

---

---

THE TIMES THEY ARE A CHANGIN'<sup>1</sup>: SURVEYING HOW THE  
*HOWEY TEST APPLIES TO VARIOUS CRYPTOCURRENCIES*

---

---

ETHAN D. TROTZ

I.	WHAT IS A CRYPTOCURRENCY?.....	203
II.	DEFINITION OF A SECURITY.....	207
III.	THE DAO REPORT.....	210
	<i>A. Background</i> .....	210
	<i>B. Application of the Howey Test</i> .....	211
	1. Prong 1: Investment of Money.....	211
	2. In a Common Enterprise.....	211
	3. With a Reasonable Expectation of Profits.....	211
	4. To be Derived Solely from the Managerial Efforts of Others.....	212
IV.	SURVEY OF CRYPTOCURRENCIES.....	212
	<i>A. BTC and ETH</i> .....	213
	<i>B. XRP</i> .....	213
	<i>C. Basic Attention Token (BAT)</i> .....	216
	<i>D. Te-Food (TFD)</i> .....	217
	<i>E. Sharder Protocol (SS)</i> .....	219
V.	CONCLUSION.....	221

---

<sup>1</sup> BOB DYLAN, *The Times They Are a Changin'*, on THE TIMES THEY ARE A CHANGIN' (Columbia Records 1964).

Despite being created as recently as 2008, the total market capitalization of virtual and digital currencies (together, “cryptocurrencies”) peaked at over \$800 billion in early 2018.<sup>2</sup> Cryptocurrency markets “have grown rapidly, gained greater prominence in the public conscience and attracted significant capital from retail investors.”<sup>3</sup> The “intense interest and extraordinary returns in . . . cryptocurrencies have led to the rapid and exponential creation of new cryptocurrencies, with over 1,300 currently in existence.”<sup>4</sup> The first and best known cryptocurrency, Bitcoin (“BTC”), functions as a medium of exchange like traditional fiat currencies.<sup>5</sup> Other cryptocurrencies, known as altcoins or alts, possess unique characteristics.<sup>6</sup>

The meteoric rise of cryptocurrencies presents significant uncertainties for both federal and state regulators, including issues such as money transmission, deposit taking, SEC broker-dealer registration, commodities trading regulations, anti-money laundering, taxation, and remittance transfers.<sup>7</sup> Chief among these uncertainties is determining whether cryptocurrencies are securities, a fact-intensive endeavor.<sup>8</sup> The Securities and Exchange Commission (“SEC”) has devoted considerable resources to cryptocurrencies, bringing a number of enforcement actions.<sup>9</sup> The SEC

---

<sup>2</sup> *Historical Snapshot*, COINMARKETCAP (Jan. 7, 2018), <https://coinmarketcap.com/historical/20180107/>.

<sup>3</sup> *Virtual Currencies: The Oversight Role of the U.S. Securities and Exchange Commission and the U.S. Commodity Futures Trading Commission: Before the S. Comm. On Banking, Hous., & Urban Affairs*, 115th Cong. 2 (2018) [hereinafter *Hearings*] (statement of Jay Clayton, Chairman of the Sec. & Exch. Comm’n), <https://www.sec.gov/news/testimony/testimony-virtual-currencies-oversight-role-us-securities-and-exchange-commission>.

<sup>4</sup> Edmund Mokhtarian & Alexander Lindgren, *Rise of the Crypto Hedge Fund: Operational Issues and Best Practices for an Emergent Investment Industry*, 23 STAN. J.L. BUS. & FIN. 112, 115 (2018).

<sup>5</sup> Sarah J. Hughes & Stephen T. Middlebrook, *Feature: Advancing a Framework for Regulating Cryptocurrency Payments Intermediaries*, 32 YALE J. ON REG. 495, 505 (2015). This is especially prevalent in countries with high inflation, like Venezuela. An attractive quality of bitcoin is that it is deflationary. Only 21 million Bitcoin will ever exist.

<sup>6</sup> *Id.* at 505–06.

<sup>7</sup> *See, e.g., id.* at 500 (explaining the various issues raised by cryptocurrencies that regulatory agencies have sought to address).

<sup>8</sup> *See, e.g., id.*

<sup>9</sup> *See, e.g., Press Release: Company Halts ICO After SEC Raises Registration Concerns*, U.S. SEC. & EXCH. COMM’N (Dec. 11, 2017), <https://www.sec.gov/news/press-release/2017-227>; *Press Release: SEC Emergency Actions Halts ICO Scam*, U.S. SEC. & EXCHANGE COMMISSION (Dec. 4, 2018), <https://www.sec.gov/news/press-release/2017-219>. *See also, e.g., Press Release: SEC Exposes Two Initial Coin Offerings Purportedly Backed by Real Estate and*

also established a new Cyber Unit “focusing on misconduct involving distributed ledger technology.”<sup>10</sup>

This Comment discusses whether certain cryptocurrencies are likely to be found securities.<sup>11</sup> This Comment proceeds in five Parts. First, Part I provides an overview of what cryptocurrencies are. Next, Part II explains the definition of “security.” Then, Part III summarizes The DAO Report, the most extensive SEC publication regarding the application of securities laws to cryptocurrencies. Part IV then applies the definition of security, as used in The DAO Report, toward several popular cryptocurrencies, highlighting specific features of each that lend in favor of or against labeling them as securities. Finally, Part V concludes this Comment by suggesting steps market participants can take to reduce uncertainty surrounding cryptocurrency offerings.

## I. WHAT IS A CRYPTOCURRENCY?

Cryptocurrencies are digital or virtual currencies using “cryptography” for security.<sup>12</sup> They can be digitally traded and function as a medium of exchange, unit of account, or store of value.<sup>13</sup> Unlike traditional fiat, government-backed currencies, cryptocurrencies do *not* take a tangible form. In other words, physical BTC does not exist. Instead, cryptocurrencies are “encrypted, digital representation[s] of value.”<sup>14</sup>

---

*Diamonds*, U.S. SEC. & EXCH. COMM’N (Sept. 29, 2017), <https://www.sec.gov/news/press-release/2017-185-0> (charging a businessman and two companies with defrauding investors by luring investors “with false promises of sizeable returns from novel technology”).

<sup>10</sup> See *Hearings*, *supra* note 3, at 8 (statement of Jay Clayton, Chairman of the Sec. & Exch. Comm’n).

<sup>11</sup> A number of cases have already been filed alleging that certain cryptocurrencies are securities; some have already settled or been disposed of. See, e.g., *United States v. Coinbase, Inc.*, No.17-cv-01431-JSC, 2017 WL 5890052 (N.D. Cal. Nov. 28, 2017) (granting, in part, the IRS’s summons which requires defendant to produce the information of more than 10,000 customers); *Audet v. Garza*, No. 3:16-cv-00940 (D. Conn. Oct. 11, 2017) (denying defendants’ motion to dismiss); *R3 Holdco LLC v. Ripple Labs, Inc.*, No. 2017-0652, 2017 WL 5046363 (Del. Ch. Nov. 2, 2017) (granting defendants’ motion to dismiss on personal jurisdiction grounds).

<sup>12</sup> *Cryptocurrency*, INVESTOPEDIA, <http://Investopedia.com/terms/c/cryptocurrency.asp> (last visited Oct. 14, 2018).

<sup>13</sup> *Investor Bulletin: Initial Coin Offerings*, U.S. SEC. & EXCH. COMM’N (July 25, 2017), [https://www.sec.gov/oiea/investor-alerts-and-bulletins/ib\\_coinofferings](https://www.sec.gov/oiea/investor-alerts-and-bulletins/ib_coinofferings).

<sup>14</sup> Mokhtarian & Lindgren, *supra* note 4, at 119. See also EUROPEAN CENT. BANK, VIRTUAL CURRENCY SCHEMES— A FURTHER ANALYSIS (2015), <https://www.ecb.europa.eu/pub/pdf/other/virtualcurrencyschemes.pdf>. There are three critical characteristics of virtual currency. First, most cryptocurrency schemes allow for the issuance of a finite number of tokens or units. Second, cryptocurrencies are “pseudo-anonymous” in that transactions are

The technology underlying cryptocurrencies is known as blockchain.<sup>15</sup> A blockchain is a distributed public ledger containing an immutable record of all transactions in a particular cryptocurrency.<sup>16</sup> Digital records of transactions are bundled into “blocks,” with the string of blocks forming the blockchain.<sup>17</sup> “Each cryptocurrency has its own blockchain” with its own cryptographic security measures.<sup>18</sup> A given blockchain network is typically supported by one or a combination of two consensus protocols: Proof of Work (“PoW”) and Proof of Stake (“PoS”).<sup>19</sup> PoW systems, like that found in BTC, are supported by a process called mining<sup>20</sup>, where computational power is devoted to solving “cryptographic puzzles in order to validate transactions and create new blocks,”<sup>21</sup> with each block adding to a given blockchain.<sup>22</sup> In contrast, in PoS systems, those holding the blockchain’s base cryptocurrency lock up a certain number of tokens to validate transactions.<sup>23</sup> “The blockchain keeps track of a set of validators, and anyone who holds the blockchain’s base cryptocurrency . . . can

---

recorded in the distributed ledger available to all participants, but the users behind these transactions are known only by their public addresses and not by their real identity. Finally, while fiat currencies are backed by central banks and governments, virtual currencies are not backed by any source, and their value is determined entirely by the willingness of users to accept them. ROSS LECKOW, VIRTUAL CURRENCIES: THE REGULATORY CHALLENGES 136, in ESCB LEGAL CONFERENCE 2016 (2017), [https://www.ecb.europa.eu/pub/pdf/other/escblegalconference2016\\_201702.en.pdf](https://www.ecb.europa.eu/pub/pdf/other/escblegalconference2016_201702.en.pdf).

<sup>15</sup> See, e.g., *Investor Bulletin*, *supra* note 13.

<sup>16</sup> For more information on blockchain technology, see Reggie O’Shields, *Smart Contracts: Legal Agreements for the Blockchain*, 21 N.C. BANKING INST. 177, 177–185 (2017); Michele D’Aliessi, *How Does the Blockchain Work?*, MEDIUM (June 1, 2016), <https://medium.com/@micheledaliessi/how-does-the-blockchain-work-98c8cd01d2ae>.

<sup>17</sup> Marco Iansiti & Karim R. Lakhani, *The Truth About Blockchain*, HARV. BUS. REV. (2017), <https://hbr.org/2017/01/the-truth-about-blockchain>.

<sup>18</sup> Mokhtarian & Lindgren, *supra* note 4, at 120. For more information on Proof of Stake (“PoS”) and Proof of Work (“PoW”) protocols, see *Proof of Stake FAQs*, GITHUB, <https://github.com/ethereum/wiki/wiki/Proof-of-Stake-FAQs> (last updated Oct. 10, 2018).

<sup>19</sup> See GITHUB, *supra* note 18.

<sup>20</sup> *Id.*

<sup>21</sup> *Id.*

<sup>22</sup> *What is Proof of Stake*, GITHUB, <https://github.com/ethereum/wiki/wiki/Proof-of-Stake-FAQs#what-is-proof-of-stake> (last visited Aug. 11, 2018). “Individuals (‘miners’) use their computing power to locate bitcoin ‘blocks’ by solving computationally intensive problems. The first miner to post a solution to the mathematical problem is rewarded with newly created bitcoin and transactional fees. Miners generally mine in ‘mining pools,’ where miners combine their computing power to increase their odds of solving the computational problems first.” Seth Litwack, *Bitcoin: Currency or Fool’s Gold?: A Comparative Analysis of the Legal Classification of Bitcoin*, 29 TEMP. INT’L & COMP. L.J. 309, 317 (2015).

<sup>23</sup> GITHUB, *supra* note 18.

become a validator”<sup>24</sup> by locking up their cryptocurrency into a deposit.<sup>25</sup> Part of the fee for conducting a transaction on a given blockchain goes to miners and/or stakers as a reward for validating the transaction.<sup>26</sup> Some cryptocurrencies use a hybrid consensus protocol, combining PoW and PoS features.<sup>27</sup>

The technological capacity of newer cryptocurrencies far exceeds that of BTC and traditional fiat currencies.<sup>28</sup> For example, some cryptocurrencies offer automatic execution of contracts based in computer code, known as “smart contracts.”<sup>29</sup> Other cryptocurrencies support decentralized applications, known as DApps, allowing for a range of activities, such as supply chain logistics.<sup>30</sup> Others are used as a means of fundraising by handing out equity using digital tokens instead of traditional shares.<sup>31</sup> As Mr. William Hinman, Director of the SEC Division of Corporation Finance, once stated:

[L]et me share what I believe may be most exciting about distributed ledger technology – that is, the potential to share information, transfer value, and record transactions in a decentralized digital environment. Potential applications include supply chain management, intellectual property rights licensing, stock ownership transfers and countless others. There is real value in creating applications that can be accessed and executed electronically with a public, immutable record and without the need for a trusted third party to verify transactions.

---

<sup>24</sup> *Id.*

<sup>25</sup> *Id.*

<sup>26</sup> *Id.*

<sup>27</sup> *Id.*

<sup>28</sup> Mokhtarian and Lindgren, *supra* note 4, at 116.

<sup>29</sup> See *Smart Contracts: The Blockchain Technology That Will Replace Lawyers*, BLOCKGEEKS GUIDES (last visited Nov. 8, 2018), <https://blockgeeks.com/guides/smart-contracts/>. One particularly unique and appealing feature of blockchain technology involves smart contracts. A smart contract is a collection of computer code intended to facilitate, verify, or enforce agreements between parties. When certain conditions are met or events occur, a smart contract will self-execute according to the terms written in the code. When parties use VC in transactions utilizing smart contracts, parties can eliminate the need for third party intermediaries, simplifying transactions and reducing transaction costs. One of the major benefits of smart contracts lies in its efficiency; by transacting through smart contracts – and therefore blockchain – transactions are consummated on a peer-to-peer basis.

<sup>30</sup> Carla L. Reyes, *Moving Beyond Bitcoin to an Endogenous Theory of Decentralized Ledger Technology Regulation: An Initial Proposal*, 61 VILL. L. REV. 191, 196–97 (2016); see also Romily Broad, *New Blockchain Platform Could ‘Save Shipping Industry \$5.7bn a Year,’* GIGABIT (Mar. 2, 2018), <https://www.gigabitmagazine.com/cloud-computing/new-blockchain-platform-could-save-shipping-industry-57bn-year>.

<sup>31</sup> Anthony Pompiano, *The Official Guide to Tokenized Securities*, MEDIUM (Feb. 25, 2018), <https://medium.com/@apompliano/the-official-guide-to-tokenized-securities-44e8342bb24f>.

Some people believe that this technology will transform e-commerce as we know it.<sup>32</sup>

Cryptocurrency offerings usually take place in the form of an Initial Coin Offering (“ICO”).<sup>33</sup> “Typically, these offerings involve the opportunity for individual investors to exchange currency . . . in return for a digital asset labeled a coin or token.”<sup>34</sup> ICOs take various forms, and the rights and interests a coin provides to holders differ greatly.<sup>35</sup> A “key question” ICO market participants should ask is: “Is the coin or token a security?”<sup>36</sup> According to Jay Clayton, Chairman of the SEC, “by and large, the structures of ICOs . . . involve the offer and sale of securities and directly implicate the securities registration requirements and other investors protection provisions of our federal securities laws.”<sup>37</sup>

---

<sup>32</sup> William Hinman, Dir., Div. of Corp. Fin., SEC. & EXCH. COMM’N, Remarks at the Yahoo Finance All Markets Summit: Crypto, *Digital Asset Transactions: When Howey Met Gary* (Plastic), <https://www.sec.gov/news/speech/speech-hinman-061418>.

<sup>33</sup> Michael R. Meadows, *The Evolution of Crowdfunding: Reconciling Regulation Crowdfunding with Initial Coin Offerings*, 30 LOY. CONSUMER L. REV. 272, 279–80 (2018).

<sup>34</sup> *Hearings*, *supra* note 3 (statement of Jay Clayton, Chairman of the Sec. & Exch. Comm’n).

<sup>35</sup> *Id.* See also Chance Barnett, *Inside the Meteoric Rise of ICOs*, FORBES (Sept. 23, 2017), <https://www.forbes.com/sites/chancebarnett/2017/09/23/inside-the-meteoric-rise-of-icos/#210559155670> (highlighting examples of different ICOs). The rights accompanying virtual tokens may include, for example, the ability to interact with an online platform, use a type of software, or otherwise engage with a product or application created by the issuer. Meadows, *supra* note 33, at 281–82.

<sup>36</sup> *Hearings*, *supra* note 3 (statement of Jay Clayton, Chairman of the Sec. & Exch. Comm’n).

<sup>37</sup> *Id.* For more SEC guidance on ICOs, see Jay Clayton, *Statement on Cryptocurrencies and Initial Coin Offerings*, SEC.GOV: PUBLIC STATEMENTS (Dec. 11, 2017), <https://www.sec.gov/news/public-statement/statement-clayton-2017-12-11>; Sec. & Exch. Comm’n, *Investor Bulletin: Initial Coin Offerings* (July 25, 2017), [https://www.sec.gov/oiea/investor-alerts-and-bulletins/ib\\_coinofferings](https://www.sec.gov/oiea/investor-alerts-and-bulletins/ib_coinofferings). While the SEC has not yet outlined an ICO regulation scheme, groups of entities are banding together to fill the void. On September 18, 2017, the Chamber of Digital Commerce announced the formation of the Token Alliance. Comprised of a number of companies, large law firms, and former CFTC and SEC officials, the Token Alliance will provide policy recommendations and resources for companies issuing tokens. Current plans call for the Token Alliance to work with over seventy industry players to recommend a legal framework that balances promoting innovation through blockchain technology with investor protection. Laura Shin, *Token Alliance Launches to Promote Best Practices for ICOs*, FORBES (Sept. 18, 2017), <https://www.forbes.com/sites/laurashin/2017/09/18/token-alliance-launches-to-promote-best-practices-for-icos/#79950c1947c8>.

## II. DEFINITION OF A SECURITY

Section 77b of the Securities Act of 1933 defines the term “security” to include “investment contracts.”<sup>38</sup> In *SEC v. Howey*,<sup>39</sup> the Supreme Court defined an “investment contract” as a scheme involving an investment of money in a common enterprise with the expectation of profits to be derived solely or primarily from the efforts of others.<sup>40</sup> Thus, to be deemed a security, a transaction or scheme must satisfy four prongs: (1) an investment of money (2) in a common enterprise (3) with the expectation of profit (4) to be derived solely from the efforts of others.<sup>41</sup>

The two prongs of “investment of money” and “expectation of profit” are straightforward. First, an investment of “money” need not take the form of cash or fiat currency.<sup>42</sup> Profits, meanwhile, “include dividends, other periodic payments, or the increased value of the investment.”<sup>43</sup> An important factor is whether “the primary motivation for purchasing the [token] is for personal use or consumption, as compared to investment.”<sup>44</sup>

Second, a common enterprise requires a finding of commonality.<sup>45</sup> There are two kinds of commonality: horizontal and vertical.<sup>46</sup> Horizontal commonality “involves the pooling of assets from multiple investors so that all share in the profits and risks of the enterprise.”<sup>47</sup> Vertical commonality may be established by showing that “the fortunes of the investors are linked with those of the promoters.”<sup>48</sup> For purposes of the *Howey* test, the Federal Courts of Appeals are split on which of the two are required to

---

<sup>38</sup> Securities Act of 1933, § 2(a)(1), 15 U.S.C. § 77b(a)(1) (2012).

<sup>39</sup> *SEC v. Howey*, 328 U.S. 293 (1946).

<sup>40</sup> *Id.* at 298–99.

<sup>41</sup> *Id.* at 301.

<sup>42</sup> *See, e.g., Uselton v. Comm. Lovelace Motor Freight, Inc.*, 940 F.2d 564, 574 (10th Cir. 1991) (“[I]n spite of *Howey*’s reference to an ‘investment of money,’ it is well established that cash is not the only form of contribution or investment that will create an investment contract.”).

<sup>43</sup> SEC. & EXCH. COMM’N REP. OF INVESTIGATION PURSUANT TO SEC. 21(A) OF THE SEC. EXCH. ACT OF 1934: THE DAO 11 (July 25, 2017), <https://www.sec.gov/litigation/investreport/34-81207.pdf>.

<sup>44</sup> Hinman, *supra* note 32.

<sup>45</sup> *See* Jonathan E. Shook, *The Common Enterprise Test: Getting Horizontal or Going Vertical in Wals v. Fox Hills Dev. Corp.*, 30 TULSA L.J. 727, 733 (1995) (defining a common enterprise).

<sup>46</sup> *Id.*

<sup>47</sup> *SEC v. SG Ltd.*, 265 F.3d 42, 49 (1st Cir. 2001).

<sup>48</sup> *SEC v. Goldfield Deep Mines Co.*, 758 F.2d 459, 463 (9th Cir. 1985).

show “commonality.”<sup>49</sup> Nonetheless, courts typically find a common enterprise where investors’ funds are pooled together.<sup>50</sup>

The central inquiry when determining reliance on the managerial efforts of others is “whether the efforts made by those other than the investor are the undeniably significant ones, those essential managerial efforts which affect the failure or success of the enterprise.”<sup>51</sup> An investor can contribute effort to help make an enterprise profitable yet still rely on the efforts of others,<sup>52</sup> as the assignment of nominal or limited responsibilities does not negate the existence of an investment contract.<sup>53</sup> “An investor may authorize the assumption of particular risks that would create the possibility of greater profits or losses but still depend on a third party for all of the essential managerial efforts without which the risk could not pay off.”<sup>54</sup>

The definition of a security embodies a “flexible rather than a static principle, one that is capable of adaptation to meet the countless and variable schemes devised by those who seek the use of the money of others on the promise of profits.”<sup>55</sup> The *Howey* test “permits the fulfillment of the statutory purpose of compelling full and fair disclosure relative to the issuance of ‘the many types of instruments that in our commercial world fall within the ordinary concept of a security.’”<sup>56</sup> In analyzing whether a scheme is a security, “form should be disregarded for substance, and the emphasis should be on economic reality,”<sup>57</sup>—that is “the economic realities underlying a transaction, and not on the name appended thereto.”<sup>58</sup>

When determining whether a cryptocurrency offering constitutes a securities offering, the primary factors to be considered are the economic

---

<sup>49</sup> See Shook, *supra* note 45, at 733–34 (comparing circuit splits on views of commonality under *Howey*).

<sup>50</sup> Miriam R. Albert, *The Howey Test Turns 64: Are the Courts Grading this Test on a Curve?*, 2 WM. & MARY BUS. L. REV. 1, 16–17 (2011) (discussing pooling and commonality).

<sup>51</sup> SEC v. Glenn W. Turner Enters., Inc., 474 F.2d 476, 482 (9th Cir. 1973).

<sup>52</sup> *Id.*

<sup>53</sup> See, e.g., SEC v. Shields, 744 F.3d 633, 643–45 (10th Cir. 2014) (“[T]he investors actually had the type of control reserved under the agreements to obtain access to information necessary to protect, manage, and control their investments at the time they purchased their interests.”).

<sup>54</sup> Long v. Schultz, 881 F.2d 129, 137 (5th Cir. 1989).

<sup>55</sup> SEC v. *Howey*, 328 U.S. at 299.

<sup>56</sup> *Id.*

<sup>57</sup> *Tcherepnin v. Knight*, 389 U.S. 332, 336 (1967).

<sup>58</sup> *United Housing Found., Inc. v. Forman*, 421 U.S. 837, 849 (1975).

substance of the transaction and whether a third party drives the expectation of return.<sup>59</sup> Other factors include whether: (a) application of the Securities Act protections make sense; (b) promoters exercise governance rights; (c) purchasers are seeking a return; (d) the cryptocurrency is marketed and distributed to potential users or the general public; (e) the cryptocurrency is concentrated in the hands of a few; (f) the application is fully functioning; and (g) promoters have a significant stake in the cryptocurrency such that they are motivated to expend effort to increase the value of the cryptocurrency.<sup>60</sup>

“[T]here are numerous implications under the federal securities laws of a particular asset being considered a security.”<sup>61</sup> For example, Section 77e of the Securities Act provides that, in the absence of a registration statement, it is unlawful for any person, directly or indirectly, to engage in the offer or sale of securities in interstate commerce.<sup>62</sup> Promoters must also provide “full” and fair disclosure, which includes the dissemination of material facts regarding the issuer and investment, such as “information about the issuer’s financial condition, the identity and background of management, and the price and amount of securities to be offered . . . .”<sup>63</sup> Other

---

<sup>59</sup> Hinman, *supra* note 32 (“[S]imply labeling a digital asset a ‘utility token’ does not turn the asset into something that is not a security . . . . [T]he economic substance of the transaction always determines the legal analysis, not the labels.”).

<sup>60</sup> *Id.*

<sup>61</sup> *Id.*

<sup>62</sup> 15 U.S.C. § 77e. *But see* Rules Governing the Limited Offer and Sale of Securities Without Registration, 17 C.F.R. 230.500 (listing “transactions [that are] exempted from the registration requirements” of the Securities Act of 1933).

<sup>63</sup> SEC v. Cavanagh, 1 F. Supp. 2d 337, 360 (S.D.N.Y. 1998). *See Hearings, supra* note 3 (“[T]he foundation of our federal securities laws is to provide investors with the procedural protections and information they need to make informed judgments about what they are investing in and the relevant risks involved.”). For further discussion on the concept of materiality, see TSC Indus., Inc. v. Northway, Inc., 426 U.S. 438, 449 (1976). *See also* Va. Bankshares, Inc. v. Sandberg, 501 U.S. 1083 (1991) (discussing neutralization of facial materiality); Basic Inc. v. Levinson, 485 U.S. 224 (1988) (applying the materiality standard to preliminary merger discussions); Mendell v. Greenberg, 927 F.2d 667 (2d Cir. 1990) (applying summary judgment standards to issues of materiality); Valente v. PepsiCo, Inc., 454 F. Supp. 1228 (D. Del. 1978) (discussing the need for a jury to determine materiality of a premium to some shareholders).

facets of securities laws include promoter liability,<sup>64</sup> the anti-fraud provisions,<sup>65</sup> and periodic reporting requirements.<sup>66</sup>

### III. THE DAO REPORT

#### A. Background

The most extensive guidance from the SEC on whether cryptocurrencies are securities is found in the SEC's report on the DAO ("The DAO Report"), where the SEC determined for the first time that the issuance of a cryptocurrency constituted an unlawful securities offering.<sup>67</sup> In The DAO Report, released in July 2017, the SEC cautioned against a one size fits all solution in determining whether a cryptocurrency is a security.<sup>68</sup> "Securities law may apply to various activities . . . depending on the particular facts and circumstances, without regard to the form of the organization or technology used to effectuate a particular offer or sale."<sup>69</sup> The SEC conducted a *Howey* analysis, finding that the DAO (an unincorporated organization) issued securities in the form of a cryptocurrency.<sup>70</sup>

The primary purpose of the DAO was to raise funds "to grow [a] company in the crypto space."<sup>71</sup> Management in charge of the DAO submitted proposals to holders of DAO tokens ("Curators"), who would then vote on the proposals.<sup>72</sup> This practice was analogous to shareholders in a traditional corporation voting on proposals submitted by a board of directors.<sup>73</sup> A portion of the returns generated from accepted proposals were

---

<sup>64</sup> See SEC DIV. OF ENF'T & SEC OFF. OF COMPLIANCE INSPECTIONS & EXAMINATIONS, SEC STATEMENT URGING CAUTION AROUND CELEBRITY BACKED ICOS (Nov. 1, 2017), <https://www.sec.gov/news/public-statement/statement-potentially-unlawful-promotion-icos> (statement by the SEC cautioning investors) ("Any celebrity or other individual who promotes a virtual token that is a security must disclose the nature, scope, and amount of compensation received in exchange for the promotion . . . failure to disclose this information is a violation of the anti-touting provisions of the federal securities laws . . . [and] potential violations of the anti-fraud provisions.").

<sup>65</sup> 15 U.S.C. § 78j(b) (2012).

<sup>66</sup> *Id.* § 78m.

<sup>67</sup> See SEC. & EXCH. COMM'N, *supra* note 43.

<sup>68</sup> *Id.* at 10.

<sup>69</sup> *Id.*

<sup>70</sup> *Id.* at 1.

<sup>71</sup> Christopher Jentzsch, *The History of the DAO and Lessons Learned*, SLOCK.IT BLOG (Aug. 24, 2016), <https://blog.slock.it/the-history-of-the-dao-and-lessons-learned-d06740f8cfa5>.

<sup>72</sup> SEC. & EXCH. COMM'N, *supra* note 43, at 4.

<sup>73</sup> *Id.* at 7–8.

returned to the shareholders, similar to a dividend.<sup>74</sup> In other words, the DAO operated similarly to a modern corporation, but instead of using traditional shares, it used cryptocurrencies.

### B. *Application of the Howey Test*

#### 1. Prong 1: Investment of Money

Investors in the DAO contributed Ether (“ETH”), the cryptocurrency underlying the Ethereum blockchain, in exchange for DAO Tokens.<sup>75</sup> Such an investment is the type of contribution of value that can create an investment contract under *Howey*.<sup>76</sup>

#### 2. In a Common Enterprise

This prong was satisfied in the DAO because promoters pooled investors’ funds together to fund projects to be selected by those in charge of the DAO organization.<sup>77</sup> Thus, investors’ fortunes were linked together and they shared in the risks, leading to a finding of a common enterprise.<sup>78</sup>

#### 3. With a Reasonable Expectation of Profits

The holders of DAO Tokens voted on whether the organization would fund specific projects, and holders stood to share in potential profits from the contracts.<sup>79</sup> “Thus, a reasonable investor would have been motivated, at least in part, by the prospect of profits on their investment” in the DAO.<sup>80</sup>

---

<sup>74</sup> *Id.* at 4.

<sup>75</sup> *Id.* at 11.

<sup>76</sup> See SEC v. Shavers, No. 4:13-CV-416, 2014 WL 4652121, at \*1 (E.D. Tex. Sept. 18, 2014) (holding that an investment of Bitcoin, a virtual currency, meets the first prong of *Howey*); *Usellion*, 940 F.2d at 574 (the investment may take the form of goods and services or some other exchange of value) (citations omitted).

<sup>77</sup> SEC. & EXCH. COMM’N, *supra* note 43, at 11–12.

<sup>78</sup> *Id.* at 11.

<sup>79</sup> *Id.* at 12.

<sup>80</sup> *Id.*

#### 4. To be Derived Solely from the Managerial Efforts of Others

Investors in the DAO relied on the managerial and entrepreneurial efforts of Curators to put forth proposals of projects that could generate profits.<sup>81</sup> Curators performed a number of tasks, including: (i) created and maintained online forums used to disseminate information to investors; (ii) held themselves out as experts in the cryptocurrency field; (iii) verified the identity and legitimacy of the project proposals put to vote; (iv) safeguarded investor funds; and (v) determined whether projects would be put to vote.<sup>82</sup>

In addition, although investors maintained voting rights, the DAO concluded this was not sufficient to overcome the investors' reliance on Curators<sup>83</sup>:

[The] voting rights afforded to DAO Token holders did not provide them with meaningful control . . . because (1) DAO Token holders' ability to vote for contracts was a largely perfunctory one and (2) DAO Token holders were widely dispersed and limited in their ability to communicate with one another.<sup>84</sup>

DAO Token holders could only vote on proposals cleared by Curators.<sup>85</sup> Further, DAO Token holders were given a "take it or leave it" proposition not subject to negotiation or feedback.<sup>86</sup>

### IV. SURVEY OF CRYPTOCURRENCIES

Determining whether a cryptocurrency is a security is a fact-intensive endeavor.<sup>87</sup> Thus, it makes more sense to break down and analyze cryptocurrencies separately to determine whether they are likely to be securities.<sup>88</sup> This Section discusses whether several cryptocurrencies, such as BTC, ETH, XRP, BAT, TFD, and SS are securities. The logic and overall framework applies equally to all cryptocurrencies.

---

<sup>81</sup> *Id.*

<sup>82</sup> SEC. & EXCH. COMM'N, *supra* note 43, at 12–13.

<sup>83</sup> *Id.* at 13–14.

<sup>84</sup> *Id.* at 14.

<sup>85</sup> *Id.*

<sup>86</sup> *Id.*

<sup>87</sup> Hinman, *supra* note 32.

<sup>88</sup> *See id.* (comparing two scenarios in which the question of whether a digital asset will be considered a security can have different outcomes).

A. *BTC and ETH*

The SEC stated BTC and ETH are not securities in large part due to the degree of decentralization.<sup>89</sup> Mr. Hinman once stated,

And so, when I look at Bitcoin today, I do not see a central third party whose efforts are a key determining factor in the enterprise. The network on which Bitcoin functions is operational and appears to have been decentralized for some time, perhaps from inception. Applying the disclosure regime of the federal securities laws to the offer and resale of Bitcoin would seem to add little value. And putting aside the fundraising that accompanied the creation of Ether, based on my understanding of the present state of Ether, the Ethereum network and its decentralized structure, current offers and sales of Ether are not securities transactions. And, as with Bitcoin, applying the disclosure regime of the federal securities laws to current transactions in Ether would seem to add little value.<sup>90</sup>

Embedded within this quote is the idea a cryptocurrency can be a security at one point in time, only to fall out of the definition later. For example, while ETH may have been a security at the time of its ICO, ETH is no longer a security.<sup>91</sup> So, when analyzing whether a cryptocurrency is a security, the inquiry must focus on the *current* state of affairs, and not on whether the initial offering was a securities offering.

B. *XRP*

Ripple Labs, Inc., (“Ripple”) launched XRP, currently one of the largest cryptocurrencies by market capitalization.<sup>92</sup> The alleged use case is XRP holders can send money in a quicker and less expensive manner than traditional financial systems.<sup>93</sup> “The solution offers a cryptographically secure, end-to-end payment flow with transaction immutability and information redundancy.”<sup>94</sup> Essentially, XRP aims to serve as a medium of exchange. Despite this alleged use case, it has two hallmarks of a security: (1) reliance on management; (2) centralization; and (3) most holding XRP have an expectation of profit.

---

<sup>89</sup> Hinman, *supra* note 32.

<sup>90</sup> *Id.*

<sup>91</sup> *Id.*

<sup>92</sup> Todd White, *Ripple Is Surging and Its Market Cap Just Passed Ethereum*, BLOOMBERG (Sept. 21, 2018, 10:09 AM), <https://www.bloomberg.com/news/articles/2018-09-20/ripple-rallies-on-optimism-the-cryptocurrency-finds-a-home>.

<sup>93</sup> DAVID SCHWARTZ, NOAH YOUNGS & ARTHUR BRITTO, *THE RIPPLE PROTOCOL CONSENSUS ALGORITHM 8* (2014), [https://ripple.com/files/ripple\\_consensus\\_whitepaper.pdf](https://ripple.com/files/ripple_consensus_whitepaper.pdf).

<sup>94</sup> XCURRENT: A BRIEF TECHNICAL OVERVIEW FOR FINANCIAL INSTITUTIONS ON RIPPLENET 4 (2017), [https://ripple.com/files/xcurrent\\_brochure.pdf](https://ripple.com/files/xcurrent_brochure.pdf).

XRP holders, like those in the DAO, rely heavily on the management of Ripple to operate and promote the Ripple network, as XRP holders contribute virtually nothing.<sup>95</sup> Ripple maintains a board of directors who engage in aggressive marketing campaigns, with CEO Brad Garlinghouse frequently appearing on investing-minded programs such as CNBC's Fast Money.<sup>96</sup> Ripple advertises and touts its many partnerships with large companies such as American Express, Santander, and Standard Chartered.<sup>97</sup> Further, Ripple controls the flow of XRP, a notable difference from BTC and ETH, where no single entity controls the supply.<sup>98</sup> For example, in May 2017, Ripple announced it would place 55 billion XRP into an account and sell limited amounts at defined intervals.<sup>99</sup> The ability to lock up vast quantities of supply under the control of management speaks to how reliant XRP holders are on management, similar to DAO Token holders.<sup>100</sup> Finally, those operating Ripple have significant personal stakes in XRP, providing them with a motive to expend effort to increase the price of XRP.<sup>101</sup>

XRP is highly centralized. A crucial question when determining whether a cryptocurrency is a security is whether the "assets dispersed across a diverse user base or concentrated in the hands of a few that can exert influence over the application . . . ."<sup>102</sup> Unlike BTC and ETH, which are mined by those validating transactions on the network, Ripple created the entire XRP supply at the outset.<sup>103</sup> Ripple retained eighty percent of the supply and allocated the remaining twenty percent to key insiders.<sup>104</sup>

---

<sup>95</sup> *The Ripple Story*, BITMEX: BITMEX RESEARCH (Feb. 6, 2018), <https://blog.bitmex.com/the-ripple-story/>.

<sup>96</sup> E.g., *Fast Money* (CNBC television broadcast Mar. 7, 2018), <https://www.cnbc.com/video/2018/03/07/ripple-ceo-brad-garlinghouse-on-fast-money.html>.

<sup>97</sup> See *Growing Global Network*, RIPPLE, <https://ripple.com/>.

<sup>98</sup> *The Ripple Story*, *supra* note 95.

<sup>99</sup> *Ripple Escrows 55 Billion XRP for Supply Predictability*, RIPPLE: INSIGHTS (Dec. 7, 2017), <https://ripple.com/insights/ripple-escrows-55-billion-xrp-for-supply-predictability/>.

<sup>100</sup> See *supra* text accompanying notes 81–82.

<sup>101</sup> Forbes reported that at one point Chris Larsen, cofounder of Ripple, had a net worth of nearly \$40 billion; this was thanks in large part to his XRP holdings. Laura Shin, *Meet the Crypto Billionaires Getting Rich from Ripple's XRP*, FORBES (Jan. 2, 2018), <https://www.forbes.com/sites/laurashin/2018/01/02/meet-the-crypto-billionaires-getting-rich-from-ripples-xrp/#710c44f53289>.

<sup>102</sup> Hinman, *supra* note 32.

<sup>103</sup> *The Ripple Story*, *supra* note 95.

<sup>104</sup> *Id.* Insiders Chris Larsen and Jed McCaleb each received nearly ten percent of the outstanding supply.

As noted earlier, Ripple maintains great control over XRP tokens.<sup>105</sup> This is a stark contrast from BTC, where only one or two addresses possess over one percent of the outstanding supply.<sup>106</sup>

A potential argument against finding XRP a security is that individuals purchase XRP to send payments to other users. However, it appears the vast majority of XRP holders possess the token in hopes of selling it at a higher price at a later time.<sup>107</sup> In determining whether a cryptocurrency is a security, one salient factor is whether the primary motivation for purchasing a given cryptocurrency is for personal use/consumption or for investment.<sup>108</sup> Many users on the social media platform Twitter<sup>109</sup> tweet about how XRP will achieve substantial gains, indicating a profit motive. For example, user @haydentiff tweeted, “I am bullish on XRP as a long-term hold.”<sup>110</sup> In addition, @bosontwerp tweeted “here is a preview [of] what the #xrp price will do!” and attached a picture of a space shuttle launching.<sup>111</sup> A similar outlook can be found on other social media platforms such as Telegram<sup>112</sup> and Facebook.<sup>113</sup> Moreover, Ripple’s management consistently discusses XRP markets and how one can purchase XRP.<sup>114</sup> “[I]t is especially troubling when the promoters . . . emphasize

---

<sup>105</sup> *Id.*

<sup>106</sup> *See Bitcoin Rich List*, BITINFOCHARTS.COM, <https://bitinfocharts.com/top-100-richest-bitcoin-addresses.html> (last visited Oct. 17, 2018). Note, a “public address” is a way to identify a user on a given blockchain. Because of the immutability of a blockchain, the amount of tokens one holds can be identified by looking at his public address. *See Blockchain Address 101: What Are Addresses on Blockchains?*, BLOCKGEEKS: GUIDES (last visited Aug. 26, 2018), <https://blockgeeks.com/guides/blockchain-address-101/>.

<sup>107</sup> *See infra* text accompanying notes 109–115.

<sup>108</sup> Hinman, *supra* note 32.

<sup>109</sup> TWITTER, <https://twitter.com>.

<sup>110</sup> Tiffany Hayden (@haydentiff), TWITTER (Aug. 11, 2018, 12:08 PM), <https://twitter.com/haydentiff/status/1028357574129790976>.

<sup>111</sup> @bosontwerp, TWITTER (Aug. 25, 2018, 2:50 AM), <https://twitter.com/bosontwerp/status/1033290501062123522>.

<sup>112</sup> *See generally* Ripple XRP (@Ripple), TELEGRAM (last visited Oct. 15, 2018), <https://web.telegram.org/#/im?p=@Ripple> (discussing Ripple and the XRP token).

<sup>113</sup> @XRPRippleCoin, FACEBOOK, <https://www.facebook.com/XRPRippleCoin/>.

<sup>114</sup> *See, e.g.*, Brad Garlinghouse (@bgarlinghouse), TWITTER (June 27, 2017, 6:28 AM), <https://twitter.com/bgarlinghouse/status/879693042420137984> (“#XRP has remained fairly steady while some digital assets plummet this week. Shows it matters to have real-world use cases . . . .”); Brad Garlinghouse (@bgarlinghouse), Twitter (Jan. 11, 2018, 6:16 AM), <https://twitter.com/bgarlinghouse/status/951457716660142081> (“I’m pleased to be able to share @MoneyGram has partnered with @Ripple to use \$XRP in their payment flows.”). *See also Market Performance*, RIPLE, <https://ripple.com/xrp/market-performance/> (last visited Oct. 16, 2018); *XRP Buying Guide*, RIPLE, <https://ripple.com/xrp/buy-xrp/> (last visited Oct. 16, 2018).

the secondary market trading potential of these tokens.”<sup>115</sup> Ripple CEO Brad Garlinghouse once tweeted, “Boom! 55B \$XRP now in escrow. Good for supply predictability and trusted, healthy XRP markets. Glad to finally let this #cryptokitty out of the bag!”<sup>116</sup> Ripple members consistently tweet links to exchanges and new fiat pairings for individuals to purchase XRP tokens.<sup>117</sup> Whether XRP is a security may be decided in the ongoing cases of *Coffey v. Ripple Labs, Inc.*<sup>118</sup> and *Oconer v. Ripple Labs, Inc.*<sup>119</sup>

### C. Basic Attention Token (BAT)

Basic Attention Token (“BAT”) is a cryptocurrency used to obtain a variety of advertising and attention-based services on the Brave internet browser (“Brave”).<sup>120</sup> BAT is used as a unit of account between advertisers, publishers, and users, creating a new and more efficient advertising marketplace.<sup>121</sup> Advertisers purchase advertising space and “user attention” on Brave with BAT (i.e. users are paid in BAT for viewing ads).<sup>122</sup> Publishers receive user contributions and advertising revenue in the form of BAT.<sup>123</sup> Brave currently has over three million monthly active users,<sup>124</sup> hosting an average of one thousand BAT transactions per day over the past year.<sup>125</sup>

---

<sup>115</sup> *Hearings*, *supra* note 3.

<sup>116</sup> Brad Garlinghouse (@bgarlinghouse), TWITTER (Dec. 7, 2017, 4:50 PM), <https://twitter.com/bgarlinghouse/status/938933791145336832?lang=en>.

<sup>117</sup> Complaint at 8, *Oconer v. Ripple Labs, Inc.*, No. 18CIV03332 (Cal. Super. Ct. filed June 27, 2018).

<sup>118</sup> *Coffey v. Ripple Labs, Inc.*, No. 18-cv-03286-PJH, 2018 U.S. Dist. LEXIS 135585 (N.D. Cal. Aug. 10, 2018).

<sup>119</sup> Complaint, *supra* note 117, at 1.

<sup>120</sup> BRAVE SOFTWARE, *Basic Attention Token (BAT): Blockchain Based Digital Advertising 1* (Mar. 13, 2018), <https://basicattentiontoken.org/BasicAttentionTokenWhitePaper-4.pdf>.

<sup>121</sup> *Id.* at 13.

<sup>122</sup> *Id.* at 16.

<sup>123</sup> *Id.* at 13.

<sup>124</sup> BASIC ATTENTION TOKEN, *Brave Passes 3 Million Monthly Active Users and Makes Top 10 List in the Play Store in 21 Countries*, (July 12, 2018), <https://basicattentiontoken.org/brave-passes-3-million-monthly-active-users/>.

<sup>125</sup> Josh Olszewicz, *Basic Attention Token Price Analysis – Disrupting the ad revenue models of both Google and Facebook*, BRAVE NEW COIN (Aug. 18, 2018), <https://bravenewcoin.com/news/basic-attention-token-price-analysis-disrupting-the-ad-revenue-models-of-both-google-and-facebook/>.

Many purchasers of BAT do so without an expectation of profit.<sup>126</sup> Individuals purchase BAT for consumptive, and not investment, purposes.<sup>127</sup> BAT holders may “obtain services and gain and spend BAT in a number of different scenarios.”<sup>128</sup> For example, publishers may offer higher quality content in exchange for BAT payments.<sup>129</sup> In addition, “BAT may be used . . . to purchase digital goods such as high resolution photos, data services, or publisher applications.”<sup>130</sup> Further, “[c]ontent may also be bought for friends using the token; if someone likes a premium article, they can make a micropayment to send it” to others.<sup>131</sup>

BAT can be distinguished from XRP because BAT is a more community-based approach; that is, BAT holders contribute to the network. Despite the presence of a team behind Brave, the community plays a significant role in the success of the platform. There is a feedback loop between advertisers, users, and publishers, forming a type of interactive marketplace. For example, users, “an important and active part of the advertising and publishing economy,”<sup>132</sup> pay publishers in BAT for content.<sup>133</sup> Advertisers pay users in BAT to view advertisements.<sup>134</sup> Contrast this with the DAO, where promoters “maintained ultimate control over which proposals could be submitted to, voted on, and funded by The DAO.”<sup>135</sup> Brave users are free to spend BAT at their discretion, while advertisers may publish ads as they please.

#### D. *Te-Food (TFD)*

Te-Food is a farm-to-table fresh food blockchain traceability platform covering all logistics, food quality activities, and data management of the supply chain.<sup>136</sup> The platform offers cost effective software and identification tools to make livestock and fresh food supply information

---

<sup>126</sup> See BASIC ATTENTION TOKEN: FAQ, <https://basicattentiontoken.org/faq> (last visited Oct. 16, 2018).

<sup>127</sup> See BRAVE SOFTWARE, *supra* note 120, at 17.

<sup>128</sup> BASIC ATTENTION TOKEN:FAQ, <https://basicattentiontoken.org/faq/>.

<sup>129</sup> BRAVE SOFTWARE, *supra* note 120, at 17.

<sup>130</sup> *Id.*

<sup>131</sup> *Id.*

<sup>132</sup> *Id.*

<sup>133</sup> *Id.* at 16.

<sup>134</sup> BRAVE SOFTWARE, *supra* note 120, at 1.

<sup>135</sup> SEC. & EXCH. COMM'N, *supra* note 43, at 7.

<sup>136</sup> TE-FOOD, *Making Business Profit by Solving Social Problems* 3, <https://ico.tefood-int.com/te-food-white-paper.pdf> (last visited Nov. 18, 2018).

transparent.<sup>137</sup> To access the Te-Food platform, one must pay in Te-Food tokens (“TFD”).<sup>138</sup>

Like BAT, many purchase TFD without the expectation of profit.<sup>139</sup> The primary purpose for purchasing TFD appears to be gaining access to services on the platform.<sup>140</sup> For example, supply chain companies spend TFD to rate business partners, buy and sell goods on the Te-Food marketplace, analyze reports, access logistics data, and use farm management tools.<sup>141</sup> Consumers spend TFD to check the history of food products, verify food product data, and pay for food quality analysis services.<sup>142</sup> In addition, the platform is already operational. The platform currently has over 6,000 business clients, handles at least 400,000 transactions per day, and has served thirty-four million people.<sup>143</sup> This leads to the conclusion that the purchase of TFD is primarily for consumptive, and not investment, purposes.

Further, TFD likely fails the “derived solely from the efforts of others” prong. Like BAT, and unlike XRP and the DAO, Te-Food is more of an ecosystem reliant on a number of actors. In XRP, the only user interaction is sending money to another party (i.e. using a service that management must upkeep).<sup>144</sup> In contrast, farms, agents, slaughterhouses, wholesalers, food producers, retailers, and government officials all play a role in supporting the Te-Food network.<sup>145</sup> In addition, TFD holders contribute to the network through its PoS consensus protocol.<sup>146</sup> “Service enablers” are businesses that connect customers with the Te-Food ecosystem.<sup>147</sup> “Service providers” are those who operate nodes or masternodes on the Te-Food ecosystem, enhancing the stability of the network.<sup>148</sup> Users who

---

<sup>137</sup> *Id.* at 8.

<sup>138</sup> *Id.* at 17.

<sup>139</sup> *Id.* at 23.

<sup>140</sup> *Id.* at 17–18.

<sup>141</sup> *Id.* at 46.

<sup>142</sup> TE-FOOD, *Solution: Overview*, <https://ico.tefoodint.com/solution.html> (last visited Aug. 25, 2018).

<sup>143</sup> TE-FOOD, *supra* note 136, at 2.

<sup>144</sup> SCHWARTZ, YOUNGS & BRITTO, *supra* note 93.

<sup>145</sup> TE-FOOD, *supra* note 136, at 5.

<sup>146</sup> TE-FOOD, *Token Economics of Calories (CAL)* (June 29, 2018), <https://medium.com/te-food/token-economics-of-calories-cal-8ce9eb301091>.

<sup>147</sup> *Id.*

<sup>148</sup> *Id.* Masternodes are computing devices (i.e. computers) responsible for maintaining a network. In a Proof of Stake consensus mechanism, a network of computers around the world serve as nodes and masternodes, verifying transactions and supporting the network. *Masternode*,

help support the network are compensated via receipt of a percentage of the transaction fee.<sup>149</sup> In traditional equities, shareholders receive a portion of a company's profits through dividends, but receipt of dividends does not require performance of any work or service.<sup>150</sup> In traditional equities, there is complete reliance on management. Ultimately, there is a more community driven approach in cryptocurrencies like TFD and BAT than XRP.

#### E. Sharder Protocol (SS)

Sharder Protocol is a decentralized data storage platform.<sup>151</sup> Under the Sharder platform, users pay to have a global network of computers store data in an encrypted manner.<sup>152</sup> The Sharder Protocol "provides cost-effective storage space, reliable data storage, and transparent on-chain information."<sup>153</sup> Users pay for services on the Sharder platform using SS, the blockchain's base cryptocurrency.<sup>154</sup>

SS is unlikely a security because of the high degree of decentralization. The Sharder blockchain "[c]onnects to various public chains" such as Ethereum, whose native cryptocurrency, ETH, was determined by the SEC to not be a security.<sup>155</sup> In fact, Sharder requires a high degree of decentralization to operate effectively, as the entire point of the platform is to keep data safe by spreading it out across a global network of computers.<sup>156</sup> Sharder's "secret sauce" relative to other data storage platforms is that it is in fact decentralized.

The community driven approach of SS dwarfs that of BAT, TFD, and especially XRP. The management of Sharder is splintered, reducing

---

DECRYPTIONARY, <https://decryptionary.com/dictionary/masternode/> (last visited Aug. 25, 2018).

<sup>149</sup> Te-Food, *supra* note 136, at 10.

<sup>150</sup> Ken Clark, *Is Dividend Payment Shown in Shareholder's Equity?*, INVESTOPEDIA (Jan. 30, 2018, 3:56 PM), <https://www.investopedia.com/ask/answers/08/dividend-payout-balance-sheet.asp>.

<sup>151</sup> Sharder Foundation, *Sharder Technical White Paper: Sharder – A Cross-Chain Distributed Storage Protocol 1* (2018), <https://oss.sharder.org/sharder/whitepaper/sharder-technical-whitepaper-en.pdf>.

<sup>152</sup> *Id.*

<sup>153</sup> *Id.* at 2.

<sup>154</sup> *Id.* at 14.

<sup>155</sup> *Id.* at 2; Hinman, *supra* note 32.

<sup>156</sup> Sharder Foundation, *supra* note 151, at 2.

reliance on the managerial efforts of a small group of insiders.<sup>157</sup> The presence of promoters is “important to distinguish from the circumstance where multiple, independent actors work on the network but no individual actor’s or coordinated group of actors’ efforts are essential efforts that affect the failure or success of the enterprise.”<sup>158</sup> Those holding SS have more meaningful control and input in the project than XRP and DAO Token holders. Governance of Sharder is controlled by the Sharder Council, composed of members of the Sharder Foundation (the team behind Sharder) and members appointed by vote of the Sharder community.<sup>159</sup> The Sharder Council “is subject to supervision by the entire community.”<sup>160</sup> Community members receive rewards based on the level of involvement in the network, meaning that the Sharder Council actively encourages users to help guide the project.<sup>161</sup> Unlike in the DAO, where the facts “diminished the ability of DAO Token holders to exercise meaningful control” over the enterprise,<sup>162</sup> the Sharder community retains significant input over the decision-making process.<sup>163</sup>

In addition, a vast network of miners and stakers support the network.<sup>164</sup> There are four types of nodes: full nodes, storage nodes, watch nodes, and proof nodes, each with different responsibilities.<sup>165</sup> Proof nodes are “external institut[ions] or organizations” that “convert data into digital assets and add credibility to the network.”<sup>166</sup> Watch nodes are “independent nodes that could check and balance Miners and Storers, further ensuring data security and avoid[ing] hostile attacks.”<sup>167</sup> While the team behind Sharder is undoubtedly important during the network’s infancy stage, this importance will dwindle over time as miners and nodes take over in performing crucial tasks. Contrast this with XRP, where those in charge are the only individuals maintaining the network.<sup>168</sup>

---

<sup>157</sup> *Id.* at 21–22.

<sup>158</sup> Hinman, *supra* note 32, at n. 3.

<sup>159</sup> Sharder Foundation, *supra* note 151, at 2.

<sup>160</sup> *Id.* at 21–22.

<sup>161</sup> *Id.* at 13–14.

<sup>162</sup> See SEC. & EXCH. COMM’N, *supra* note 43, at 15.

<sup>163</sup> See Sharder Foundation, *supra* note 151.

<sup>164</sup> *Id.* at 3–4.

<sup>165</sup> *Id.*

<sup>166</sup> *Id.* at 4.

<sup>167</sup> *Id.*

<sup>168</sup> SCHWARTZ, YOUNGS & BRITTO, *supra* note 93, at 8.

## V. CONCLUSION

Overall, there is much to be done before a clear regulatory picture surrounding cryptocurrencies emerges. However, applying the *Howey* test, The DAO Report, and other SEC publications provides sufficient guidance to cryptocurrency marketplace participants so that they can at least be aware of the possibility that a cryptocurrency offering might implicate federal securities laws. Until the SEC provides further guidance on cryptocurrency offerings, marketplace participants would be wise to discuss the particular cryptocurrency offering with SEC officials and securities practitioners.