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Utility Token Offerings: Can a Security Transform into a Non-Security?

Scott W. Maughan

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INTRODUCTION

In 2016, two former Google employees founded Airfox with a mission to provide financial services to emerging markets.[1] After completing incubating rounds at TechStars Boston and Harvard's Innovation Lab, they developed their idea: users would earn money by interacting with advertisements on their phones; then, if those users opted to share their device data and browsing behavior, they could build a credit history and apply for microloans.[2] To create a payment network that could cheaply and reliably handle thousands of microtransactions between lenders, advertisers, and users from across the globe, Airfox turned to one of the hottest new technological trends: blockchain.

Specifically, Airfox wanted to create a digital asset (also called a "token" or "coin") using a blockchain. The token, which was named AirToken, would essentially be the currency required to participate in Airfox's network.[3] When users watched advertisements, they would receive AirTokens from advertisers. When users requested loans, they would receive AirTokens from lenders. These AirTokens could be cashed out for fiat currency or redeemed for cellular data and other goods from companies that accepted AirTokens. Thanks to the decentralized nature of blockchain, all these assorted parties would interact directly with each other and not with Airfox itself.[4]

In 2017, Airfox held an initial coin offering (ICO) for its application. In the ICO, investors gave money to Airfox in exchange for promises to receive AirTokens once Airfox developed the application.[5] Airfox's legal advisors felt confident that they would avoid securities issues because they were distributing *utility tokens*, which are redeemable for goods or services, instead of *security*

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1. *AirFox Raises $15 Million in Successful ICO, Brings New Mobile Banking Solutions to Emerging Markets*, BUSINESS WIRE (October 10, 2017), https://www.businesswire.com/news/home/20171010005598/en/AirFox-Raises-15-Million-Successful-ICO-Brings (last visited Oct. 15, 2019).

2. *AirToken (AIR): The Token for Mobile Access*, AIRFOX (Aug. 21, 2017) [hereinafter Airfox White Paper] at 3–4, available at https://icosbull.com/eng/ico/airtoken/whitepaper.

3. *Id.* at 3, 5–6 (describing the roles of users, carriers, advertisers, and publishers in the network).

4. For a slightly more detailed introduction to blockchain, see *infra*, Part II.A.

5. For a slightly more detailed explanation of initial coin offerings, see *infra* Part II.B.

tokens, which are representative of shares in a company's profits.[6] Within two months, Airfox raised $15 million from over 2,500 investors.[7] At a time when the volatile ICO market was plagued with scams and fraud, this accredited start-up was considered a shining example of a successful ICO.[8]

The problem was that Airfox's legal advisors were wrong. On November 16, 2018, the Securities and Exchange Commission (SEC) announced that AirTokens were securities and that Airfox had violated securities laws by failing to register them.[9] In its settlement with the SEC, Airfox agreed to refund investors, pay a $250,000 fine, register AirTokens as securities, and file all of the SEC's required disclosures for the rest of Airfox's meaningful existence.[10] On that same day, the SEC sanctioned another blockchain company that had also conducted an ICO, requiring those exact same concessions.[11]

The SEC's crackdown on ICOs was not a surprise. For a while, the SEC had been suggesting that ICOs were most likely securities offerings.[12] However, in a small but important way, the enforcement actions seemingly contradicted statements that SEC officials had made just a few months earlier.

In April 2018, the Chairman of the SEC, Jay Clayton, gave a speech about regulating digital assets.[13] Clayton compared utility

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6. Ben Munster, *Exclusive: Airfox CEO Says ICO Regulations Clearer After SEC Settlement—But Not for Everybody*, DECRYPT (Nov. 29, 2018), https://decryptmedia.com/2018/11/29/exclusive-Airfox-ceo-says-ico-regulations-still-unclear-after-sec-settlement/.

7. *AirFox Raises $15 Million in Successful ICO, Brings New Mobile Banking Solutions to Emerging Markets*, BUSINESS WIRE (Oct. 10, 2017), https://www.businesswire.com/news/home/20171010005598/en/Airfox-Raises-15-Million-Successful-ICO-Brings (last visited Oct. 15, 2019).

8. *Id.*

9. CarrierEQ, Inc., d/b/a Airfox, Securities Act Release No. 10575, SEC (Nov. 16, 2018), https://www.sec.gov/litigation/admin/2018/33-10575.pdf [hereinafter Airfox Order].

10. *Id.* at 8–10.

11. Paragon Coin, Inc, Securities Act Release No. 10574, SEC (Nov. 16, 2018), https://www.sec.gov/litigation/admin/2018/33-10574.pdf.

12. *See* SEC, REPORT OF INVESTIGATION PURSUANT TO SECTION 21(A) OF THE SECURITIES EXCHANGE ACT OF 1934: THE DAO, Release No. 81207, 11–15 (July 25, 2017), https://www.sec.gov/litigation/investreport/34-81207.pdf; Munchee Inc., Securities Act Release No. 10445, 8–9, SEC (Dec. 11, 2017), https://www.sec.gov/litigation/admin/2017/33-10445.pdf.

13. Nikhilesh De, *SEC Chief Touts Benefits of Crypto Regulation*, COINDESK (Apr. 5, 2018), https://www.coindesk.com/sec-chief-not-icos-bad.

tokens to laundromat coins. If someone buys several coins from a laundromat that has yet to be developed, with the intent to sell the coins at a higher price to others, then those coins are securities. But if someone buys a coin simply to wash her clothes at the new laundromat, then that coin is not a security. According to Clayton, "[t]he use [of the laundry coin] can evolve toward or away from a security."[14] When it comes to utility tokens, a security today is not necessarily a security tomorrow.[15]

In June 2018, the Director of the SEC's Division of Corporate Finance, William Hinman, also spoke about regulating digital assets.[16] Hinman suggested that tokens could become so decentralized over time that regulating them as securities may not be required.[17] He even opined that ether, the token of the popular Ethereum network that is used to create self-executing contracts, was too decentralized to be a security.[18] This statement was significant because ether, like AirTokens and hundreds of other digital assets, had initially raised funds in an ICO.[19]

The SEC's enforcement actions are somewhat inconsistent with the earlier statements of its officials. Chairman Clayton and Director Hinman had both suggested that a utility token, by its use or by its lack of centralization, could potentially outgrow securities regulations after its ICO. But in its November 2018 settlements, the SEC required issuers of utility tokens to comply with securities regulations for practically forever.[20] This discrepancy asks the question: Is it really ever possible for a digital asset to start out as a security and eventually transform into a non-security? Looking at recent judicial decisions, administrative guidance, blockchain

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14. *Id.*

15. *Id.*

16. William Hinman, *Digital Asset Transactions: When Howey Met Gary (Plastic)*, SEC (June 14, 2018), https://www.sec.gov/news/speech/speech-hinman-061418.

17. *Id.*

18. *Id.*

19. Vitalik Buterin, *Launching the Ether Sale*, ETHEREUM BLOG (July 22, 2014), https://blog.ethereum.org/2014/07/22/launching-the-ether-sale/. The ether ICO was called a "pre-sale", but it functioned equivalently as an ICO.

20. The settlements require the companies to comply with disclosure requirements until either (a) there are less than 300 users holding tokens or (b) there are less than 500 users holding tokens and the company's total assets have been less than $10 million for three years. 17 C.F.R. § 240.12g-4 (2016). *See* Airfox Order, *supra* note 9, at 9.

functionality, and practices of blockchain developers, the answer is complicated: theoretically yes, but practically no.

Much of the literature applying securities law to utility tokens has focused on whether the initial distribution of the token makes it a security. This Note, however, discusses whether securities regulations can and should continue to apply to a blockchain network's digital assets even *after* its ICO has been deemed a security offering. Part II further introduces blockchain technology and ICOs. Part III discusses the SEC's current regulations and how they are incompatible with the functionality and purposes of blockchain applications. Part IV outlines the two tests used to determine whether something is a security: the *Howey* test and the risk capital test. Part V reviews the SEC's treatment of ICOs as security offerings and why courts have agreed with the regulators. Part VI presents two theories for how and when digital assets can transform from securities into non-securities. The Part ultimately pushes back on each theory by identifying practical aspects of blockchain applications that are inconsistent with the theoretical arguments. Part VII concludes this Note by suggesting that proponents of utility tokens would profit more by focusing on how to modify securities law to accommodate digital assets, instead of trying to escape regulation under existing securities law.

I. A DIGITAL ASSETS PRIMER: BLOCKCHAINS AND ICOS

Applying securities law to utility tokens requires a general understanding of how blockchain technology works and how ICOs fit within the blockchain model. This Part provides a very basic familiarity with these innovations.

A. Blockchain Technology

A blockchain is a comprehensive list of all the accounts in a particular network and all the transactions to ever take place between those accounts. It is constantly updated and publicly visible to all users. Because each user shares a complete record of all account balances and past transactions, there is no need for an intermediary to verify that transactions are complete, or to prevent users from fraudulently double-spending, or to transfer a payment through other networks to the payee's account. Users transact directly with each other. The decentralized blockchain network

cuts out the middleman, allowing for lower transaction costs and simpler global transactions.[21]

The users with positive balances in their accounts can use their digital assets, sometimes called "tokens" or "coins," to purchase whatever goods and services that particular blockchain allows sellers to offer, such as computer storage[22] or restaurant dinners.[23] Holders of those tokens may also receive certain rights, such as the ability to upload content or access a certain website. Tokens with these sorts of functionality are often referred to as "utility tokens" or "consumptive tokens." Other tokens represent a share of ownership in a company, just like traditional stocks. These "security tokens" often act like traditional stocks, giving holders a right to vote on the decisions of the venture and to receive a share of the venture's profits.[24] Tokens may have both consumer-like and shareholder-like features.[25]

A functional blockchain is decentralized in the sense that anyone selling goods and services or buying those goods and services are exchanging exclusively and directly with each other, as opposed to through a third party. But developers are not completely hands-off once the network is functioning. The developers might still make small changes, such as change the application's user interface, increase the minimum transaction size, or fix small bugs. The developers might also make large changes, such as modify how each transaction is verified, undo a permanent transaction, or revert to a previous block of transactions on the

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21. Vinay Gupta, *The Promise of Blockchain is a World Without Middlemen*, HARV. BUS. REV. (Mar. 6, 2017), https://hbr.org/2017/03/the-promise-of-blockchain-is-a-world-without-middlemen.

22. Filecoin is used on a network for buying and selling computer storage. *See* Protocol Labs, *Filecoin: A Decentralized Storage Network*, FILECOIN (July 19, 2017), https://filecoin.io/filecoin.pdf.

23. Munchee designed a token to be used as payment for restaurant reviews. Munchee Inc., Securities Act Release No. 10445, SEC (Dec. 11, 2017), https://www.sec.gov/litigation/admin/2017/33-10445.pdf.

24. *See* Rohit Kulkarni, *Security Tokens Set to Take Center Stage in 2019*, NASDAQ (June 22, 2018), https://www.nasdaq.com/article/security-tokens-set-to-take-center-stage-in-2019-cm982207.

25. For an additional description of utility tokens and security tokens, see Nate Crosser, *Initial Coin Offerings as Investment Contracts: Are Blockchain Utility Tokens Securities?*, 67 U. KAN. L. REV. 379, 391–94 (2018).

blockchain.[26] To remain compatible and functional after these large changes occur, all of the users must update to the most recent version of the software and ensure that they are using the exact same list of balances and transactions as everyone else.[27]

Apart from the developers, another group of people who make the blockchain function are the transaction validators. Validators spend their own resources to process all the network's transactions and permanently add them to the blockchain's complete list of past transactions. In return for their work, validators receive more of that blockchain's token. The validators are not always the same as the developers; often, anyone can be a validator.

Each blockchain system has its own *method of consensus*, which determines how the transactions are verified and which validator is selected to do the work (and reap the reward).[28] In *proof-of-work* methods, validators compete against each other to solve a complex math problem first: the winner adds the transactions and gets the payment. In *proof-of-stake* methods, the validator is randomly selected based on how much of the blockchain's token it already owns. This works because they would have to forfeit their tokens if anything nefarious occurred during the verification. Other blockchains are *permissioned* systems, which designate only certain people or entities to do the validations. Developers are frequently implementing hybrids or variations of the above methods or devising new consensus mechanisms.[29]

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26. *See, e.g.*, Jake Frankenfield, *Hard Fork (Blockchain)*, INVESTOPEDIA (Oct. 21, 2019), https://www.investopedia.com/terms/h/hard-fork.asp; Rachel Rose O'Leary, *Ethereum Developers Move to Alter Blockchain's Economics in Next Upgrade*, COINDESK (Aug. 31, 2018, 3:53 PM), https://www.coindesk.com/ethereum-developers-move-to-reduce-new-cryptocurrency-creation (discussing upcoming changes in the Ethereum blockchain that alters how much new ether gets distributed).

27. Catherine Tims, *What Happens During a Cryptocurrency Hard Fork?*, CRYPTOS R US (Feb. 9, 2018), https://cryptosrus.com/what-happens-during-a-cryptocurrency-hard-fork/.

28. Ameer Rosic, *Basic Primer: Blockchain Consensus Protocol*, BLOCKGEEKS (2017), https://blockgeeks.com/guides/blockchain-consensus/. *See also* Peter Van Valkenburgh, *Framework for Securities Regulation of Cryptocurrencies*, COIN CENTER (Aug. 10, 2018), https://coincenter.org/entry/framework-for-securities-regulation-of-cryptocurrencies (discussing proof-of-work, proof-of-stake, and permissioned methods of consensus, as well as hybrids of those types).

29. *See* Vaibhav Saini, *ConsensusPedia: An Encyclopedia of 30+ Consensus Algorithms*, HACKERNOON (June 26, 2018), https://hackernoon.com/consensuspedia-an-encyclopedia-of-29-consensus-algorithms-e9c4b4b7d08f (listing about thirty different consensus algorithms, with pros and cons for each).

B. Initial Coin Offerings

Initial Coin Offerings (ICOs) typically begin with a PDF. Inventors with an idea for an interesting and valuable application of blockchain technology write a paper detailing the idea, create a website, and then publish their paper. They then request money, in exchange for a promise of *coins*, *tokens*, or other *digital assets*. Developers use those funds to program the application itself. After a couple of years of development and working out the kinks in the application, the blockchain will go live. Upon initialization, it will contain positive balances for the investors who contributed money during the ICO (and usually for the developers themselves) and will begin recording transactions between the users.

There are a number of advantages to ICOs.[30] First, they reach an enormous number of potential investors. Anyone with an internet connection can donate, regardless of economic status or geographic location. This expansive reach suits the functionality of the blockchain application, which is also accessible and usable by anyone anywhere with internet access. Second, they require almost zero capital to conduct. The ICO market is an ideal meritocracy, requiring only a bright idea, an explanatory write-up (also known as a *white paper*), and perhaps a website where the idea can be further illustrated and advertised. With an ICO, it does not take money to make money.

But the lack of barriers to entry creates a foreseeable problem: some people enter the ICO market who should not have entered. Perhaps they lack the ability to actually implement their ambitious idea. Or maybe they are scammers and never intended to create a functioning blockchain in the first place. These problems make it possible that those donors, who could be anyone, anywhere with internet access, may lose their money without ever seeing a functional coin or token returned to them. Luckily for those unfortunate investors, and (perhaps) unluckily for blockchain application developers, there is a large organization whose sole purpose is to prevent those kinds of busts: the Securities and Exchanges Commission.

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30. *See, e.g.*, Matthew J. Higgins, *Munchee Inc.: A Turning Point for the Cryptocurrency Industry*, 97 N.C. L. REV. 220, 220–21 (2018) (comparing ICOs to other ways of raising capital such as IPOs, which are extremely expensive, and venture capital funding, which often require ceding some ownership and control).

II. SECURITIES REGULATIONS: REQUIREMENTS AND EXEMPTIONS

The mission of the Securities and Exchanges Commission is to "[p]rotect investors, [m]aintain fair, orderly, and efficient markets, [and] [f]acilitate capital formation."[31] When protecting investors, however, it does not protect them from making bad investment decisions. It merely protects them from making uninformed investment decisions. The government is not in the business of judging which companies will succeed and which will fail, but it does force companies to disclose enough information so that investors can make that judgment themselves.[32]

A familiarity with the SEC's regulations makes it easier to understand why developers of blockchain applications would prefer to avoid the SEC's jurisdiction, or at least not be subject to the SEC's jurisdiction forever.

A. Registration and Reporting Requirements

The SEC imposes reporting requirements on companies that issue securities. Before issuing securities, a company must register these securities with the SEC by filing a Form S-1.[33] A Form S-1 requires a huge amount of information, such as the company's geographical location, how much money it is asking for, how much money it has, who its officers are, how much its officers are paid, what kind of investments it is asking for, and much more. The company must also submit professionally audited financial statements.[34] Registration requirements must be completed before the company can offer any securities.[35]

Even after registering the securities, the SEC requires companies to continue filing reports. Once a year, the company must file a Form 10-K, which contains much of the same

31. *The Role of the SEC*, INVESTOR.GOV, https://www.investor.gov/introduction-investing/basics/role-sec (last visited Dec. 6, 2018).

32. Franklin D. Roosevelt, *Recommendation for Federal Supervision of Investment Securities in Interstate Commerce*, U. OF MICH. DIGITAL LIBR. (Mar. 29, 1933), https://quod.lib.umich.edu/p/ppotpus/4925381.1933.001/123.

33. *Form S-1: Registration Statement Under the Securities Act of 1933*, SEC, https://www.sec.gov/files/forms-1.pdf.

34. *What is a Registration Statement?*, SEC, https://www.sec.gov/smallbusiness/goingpublic/registrationstatement (last modified Nov. 29, 2017).

35. 15 U.S.C. § 77e(c) (2012).

information as the initial Form S-1.[36] Additionally, the reporting company must file a form 10-Q every quarter.[37] These reporting requirements last indefinitely, until the company has significantly shrunk in terms of shareholders or value.[38]

In certain cases, the SEC allows companies to comply with a reduced set of reporting requirements. For example, smaller companies[39] and emerging growth companies[40] do not have to include quite as much information in their initial registrations or in their annual and quarterly reports. These companies do not have to provide as many narrative disclosures or data about executive compensation, and they only have to provide two years of financial statements instead of three. They also have some leniency when it comes to following certain accounting standards for their financial statements. However, there is usually a cap on the maximum value of a company that can qualify as a small business or an emerging growth company.[41]

The regulations and requirements imposed by the SEC can be crucially helpful for investors, but they can also cut against many of the values of blockchain companies and the perceived benefits of initial coin offerings. One of the unique benefits of an ICO is that it requires very little money to get off the ground. Theoretically, it only takes a genius idea clearly described in a PDF. But complying with SEC requirements takes an immense amount of time and resources.[42] Reporting companies typically need to hire accountants

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36. *Form 10-K: Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934*, SEC, https://www.sec.gov/about/forms/form10-k.pdf. The Form 10-K's estimated average burden hours per response is 2395 hours.

37. *Form 10-Q*, SEC, https://www.sec.gov/files/form10-q.pdf. The Form 10-Q's estimated average burden hours per response is 190 hours.

38. In general, a reporting company is only allowed to cease filing reports once a) it has fewer than 300 shareholders or b) it has fewer than 500 shareholders and the company's assets have been worth less than ten million for three years. 17 C.F.R. § 240.12g-4 (2018).

39. 17 C.F.R. § 229.10(f) (2018). *See also*, *Smaller Reporting Companies*, SEC, https://www.sec.gov/smallbusiness/goingpublic/SRC (last modified July 24, 2019).

40. 15 U.S.C. § 77b(a)(19) (2012). *See also*, *Emerging Growth Companies*, SEC, https://www.sec.gov/smallbusiness/goingpublic/EGC (last modified July 24, 2019).

41. A smaller reporting company maintains its status as long as it has a public value of less than $250 million or annual revenues of less than $100 million. 17 C.F.R. § 229.10(f)(1). An emerging growing company cannot exceed $700 million in public value or $1.07 billion in annual revenues. 15 U.S.C. § 77b(a)(19).

42. The SEC estimates that the forms S-1, 10-K, and 10-Q take 671, 2395, and 190 hours to complete, respectively. *Form S-1*, SEC, *supra* note 33; *Form 10-K*, SEC, *supra* note 36; *Form 10-Q*, SEC, *supra* note 37.

and lawyers to prepare and audit the reports, which can get extremely expensive. Start-up companies may have difficulty finding the time or employees needed to round up all the information that needs to be disclosed. Even the slightly reduced requirements for small businesses and emerging growth companies would be comparatively hefty for a blockchain company considering an ICO.

B. Exemptions

Because Congress and the SEC understand how laborious registration and reporting requirements can be, they have provided some exemptions to the rules.[43] These exemptions vary in investment limitations, reporting requirements, and holding restrictions.

The most common exemption is Regulation D, which exempts companies who are raising less than $5 million or are issuing just a small number of securities.[44] The SEC allows these exempt companies to file extremely lightweight reports at registration, and they do not require ongoing reports.[45] The caveat, however, is that these companies either cannot advertise their offerings to the general public,[46] or must take measures to ensure that only accredited investors are buying their securities.[47] "Accredited investors" are those that have a net worth of over $1 million or have an annual income exceeding $200,000.[48] Additionally, Regulation D imposes holding requirements on the securities, meaning that those who purchase them may not resell them for at least six month or a

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43. The Securities Exchange Act of 1934 provides numerous exemptions to the registration requirements. 15 U.S.C. § 77c (2012). Furthermore, it gives the SEC broad discretionary power to create more exemptions. 15 U.S.C. § 77c(b)(1) (2012).

44. 17 C.F.R. §§ 230.500–.506 (2018).

45. *Id. See also*, *Form D: Notice of Exempt Offering of Securities*, SEC, https://www.sec.gov/about/forms/formd.pdf.

46. This is known as a "private placement" or a Rule 506(b) exemption., *Private Placements – Rule 506(b)*, SEC, https://www.sec.gov/smallbusiness/exemptofferings/rule506b (last modified July 12, 2019).

47. This is a Rule 506(c) exemption. *General Solicitation – Rule 506(c)*, SEC, https://www.sec.gov/smallbusiness/exemptofferings/rule506c (last modified July 12, 2019).

48. 17 C.F.R. § 230.215 (2018).

year, depending on how much information the issuing company is publicly disclosing.[49]

Regulation Crowdfunding is a newer exemption, created as part of the JOBS Act in 2012.[50] This regulation does not impose restrictions on who can purchase the securities or to whom the company can market its offering, but it prohibits raising more than roughly $1 million in any given year and restricts the resale of securities for one year.[51]

Regulation A is another exemption which was updated and expanded with the JOBS Act.[52] It allows companies to raise up to $50 million and places no restrictions on the resale of securities.[53] As a tradeoff, however, it requires more detailed disclosures, including audited financial statements and ongoing reports.[54]

Blockchain developers would love to qualify for an exemption, but even exemptions may not be practical for their needs. Exemptions come with a strict limit on the amount of funds that can be raised, and ICOs typically aim to raise well beyond that limit. While the limits are helpful for a company that wants to start small and grow larger, the unique decentralized goal of blockchain developers is often the opposite: they want to start with a globally functioning network and then play a smaller and smaller role as the decentralized network takes off. Therefore, blockchain companies often shoot for large initial investments of capital, which disqualify them for the SEC's exemptions.

Even if a blockchain company's capital requirements are small enough that it could qualify under an exemption, the exemptions also include other restrictions that are intolerable for most projects, especially ones that will use utility tokens. The tokens sold in exchange for investment usually have some functions, such as providing an ability to post content on a website or being redeemable for certain services or goods. Developers want these tokens to be accessible to anyone and freely tradable among users.

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49. *Id.* § 230.144(d).

50. 15 U.S.C. § 77d(a)(6) (2012); Jumpstart Our Business Startups Act, Pub. L. No. 112–106, Title III, 126 Stat. 306, 315-323 (2012).

51. 17 C.F.R. § 227; *see also* SEC, *Regulation Crowdfunding*, https://www.sec.gov/smallbusiness/exemptofferings/regcrowdfunding (last modified July 12, 2019).

52. 15 U.S.C. § 77c(b).

53. 17 C.F.R. §§ 230.251–.263.

54. *Id.; see also* SEC, *Regulation A*, https://www.sec.gov/smallbusiness/exemptofferings/rega (last modified July 12, 2019).

Some of the exemptions, however, would restrict token sales to only wealthy investors[55] or prohibit token holders from exchanging their tokens.[56]

Obviously, security regulations only apply to agreements that are securities. If tokens created in ICOs were classified as non-securities, then they could be freely bought and exchanged regardless of the onerous registration and reporting requirements. That would be the ideal scenario for blockchain projects using utility tokens, which are meant to be consumed and often look starkly different from the stocks that are traditionally imagined when one thinks of a security. The question is whether the law's definition of a security is broad enough to cover utility tokens on a blockchain application.

III. DEFINING A SECURITY: THE *HOWEY* TEST AND OTHERS

The Securities Act of 1933 contains a very lengthy list of instruments that count as securities.[57] While most items on that list are specific and more obvious, such as stocks and bonds, the list also contains terms that are much more general, such as "investment contracts." These broader terms serve as a catch-all for "[n]ovel, uncommon, or irregular devices" that may act as securities.[58] Due to the novel nature of digital coins, courts and the SEC have scrutinized whether digital coins are investment contracts. There are two main tests for defining investment contracts: the *Howey* test and the risk capital test.

A. The Howey *Test*

The seminal case interpreting what constitutes an investment contract is *SEC v. W.J. Howey Co.*[59] In *Howey*, the investors purchased trees in an orange grove and then executed a service contract with the seller's company.[60] The company would cultivate,

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55. For example, Regulation D restricts sales to accredited investors. *See supra* text accompanying notes 44–49.

56. Almost all exemptions restrict the resale of securities. SEC, *Overview of Exemptions*, https://www.sec.gov/smallbusiness/exemptofferings/exemptofferingschart (last modified Feb. 12, 2019).

57. 15 U.S.C. § 77b(a)(1) (2012).

58. SEC v. C.M. Joiner Leasing Corp., 320 U.S. 344, 351 (1943).

59. SEC v. W.J. Howey Co., 328 U.S. 293 (1946).

60. *Id.* at 295–96.

harvest, and market the oranges on behalf of the purchasers, and then the company would share the profits with the purchasers.[61] The purchasers were predominantly business professionals who had no interest in oranges, nor the skill necessary to cultivate the oranges.[62] Instead, they had been attracted by the promise of strong annual returns.[63]

The Supreme Court determined that this arrangement was an investment contract and thus a security.[64] Even though it was nominally just a real estate contract and a services agreement, the Court ignored the names and types of instruments and focused on the "economic reality" of the situation.[65] Instead, the Court defined an investment contract as "a contract, transaction, or scheme whereby a person invests his money in a common enterprise and is led to expect profits solely from the efforts of the promoter or a third party."[66] This definition, now known as the *Howey* test, can be broken into four distinct elements: (1) investment of money, (2) a common enterprise, (3) expectation of profits, and (4) efforts of others.

1. Investment of money

The first element of the *Howey* test is whether there was an investment of money. Although the original test specifically used the term "money," subsequent court decisions have determined that other contributions of value besides cash can satisfy this prong of the test. For example, investments of services, labor, or property can be qualifying investments.[67] Courts have also found that investments of bitcoin count as investments of money.[68] This first element is often the least disputed element of the *Howey* test.

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61. *Id.*

62. *Id.* at 296.

63. *Id.*

64. *Id.* at 299.

65. *Id.* at 298.

66. *Id.* at 298–99.

67. *See, e.g.*, Popovice v. Milides, 11 F. Supp. 2d 638, 643 (E.D. Pa. 1998) ("[S]everal courts have held that an agreement exchanging services for stock constitutes a 'sale' under the Securities Exchange Act . . . .").

68. SEC v. Shavers, No. 4:13-CV-416, 2013 WL 4028182 (E.D. Tex. Aug. 6, 2013); *see also* United States v. Faiella, 39 F. Supp. 3d 544, 545 (S.D.N.Y. 2014) ("Bitcoin clearly qualifies as money . . . .").

2. A common enterprise

The second factor in the *Howey* test is whether there is a common enterprise into which money is invested. The Supreme Court has not offered its opinion on how a common enterprise should be defined, but the circuit courts have adopted three main theories: horizontal commonality, broad vertical commonality, and narrow vertical commonality.[69]

Horizontal commonality focuses on the relationships between the investors, and it is usually found in an enterprise that pools all of the investors' contributions.[70] In these enterprises, investors proportionally share all profits and losses,[71] and the fortune of each investor is tied to the enterprise's overall success.[72] Horizontal commonality considers whether the value of the investors' investments rise and fall together.

Vertical commonality focuses on the relationships between investors and the promoter, and it may be found even when one investor's fortune is entirely independent from the fortune of another.[73] Vertical commonality comes in two variations: broad and narrow. Broad vertical commonality is found when an investor's gains or losses depend on the *efficacy* of the promoter.[74] If the investor makes money when the promoter makes good choices or loses money when the promoter makes poor choices, courts will find broad vertical commonality.

Narrow vertical commonality is found when the investor's gains or losses depend on the *fortune* of the promoter.[75] If the investor makes money when the promoter makes money or loses money when the promoter loses money, courts will find narrow vertical commonality.

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69. James D. Gordon III, *Defining a Common Enterprise in Investment Contracts*, 72 OHIO ST. L.J. 59, 71–76 (2011); Maura K. Monaghan, *An Uncommon State of Confusion: The Common Enterprise Element of Investment Contract Analysis*, 63 FORDHAM L. REV. 2135, 2152–63 (1995).

70. SEC v. Infinity Grp. Co., 212 F.3d 180, 187–88 (3d Cir. 2000) ("Horizontal commonality is characterized by 'a pooling of investors' contributions and distribution of profits and losses on a pro-rata basis among investors.'").

71. *Id.*

72. *See, e.g.*, Revak v. SEC Realty Corp., 18 F.3d 81, 87 (2d Cir. 1994).

73. SEC v. Koscot Interplanetary, Inc., 497 F.2d 473, 479 (5th Cir. 1974).

74. *See, e.g.*, SEC v. Unique Fin. Concepts, Inc., 196 F.3d 1195, 1199–200 (11th Cir. 1999).

75. *See, e.g.*, *Revak*, 18 F.3d at 88; SEC v. Eurobond Exch., Ltd., 13 F.3d 1334, 1340–41 (9th Cir. 1994).

The circuit courts are all over the map when it comes to deciding which theory to apply. The Third, Sixth, and Seventh Circuits look for horizontal commonality, while the Fifth and Eleventh Circuits require broad vertical commonality.[76] The other circuits have either accepted one theory without ruling on the others, accepted multiple theories, or rejected the traditional theories for a more wholistic approach.[77]

3. Expectation of profits

The third factor in the *Howey* test is whether there was an expectation of profits by the person who invested money in a common enterprise. Examples of "profits" include earnings that result from the use of the investment[78] and appreciation in value that results from the development of the investment.[79] The Supreme Court has noted that these two examples are not the only types of profits that can qualify an investment as a security.[80]

Even if an investor's purchase will generate a profit, there needs to be an *expectation* of that profit in order to satisfy this prong of the *Howey* test. For example, when investors bought apartments and received stock in a cooperative housing community that subsequently appreciated, the purchase of the housing was not a security because "investors were attracted solely by the prospect of acquiring a place to live, and not by financial returns on their investments."[81] But if the investors had bought the apartments along with a contract for management, housekeeping, or development of those condos, then the investments might have been securities.[82]

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76. James D. Gordon III, *Defining a Common Enterprise in Investment Contracts*, 72 OHIO ST. L.J. 59, 68 (2011).

77. *Id.* at 68–69.

78. *See, e.g.*, Tcherepnin v. Knight, 389 U.S. 332, 338–39 (1967) (finding an expectation of profits where promoter gave dividends based on the promoter's profits).

79. *See, e.g.*, SEC v. C.M. Joiner Leasing Corp., 320 U.S. 344, 351–53 (1943) (finding an expectation of profits where promoter of lease agreed to drill exploratory oil wells on the land).

80. SEC v. Edwards, 540 U.S. 389, 396 (2004).

81. United Housing Found., Inc. v. Forman, 421 U.S. 837, 853 (1975).

82. *See* Hocking v. Dubois, 885 F.2d 1449, 1460–62 (9th Cir. 1989) (en banc) (finding that the purchase of a Hawaiian condominium could be a security because the buyer depended on others' management of the condo).

A motivation to use the item purchased does not preclude the finding that the investment included an expectation of profits. In some cases, the motivation to use the item may coexist with an expectation of profits. For example, a court found that partnership programs allowing for annual vacations at a resort were securities because the promotional materials also stressed the economic benefits of the programs.[83] Despite testimony of some purchasers that their primary motivation was to stay at the resort, the court determined that other purchasers were likely induced by the profitable investment opportunity.[84]

This Supreme Court has described this as a difference of investment versus consumption.[85] If the purpose of the purchase is to make money, then it is an investment that satisfies the expectation-of-profits prong of the *Howey* test. If the purpose of the purchase is simply to consume or use the product purchased, then it is not a security.[86]

4. Efforts of others

The fourth and final factor of the *Howey* test is whether the expectation of profits derives from the efforts of others. The original wording of the test required the profits to come "solely" from the efforts of the promoter or a third party, but circuit courts subsequently dropped the strict requirement because it was too inflexible and allowed well-crafted schemes to circumvent securities law by having the investors perform some nominal work.[87] Realistically, many investment schemes that should plainly qualify as securities involve at least some efforts by the investors themselves, including investments that were featured in cases that the *Howey* court originally cited.[88]

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83. Teague v. Bakker, 35 F.3d 978, 987–89 (4th Cir. 1994).

84. *Id.*

85. Landreth Timber Co. v. Landreth, 471 U.S. 681, 689 (1985) ("Applying the *Howey* test, we concluded that the instruments likewise were not 'securities' by virtue of being 'investment contracts' because the economic realities of the transaction showed that the purchasers had parted with their money not for the purpose of reaping profits from the efforts of others, but for the purpose of purchasing a commodity for personal consumption.").

86. *United Housing Found.*, 421 U.S. at 853.

87. SEC v. Koscot Interplanetary, Inc., 497 F.2d 473, 479–83 (5th Cir. 1974).

88. *Id.*

This interpretation leaves open the question of how much effort by others satisfies this prong of the *Howey* test. Courts have approached this question from two different viewpoints.

Some courts primarily analyze the promoter's role, asking whether the efforts of the promoter (or other third parties) are "undeniably significant" or are "essential managerial efforts which affect the failure or success of the enterprise."[89] If so, those efforts will satisfy the fourth prong of the *Howey* test.

Some other courts focus on the role of the investors themselves. If the investors exert very little control over the whole enterprise into which they are investing their money, or if they have no practical way of affecting its success or failure, then their investment is likely a security. On the other hand, if the investors have significant duties or perform significant work that affects the success of the enterprise, then the courts will not find their investments to be securities.[90]

In addition to examining *who* made the efforts, some courts place emphasis on *when* the efforts were made. In a case involving the sale of existing life insurance policies, the D.C. Circuit held that the instruments were not investment contracts because the value of the promoter's efforts were incorporated into the purchase price and because no one was expected to make further efforts to increase their value.[91] A majority of courts, however, still place some weight on pre-purchase efforts, because "investment schemes may often involve a combination of both pre- and post-purchase managerial activities."[92]

B. The Risk Capital Test

The SEC and the federal courts use the *Howey* test to determine whether an instrument is an investment contract, but that is not the only test that is used. An alternative test is the risk capital test. This test was first articulated by the California Supreme Court[93] and

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89. SEC v. Glenn W. Turner Enters., Inc., 474 F.2d 476, 482–83 (9th Cir. 1973).

90. Steinhardt Grp., Inc. v. Citicorp, 126 F.3d 144, 152–55 (3d Cir. 1997).

91. SEC v. Life Partners, Inc., 87 F.3d 536, 547 (D.C. Cir. 1996).

92. SEC v. Mutual Benefits Corp., 408 F.3d 737, 743–44 (11th Cir. 2005). *See also* The Cardozo Blockchain Project, *Not so Fast – Risks Related to the Use of a "SAFT" for Token Sales*, LARC (Nov. 21, 2017), https://larc.cardozo.yu.edu/blockchain-project-reports/1/.

93. Silver Hills Country Club v. Sobieski, 361 P.2d 906 (Cal. 1961).

has since been adopted by several other states via judicial action or legislation.[94]

Instead of considering whether an investor depends on others to make profits, the risk capital test focuses on whether the investor depends on others to not lose the investment. Like the *Howey* test, the risk capital test can be stated in a four-part test:[95] (1) the investor provides initial value to the enterprise, (2) the initial value is subject to the risks of the enterprise, (3) the initial value is induced by representations that the investor will realize additional substantial benefit, and (4) the investor does not exercise practical and managerial control over the enterprise.

There are a few differences between the risk capital test and the *Howey* test. First, the risk capital test contains no requirement of a "common enterprise," so a nonpooled investment can be a security even if there is no vertical commonality between the investor and the promoter.[96] Second, the risk capital test looks for a broader *material benefit* instead of an *expectation of profits*, meaning investments that provide significant financial benefits along with consumptive uses can be securities.[97]

Federal courts should primarily use the Supreme Court's definition of investment contracts, which makes the *Howey* test most likely to govern questions about the SEC's jurisdiction and the reach of its regulations. But it is important to remember that organizations selling securities to raise capital also have to comply with blue sky laws, or securities laws specific to the state of the purchasers. Thus, if an instrument is a non-security under the *Howey* test but a security under the risk capital test, it could still violate the laws of states that apply the risk capital test.

The *Howey* test and the risk capital test, both of which determine what counts as a security, have each been around for several decades. But in recent years, judges and SEC officials have had the

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94.   *E.g.*, State v. Hawaii Mkt. Ctr., Inc., 485 P.2d 105 (Haw. 1971); State *ex rel.* Healy v. Consumer Bus. Sys., Inc., 482 P.2d 549 (Or. Ct. App. 1971); WASH. REV. CODE § 21.20.005 (2011).

95.   *Hawaii Mkt. Ctr, Inc.*, 485 P.2d at 109. *See also* Ronald J. Coffey, *The Economic Realities of a "Security": Is There a More Meaningful Formula?*, 18 W. RES. L. REV. 367, 377 (1967).

96.   *See, e.g.*, King v. Pope, 91 S.W.3d 314, 322–23 (Tenn. 2002) (finding that an instrument can be a security under the risk capital test even if there is no common enterprise).

97.   *E.g.*, *Silver Hills Country Club*, 361 P.2d at 908–09 (finding that the use of a country club was a material benefit for which investors risked their capital).

difficult task of applying these tests to the brand-new financial instrument of digital assets.

IV. TOKENS DURING AN ICO: ARE THEY SECURITIES?

When Jay Clayton, Chairman of the SEC, was called to speak before Congress in February 2018, he succinctly captured the prevailing view on whether tokens released in ICOs are securities: "I believe every ICO I've seen is a security . . . ."[98] In a sense, it is unsurprising that the federal government has determined that ICOs are securities offerings, since even the name, *Initial Coin Offering*, is fashioned after the prototypical securities offering, *Initial Public Offering*. Although the specifics of each offering will differ, it is unlikely that a digital asset sold before its corresponding network becomes functional will escape securities regulations.[99]

A. Application of the Howey Test

The legal analysis for classifying an ICO as a security is a straightforward application of the *Howey* test. First, because investors are giving dollars, bitcoin, and other valuable currencies to the developers in exchange for their promised tokens, ICOs present a clear investment of money.

Second, ICOs involve a common enterprise regardless of which version of commonality is preferred. Horizontal commonality is found because developers pool the investments, and the value of each investor's tokens rises and falls together. There is broad vertical commonality, because an investor's promised tokens have zero worth until developers effectively create a functioning network, as well as narrow vertical commonality because the value of an investor's tokens will mirror the value of the developers' tokens that they have kept for themselves—meaning that the investors' and the developers' fortunes are tied together. While a company theoretically could give away all of its tokens at an ICO

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98. Stan Higgins, *SEC Chief Clayton: 'Every ICO I've Seen Is a Security'*, COINDESK (Feb. 6, 2018, 7:30 PM), https://www.coindesk.com/sec-chief-clayton-every-ico-ive-seen-security.

99. For a very narrow example of a how a digital asset might be presold without implicating securities law, *see* Julie E. Krosnicki, *Can a Future Network's Token Be "Presold" and Not Qualify as an Investment Contract?*, COIN CENTER (Nov. 7, 2018), https://coincenter.org/entry/can-a-future-network-s-token-be-presold-and-not-qualify-as-an-investment-contract.

and not have its own fortunes tied to the fortune of its tokenholders, companies almost always reserve a significant portion of tokens as a way to compensate their employees, reserve capital for future improvements, or slowly release tokens into the market as a way of supporting the token's value.

Third, there is an expectation of profits. Because no functioning product is established at the time of an ICO, consumptive use of the token is not possible. Investors at this point of the operation buy the tokens because they believe the token will increase in value after a functioning product is complete. Even purchasers who truly want to spend the tokens or participate in the network are induced to invest early through discounts or other unique benefits. Without an expectation of a special profit, users would simply wait until the platform was functional before buying tokens.

Fourth, any profits clearly come from the efforts of others. During an ICO, the tokens that investors receive for their money are worth nothing because no actual product exists yet. Any profits will necessarily come from the efforts of the developers who create the product. The efforts of those developers are both significant and essential to the success of the blockchain network. Furthermore, the investors will not be writing the code and will not be able to exercise any control over the final success of the network.

B. Decisions by the SEC and the Courts

Both the SEC and multiple federal courts have endorsed this analysis. In 2017, the SEC published its report on a blockchain network called "The DAO," where it asserted that most ICOs are securities offerings.[100] Not long after, the SEC issued a cease-and-desist letter to a company called Munchee, a blockchain network for restaurant reviews.[101] Munchee intended to develop a project where users could rate restaurants and receive tokens for their reviews, which could then be redeemed at participating restaurants. After Munchee raised a significant amount of money at its ICO, the SEC stepped in and warned Munchee that it had conducted an illegal, unregistered securities offering.[102]

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100.   Report of Investigation, *supra* note 12.

101.   SEC, Munchee Inc., *supra* note 12.

102.   *Id.*; *see also* Matthew J. Higgins, *supra* note 30, at 222–28.

Courts have also supported the idea that ICOs are security offerings. Although there have not been many cases to date in the short history of ICOs, the Eastern District of New York addressed the issue in the context of a criminal charge for a fraudulent ICO.[103] In the court's analysis, the ICO satisfied all four prongs of the *Howey* test and was therefore a security.[104]

Backed by that administrative and judicial guidance, the SEC has begun to crack down on unregistered ICOs. In November 2018, the Enforcement Section of the SEC identified unregistered offerings by blockchain companies as one of its largest priorities, stating that it had opened a large number of cases against companies that had conducted ICOs since the SEC's first report on the subject.[105] Later that month, the SEC revealed its first official enforcement actions against ICOs, such as the settlement with Airfox discussed in Part I.[106]

According to its initial enforcement actions, the SEC has implied that blockchain companies whose ICOs are found to be securities will be subject to the reporting requirements until the current law permits the companies to stop.[107] This makes sense for traditional firms, who typically grow larger and more influential as their securities increase in quantity and value. However, blockchain programs are based on a different business model. Blockchain developers try to eliminate large centralized organizations, not become one. And the utility tokens that they issue are also different from typical securities, in that they can be used for purposes other than just staking a claim to future cash flows. As a result, proponents of blockchain technologies have raised another important question: Even if a utility token issued during an ICO starts out as a security, can that same token ever eventually become a non-security?

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103. United States v. Zaslavskiy, No. 17 CR 647 (RJD), 2018 WL 4346339, at *11–23 (E.D.N.Y. Sept. 11, 2018).

104. *Id. Contra* SEC v. Blockvest, LLC, No. 18CV2287-GPB(BLM), 2018 WL 6181408 (S.D. Cal. Nov. 27, 2018). In the preliminary holding of this securities fraud case, a different judge found that the SEC had not proven that tokens sold during an ICO were securities. Based on the defendant's assertion that the thirty-two investors were acquaintances and were merely "testers" of the token, the SEC could not prove, at summary judgement proceedings, that there was an expectation of profits. *Id.* at *15–22.

105. SEC. & EXCH. COMM'N, DIV. OF ENF'T ANNUAL REPORT, 7–8, 15–16 (2018).

106. Airfox Order, *supra* note 9.

107. *Id.* at 9; Paragon, *supra* note 11.

V. TOKENS AFTER AN ICO: CAN A SECURITY
BECOME A NON-SECURITY?

It makes sense that a token was a security when it was issued in an ICO, long before there was any working blockchain network. But once the network is developed and working, a number of legal and policy-based arguments support that continued securities regulation might be inapplicable, unnecessary, and detrimental. These arguments suggest a token can transform from a security into a non-security once it crosses a certain line.

There are at least two theories for how this line should be drawn. The first is based on functionality: digital assets on a blockchain network that is sufficiently functional should not be securities. The second is based on decentralization: digital assets on a blockchain network that is sufficiently decentralized should not be securities. This Part considers the legal and policy-based arguments for how and why these lines should be drawn.

A. Drawing a Line Based on Functionality

The functionality theory is based on the idea that, even though the tokens purchased from promoters before they actually develop the blockchain network might qualify as securities, the tokens that are purchased after the network has gone live would not pass the *Howey* test and thus should not be considered securities. This theory applies to utility tokens, or tokens that users buy primarily for consumption instead of speculation.

This approach is embodied in the Simple Agreement for Tokens (SAFT) framework that was proposed in 2017.[108] The SAFT agreement provides for blockchain developers to hold legally compliant ICOs by selling tokens as securities to accredited investors (thus qualifying for a Regulation D exemption to registration) prior to developing the network. Once the network is functional, both the company and the initial investors would be able to sell their tokens to network users as non-securities. The SEC

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108. Juan Batiz-Benet et al., *The SAFT Project: Toward a Compliant Token Sale Framework,* PROTOCOL LABS (Oct. 2, 2017), https://saftproject.com/static/SAFT-Project-Whitepaper.pdf.

has been reluctant to give the SAFT its blessing, preferring to consider all tokens on a case-by-case basis.[109]

1. Expectation of profits and functionality

Functional tokens might not satisfy the *Howey* test's "expectation of profits" requirement. Unlike pre-functionality purchasers who buy tokens at a discount with hopes that they will gain value, post-functionality purchasers buy tokens because they want to redeem the tokens for some service or gain access to some rights associated with the tokens.[110] This is more analogous to the purchase of housing units: although they might appreciate, the purchasers expect to use them, not profit from them.

But the ability to use tokens does not automatically mean that there is no expectation of profits. There are two types of people who purchase tokens: those that want to participate in the network, and those that want to make money off the token's anticipated appreciation.[111] As was the case with partnership programs that provided stays at a vacation resort, the presence of speculative investors may be enough to find an expectation of profits.[112] Even in *Howey*, the sale of services contracts along with the land constituted a securities offering, even though some people bought the land without the services contract.[113]

Additionally, it is likely that users who buy the tokens predominantly for participation rights or consumptive uses will also have hopes of profiting from their investments. That secondary expectation of profits would still qualify the utility token as a security.[114]

The argument that the expectation of profits is replaced with a motivation of consumption means that the functional theory can only apply to utility tokens. Security tokens that give the holder a

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109.   Hinman, *supra* note 16 (commenting, in speech's footnote 15, that the SAFT cannot be considered in the abstract and that legal analysis must follow the particular facts of an offering).

110.   Van Valkenburgh, *supra* note 28, at 54; *see also* Batiz-Benet et al.., *supra* note 108, at 9–10.

111.   Batiz-Benet et al., *supra* note 108, at 1.

112.   *See supra* Part IV.A.3.

113.   SEC v. W.J. Howey Co., 328 U.S. 293, 300–01 (1946).

114.   Laura Gritz, *Teaching a New Dog Old Tricks: Why the Howey Test Is Still the SEC's Best Friend When Examining Initial Coin Offerings*, 19 N.C. J.L. & TECH. ONLINE 193, 205–06 (2018).

right to share in the network's profits, on the other hand, are much more likely to present an expectation of profits.[115] Because tokens can be very versatile, a token that has functions typical of a utility token could also have rewards typical of a security token.[116]

2. Efforts of others and functionality

Functional tokens might not satisfy the *Howey* test's "efforts of others" requirement, either. Even if some investors buy the token solely for capital appreciation, securities regulators would need to show that that expectation of profits comes from the efforts of others. But the developers' efforts may not be "undeniably significant" nor "essential" once the blockchain network is functional.

The post-functionality efforts of developers may not be sufficiently significant to bring about profits because appreciation of a token's value is a result of external factors and not the developers' efforts.[117] Once the network is functional, developers have completed the lion's share of the work. While they may make some additional improvements or tweaks to the network, those small efforts will not affect the value of the tokens nearly as much as supply and demand, government action, public sentiment, and other events over which neither the investor nor the promoter has any control.[118] Because the external factors predominate the fluctuations in the token's value, the developers' efforts are not significant.[119]

In a similar vein, post-functionality efforts of developers may not be essential to the success of the enterprise. A functioning blockchain network using utility tokens facilitates direct transactions between participants of the network, without the developers' intervention. Although the developers' efforts were essential in creating the network, they are not necessary for others to use the network.

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115.   Van Valkenburgh, *supra* note 28, at 44.

116.   Over a quarter of all tokens offer a right to profits. Saman Adhami et al., *Why do Businesses Go Crypto? An Empirical Analysis of Initial Coin Offerings*, SSRN , at 3 (Jan. 6, 2018), https://ssrn.com/abstract=3046209.

117.   Van Valkenburgh, *supra* note 28, at 54–55.

118.   Batiz-Benet et al., *supra* note 108, at 9–10.

119.   It may be the users, rather than the developers, who are contributing to the application's increasing value by their participation. Crosser, *supra* note 25, at 414–15.

In reality, however, it may be too simplistic to say that all of the developers' significant and essential efforts took place before the network was functional. It can be difficult to define exactly when the network is considered "functional." The developers may release a beta version to some testers, followed by a full version to the public.[120] Even after the public version, the developers will continue maintaining or improving the system. These post-functionality efforts might simply include tweaking the user interface or changing maximum transaction limits, but the network might also require large updates. Developers might patch a security vulnerability, change the underlying method for verifying transactions, or advertise the application to a new market of potential users. These common occurrences could count as significant efforts.

Additionally, the presence of external factors does not make the developers' efforts "undeniably significant," even if those external factors powerfully affect the value of the token. While those factors might influence the value of a digital token, they also substantially affect the value of *any* security. The value of a corporation's stock might depend much more on whether the market is crashing than if the board fails to cut certain costs, but those stocks are still securities. Similarly, the *Howey* test focuses on the efforts of the promoters regardless of what other factors affect the success of the enterprise.

The post-functional efforts of developers might also be considered "essential" in the sense that a capitalistic economy requires that developers make continued improvements. All businesses need to adapt their goods and services to their consumers' needs and preferences, including blockchain projects. If one project does not do so, a similar project might sweep in to address users' unmet needs, drawing away those users in the process.[121] The desertion of an unmaintained blockchain project would significantly harm the value of its tokens. Therefore, even a

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120. Cardozo Blockchain Project, *supra* note 92, at 8–9.

121. There is already considerable competition between blockchain projects that are trying to serve (or supplant) the same industry. For example, at least seven different tokens are already being used to create decentralized prediction markets. Steve Walters, *7 Best Crypto Prediction Markets: Betting on the Blockchain*, COIN BUREAU (Feb. 21, 2019), https://www.coinbureau.com/blockchain/crypto-prediction-markets/.

developer's seemingly minor efforts might be "essential" to survive in a competitive marketplace.

Lastly, some courts downplay the distinction between pre-functionality efforts and post-functionality efforts.[122] Token holders rely on the blockchain application for their tokens to have any value, and that blockchain application would not exist without the past efforts of the developers. Although some courts might consider those past efforts irrelevant to the *Howey* analysis because they are baked into the purchase price of the tokens,[123] most courts have declined to draw a line between pre-functionality efforts and post-functionality efforts.[124] The latter courts might even analyze a developer's efforts that occurred during the ICO. The primary focus is on the nature and significance of the developer's managerial efforts, not the timing.

B. Drawing a Line Based on Decentralization

Another line for determining when a token has crossed from a security to a non-security is the line of decentralization. This theory applies to blockchain projects where the original developers are no longer playing the sole or primary role in the maintenance of the application. Often, these decentralized projects are older and more established.

A prime example of a project that grew decentralized is Ethereum. In 2013, the Ethereum Foundation held a pre-sale (the precursor to the ICO) to raise money to create a blockchain network which would support smart (or self-executing) contracts.[125] Although the Ethereum Foundation created the initial functioning network, the network is now maintained by dozens of different, unaffiliated developers.[126] These "core developers" hold regular meetings to discuss potential improvements and changes, and they make their contributions to the network's code just as they would to any other open-source software project. When Director Hinman

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122. Cardozo Blockchain Project, *supra* note 92, at 8–9.

123. *E.g.*, SEC v. Life Partners, Inc., 87 F.3d 536, 547 (D.C. Cir. 1996).

124. *See supra* Section IV.A.4.

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

126. *E.g.*, Ethereum, *Project Management: Meeting Notes and Agenda Times*, GITHUB, https://github.com/ethereum/pm (listing the contributors to the Ethereum codebase and their meetings) (last visited Oct. 21, 2019).

gave his June 2018 speech on digital assets, he suggested that ether was too decentralized to be a security.[127]

A main idea behind the decentralization theory is that a decentralized blockchain project does not have a sole organization that profits off the project or exerts all the managerial efforts. Applying securities law would add little value, since there is no central entity that could make all of the SEC's required disclosures.[128] Accordingly, a decentralized blockchain project might not satisfy all the elements of the *Howey* test.

1. A common enterprise and decentralization

A decentralized blockchain project is less likely to be a "common enterprise." For courts that look for horizontal commonality, there must be a pooling of funds. Although pooling is evident during the initial fundraising, it is harder to prove once the tokens have been distributed across the network. When a user purchases a token, his or her money could be going to any other user (or speculator) on the network. Because the funds are spread out between so many different, unaffiliated parties, there might not be any real pooling of those funds.[129]

Similarly, there might not be any vertical commonality in a decentralized blockchain network because there is no single entity to which the users' fortunes are tied.[130] The value of the tokens on a decentralized network may depend more on the network's other participants than on the network's developers.[131] Even if developers are still making changes to the application, those developers might be completely different from the ones who created the system in the first place. Additionally, they might be a large, unaffiliated group of programmers who make individual contributions to the code. Their contributions might be more or less helpful, and they might have more or less personal stake in the blockchain. It is difficult to say that the fortunes of all users are tied to the efficacy or fortunes of a disjointed group of people.

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127. Hinman, *supra* note 16; *see also supra* Part I.
128. Hinman, *supra* note 16.
129. *See* Van Valkenburgh, *supra* note 28, at 49–50.
130. *Id.* at 52.
131. Crosser, *supra* note 25, at 399–400.

Neither would there be vertical commonality between users and the blockchain network's validators. Although users depend on validators to keep the blockchain current and accurate, the validators are not making decisions that affect the success of the enterprise; they are simply running the predetermined code that adds new transactions to the blockchain. Additionally, validators' fortunes may not be correlated to the users' fortunes. Because they get compensated for simply verifying transactions, regardless of whether the token value is trending upward or downward, they could potentially make money even as users lose money.[132]

Despite the possibility that a blockchain may become so decentralized that it no longer forms a common enterprise, it is unlikely that many blockchain projects reach that point. It may be a long time before the original developers cede control of a project or invite other programmers to contribute to their project. In the meantime, there is a distinct affiliated group of developers and the worth of the users' tokens are tied to the developers' decisions. Additionally, the original developers usually keep a percentage of the tokens for themselves,[133] further tying their fortunes to the users' fortunes. Even for a more decentralized project that has new programmers contributing to its codebase, there may still be a clear group of "core developers" who are making decisions about the project and have a clear stake in its success. Continued reporting requirements from these core developers would still benefit potential investors.

Even the network's validators may not be so decentralized as to escape the definition of "a common enterprise." While some consensus methods, such as proof-of-work, use competition to keep miners separate and unaffiliated, other methods are more conducive to finding centralization.[134] In proof-of-stake validation, the people with the greatest stake in the network are the ones most likely to control and verify transactions (and receive an even larger

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132. *See* Van Valkenburgh, *supra* note 28, at 51.

133. It is common for developers to keep approximately 15% of all issued tokens for themselves. *See, e.g.*, Dr. Sanjeev Verma et. al., Munchee Token: A Decentralized Blockchain Based Food Review/Rating Social Media Platform 18 (Oct. 16, 2017), https://www.theventurealley.com/wp-content/uploads/sites/5/2017/12/Munchee-White-Paper.pdf.

134. Van Valkenburgh, *supra* note 28, at 57–58.

stake for doing so).[135] This leads to a cycle of increasing influence. It is possible that a group of the largest stakeholders could band together to decide which transactions get verified and when.[136] This same centralization exists in a permissioned consensus system, where certain entities (such as the developers themselves) manage and verify all of the network's transactions. These scenarios are not so decentralized that they make securities regulations inapplicable.

It is also important to remember that commonality is required by the *Howey* test but not the risk capital test.[137] Therefore, even if a federal court uses the *Howey* test to find that a digital asset lacks commonality and is not a security, a state court might subsequently determine that the very same digital asset is a security under the risk capital test.

2. Efforts of others and decentralization

A decentralized blockchain may also not satisfy the *Howey* test's requirement that any expected profits come from the "efforts of others." A network may be so decentralized that there is no coherent group of people exerting "significant" or "essential" managerial efforts.

Users rely on the efforts of validators to keep the blockchain functioning. As discussed in the context of commonality, there is an argument that the validators for decentralized blockchains are so diverse and unaffiliated that a user cannot be said to rely upon the efforts of any particular verifier to receive the expected profits.[138] This can be true for well-established, popular blockchains, such as Bitcoin or Ethereum, but many blockchains use methods of block validation that are far more likely to create a coherent group that exerts essential efforts. Either way, however, the act of verifying transactions may not be "managerial." Validators are typically just running premade code and not making any decisions.

The real decision-makers are the developers of the blockchain. The developers write the code to make small or large changes to the way the blockchain network functions. As discussed previously,

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135. Jake Frankenfield, *Proof of Stake (PoS)*, INVESTOPEDIA (Aug. 11, 2019), https://www.investopedia.com/terms/p/proof-stake-pos.asp.

136. Mohit Mamoria, *Is Proof of Stake Really the Solution?*, HACKER NOON, (Oct. 14, 2019), https://hackernoon.com/is-proof-of-stake-really-the-solution-2db68487f4ba.

137. *See supra* Section IV.B.

138. *See, e.g.*, Hinman, *supra* note 16.

these efforts might be "significant" and "essential." However, the decentralized line-drawing theory posits that there is no third party to which securities law could be helpfully applied and that securities law is unnecessary because of the decentralized network's transparency.[139]

Even if the current developers of a blockchain project are not the same as its original developers, there is still a limited, exclusive group of programmers running the system. Although any programmer can suggest changes to the code, only the core developers can make changes to the codebase. The core developers hold frequent meetings to discuss and debate the proposed changes.[140] Just because these developers do not work for the same employer does not mean that they are unaffiliated or disjointed. They are the ones capable of making final decisions and exerting efforts that significantly affect the success of the whole project.

The transparency of a blockchain system does not necessarily affect the analysis of a token under the *Howey* test. Even if users can inspect the open-source code on GitHub and watch the core developers' meetings on YouTube (and even if they are capable of understanding the code and technical jargon), users are still relying on the efforts of those core developers. Looking at the blockchain project from the users' perspective, they have no ability to affect its success. Users can suggest changes to the network, but they cannot make those changes nor exert any real control over the success of the network. Users are relying on the efforts of the core developers to keep their tokens functioning and appreciating.

CONCLUSION

In an increasingly digital world, blockchain technology presents the opportunity to make enormous improvements to the economy. The ability to conduct global transactions without requiring independent verification by a third party may completely transform e-commerce and other industries. The enthusiasm for the technology also brings uncertainty, as society grapples with how to unroll blockchain projects in a secure, moral, efficient, and effective manner. Those same concerns apply to how entrepreneurs raise the funds necessary to make their blockchain projects a reality.

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139. Van Valkenburgh, *supra* note 28, at 58.
140. See Ethereum, *supra* note 126.

Securities regulators want investors to make informed, rational, and deliberate decisions before providing capital to blockchain projects. Entrepreneurs want investors to contribute large amounts of capital and to reap the benefits of being an early adopter of their blockchain project. Even if entrepreneurs concede that their ICOs are security offerings, they assert that perpetually regulating digital assets as securities would be unnecessary, unproductive, and overly burdensome.

The debate over whether post-distribution digital tokens should always be securities has primarily consisted of using functionality or decentralization to draw lines between securities and non-securities: A token is no longer a security if it is sufficiently functional, or a token is no longer a security if it is sufficiently decentralized.

This line-drawing presents two problems for blockchain advocates. First, the lines are blurry. It is hard to say *how* functional or *how* decentralized a blockchain project needs to be before crossing the line to become a non-security. Second, the lines are farther to the side of non-securities than many advocates would prefer; that is, the current securities laws make it very difficult for a blockchain project to cross the line from a security to a non-security. While it may be possible, a vast majority of blockchain projects will never graduate to become non-securities.

Full-fledged securities regulations would impose hefty burdens on blockchain developers and on token holders. As a result, developers would be forced to avoid conducting ICOs, foreclosing an effective way of raising funds that fittingly coincides with the unique purposes and principles of blockchain technologies. On the other hand, schemes that trigger securities law do so for a reason: there is usually a potential for investors to make poor, uninformed decisions that might have been avoided.

These competing interests require a balance between technological innovation and investor protection. The question of whether digital tokens are securities is often discussed as a black-and-white dichotomy, but that misses the point of a balance. A balance instead seeks for a gray area or a middle ground.

The government is capable of striking a balance. The SEC has already carved out more lenient requirements for emerging growth companies, small businesses, and even crowdfunding. The SEC can also create a similar exception for digital assets. The formulation of

this special rule should consider the unique characteristics of digital assets, such as transparency of blockchain networks and the functional aspects of their associated tokens, when deciding what information developers can feasibly disclose and what information would be most helpful for potential investors. Although a detailed proposal of the ideal regulation is beyond the scope of this particular Note, a discussion about how to better regulate blockchain applications is already underway.[141]

Applying a decades-old legal standard to a new technological innovation is not an easy task. Creative lawyers and judges are usually capable of squeezing a new subject matter into old laws, but that is not likely to achieve the optimal result. When it comes to blockchain networks and their associated digital assets, a thoughtfully crafted regulation would benefit developers, regulators, users, and investors.

*Scott W. Maughan**

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141. For one proposal of a disclosure scheme for blockchain developers, see Tiffany L. Minks, Comment, *Ethereum and the SEC: Why Most Distributed Autonomous Organizations Are Subject to the Registration Requirements of the Securities Act of 1933 and a Proposal for New Regulation*, 5 TEX. A&M L. REV. 405, 430–37 (2018).

* J.D. candidate, April 2020, J. Reuben Clark Law School, Brigham Young University. Thank you to my wife, Dana, for helping me put these ideas on paper.