies as property for federal income tax purposes, but that a gain or loss in virtual currency transactions will not result in a foreign currency gain or loss. Moreover, a taxpayer who receives virtual currency as payment for goods or services must, in computing gross income, include the fair market value of the virtual currency, measured in U.S. dollars, as of the date the taxpayer received it.²⁴

In November 2017, the U.S. District Court for the Northern District of California slowed efforts by the U.S. Department of Justice and the IRS to enforce a broad “John Doe” summons with respect to the customers of Coinbase Inc. who transferred Bitcoin in 2013–2015.²⁵ Originally, in November 2016, the IRS had requested all records, including third-party information, related to Bitcoin transactions executed by U.S. Coinbase customers during that period.

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framework/; and Klayman, Joshua Ashley, *PayThink Asian regulatory moves bring welcome clarity to token sales*, PaymentsSource (Sept. 25, 2017), available at <https://www.paymentsource.com/opinion/asian-regulatory-moves-bring-welcome-clarity-to-token-sales?feed=00000151-59db-d9eb-add9-5bdf6fd40000>.

²⁴ Internal Revenue Service Notice 2014-21, available at <https://www.irs.gov/pub/irs-drop/n-14-21.pdf>.

²⁵ *United States v. Coinbase Inc., et al.*, No. 17-CV-01431-JSC, 2017 WL 5890052, (N.D. Cal. Nov. 28, 2017).

The court held that the IRS summons served the legitimate purpose of investigating the reporting gap between the number of Coinbase customers and the number of taxpayers who had reported to the IRS any Bitcoin gain or loss during the applicable period.²⁶ Coinbase’s arguable partial victory was found in the narrowed scope of the summons, limiting it to “information relevant to the IRS’s investigation, such as the account holder’s identity and transaction records, and denied the summons’s request for other information, such as account-opening records, copies of passports or driver’s licenses, wallet addresses, public keys, records of know-your-customer diligences, etc., which the court held was not relevant.”²⁷ In addition, the IRS agreed not to request records regarding “users for which Coinbase filed forms 1099-K during the time period in question or for users whose identity” the IRS knew.²⁸

After the scope was narrowed to apply only to Coinbase users that either bought, sent, received, or sold at least \$20,000 worth of Bitcoin in a given year, the IRS argued that the targeted information still involved roughly 8.9 million Coinbase transactions and 14,355 Coinbase account holders.²⁹

The Tax Cuts and Jobs Act of 2017 (The TCJA), among other things, clarified that like-kind exchanges (also known as 1031 exchanges) apply only to real property that is not held primarily for sale.³⁰ Like-kind exchanges allow certain taxes to be deferred when a piece of property is exchanged for a property that is of like kind. Previously (although many tax lawyers had been skeptical, given existing U.S. tax law), some had hoped that exchanging one digital token for another token might qualify as a like-kind exchange. For example, when Bitcoin was exchanged for Ether, or when Ether was used to purchase digital tokens in connection with a token sale — with no “taxable event” occurring until the tokens ultimately were traded for fiat currency, such as U.S. dollars.

The TCJA makes clear that, when token purchasers use digital tokens to purchase other digital tokens (we refer to such purchased tokens as “alt-coins”) in token sales, those purchasers will have taxable events, not just when they sell the alt-coins but also at the moment of *purchase* of those alt-coins.

FSOC. In its 2016 annual report, the Financial Stability Oversight Council (FSOC) recognized the emerging blockchain technology as potentially disruptive and urged financial regulators to monitor its developments.³¹

FinCen. In 2015, the U.S. Department of Treasury’s Financial Crimes Enforcement Network (FinCEN) confirmed that the regulations under the Bank Secrecy Act (*e.g.*, anti-money laundering rules) apply to a money transmitter and dealer in precious metals that maintain “digital wallets” linked to customers’ wallets on a Bitcoin blockchain.³² Earlier that year, FinCEN brought its first civil enforcement action against a virtual currency exchanger for acting as a money services business without registering with FinCEN, and by failing to maintain an adequate anti-money laundering program.³³

The Federal Reserve. The Board of Governors of the Federal Reserve System (the Fed) has taken a keen interest in distributed ledger technology and any other “potentially transformative” changes to the financial

²⁶ Coinbase had over 5.9 million users during each of 2013 through 2015; however, fewer than roughly 900 taxpayers had reported Bitcoin gain or loss to the IRS during that period.

²⁷ N. 25, *supra*.

²⁸ *Id.*

²⁹ *Id.*

³⁰ H.R. 1 — An act to provide for reconciliation pursuant to titles II and V of the concurrent resolution on budget for fiscal year 2018. Pub. L. 115-97 (Dec. 22, 2017), *available at* <https://www.congress.gov/bill/115th-congress/house-bill/1/text>.

³¹ Financial Stability Oversight Council 2016 Annual Report, *available at* <https://www.treasury.gov/initiatives/fsoc/studies-reports/Documents/FSOC%202016%20Annual%20Report.pdf>: “Financial regulators should continue to monitor and evaluate the implications of how new products and practices affect regulated entities and financial markets and assess whether they could pose risks to financial stability.”

³² FinCEN Ruling, *Application of FinCEN’s Regulations to Persons Issuing Physical or Digital Negotiable Certificates of Ownership of Precious Metals* (Aug. 14, 2015), *available at* https://www.fincen.gov/sites/default/files/administrative_ruling/FIN-2015-R001.pdf.

³³ FinCEN, *In the Matter of Ripple Labs Inc.*, Assessment of Civil Monetary Penalty, No. 2015-05 (May 5, 2015), *available at* https://www.fincen.gov/sites/default/files/shared/Ripple_Assessment.pdf. Concurrently, the U.S. Department of Justice settled potential criminal charges involving violations of the anti-money laundering laws. U.S. Department of Justice (Northern District of California) Settlement Agreement (May 5, 2015), *available at* https://www.justice.gov/sites/default/files/opa/press-releases/attachments/2015/05/05/settlement_agreement.pdf.

system's payment clearing and settlement (PCS) process.³⁴ It is not difficult to understand why: One study sponsored by the Fed estimates that the U.S. PCS systems process approximately 600 million transactions a day, valued at over \$12.6 trillion. At best, DLT introduces an element of instability to the U.S. PCS systems, and, at worst, "potentially transformative" changes with consequences that are not known at this time.

Financial Industry Regulatory Authority (FINRA). In 2017, FINRA published a report exploring the potential impact of DLT on the securities industry, citing the varying views within the industry of the "magnitude of disruption" that it may cause.³⁵ It invited market participants to "engage in a dialogue" as it explores what kind of regulatory guidance would be appropriate.

Commodity Futures Trading Commission (CFTC). The CFTC asserted jurisdiction over Bitcoin and other virtual currencies by defining them as "commodities" in 2015 when it sanctioned a trading platform for Bitcoin options contracts without proper registration.³⁶ Since then, it generally has been asserting jurisdiction when it perceives fraudulent activity involving a virtual currency, or when it finds virtual currencies used in a derivatives contract.³⁷ In July 2017, the CFTC allowed LedgerX, LLC to register as a derivatives clearing organization under the Commodity Exchange Act of 1936, as amended.³⁸ This order authorizes LedgerX to

provide clearing services for fully collateralized digital currency swaps.

Until December 2017, however, the CFTC did not allow a public trading platform for virtual currency futures contracts. In a seminal regulatory action, on December 1, 2017, the CFTC authorized the Chicago Mercantile Exchange Inc. (CME) and the Cboe Futures Exchange (Cboe) to self-certify new contracts for "bitcoin futures products" and the Cantor Exchange to self-certify a new contract for "bitcoin binary options."³⁹ Cboe launched trading of Bitcoin futures on December 10, 2017.⁴⁰ This action will open the door for investors to participate on regulated exchanges in derivatives linked to virtual currencies, and may create liquidity.

Securities and Exchange Commission. Blockchain leaptfrogged into the SEC's regulatory consciousness in 2017 in at least three significant regulatory actions.

First, the SEC declined to approve a technical rule change to allow the listing and trading of a commodity-trust exchange-traded product (ETP) that invested in Bitcoin, among other things.⁴¹ In declining to rule on a technical issue, the SEC effectively deferred a decision on how it would regulate ETPs that invest in digital assets until the market for the underlying assets was more developed.⁴² In December 2017 and January 2018,

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³⁴ Mills, David, Wang, Kathy, and Malone, Brendan, *et al.* (2016). "Distributed ledger technology in payments, clearing, and settlement," Finance and Economics Discussion Series 2016-095. Washington: Board of Governors of the Federal Reserve System, available at <https://doi.org/10.17016/FEDS.2016.095>.

³⁵ Financial Industry Regulatory Authority, *Distributed Ledger Technology: Implications of Blockchain for the Securities Industry* (Jan. 2017), available at https://www.finra.org/sites/default/files/FINRA_Blockchain_Report.pdf.

³⁶ *In the Matter of Coinflip, Inc., d/b/a Derivabit*, CFTC Docket No. 15-29 (Sept. 17, 2015), available at <http://www.cftc.gov/idc/groups/public/@lrenforcementactions/documents/legalpleading/enfcoinfliporder09172015.pdf>.

³⁷ For a plain English summary of how the CFTC asserts jurisdiction over digital currencies, see Commodity Futures Trading Commission, *A CFTC Primer on Virtual Currencies*, available at http://www.cftc.gov/idc/groups/public/documents/file/labcfrc_primercurrencies100417.pdf.

³⁸ CFTC, *In the Matter of the Application of Ledger X, LLC For Registration as a Derivatives Clearing Organization* (July 24, 2017), available at <http://www.cftc.gov/PressRoom/>

[PressReleases/pr7654-17](http://www.cftc.gov/PressRoom/PressReleases/pr7654-17). The CFTC cautioned that the authorization to provide clearing services for fully collateralized currency swaps "does not constitute or imply a Commission endorsement of the use of digital currency generally, or bitcoin specifically." See Release: pr592-17, *CFTC Grants DCO Registration to LedgerX LLC*, available at <http://www.cftc.gov/PressRoom/PressReleases/pr7592-17>.

³⁹ CFTC, *Statement on Self-Certification of Bitcoin Products by CME, CFE and Cantor Exchange*, Release pr7654-17 (Dec. 1, 2017), available at <http://www.cftc.gov/PressRoom/PressReleases/pr7654-17#PrRoWMBL>.

⁴⁰ See XTE: Cboe Bitcoin Futures, <http://cfe.cboe.com/cfe-products/xbt-cboe-bitcoin-futures>.

⁴¹ Self-Regulatory Organizations; *Bats BZX Exchange, Inc.*; Order Disapproving a Proposed Rule Change, as Modified by Amendments No. 1 and 2, to BZX Rule 14.11(e)(4), Commodity-Based Trust Shares, to List and Trade Shares Issued by the Winklevoss Bitcoin Trust, Rel. No. 34-80206 (Mar. 10, 2017), available at <https://www.sec.gov/rules/sro/batsbzx/2017/34-80206.pdf>.

⁴² As a technical matter, before listing and trading certain shares, the Bats BZX Exchange asked the SEC to approve a rule

the SEC published requests for public comment on two proposed rule changes that would pave the way for registration of Bitcoin-based exchange-traded funds (ETFs).⁴³

CAN A DIGITAL TOKEN SALE BE A SALE OF SECURITIES? THE DAO REPORT

Second, in July 2017, the SEC's Division of Enforcement published a "report of investigation" that found that a decentralized autonomous organization called The DAO violated federal securities laws when it sold tokens to fund certain projects without registering the offering.⁴⁴ In the DAO Report, for the first time, the SEC addressed head-on the question of whether a given digital token was a security. While it introduced an element of uncertainty, the DAO Report provides the first roadmap for how the SEC approaches the knotty issue of how to apply the U.S. federal securities laws to digital token sales.

The DAO Report confirmed what many responsible U.S. securities lawyers had suspected, namely, that The DAO token sale was a sale of securities, and that the

more than 70-year-old *Howey* test, was the applicable test.⁴⁵

The SEC applied the *Howey* test to The DAO Tokens, finding that The DAO Tokens were an "investment contract," and hence a security, because investors who purchased them "were investing in a common enterprise and reasonably expected to earn profits through that enterprise" when they paid with digital currency in exchange for The DAO Tokens.

Further, The DAO arrangement involved a platform that provided users with "an electronic system that matched orders from multiple parties to buy and sell DAO Tokens for execution based on non-discretionary methods." This activity, the SEC said, also required The DAO to register as a national securities exchange because, among other things, it created an exchange for "securities." On the same day that it published the DAO Report, the SEC published an Investor Bulletin, cautioning investors about the risks of investing in initial coin offerings (ICOs), and suggesting questions to ask before investing.⁴⁶

By applying the classic *Howey* test to The DAO Tokens, the SEC resolved one question and raised many others. Under the SEC's interpretation, The DAO may have created a virtual venture fund — and The DAO Token looked very much like a traditional security. While the guidance was clear that the SEC considered a digital token with the characteristics of a security to be a security, the SEC did not state that all digital tokens are securities, and it did not provide an example of a digital token that was not a security.

As noted previously, the distinction between a token that is a security and a token that is not a security is just not clear.⁴⁷ In addition, certain self-described utility

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change, which the SEC can approve only if it finds that the proposed change is consistent with legal requirements. Here, the SEC declined to approve the rule change because it found that the exchange "must have surveillance-sharing agreements with significant markets for trading the underlying commodity or derivatives on that commodity," and that "those markets must be regulated." The SEC declined to approve the rule change because it found those two elements lacking.

⁴³ SEC Proposed Rule, Self-Regulatory Organizations; *Cboe BZX Exchange, Inc.*; Notice of Filing of a Proposed Rule Change to List and Trade Shares of the REX Bitcoin Strategy ETF and the REX Short Bitcoin Strategy ETF, Each a Series of the Exchange Listed Funds Trust, Under Rule 14.11(i), Managed Fund Shares, Rel. No. 34-82417 (Dec. 28, 2017), available at <https://www.sec.gov/rules/sro/cboebzx/2017/34-82417.pdf>; SEC Proposed Rule, Self-Regulatory Organizations; *Cboe BZX Exchange, Inc.*; Notice of Filing of a Proposed Rule Change to List and Trade Shares of the First Trust Bitcoin Strategy ETF and the First Trust Inverse Bitcoin Strategy ETF, Each a Series of the First Trust Exchange-Traded Fund VII, under Rule 14.11(i), Managed Fund Shares, Rel. No 34-82429 (Jan. 2, 2018), available at <https://www.sec.gov/rules/sro/cboebzx/2018/34-82429.pdf>.

⁴⁴ The DAO Report, n. 2, *supra*. A Decentralized Autonomous Organization is a "virtual" organization embodied in a computer code and executed on a DLT.

⁴⁵ *SEC v. W.J. Howey Co.*, 328 U.S. 293 (1946): 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." 328 U.S. 293, 301.

⁴⁶ Another option would be for The DAO to avail itself of an exemption from registration as a national security exchange by registering as an alternative trading system (or ATS) and complying with the requirements.

⁴⁷ See, e.g., Cardozo Blockchain Project Research Report #1, *Not So Fast — Risks Related to the Use of a "SAFT" for Token Sales*, (Nov. 21, 2017) (the "Cardozo Blockchain Report"), available at https://cardozo.yu.edu/sites/default/files/Cardozo%20Blockchain%20Project%20-%20Not%20So%20Fast%20-%20SAFT%20Response_final.pdf: The contours between investment and utility tokens are not well-defined at this point,

tokens may be sold through the use of a Simple Agreement for Future Tokens (a “SAFT”). As described further below, some believe that the use of a SAFT for the purchase of “pre-functional” tokens may preserve an argument that the purportedly “functional” token that ultimately is delivered is not a security, while others argue the use of a SAFT is likely to muddy the analysis of whether an arguable utility token is a security for purposes of U.S. federal securities law.

The SEC has so far declined to characterize so-called virtual currency (*e.g.*, Bitcoin and Ethereum) as securities. While the answer is unclear, some believe that the reason is that those digital tokens may, in some ways, be analogous to fiat currency, in that they store value but arguably do not have other attributes of securities (pay dividends or interest or necessarily rely on the efforts of others).

MANNER OF SALE MATTERS: THE MUNCHEE ORDER

In December 2017, the SEC took its third notable action: it fired a warning shot across the bow of utility token issuers when it ordered Munchee Inc., a California-based developer of an iPhone app to cease and desist its ongoing token sale for the MUN token.⁴⁸ The developer characterized the token as a “utility token,” but the SEC considered it to be an unregistered security. The Munchee Order appears to be the SEC’s first token sale enforcement action after the DAO Report that did not allege that the token seller was engaging in fraud or perpetrating a scam.

In the Munchee Order, the SEC applied the *Howey* test’s facts-and-circumstances analysis to conclude that the MUN token involved (a) an investment of money (b) in a common enterprise (c) with the expectation of profit (d) based solely or primarily on the entrepreneurial or managerial efforts of others. Succinctly put, the SEC said that the MUN token was a security.

In a novel twist, the SEC focused on the manner in which the MUN token was promoted and sold. That is,

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but utility tokens are generally designed to offer a consumptive or functional utility, as opposed to an inherent opportunity for profit. Many utility tokens are integral to the functioning of a blockchain-based platform that creates a decentralized network and can represent, for example, membership or licensing rights, staking mechanisms, or incentivization systems.

⁴⁸ The Munchee Order, n. 3, *supra*.

the SEC noted that investors were offered the hope and expectation that the MUN token would increase in value over time.⁴⁹ Moreover, the SEC noted, the tokens were to be available for purchase by individuals in the United States and worldwide through websites and social media pages, including Munchee’s web page, a fact that contributed to the SEC’s conclusion.

While it arguably was not necessary to its decision that the MUN Token was a security, the SEC also clarified that, even if the MUN Token had been fully “functional” (*i.e.*, immediately usable) at the moment it was sold, the MUN Token nonetheless could have been considered to be a security.

Issuers should be mindful that anyone who is selling tokens on their behalf, including agents or certain third parties, could inadvertently cause their tokens to be characterized as securities by virtue of the nature of their activities (*e.g.*, if the agents or third parties are promoting the tokens as investments). Certain token sellers have considered paying “bounties” designed to encourage others to purchase the tokens. Depending on how the potential recipient of the bounty (*i.e.*, the third-party promoter) markets to buyers, a token could be considered a security. Moreover, if those tokens are considered securities for any reason, the third-party promoter may be subject to regulation as a broker-dealer.

Although it validated the views of those securities lawyers who had argued that manner of sale mattered to the securities law analysis, the MUN Order resulted in a number of unresolved questions. For instance, if Munchee and its agents’ sales and promotional activities, as well as its whitepaper, had focused solely on the MUN Token’s consumptive use, and not its projected increase in value; if the sales efforts had been targeting those in the restaurant business, rather than those who had expressed an interest in purchasing Bitcoin or other digital tokens; and if no mention had been made of listing the MUN Token on a cryptocurrency exchange, would the MUN Token still have been a security? On those changed facts would the purchasers’ expectation of profit still have been reasonable? These questions remain unanswered. What we do know is that the SEC has said that determining whether a transaction involves

⁴⁹ For a more complete analysis of the Munchee Order, *see* Klayman, Joshua Ashley and Baris, Jay G., *Food for Thought: SEC Turns Up the Heat on Utility Token Sales*, Crowdfund Insider (Dec. 18, 2017), available at <https://www.crowdfundinsider.com/2017/12/126033-food-for-thought-the-sec-cyber-unit-halts-munchee-token-sale/>.

a security does not turn on labeling — such as characterizing an ICO as involving a “utility token” — but instead requires an assessment of the economic realities underlying a transaction.

SEC AND CFTC STATEMENTS

SEC Chair Jay Clayton had token sales on his mind in a November 2017 speech: “In addition to requiring platforms that are engaging in the activities of an exchange to either register as national securities exchanges or seek an exemption from registration, the Commission will continue to seek clarity for investors on how tokens are listed on these exchanges and the standards for listing; how tokens are valued; and what protections are in place for market integrity and investor protection.”⁵⁰ The *Wall Street Journal*, however, reported that Chair Clayton suggested that an ICO often bears some “hallmarks of a security.”⁵¹

On the same day that the SEC published the Munchee Order, Clayton warned “Main Street” investors to research thoroughly and understand the risks of digital tokens before investing.⁵² He also called on market “gatekeepers,” including lawyers, accountants, consultants, broker-dealers, and exchanges, to exercise their expertise and judgment when advising token sellers, with a view toward investor protection.

While it soon may be forced to show its regulatory hand as it evaluates new digital financial products, it is likely that the SEC will view each type of digital asset on a case-by-case basis, and require digital asset issuers or funds that invest in them to undergo their own *Howey* test.

In an op-ed published in the *Wall Street Journal* on January 25, 2018, Jay Clayton, the Chair of the SEC, and J. Christopher Giancarlo, the Chair of the CFTC, said

that while many market participants may make a fortune by investing in ICOs, the risks are high and that “[c]aution is merited.”⁵³ The two Chairs described the challenges that they face in attempting to monitor and regulate cryptocurrency activities. For example, they note that federal authority to apply anti-money laundering rules to these activities is clear, but the ability to regulate other aspects of this market is “murkier.” Acknowledging that distributed ledger technology “may in fact be the next great disruptive and productivity-enhancing economic development,” the regulators made it clear that they “will not allow it or any other advancement to disrupt our commitment to fair and sound markets.” The SEC’s website published excerpts of the op-ed article.⁵⁴ SEC Chair Clayton, in testimony before the Senate Banking Committee on February 6, 2018, said the SEC will collaborate with the CFTC on approaches to policing these markets for fraud and abuse” and to work closely with other federal and state regulators in this effort.⁵⁵

But, to be sure, the SEC’s Enforcement Division, and its counterpart at the CFTC, clearly signaled that they will aggressively pursue fraud cases involving digital assets.⁵⁶ Indeed, shortly after the two Chairs published

⁵⁰ Chairman Jay Clayton, Remarks at the PLI 49th Annual Institute on Securities Regulation (Nov. 8, 2017), available at <https://www.sec.gov/news/speech/speech-clayton-2017-11-08>.

⁵¹ Michaels, David and Vigna, Paul, *SEC Chief Fires Warning Shot Against Coin Offerings*, *Wall Street Journal* (Nov. 9, 2017), available at <https://www.wsj.com/articles/sec-chief-fires-warning-shot-against-coin-offerings-1510247148>: “I have yet to see an ICO that doesn’t have a sufficient number of hallmarks of a security.”

⁵² SEC Chairman Jay Clayton, *Statement on Cryptocurrencies and Initial Coin Offerings* (Dec. 11, 2017), available at <https://www.sec.gov/news/public-statement/statement-clayton-2017-12-11>.

⁵³ Clayton, Jay and Giancarlo, J. Christopher, *Regulators Are Looking at Cryptocurrency*, *Wall Street Journal* (Jan. 24, 2018), available at <https://www.wsj.com/articles/regulators-are-looking-at-cryptocurrency-1516836363>.

⁵⁴ SEC Public Statement, Statement by SEC Chairman Jay Clayton and CFTC Chairman J. Christopher Giancarlo: *Regulators are Looking at Cryptocurrency* (Jan. 25, 2018), available at <https://www.sec.gov/news/public-statement/statement-clayton-giancarlo-012518>.

⁵⁵ *Virtual Currencies: The Oversight Role of the U.S. Securities Exchange Commission and the U.S. Commodity Futures Trading Commission*, Hearings before the Committee on Banking Housing and Urban Affairs, United States Senate, (statement of Jay Clayton, Chair of the Securities and Exchange Commission) (Feb. 6, 2018) (the “Clayton Testimony”), available at <https://www.sec.gov/news/testimony/testimony-virtual-currencies-oversight-role-us-securities-and-exchange-commission>.

⁵⁶ SEC and CFTC — Joint Statement from CFTC Enforcement Directors Regarding Virtual Currency Enforcement Actions (Jan. 19, 2018), available at <http://www.cftc.gov/PressRoom/SpeechesTestimony/mcdonaldstatement011918>: “When market participants engage in fraud under the guise of offering digital instruments — whether characterized as virtual currencies, coins, tokens, or the like — the SEC and the CFTC will look beyond form, examine the substance of the activity,

the joint statement, the SEC filed a complaint in a federal district court to halt an allegedly ongoing, fraudulent sale of tokens that the SEC characterized as an unregistered offering of securities.⁵⁷ Among other things, the complaint alleged that the token offering was riddled with fraudulent statements, including failure to disclose the criminal histories of the sponsors.

SALES OF DIGITAL ASSETS AND FUNDS

ICOs/Token Sales. Issuers of digital assets that want to sell digital tokens to U.S. persons must address the threshold question of whether the digital tokens are securities.

In the case of security tokens, those token sales must be registered with the SEC or sold pursuant to an exemption from registration, such as Regulation D of the Securities Act of 1933, as amended (the “Securities Act”) (*i.e.*, generally limited to U.S. “accredited investors”),⁵⁸ Regulation S of the Securities Act (*i.e.*, non-“U.S. persons”),⁵⁹ or Regulation A of the Securities Act (*i.e.*, a “mini IPO”).⁶⁰ In 2018, we expect to see an increasing number of token sales that expressly describe themselves as security tokens, as in the case of the recently announced, high-profile KODAKCoin.⁶¹

Virtual currency funds. Interests in funds that invest in digital token currencies would be securities and are subject to the U.S. federal securities laws. Generally, anyone who sells interests of a fund investing in virtual

currencies to U.S. persons must register those shares with the SEC, or sell them in a private offering in reliance on an exemption from the registration requirements (*e.g.*, Regulation D under the Securities Act).

Other token funds. Similarly, anyone who sells interests of a fund investing in digital tokens to U.S. persons must register those shares with the SEC, or sell them in a private offering in reliance on an exemption from the registration requirements.

REGULATION OF INVESTMENT ADVISERS

Are you an investment adviser? ICO general partners or advisers of funds that invest in digital assets must evaluate whether they are subject to regulation as investment advisers and whether they must register with the SEC.

A threshold question is whether a person is within the definition of an “investment adviser” when managing a fund that invests in digital assets. Generally, an investment adviser means 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.*⁶²

From the Munchie Order, we know that the manner of sale (including by a promoter) is a factor that may cause a given digital token to become a security, even if it is a self-described “utility token,” so even if the token, on its face may not look like a security, it still may be deemed to be a security, if it is being marketed as an investment (*i.e.*, focusing on the idea that the token may go up in value). This makes many so-called “bounties” particularly risky, as individual promoters’ activities are unlikely to be policed by the token seller.⁶³

Applying the classic *Howey* test, a person must first determine whether it is providing advice to a fund or a client about *securities*. If the answer is no, then the person is not an investment adviser and is not required to register with the SEC or be subject to the substantive requirements of the Investment Advisers Act. If the answer is yes, the person may have to register, unless the

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and prosecute violations of federal securities and commodities laws.”

⁵⁷ *Securities and Exchange Commission v. Arisebank et. al*, Complaint (Northern District Texas, Jan. 25, 2018), available at <https://www.sec.gov/litigation/complaints/2018/comp-pr2018-8.pdf>.

⁵⁸ Section 501(a) under the Securities Act.

⁵⁹ Section 902(k) under the Securities Act.

⁶⁰ Regulation A under the Securities Act provides an exemption from the registration requirements under the Securities Act for certain public offerings that do not exceed \$50 million, subject to filing, disclosure, and other requirements.

⁶¹ Adlerstein, David M. and Klayman, Joshua Ashley, *A 21st Century “Kodak Moment”: The Kodak and WENN Digital Token Sale*, *Crowdfund Insider* (Jan. 9, 2018), available at <https://www.crowdfundinsider.com/2018/01/126899-21st-century-kodak-moment-kodak-wenn-digital-security-token-sale/>.

⁶² Section 202(a)(11) of the Investment Advisers Act.

⁶³ This article will not address other potential legal implications or requirements with respect to individuals promoting securities for compensation.

person falls within one of several exemptions from registration.⁶⁴

A person who is required to register with the SEC must comply with the substantive provisions of the Investment Advisers Act, which can materially affect the ability to operate an investment vehicle that invests in digital assets. These requirements would affect a person who unknowingly falls into the definition of an investment adviser required to register because it provides advice concerning digital tokens that are considered securities. Among other things:

Filing and reporting. Registered advisers must file and maintain Form ADV, a disclosure document that describes many aspects of the advisory business and the funds they advise.⁶⁵ Among other things, advisers that invest in digital tokens may consider revisiting how they disclose their practices relating to personal trading by access persons in similar digital assets.

Compliance. Registered investment advisers must establish an internal compliance program and designate a chief compliance officer to administer it. The compliance program must be reasonably designed to prevent violations by the adviser and its supervised persons of the Investment Advisers Act and its rules.⁶⁶ Advisers that invest in digital assets should review their compliance policies and procedures to ensure that they address risks related to custody, derivatives, leverage, and liquidity, among other issues.

Code of ethics and personal trading. Registered investment advisers must adopt a code of ethics that establishes a minimum standard for conduct for all supervised persons. The code must require each “access person” of the investment adviser to report holdings of securities and report trades in securities to the chief compliance officer. Access persons must also obtain approval before they can trade in certain securities, including IPOs and private offerings. It appears that this requirement would apply to transactions in digital assets that are considered securities, but it is not clear how they would apply to virtual currencies or utility tokens to the extent that they are not securities. Advisers will face a

compliance challenge to ensure that personal trades of access persons do not affect the price of portfolio assets, and that they do not profit improperly by front-running trades in fund assets.

Custody of assets. Perhaps one of the biggest challenges that funds advised by registered investment advisers face is custody of assets. An adviser with “custody” of its client’s assets must maintain client funds and assets with a “qualified custodian.” The adviser cannot simply commingle its assets with those of its clients. This distinction creates challenges for advisers to funds that invest in virtual currencies, which, unlike other assets, do not take certificated or uncertificated form.

An adviser is deemed to have custody of a fund’s assets if it has the right to have access to those assets, such as the authority to withdraw client funds and securities. Qualified custodians include banks or registered broker-dealers, among others.⁶⁷ Some qualified custodians have begun to accept digital asset custody accounts and more are expected to enter that business.⁶⁸

Custody of digital assets presents unique challenges. For example, since digital assets appear only as coded entries on a blockchain, what does the custodian actually hold? How would the adviser validate existence, exclusive ownership, and software functionality of private cryptocurrency keys and other ownership records?⁶⁹ A custodian can take physical possession of a stock certificate. It can also take “possession” of an uncertificated security because its name is registered on the books of the issuer. But, on a blockchain (which is decentralized), there is neither a paper certificate nor a centralized register of owners. Rather, ownership is reflected in a string of numbers on a distributed ledger, accessible only by a public key and a private key, much the same way as access to a safe deposit box is

⁶⁴ Even if a person is not required to register with the SEC, the person may be subject to the anti-fraud provisions of the Investment Advisers Act, as well as the laws of various states.

⁶⁵ For a discussion of the new disclosure rules, see SEC, *Form ADV and Investment Advisers Act Rules*, Release No. IA-4509 (Aug. 25, 2016) available at <https://www.sec.gov/rules/final/2016/ia-4509.pdf>.

⁶⁶ Rule 206(4)-7.

⁶⁷ Rule 206(4)-2(d)(6) under the Investment Advisers Act.

⁶⁸ Kingdom Trust of South Dakota, a state-chartered trust company, claims to be the first trust company to allow retirement investors to hold digital currency directly on its platform. See <https://www.kingdomtrust.com/news/news-digital-currency-custody>. Gemini Trust Company, LLC is a New York trust company is another example of a state-chartered trust company that provides institutional custody services for digital assets. See <https://gemini.com/institutions/>.

⁶⁹ SEC Staff Letter: *Engaging on Fund Innovation and Cryptocurrency-related holdings* (Jan. 18, 2018), available at <https://www.sec.gov/divisions/investment/noaction/2018/cryptocurrency-011818.htm> (the “Blass Cryptocurrency Letter”).

accessible by the bank's key and the depositor's private key.

For example, to satisfy the regulatory requirements, the custodian could hold a "private key" and a "public key" to the digital asset, and establish safeguards to ensure against fraud or misappropriation of access to digital assets. To ensure security, one digital asset custodian says that it holds the digital currency in an offline vaulted storage facility.⁷⁰

Advertising. The anti-fraud provisions of the Investment Advisers Act apply to all investment advisers (registered or not). However, any registered adviser (or adviser required to be registered) may not use a "testimonial" concerning its advice, or use any advertisement that contains "any untrue statement of material fact or is otherwise misleading."⁷¹ In November 2017, the SEC's Division of Enforcement and Office of Compliance Inspections and Examinations cautioned investors that celebrity endorsements of ICOs may violate federal securities laws.⁷² Although the SEC's message was not given in the context of compliance with the Investment Advisers Act, it suggests that the SEC is focused on improper testimonials made in connection with token sales.

Transactions with affiliates. Among other things, Section 203(6) of the Investment Advisers Act prohibits any investment adviser from engaging in or effecting a transaction on behalf of a client while acting either as principal for its own account from knowingly selling any security to, or purchasing any security from, a client for its own account, without disclosing to the client in writing, before completing the transaction, the adviser's role in the transaction and obtaining the client's consent.⁷³ This law effectively prevents an investment adviser (as defined in the Investment Advisers Act) from buying from or selling to a client any token that is

considered to be a security. This restriction may apply to transactions with a pooled investment fund when the adviser or its affiliates have a significant ownership interest.⁷⁴

Cash payments for client solicitations. A registered investment adviser (or one who is required to be registered) cannot pay a cash fee to a third party who solicits clients for or refers clients to the adviser unless it meets certain requirements. Among other things, the solicitation agreement must be in writing, the solicitor cannot be subject to "bad boy" provisions (disqualifications), and the adviser must disclose the payments to the client. These restrictions may not apply, however, to payments to third parties who solicit investors in certain private funds for which the adviser is the manager.⁷⁵ Registered investment advisers (or advisers who are required to register) should be aware that this requirement may apply to amounts they pay to third parties that promote certain digital assets or advisory accounts that invest in digital assets.

In sum, advisers to funds that invest in digital currencies, utility tokens, or security tokens should be mindful of whether they fall into the definition of an investment adviser and how the Investment Advisers Act's many provisions will affect them.

REGULATION OF INVESTMENT COMPANIES

Sponsors of pooled investment vehicles that invest in digital assets may be surprised to learn that they fall within the definition of an investment company. If it is an investment company, it must either register with the SEC or operate under an exception from the definition.

⁷⁰ Gemini Trust Company, LLC, <https://gemini.com/security/>.

⁷¹ Rule 206(4)-1 under the Investment Advisers Act.

⁷² SEC Public Statement, *Statement on Potentially Unlawful Promotion of Initial Coin Offerings and Other Investments by Celebrities and Others* (Nov. 1, 2017), available at <https://www.sec.gov/news/public-statement/statement-potentially-unlawful-promotion-icos> ("Any celebrity or other individual who promotes a virtual token or coin that is a security must disclose the nature, scope, and amount of compensation received in exchange for the promotion. A failure to disclose this information is a violation of the anti-touting provisions of the federal securities laws.").

⁷³ Section 206(3) of the Investment Advisers Act.

⁷⁴ See, e.g., SEC of Investment Management No-action letter, *ABA Subcommittee on Private Investment Entities* (Dec. 8, 2005), available at <https://www.sec.gov/divisions/investment/noaction/aba120805.htm>: "The Commission has instituted enforcement actions based on claims of violations of section 206(3) against advisers and their principals when the advisers effected transactions between their advisory clients and accounts in which the principals of the advisers held significant ownership interests."

⁷⁵ SEC Division of Investment Management no-action letter, *Mayer Brown LLP* (Jul. 28, 2008), available at <https://www.sec.gov/divisions/investment/noaction/2008/mayerbrown072808-206.htm>: "We believe that Rule 206(4)-3 generally does not apply to a registered investment adviser's cash payment to a person solely to compensate that person for soliciting investors or prospective investors for, or referring investors or prospective investors to, an investment pool managed by the adviser."

The DAO Report stated that the SEC did not analyze whether The DAO was an investment company as defined in Section 3(a) of the Investment Company Act of 1940, as amended (the “1940 Act”), in part, “because The DAO never commenced its business operations funding projects.”⁷⁶ The DAO Report cautioned, however, that [t]hose who would use virtual organizations should consider their obligations under the Investment Company Act.” The same holds true for issuers that are pooled investment vehicles.

Issuers that don’t want to register as investment companies. An investment company typically meets either a “subjective” test or an “objective” test.

Under the subjective test, an issuer is an investment company if it “is or holds itself out as being engaged primarily, or proposes to engage primarily, in the business of investing, reinvesting, or trading in securities.”⁷⁷ If an issuer’s assets consist solely of virtual currencies, it is likely that the issuer is not holding itself out as being engaged primarily in this business. But an issuer that invests in other tokens that may be securities may fall within the definition. Unless those issuers can rely on an exception from the definition, they will be required to register with the SEC and will be subject to the substantive provisions of the 1940 Act.⁷⁸

Substantive provisions include, among other things: limits on capital structure; governance requirements; requirement to adopt a compliance program and designate a chief compliance officer; special rules for custody and safekeeping of assets; a prohibition on principal transactions with affiliated persons; and significant limitations on “joint transactions” with affiliated persons.

Registered investment companies that want to invest in digital assets. The flip side of the coin is registered investment companies (e.g., mutual funds, closed-end funds, exchange-traded funds, among other types)⁷⁹ that want to invest in digital assets in whole or as part of a

broader investment strategy to achieve investment returns or to hedge their investments. Registered funds, their investment advisers, their chief compliance officers, and directors face special challenges when investing in this new asset category.

Noting that digital assets have attracted great interest, Dalia Blass, the director of the SEC’s Division of Investment Management, published a letter stating that the staff had “significant outstanding questions how funds holding significant amounts of cryptocurrencies and related products would satisfy the requirements of the 1940 Act and its rules.”⁸⁰ In testimony before the Senate Banking Committee, SEC Chair Clayton echoed this concern.⁸¹

The SEC staff identified a number of issues and invited comment on several issues, including, among other things:

- *Valuation.* Valuation of digital assets can present challenges when the markets for those assets are thin or non-existent. The staff questioned whether funds have information necessary to adequately value cryptocurrencies and related products, given their volatility, fragmentation, and overall lack of regulation of the underlying markets.
- *Liquidity.* The SEC’s liquidity risk management rules⁸² will require, among other things, most registered investment companies to classify the liquidity of each portfolio investment based on the number of days within which it determined that it reasonably expects an investment would be convertible to cash without the conversion significantly changing the market value of the investment. In addition, funds must limit their investments in illiquid assets to 15 percent of their net assets. Funds and their directors may face challenges in assessing the liquidity of tokens, which may be considered illiquid for these purposes.

⁷⁶ The DAO Report at n. 42.

⁷⁷ Section 3(a)(1)(A) of the 1940 Act.

⁷⁸ Typical exceptions that issuers would rely on include the private fund exceptions, Section 3(c)(1) of the 1940 Act (fewer than 100 beneficial owners) and Section 3(c)(7) (beneficial owners limited to “qualified purchasers”), in each case limited to private offerings.

⁷⁹ Closed-end funds that elect to be treated as business development companies (“BDCs”) are included in this category.

⁸⁰ The Blass Cryptocurrency Letter, n. 69, *supra*.

⁸¹ The Clayton Testimony, n. 55 *supra*: “Until such time as those questions have been sufficiently addressed, I am concerned about whether it is appropriate for fund sponsors that invest substantially in cryptocurrencies and related products to register. We will continue engaging in a dialogue with all interested parties to seek a path forward consistent with the SEC’s tripartite mission.”

⁸² SEC Final Rule: Investment Company Liquidity Risk Management Programs, Rel. No. IC-32315 (Oct. 13, 2016), *available at* <https://www.sec.gov/rules/final/2016/33-10233.pdf>.

The staff questioned what steps funds investing in cryptocurrencies take to assure that they have sufficient liquidity and how they would classify these assets under the new fund liquidity rule.

- *Custody.* Investment company custodians must satisfy statutory requirements, and traditional fund custodians must be capable of holding digital assets with adequate protections. The staff questioned how funds would satisfy these requirements, and, in particular, how funds would “validate existence, exclusive ownership and software functionality of private cryptocurrencies keys and other ownership records.” The staff also asked under what circumstances funds would hold these digital assets directly.
- *Arbitrage for ETFs.* ETFs are able to narrow the spread between the net asset value and market price of the shares when “authorized persons,” who buy and sell “creation units,” use arbitrage in their principal transactions. The staff questioned whether arbitrage is feasible when the ETF invests in volatile cryptocurrencies. The staff suggested that volatility-driven trading halts could hinder the ability of authorized participants to arbitrage, which, in turn, could result in the inability of ETFs to comply with their exemptive orders that require them to minimize spreads.
- *Potential manipulation and other risks.* The staff noted that SEC Chair Jay Clayton raised concerns that the cryptocurrency markets “feature less investor protection than traditional securities markets.” It also expressed concern that retail investors may not fully understand the risks presented by this asset class.

Until these questions can be addressed to its satisfaction, the staff said that it does “not believe that it is appropriate for fund sponsors to initiate registration of funds that intend to invest substantially in cryptocurrency and related products.” The staff said it has asked sponsors that have registration statements filed for these products to withdraw them.

In addition to the issues that Division Director Blass raised in her letter, registered funds may face other challenges if, and when, they invest in cryptocurrencies. Among other things, we note the following issues.

- *Cybersecurity.* All investment companies are faced with cybersecurity challenges, but the risk is enhanced when the asset itself exists only as digits on a digital ledger. Funds and their directors must

be satisfied that sufficient processes are in place to prevent theft of such digital assets.

- *Restrictions on transactions with affiliates.* In general, affiliated persons of registered funds may not knowingly purchase from or sell to their funds any security or other property. Thus, fund affiliates cannot buy from or sell to virtual currencies or other tokens from a registered fund.
- *Anti-money laundering and “know your customer” rules.* Funds that invest in cryptocurrencies must comply with the rules requiring mutual funds to adopt anti-money laundering programs and the rules requiring mutual funds to establish customer identification programs.
- *Compliance programs.* All registered investment companies must adopt written compliance procedures reasonably designed to prevent violation of the federal securities laws. As registered investment companies begin to invest in virtual currencies, virtual tokens, and related derivatives, funds must revise their compliance policies to address the compliance issues summarized above and others.
- *Code of ethics — personal trading.* Rule 17j-1 under the Investment Company Act restricts the personal investment activities of investment company personnel. Among other things, the rule requires registered investment companies to adopt a code of ethics that is designed to ensure that “access persons” do not front-run the fund or improperly use information about the fund and its investments for their personal advantage. Funds must begin to consider how to address personal trades by access persons in virtual currencies and digital tokens.

In light of these concerns and those raised by the SEC staff, it does not appear that these issues will be settled with finality any time soon.

REGULATION OF COMMODITY POOL OPERATORS

The CFTC has asserted broad jurisdiction over derivatives related to virtual currencies.⁸³ Pooled

⁸³ See, e.g., *BFXNA Inc. d/b/a Bitfinex*, CFTC Docket No. 16-9 (Jun. 2, 2016), available at <http://www.cftc.gov/idc/groups/public/@lrenforcementactions/documents/legalpleading/enfbfxnaorder060216.pdf>, sanctioning a Hong Kong-based bitcoin exchange for illegally offering off-exchange financed retail commodity transactions in bitcoin and other virtual currencies, and failing to register as a Futures Commission Merchant.

investment vehicles, including investment companies, that use leverage and derivatives to gain exposure to virtual currencies and other digital assets may have to register as commodity pool operators unless they qualify for an exemption.

The CFTC appears to be stepping up its efforts to file enforcement actions against alleged perpetrators of cryptocurrency fraud.⁸⁴

STATE ENFORCEMENT ACTIONS

The Enforcement Section of the Securities Division of the Secretary of the Commonwealth of Massachusetts filed a complaint against a Cayman Islands entity and a Massachusetts resident for allegedly offering the sale of so-called “Caviar tokens” that were allegedly unregistered securities.⁸⁵ The complaint alleged that while the offering website ostensibly was designed to prevent sale of the Caviar tokens to U.S. residents, the procedures were inadequate.⁸⁶

⁸⁴ See, e.g., *CFTC v. McDonnell et. al.*, Complaint for Injunctive and Other Equitable Relief and for Civil Monetary Penalties under the Commodity Exchange Act and Commission Regulations, Case No. 18-CV-0361 (EDNY, Jan. 18, 2018), available at <http://www.cftc.gov/ide/groups/public/@lrenforcementactions/documents/legalpleading/enfcdmcomplaint011818.pdf> (alleged fraud and misappropriation in connection with trading of Bitcoin and Litecoin); *CFTC v. Dean et. al.*, Complaint for Injunctive and Other Equitable Relief, Restitution, and Civil Monetary Penalties under the Commodity Exchange Act, Case No. 18-cv-00345 (EDNY Jan. 18, 2018), available at <http://www.cftc.gov/idc/groups/public/@lrenforcementactions/documents/legalpleading/enfentrepreneurscomplt011818.pdf>. (Alleged fraudulent scheme to solicit Bitcoin from members of the public, misrepresentation that customers’ funds would be pooled and invested in products including binary options, making Ponzi-style payments to commodity pool participants from other participants’ funds, misappropriating pool participants’ funds, and failing to register with the CFTC as a commodity pool operator and associated person of a CPO).

⁸⁵ *In the Matter of Caviar et. al.*, Commonwealth of Massachusetts, Office of the Secretary of the Commonwealth Securities Division, Administrative Complaint, Docket no. E-2017-0120 (Jan. 17, 2018), available at <http://www.sec.state.ma.us/sct/current/sctbensoff/Administrative-Complaint-E-2017-0120.pdf>.

⁸⁶ A Division investigator applied to participate in the Caviar token ICO “using the name of a popular cartoon character.” The investigator uploaded a photo of a government-issued photo ID obtained using a Google Image Search. The

CONCLUSION

Like it or not, digital assets are here to stay. The growing use of digital assets is forcing regulators, investors, lawyers, accountants, compliance professionals, and other gatekeepers to consider how existing laws and rules apply to digital assets, and the risks both to investors and to the financial system.⁸⁷ Moreover, SEC Chair Clayton emphasized that when applying their expertise, these gatekeepers need to focus on their responsibilities.⁸⁸

So far, we have issues involving how investment advisers and investment companies invest in virtual assets. But digital ledger technology will affect them in other ways. For example, transfer agents and financial intermediaries may soon use a blockchain to structure operations, or maintain records of investments and shareholder transactions.

We believe that the changes described above are just the beginning of a new chapter in the regulation of financial products and may well give rise to the need for new laws and rules (or at least new ways of looking at existing laws and rules)⁸⁹ as market participants and regulators adjust to the new challenges — and take advantage of the new possibilities and rewards — that digital assets and blockchain technology represent. ■

footnote continued from previous column...

investigator’s identification was “verified” and the investigator was approved to participate in the ICO within 29 minutes.

⁸⁷ Klayman, Joshua Ashley, *The Empire Strikes Back: Traditional Debt and Equity Capital Providers Get Smart(er) about Token Sales*, Crowdfund Insider (Jan. 11, 2018), available at <https://www.crowdfundinsider.com/2018/01/126992-the-empire-strikes-back-traditional-debt-and-equity-capital-providers-get-smarter-about-token-sales/>.

⁸⁸ Clayton Testimony, n. 55 *supra*, at 8.

⁸⁹ Klayman, Joshua Ashley, *A Legal Renaissance, Blockchain Style*, Coindesk (Jan. 7, 2018), available at <https://www.coindesk.com/2017-legal-renaissance-blockchain-style/>.