Chapter 10

Blockchain and Digital Assets

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§ 10:1   Overview

Blockchain technology and associated tokens, commonly referred to as digital assets, are recognized by the existing U.S. laws, the U.S. Securities and Exchange Commission (SEC) and the Commodities Futures Trading Commission (CFTC) to be securities, commodities, or both, depending on the facts and circumstances.[1] Technology

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1.   The terms "blockchain" and "distributed ledger technology" generally refer to databases that maintain information across a network of computers in a decentralized or distributed manner. *See* SEC, Finhub (last updated Mar. 22, 2019), https://www.sec.gov/finhub. "Blockchain," "Digital Assets" and related concepts are described in further detail in *infra* section 10:2.

places no constraints on what the data recorded on a blockchain represents. Therefore, the characterization of a particular digital asset and the resulting legal and regulatory implications is not a function of the underlying blockchain technology, but is instead based on the *economic realities* of the proposed transaction.

From 2017 through the start of 2020, the sale of digital assets raised nearly $25 billion.[2] The market growth of digital assets as a new investment asset class gives rise to distinct regulatory considerations for broker-dealers and registered investment advisers offering, trading, and/or assuming custody of such assets. The use of blockchain technology in effecting digital asset transactions may be, in some instances, quite different than the technology used for transactions in other asset classes. Certain differences in market infrastructure and trade flow are being evaluated by regulators. In some instances, the existing securities laws and regulations applicable to broker-dealers and registered investment advisers may require interpretation, regulatory guidance, or SEC no-action relief in order to support a market for digital asset securities.

This chapter provides an overview of blockchain and digital assets, followed by the existing regulations applicable to broker-dealers and investment advisers engaged in digital asset activities. Various regulators may assert overlapping jurisdiction for market participants transacting in digital assets. As such, this chapter also includes a discussion of other applicable regulatory regimes, including money transmission laws and state virtual currency regulation. Regulatory considerations are driven primarily by existing regulation as applied to the nuances of blockchain technology. The discussion includes digital asset regulatory guidance being disseminated through investor warnings, public speeches, reports, and enforcement actions. The law is not yet settled as it relates to digital assets, but market participants are developing industry best practices taking into consideration the existing regulations.

§ 10:2   Blockchain Basics

§ 10:2.1   *Blockchain Overview*

Blockchain is a technology that contains records of transactions connected and shared among a community of users, such as

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2. SMITH & CROWN TOKEN SALE ACTIVITY TRACKER, https://sci.smithand crown.com/ico-tracker (last visited Feb. 11, 2020). *See also* DANIEL DIEMERS ET AL., PwC INITIAL COIN OFFERINGS (June 2018), https://www.pwc.ch/en/publications/2018/20180628_PwC%20S&%20CVA%20ICO%20 Report_EN.pdf.

shareholders of a company.[3] Blockchains enable users to record trans-actions in a shared ledger, such that under normal operation of the blockchain network, no record of a transaction can be changed once published.[4] This distributed database continuously grows as new sets of transactions or "blocks" are "linked" together to form a "chain."[5] Each record in the data set is individually labeled, described, and time stamped within blocks.[6]

Blockchains are distributed, meaning that instead of the database being controlled by one person or entity, numerous computers connect to a network and work together to come to an agreement on which transactions are valid.[7] The validation process is performed algorith-mically by computer programs based on a set of predetermined rules.[8] To initiate a transaction, a blockchain network user sends informa-tion to the network. The information sent may include the sender's address (or another relevant identifier), the sender's public key, a digi-tal signature, and the transfer amount. Information contained within the blockchain is stored in encrypted format and typically requires a private key (a special passcode) to access the data or engage with the blockchain.[9] As discussed more in section 10:2.5 below, the subject of these transactions may be digital representations of assets, rights, privileges, securities, commodities, or other interests recorded on a blockchain.

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3. *See* Nat'l Inst. of Standards & Tech., U.S. Dep't of Comm., NISTIR 8202, Blockchain Technology Overview (Oct. 2018) [here-inafter Blockchain Technology Overview]; Telmo Subira Rodriquez, *Blockchain for Dummies: The Five Keys to Understanding What Is the Blockchain*, Medium: The Startup (Dec. 2, 2018), https://medium.com/swlh/blockchain-for-dummies-d3daf2170068.

4. Blockchain Technology Overview, *supra* note 3.

5. Tiana Laurence, Blockchain for Dummies (May 1, 2017).

6. Praveen Jayachandran, *The Difference Between Public and Private Block-chain*, IBM Blockchain Blog (May 31, 2017), https://www.ibm.com/blogs/blockchain/2017/05/the-difference-between-public-and-private-blockchain/ [hereinafter Jayachandran].

7. Jonathan Paul Wood, *What Is Blockchain: Explained for Beginners*, Medium (Oct. 14, 2017), https://medium.com/blockchain-education-network/what-is-blockchain-explained-for-beginners-5e747cea271.

8. Joshua Oliver, *There Is No Such Thing as "the" Blockchain, Future Tense*, Slate (Jan. 5, 2018), https://slate.com/technology/2018/01/there-is-no-such-thing-as-the-blockchain.html.

9. Arvind Narayanan et al., Bitcoin and Cryptocurrency Technol-ogies: A Comprehensive Introduction (Princeton Univ. Press 2016).

§ 10:2.2   *Wallets and Private Key Storage*

[A]   Asymmetric Key Cryptography

Asymmetric cryptography is defined as any cryptographic system that uses pairs of keys: public keys and private keys.[10] The encrypted data contained on the blockchain can only be decrypted with the receiver's private key.[11] These private keys (for example, a long string of letters and numbers) function as a special password and should be guarded and carefully protected. A public key can be analogized to a publicly available combination safe and the private key as the combination code.[12] People that know the safe's location can attempt to open the safe; however, the only person that can retrieve the contents of the safe is the person that has the combination code.[13] If a user loses their combination code, they lose access to the contents of the safe.[14]

[B]   Wallets

A "wallet" is the software interface that allows a person to query the blockchain for information (such as the balance associated with their public key address) and to send signed transactions to the blockchain (by using their private key). Wallets are also software programs that store private keys and interact with a particular blockchain to transmit information needed to undertake transactions. The amount of digital assets associated with a particular wallet address is reflected on the blockchain.

Wallets store and manage public and private keys, and may be hardware or software applications. Wallets are often characterized as either "cold storage" or "hot storage."[15]

Cold storage refers to holding cryptographic keys in an environment that *is not connected to the internet*. Examples include storing keys on disconnected hard drives, printing them on a piece of paper,

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10.   Toshendra Kumar Sharma, *How Does Blockchain Use Public Key Cryptography?*, BLOCKCHAIN COUNCIL (Jan. 2018), https://www.blockchain-council.org/blockchain/how-does-blockchain-use-public-key-cryptography/ [hereinafter Sharma].

11.   J.P. MORGAN, J.P. MORGAN PERSPECTIVES, DECRYPTING CRYPTOCURRENCIES: TECHNOLOGY, APPLICATIONS AND CHALLENGES (Feb. 9, 2018), https://forum.gipsyteam.ru/index.php?act=attach&type=post&id=566108 [hereinafter DECRYPTING CRYPTOCURRENCIES].

12.   *See also generally* Sharma, *supra* note 10.

13.   *Id.*

14.   *Id.*

15.   *See generally* FINRA STAFF & BBB INST., FINRA, STORING AND SECURING CRYPTOCURRENCIES (Nov. 29, 2018), http://www.finra.org/investors/highlights/storing-and-securing-cryptocurrencies.

or storing them on USB or similar drives. Specialized "hardware wallets" designed specifically for storing cryptographic keys are also available. Like hardware wallets, paper wallets are physical, offline cold storage options.[16]

Hot storage uses services *connected to the internet* to store cryptographic keys. While there are a number of hot storage options available, these services generally refer to types of software that can be installed on any internet-connected device that store cryptographic keys and may include:

- *Desktop wallets:* Desktop wallets are software programs that can be downloaded to a PC or laptop that store cryptographic keys on that computer and can usually broadcast transactions to the blockchain network.

- *Mobile app wallets:* Mobile app wallets are similar to desktop wallets, but are software that can be downloaded to a mobile device such as a smartphone, allowing for storage of cryptographic keys on that device. Mobile app wallets can similarly broadcast transactions to the blockchain network.

- *Online wallets:* Also known as cloud-based wallets, online wallets are a type of software that lets users store and access their cryptographic keys from any internet-connected device. In this case, cryptographic keys are stored remotely on third-party servers owned by the provider of the online wallet/cloud operator.[17]

Wallets are important because they store the private key that is necessary to access and control (that is, transfer) the digital assets associated with a particular public key address.

Each wallet type above has its own advantages, disadvantages, and use-cases. Hot wallets provide flexibility and fast access. These wallets can be accessed at any time or place, and from any device with an internet connection. Cold storage wallets provide maximum safety and security to their users. By virtue of being able to physically hold and store your keys on your person or in a safe, cold storage wallets cannot be accessed by hackers on the internet. The disadvantage is that cold storage wallets are utilized for long-term storage only, and are often inconvenient and impractical for engaging in daily transactions.[18] Common best practice would be to secure large

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16. *See generally id.*
17. *Id.*
18. Mark Austen et al., ASIFMA Best Practices for Digital Asset Exchanges (June 2018), https://www.asifma.org/research/asifma-best-practices-for-digital-exchanges/.

amounts using cold storage (for safe-keeping), but maintain a hot storage wallet for daily transactions or trading (for speed and convenience).[19] Certain custodians have developed wallet technology that has the security of cold storage, but allows assets to be held in hot storage, which can be used for trading, voting[20] or staking[21] digital assets.[22]

§ 10:2.3 Blockchain Networks

[A] Public Blockchains

Public blockchains, also called permissionless blockchains, allow anyone the ability to read and write to the blockchain without needing permission from any authority.[23] Public blockchain networks are generally open source software, freely available to anyone who wishes to download them.[24]

In the context of public blockchain networks, the private key is how the key holder effectively "signs" (or authenticates) a transaction.[25] Once a transaction is broadcasted and authenticated through the use of public and private keys, the distributed network must then validate the transaction block.[26] Bitcoin is one example of a public blockchain network. In the case of bitcoin, private keys are randomly generated 256-bit numbers and an algorithm is then used to generate

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19. *Id*.
20. Certain blockchain networks allow for users to partake in the governance of the network by voting, where the number of votes cast may or may not be proportional to the amount of digital assets held. *See generally* Brian Curran, *What Is Blockchain Governance? Complete Beginner's Guide*, BLOCKONOMI (Sept. 21, 2018), https://blockonomi.com/block chain-governance/.
21. In a proof-of-work blockchain, "miners" compete to solve mathematically complex problems in order to verify transactions, with the winner earning a reward (a payout of the digital asset native to that blockchain). In a proof-of-stake blockchain, rather than spend computing power, validators "stake" (post as collateral) an amount of digital assets for the capability to verify transactions. Verifying transactions correctly earns transaction fees, while incorrectly verifying transactions results in a loss of digital assets. *See generally* Viktor Bunin, *Crypto Staking Is More Useful Than You Think*, TOKEN FOUNDRY (June 28, 2018), https://blog.tokenfoundry. com/crypto-staking-is-older-and-more-useful-than-you-think/.
22. Brian Armstrong, *Busting Myths About Cryptocurrency Custody*, FORTUNE (Feb. 21, 2019), http://fortune.com/2019/02/21/cryptocurrency-custody-mis conceptions-coinbase-ceo/.
23. BLOCKCHAIN TECHNOLOGY OVERVIEW, *supra* note 3.
24. *Id*.
25. DECRYPTING CRYPTOCURRENCIES, *supra* note 11.
26. Sharma, *supra* note 10.

a public key derived from the private key.[27] In most instances, the hashing[28] and validation process is performed by a network of computers, also known as "miners."[29] There is no one blockchain, but rather a potentially infinite number of blockchains and forms of blockchain integrations.

[B]   Private or Permissioned Blockchains

A private blockchain requires a validated invitation (or permission) to interact with the network.[30] The blockchain is not publicly available and only accessible by defined participants. Continuing with the analogy above, this can be analogized to a combination safe that is hidden, or located in a private residence. In order to open the safe, regardless of whether or not the user held the combination code or private key, the user would need permission. The validation process can be granted by the network's developer, or by the network's predetermined set of criteria.[31]

In the context of a financial services business, a permissioned blockchain network can place limits on who is allowed to participate in the network and restrict use of the network to certain transaction types.[32] The operator of the network provides participants with an

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27. *Id.*
28. *Definition—What Does Hashing Mean?*, Techopedia, https://www.techo-pedia.com/definition/14316/hashing (last visited Dec. 28, 2019) ("When a user sends a secure message, a hash of the intended message is generated and encrypted, and is sent along with the message. When the message is received, the receiver decrypts the hash as well as the message. Then, the receiver creates another hash from the message. If the two hashes are identical when compared, then a secure transmission has occurred. This hashing process ensures that the message is not altered by an unauthorized end user.").
29. *Definition—What Does Mining Mean?*, Techopedia, https://www.techo pedia.com/definition/32530/mining-blockchain (last visited Dec. 28, 2019) ("Mining, in the context of blockchain technology, is the process of adding transactions to the large distributed public ledger of existing transactions, known as the blockchain. The term is best known for its association with bitcoin, though other technologies using the blockchain employ mining. Bitcoin mining rewards people who run mining operations with more bitcoins.").
30. Jayachandran, *supra* note 6.
31. *Id.*
32. Nolan Bauerle, *What Is the Difference Between Public and Permissioned Blockchains?*, Coindesk, https://www.Coindesk.Com/Information/What-Is-The-Difference-Between-Open-And-Permissioned-Blockchains (last visited Feb. 28, 2019). Well-known examples of permissioned blockchains include Hyperledger Fabric and Corda R3.

invitation or permission in order to join.[33] The control mechanism can be uniquely tailored to the specific purpose behind the network's use-case.[34] The control mechanism could dictate that existing participants may decide future entrants, or could require a regulatory agency or self-regulatory organization to issue licenses for participation.[35]

§ 10:2.4   *Blockchain Networks Across Industries*

Blockchain technology is being used across a variety of sectors to address different industry challenges. Originally, it was developed as the infrastructure behind Bitcoin, recording transactions in a transparent, secure, and immutable manner. But blockchain use-cases and applications continue to grow well beyond its original implementation. Blockchain is being implemented or considered within numerous industries, including, but not limited to: (i) insurance; (ii) financial services; (iii) real estate; (iv) accounting services; (v) supply-chain management; (vi) energy; (vii) transportation; and (viii) healthcare.

§ 10:2.5   *Blockchain Digital Assets*

The SEC defines "digital assets" to include "cryptocurrencies, coins and tokens."[36] The Financial Industry Regulatory Authority (FINRA) defines the term "digital asset" more broadly as "cryptocurrencies and other virtual coins and tokens (including virtual coins and tokens offered in an initial coin offering (ICO) or pre-ICO), and any other asset that consists of, or is represented by, records in a blockchain or distributed ledger (including any securities, commodities, software, contracts, accounts, rights, intangible property, personal property, real estate or other assets that are "tokenized," "virtualized" or otherwise represented by records in a blockchain or distributed ledger)."[37] The CFTC defines "digital assets" more broadly still, as "anything that can be stored and transmitted electronically, and has associated ownership or use rights."[38]

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33.   Sharma, *supra* note 10; Jake Frankenfield, *Permissioned Blockchains*, INVESTOPEDIA (Apr. 10, 2018), https://www.investopedia.com/terms/p/permissioned-blockchains.asp.

34.   *Id.*

35.   *Id.*

36.   SEC, 2019 EXAMINATION PRIORITIES (Dec. 20, 2018), https://www.sec.gov/files/OCIE%202019%20Priorities.pdf [hereinafter SEC, 2019 EXAMINATION PRIORITIES].

37.   FINRA, Regulatory Notice 18-20 (July 6, 2018), http://www.finra.org/sites/default/files/notice_doc_file_ref/Regulatory-Notice-18-20.pdf.

38.   CFTC, DIGITAL ASSETS PRIMER (Dec. 2020), https://www.cftc.gov/PressRoom/PressReleases/8336-20.

In general, digital assets are digital representations of an asset, right, privilege, security, commodity or other interest represented on a blockchain ("Digital Asset"). Virtually any type of interest can be digitized and recorded on a blockchain. This process is commonly referred to as "tokenization" or "tokenized interests."[39]

Digital Assets are not physical assets, but rather they are a record of data on a blockchain ledger that is a representation of tangible or intangible assets. For instance, Digital Assets known as stablecoins became more prevalent in recent years. Stablecoins seek to maintain a stable value through an algorithmic technology or are collateralized by sovereign currency held in custody by banks with an implied or explicit commitment to full redeemability.[40]

Since blockchain technology places no constraints on what the data represents, Digital Assets can be used to represent digital securities such as equity, debt, or investment contracts, among other instruments ("Digital Asset Securities").

§ 10:3   Regulatory Framework Applicable to Digital Assets

Depending on what a particular Digital Asset represents, and associated rights, the Digital Asset may be subject to multiple overlapping regulatory frameworks. This section provides an overview of the federal securities laws, commodities laws, money transmission laws, and virtual currency regulations relevant to Digital Asset transactions. Each regulatory framework and related guidance is discussed in more detail in section 10:6.

§ 10:3.1   Federal Securities Laws

The core of the federal securities laws consists of four statutes: the Securities Act of 1933 (the "Securities Act") governs the offer and sale of securities; the Securities Exchange Act of 1934 (the "Exchange Act") regulates securities brokers, dealers, clearing agencies, exchanges,

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39.   *Id.*
40.   Dirk Bullmann, Jonas Klemm & Andrea Pinna, Euro. Cent. Bank, In Search for Stability in Crypto-Assets: Are Stablecoins the Solution? (Aug. 2019), https://bit.ly/2MDuF4q. *See also* Bank for Int'l Settlements, G7 Working Group on Stablecoins, Investigating the Impact of Global Stablecoins (2019), https://www.bis.org/cpmi/publ/d187.pdf; Fin. Stability Bd., Regulatory Issues of Stablecoins (2019); Fin. Action Task Force, Money Laundering Risks from "Stablecoins" and Other Emerging Assets (2019), https://www.fatf-gafi.org/publications/fatfgeneral/documents/statement-virtual-assets-global-stablecoins.html.

and market conduct; the Investment Company Act of 1940 (the "Investment Company Act") regulates companies who engage primarily in the business of investing, reinvesting, and trading in securities; and the Investment Advisers Act of 1940 (the "Investment Advisers Act") regulates persons who for compensation, engage in the business of advising others regarding investments in securities.[41]

Whether a digital asset is subject to the securities laws turns on the definition of "security" in each of the relevant statutes. Although the definition of a security in the Investment Company Act and the Investment Advisers Act is interpreted more broadly, the definition of the term security is basically the same in each of the Securities Act and the Exchange Act.[42] As defined by the Securities Act, the term "security" means:

> "Any note, stock, treasury stock, security future, security-based swap, bond, debenture, evidence of indebtedness, certificate of interest or participation in any profit-sharing agreement, collateral-trust certificate, preorganization certificate or subscription, transferable share, *investment contract*, voting-trust certificate, certificate of deposit for a security, fractional undivided interest in oil, gas, or other mineral rights, any put, call, straddle, option, or privilege on any security, certificate of deposit, or group or index of securities (including any interest therein or based on the value thereof), or any put, call, straddle, option, or privilege entered into on a national securities exchange relating to foreign currency, or, in general, any interest or instrument commonly known as a 'security', or any certificate of interest or participation in, temporary or interim certificate for, receipt for, guarantee of, or warrant or right to subscribe to or purchase, any of the foregoing."[43]

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41. Securities Act of 1933, 15 U.S.C. §§ 77a *et seq.*; Securities Exchange Act of 1934, 15 U.S.C. §§ 78a *et seq.*; 1940 Investment Company Act, 15 U.S.C. §§ 80a-1 *et seq.*; 1940 Investment Advisers Act, 15 U.S.C. §§ 80b-1 *et seq.*

42. The U.S. Supreme Court has stated that the definitions of "security" under the Securities Act and the Exchange Act are treated as being the same, despite some technical differences. SEC v. Edwards, 540 U.S. 398 (2004) (citing Reves v. Ernst & Young, 494 U.S. 56, 61 n.1 (1990)). *See also* Landreth Timber Co. v. Landreth, 471 U.S. 681, 686 n.1 (1981); Marine Bank v. Weaver, 455 U.S. 551, 555 n.3 (1982); United Hous. Found. v. Forman, 421 U.S. 837, 847 n.12 (1975); Tcherepnin v. Knight, 389 U.S. 332, 335–36 (1967) (the Securities Act contains a definition of security virtually identical to that contained in the Exchange Act). *Cf.* Joseph A. Franco, *The Investment Company Act's Definition of Security and the Myth of Equivalence*, 7 STAN. J.L. BUS. & FIN. 1 (2001).

43. Securities Act § 77b(a)(1). Emphasis added.

A Digital Asset Security may represent debt, equity, or another instrument or arrangement specifically listed within the definition of a security. Otherwise, the question becomes whether a Digital Asset is an "investment contract." *SEC v. Howey*[44] and its progeny provide the test for determining whether an instrument is an "investment contract" and thus within the definition of the term security. In *Howey*, the U.S. Supreme Court noted that the term "investment contract" is used to classify those instruments that are of a "more variable character" that may be considered a form of "contract, transaction, or scheme whereby an investor lays out money in a way intended to secure income or profit from its employment."[45] The SEC applied the *Howey* test in several enforcement actions to determine whether the Digital Asset in question was a security.[46]

According to the *Howey* test, an instrument is an investment contract where there is (1) an investment of money; (2) in a common enterprise; (3) with the expectation of profits; (4) from the efforts of others. When an instrument is found to be an investment contract and thus a Digital Asset Security, the instruments must be registered with the SEC under the Securities Act, unless an exemption is available.[47]

Note, however, that even if a Digital Asset is not a security under the federal securities laws, it may be a security under one or more states' securities or "blue sky" laws.[48] States are not preempted from making a separate securities law determination with respect to the classification of certain Digital Assets as securities.[49]

§ 10:3.2   *Federal Commodities Laws*

The Commodity Exchange Act (CEA), as amended by the Dodd-Frank Wall Street Reform and Consumer Protection Act,[50] regulates the trading of commodity futures and certain other derivatives in the United States and establishes the statutory framework under which the CFTC operates, including oversight of trading facilities,

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44.   SEC v. Howey, 328 U.S. 293 (1946).

45.   *Id*. at 298; Golden v. Garafolo, 678 F.2d 1139, 1144 (2d Cir. 1982) (stating "investment contract" has been used as a way to classify instruments that do not fit other categories); *see also* BLACK'S LAW DICTIONARY (10th ed. 2014).

46.   For relevant enforcement actions, see *infra* section 10:6.1[B].

47.   Securities Act § 77e.

48.   *See* NASAA, DIRECTORY OF SECURITIES LAWS & REGULATIONS, http://www.nasaa.org/industry-resources/directory-of-securities-laws-regulations/.

49.   *See infra* section 10:6.1[D].

50.   The Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203 (July 21, 2010).

clearing organizations and market intermediaries. The definition of "commodity" under the CEA is broad. It includes a host of specifically enumerated agricultural products as well as "all other goods and articles . . . and all services, rights and interests . . . in which contracts for future delivery are presently or in the future dealt in."[51] The CFTC first found that bitcoin was a commodity in 2015, an interpretation supported by federal district courts in 2018.[52] Judge Jack B. Weinstein of the U.S. District Court for the Eastern District of New York found that "[virtual currencies] fall well within the common definition of 'commodity' as well as the CEA's definition of 'commodities' as 'all other goods and articles . . . in which contracts for future delivery are presently or in the future dealt in.'"[53]

The CFTC does not have regulatory authority over spot transactions of Digital Assets in the absence of fraud or manipulation.[54] The CFTC has general anti-fraud and anti-manipulation authority over "any . . . contract of sale of any commodity in interstate commerce."[55] As discussed in section 10:6.2[E][2], a U.S. District Court in Massachusetts held in 2018 that this jurisdiction reaches any virtual currency that can be said to be in the same "class" of goods, articles, services, rights, or interests a virtual currency on which

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51.   Commodities Exchange Act, 7 U.S.C. § 1a(9). *See also* Memorandum of Decision, CFTC v. My Big Coin Pay, Inc., 334 F. Supp. 3d 492 (Mass. 2018) (No. 106).

52.   *In re* Coinflip, Inc., CFTC No. 15-29 (Sept. 17, 2015). The CFTC's interpretation was confirmed by the courts in CFTC v. McDonnell, 287 F. Supp. 3d 213 (E.D.N.Y. 2018).

53.   *Id*. at 24.

54.   "Spot" refers to the market of immediate delivery and payment for a product. *See* CFTC, CFTC GLOSSARY, https://www.cftc.gov/ConsumerProtection/EducationCenter/CFTCGlossary/index.htm (last visited Feb. 24, 2020).

55.   *See* CEA 7 U.S.C. § 9(1); 17 C.F.R. § 180.1. The CFTC's interpretation of the scope of 7 U.S.C. § 9(1) has been challenged in federal court. In CFTC v. Monex Credit Co., the CFTC filed a complaint against *Monex* for allegedly "defraud[ing] thousands of retail customers nationwide out of hundreds of millions of dollars, while executing thousands of illegal, off-exchange leveraged commodity transactions" in violation of the anti-fraud provisions under the CEA. Complaint at 1, No. 8:17-cv-01868-JVS-DFM (C.D. Cal. Sept. 6, 2017) (No. 1). In May 2018, U.S. District Court Judge James V. Selna dismissed the CFTC's claims, in part due to interpreting the CEA to require a case involve both fraud *and* market manipulation for the CFTC to have jurisdiction, as opposed to only fraudulent conduct. However, in July 2019, a three-judge panel for the U.S. Court of Appeals for the Ninth Circuit sided with the CFTC in overturning the lower court decision, finding that fraud alone was sufficient to sustain a violation of § 9(1). CFTC v. Monex, No. 18-55815 (9th Cir. July 25, 2019).

there is trading in a futures contract.[56] Beyond instances of fraud and manipulation, the CFTC's jurisdiction over Digital Assets is implicated where Digital Assets are the subject of futures, options, or swap contracts.

§ 10:3.3   Other Financial Services Laws and Regulation

[A]   Money Services Businesses and Money Transmitter Laws

The Bank Secrecy Act (BSA) and its implementing regulations require certain financial institutions to establish anti-money laundering and customer identification programs, along with record-keeping and reporting requirements designed to combat money laundering and other criminal activity.[57] The Financial Crimes Enforcement Network ("FinCEN"), a bureau within the U.S. Treasury Department, is responsible, in conjunction with other agencies, for implementing, administering, and enforcing compliance with the BSA.[58] In addition to coverage of financial institutions such as banks and securities brokers, FinCEN's BSA regulations also apply to "money services businesses," albeit with some variations among specific requirements.[59]

In 2013, FinCEN published guidance regarding the application of FinCEN's regulations to virtual currencies.[60] In contrast to "real" currency,[61] FinCEN defines "virtual currency" as "a medium of exchange that operates like a currency in some environments, but does not have all the attributes of real currency."[62] "Convertible virtual currency" is defined as virtual currency that "either has an equivalent value in real currency, or acts as a substitute for real currency."[63] The FinCEN guidance goes on to clarify that, with respect to convertible

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56.   Memorandum of Decision, CFTC v. My Big Coin Pay, Inc., 334 F. Supp. 3d 492 (Mass. 2018) (No. 106), at 8.

57.   31 C.F.R. ch. X.

58.   Treas. Order 180-01 (July 1, 2014). FinCEN's responsibilities extend to the IRS for examination and DOJ for enforcement authority.

59.   31 C.F.R. § 1022 *et seq.*

60.   FinCEN, FIN-2013-G001, Application of FinCEN's Regulations to Persons Administering, Exchanging, or Using Virtual Currencies (Mar. 18, 2013) [hereinafter FIN-2013-G001].

61.   Currency is defined as "the coin and paper money of the United States or of any other country that [i] is designated as legal tender and that [ii] circulates and [iii] is customarily used and accepted as a medium of exchange in the country of issuance." 31 C.F.R. § 1010.100(m).

62.   FIN-2013-G001, *supra* note 60.

63.   *Id.*

virtual currency, "exchangers" and "administrators"[64] that "(1) accept and transmit a convertible virtual currency or (2) buy or sell convertible virtual currency for any reason" are money transmitters included under FinCEN's definition of a money service business, unless a limitation of or exemption from the definition applies to the person.[65] In 2019, FinCEN issued guidance consolidating, and in some cases expanding on, FinCEN regulations and administrative rulings and guidance issued about "virtual currency" since 2011 and applied it to specific blockchain use cases.[66]

In 2019, the Financial Action Task Force (FATF) issued new guidance regarding virtual asset service providers (VASPs) that may capture certain broker-dealers and investment advisors.[67] FATF is an international intergovernmental organization that develops and promotes policies to protect the global financial system against money laundering, terrorist financing, and the financing of proliferation of weapons of mass destruction. While influential, FATF guidance is not self-executing and requires action, often legislative, in member nations to give effect to the principles stated in the guidance. In July 2020, approximately one year after issuing its VASP guidance, FATF published a twelve-month review, finding that the majority of reporting jurisdictions had implemented FATF's recommended standards.[68] In March 2021, FATF updated its 2019 VASP guidance in six key areas to: (1) clarify that the definitions of VA and VASP are expansive and

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64. "An *exchanger* is a person engaged as a business in the exchange of virtual currency for real currency, funds, or other virtual currency. An *administrator* is a person engaged as a business in issuing (putting into circulation) a virtual currency, and who has the authority to redeem (to withdraw from circulation) such virtual currency." *Id*.

65. *Id*. FinCEN's regulations provide that whether a person is a money transmitter is a matter of facts and circumstances. The regulations identify six circumstances under which a person is not a money transmitter, despite accepting and transmitting currency, funds, or value that substitutes for currency. 31 C.F.R. § 1010.100(ff).

66. FinCEN Guidance, FIN-2019-G001, Application of FinCEN's Regulations to Certain Business Models Involving Convertible Virtual Currencies (May 9, 2019), https://www.fincen.gov/sites/default/files/2019-05/FinCEN%20Guidance%20CVC%20FINAL%20508.pdf [hereinafter FIN-2019-G001].

67. Fin. Action Task Force, Guidance for a Risk-Based Approach to Virtual Assets and Virtual Asset Service Providers (2019), http://www.fatf-gafi.org/publications/fatfrecommendations/documents/guidance-rba-virtual-assets.html.

68. Fin. Action Task Force, 12-Month Review of the Revised FATF Standards on Virtual Assets and Virtual Asset Service Providers (June 2020), https://www.fatf-gafi.org/publications/fatfrecommendations/documents/12-month-review-virtual-assets-vasps.html.

there should not be a case where a relevant financial asset is not covered by the FATF Standards (either as a VA or as a traditional financial asset); (2) provide guidance on how the FATF Standards apply to stablecoins; (3) provide additional guidance on the risks and potential risk mitigants for peer-to-peer transactions; (4) provide updated guidance on the licensing and registration of VASPs; (5) provide additional guidance for the public and private sectors on the implementation of the "travel rule"; and (6) include "Principles of Information-Sharing and Co-operation Amongst VASP Supervisors."[69] In connection with the updated guidance, FATF requested public comments and stated that it will make further amendments at its June 2021 meetings.

In addition to federal registration with FinCEN, nearly all fifty states require licensure for money transmitters, however, state interpretations of the application of their respective money transmitter laws to virtual currency vary significantly and are not necessarily consistent with FinCEN regulations, or each other.[70]

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69.   Fin. Action Task Force, Draft Updated Guidance for a Risk-Based Approach to Virtual Assets and Virtual Asset Service Providers (Mar. 2021), https://www.fatf-gafi.org/media/fatf/documents/recommen dations/March%202021%20-%20VA%20Guidance%20update%20-%20 Sixth%20draft%20-%20Public%20consultation.pdf.

70.   See, e.g., Texas Dep't of Banking, Supervisory Memorandum—1037, Regulatory Treatment of Virtual Currencies Under the Texas Money Services Act (Jan. 2, 2019) [hereinafter Texas Dep't of Banking, Supervisory Memorandum—1037]. "[C]ryptocurrencies as currently implemented cannot be considered money or monetary value under the Money Services Act . . . absent the involvement of sovereign currency in a transaction, no money transmission can occur." Cf. NC Comm'r of Banks, Money Transmitter Frequently Asked Questions, https://www.nccob.gov/public/financialinstitutions/mt/mtfaq. aspx (last visited Feb. 28, 2019). "Because the [North Carolina Money Transmitters Act] defines 'money transmission' as the 'act of engaging in the business of receiving money or monetary value for transmission within the United States or to locations abroad by any and all means, including payment instrument, wire, facsimile, or electronic transfer,' and further defines 'monetary value' as a 'medium of exchange, whether or not redeemable in money,' virtual currency is within the scope of the [North Carolina Money Transmitters Act]." Some states have expressly excluded virtual currency from their money transmitter laws. See N.C. Gen. Stat. §§ 53-208.3(a), 53-208.2(a)(11)(b), 53-208.2(a)(12) (2015). See also H.B. 436, 2017 Leg., 165th Sess. (N.H. 2017) (amending the state's Money Transmitter statute to exclude transactions involving virtual currency); H.B. 19, 2018 Leg., 64th Sess. (Wyo. 2018) (also exempting virtual currency from the state's Money Transmitter regulation); H.B. 70, 2018 Leg., 64th Sess. (Wyo. 2018) (providing an exemption from certain securities and money transmission laws for a person who develops, sells, or facilitates the exchange of an open blockchain token).