

HOW BLOCKCHAIN COULD INCREASE THE NEED FOR AND AVAILABILITY OF CONTRACTUAL ORDERING FOR COMPANIES AND THEIR INVESTORS

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ABSTRACT

This Article examines how cryptoassets such as equity tokens might change the ways in which companies and investors structure their relationships. Corporate-law theorists have argued for many years about whether business organization law should allow for greater private ordering of relationships between companies and their investors. Proponents of increased private ordering tout the benefits of freedom of contract, while those resistant to this approach express concern about inequality of bargaining positions and the risk of unfairness, particularly to minority stakeholders.

With the advent of blockchain and new tokenized investment opportunities, an entirely new perspective on contractual ordering has opened. With tokenized interests, not only is private ordering available to an extent never before seen in modern America, it is now required because of the absence of default rules governing the relationships between company and investor. This Article explores the risks and potential benefits of this new frontier and includes an overview of the wide range of topics that a private ordering regime will need to consider.

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I. INTRODUCTION

Blockchain, the innovation behind cryptocurrencies like Bitcoin, has been described by innumerable sources as “transformative.”¹ Some commentators have claimed that it will “revolutionize the world economy.”² Others state more broadly that “[b]lockchain, can change . . . everything.”³ This Article focuses on one particular possible consequence of the blockchain revolution that might not be immediately obvious: its potential to alter relationships between future investors and the companies in which they choose to invest. In fact, blockchain and contractual arrangements could almost entirely replace existing default and mandatory rules that have traditionally governed the relationships between equity investors and corporations. Instead of statutes, regulations, and common-law rules, contracts could establish the agreed-upon rights, obligations, and responsibilities of the corporation, its agents, and its investors, neither limited nor framed by mandatory obligations or customary default rules. This could indeed be transformative, albeit in a

1. One of the individuals making this particular assertion was a Commissioner of the Commodities Futures Trading Commission (“CFTC”) at a summit meeting held in New York in early 2018, while explaining that the CFTC has no desire to overregulate in the crypto space. Gerelyn Terzo, *CFTC’s Quintenz: ‘Bitcoin and Blockchain Are Transformative’ Bitcoin Opinion*, CCN (Feb. 7, 2018, 9:05 PM), <https://www.ccn.com/cftcs-quintenz-bitcoin-blockchain-transformative/>.

2. Interview by Rik Kirkland with Don Tapscott, CEO, Tapscott Group (May 2016), <https://www.mckinsey.com/industries/high-tech/our-insights/how-blockchains-could-change-the-world>.

3. Oscar Williams-Grut, *Goldman Sachs: ‘The Blockchain Can Change . . . Well Everything’*, BUSINESS INSIDER (Dec. 2, 2015, 10:58 AM), <http://www.businessinsider.com/goldman-sachs-the-blockchain-can-change-well-everything-2015-12>; Laura Shin, *How The Blockchain Will Transform Everything From Banking to Government to Our Identities*, FORBES (May 26, 2016, 8:00 AM), <https://www.forbes.com/sites/laurashin/2016/05/26/how-the-blockchain-will-transform-everything-from-banking-to-government-to-our-identities/#394df44c558e>.

context that is not usually discussed either in the crypto world or by corporate-law scholars.

In order to understand the central claim of this Article, some background is essential. What is blockchain, and how does it relate to corporate investment and ownership? Even more importantly, how could blockchain result in a move away from externally imposed rights, obligations, and procedures towards an entirely contract-based set of rules for companies and investors?

The first section of this Article will provide a brief explanation of blockchain and how it functions. The second section will examine how blockchain could impact corporate investment and the ability to introduce contractual ordering into relationships that have traditionally been limited by statutes, regulations, and common-law rules. The third section will consider what this means with regard to the need for contractual ordering of relationships where traditional investments are “tokenized,” with a particular focus on conventional rules governing the rights of shareholders that do not automatically apply to purchasers of cryptoassets. The next section contains a preliminary overview of the kinds of issues that will need new contractual specifications to make this technological revolution fair for everyone. The conclusion suggests that blockchain has the potential to markedly change the investment landscape. Private ordering of deals may become a reality, although there are many issues that will have to be resolved to make such deals workable.

The starting point, logically enough, is to make sure that there is a common understanding about what blockchain is, how it operates, and its basic potential in the context of investment in business enterprises.

II. WHAT IS BLOCKCHAIN, AND WHAT CAN IT DO?

With Bitcoin as its first major and probably still most famous innovation,⁴ blockchain is a technological and cryptographic⁵ process involving a digital decentralized ledger⁶ in which transactions are added in chronological order, creating a “chain” of blocks.⁷ The information held on that distributed chain is continually being updated and reconciled.⁸ Because the information is shared in its entirety among so many computers (in other words, it is widely distributed), it cannot be controlled by any single entity, and the system therefore has no single point of access where a hacker or other outside force can interrupt or corrupt the information on the chain. It is protected from alteration because changing any unit of information on the blockchain would mean using a huge amount of computing power to override the network, since change takes agreement of a majority or supermajority of the computers acting as nodes in the network.⁹ Blockchain technology therefore allows digital

4. Bitcoin is a digital or virtual currency launched on January 3, 2009. In contrast to traditional government-backed currencies (generally referred to as “fiat” currencies), Bitcoin has no centralized bank, nation-state, or regulatory authority backing it. Julia Finch, *From Silk Road to ATMs: The History of Bitcoin*, GUARDIAN (Sept. 14, 2017, 2:21 AM), <https://www.theguardian.com/technology/2017/sep/13/from-silk-road-to-atms-the-history-of-bitcoin>. “Bitcoins” have no tangible existence and instead are balances in the blockchain ledger. As of January 1, 2019, the total capitalization of Bitcoin was approximately \$65.3 Billion, down from a high of around \$325 Billion in mid-December 2017. See COIN MKT. CAP, <https://coinmarketcap.com> (last visited Jan. 15, 2019, contrasting historical data from January 1, 2019 with December 19, 2017) [hereinafter COIN MARKET CAP]. For this particular data, the link to Bitcoin was selected, and historical data was obtained via the graph available on Bitcoin Charts. This is not to say that Bitcoin is universally applauded. The vice-chairman of Warren Buffett’s investment firm Berkshire Hathaway recently called it a “totally asinine” “noxious poison.” Julia Kollwe, *Bitcoin Is ‘Noxious Poison’, Says Warren Buffett’s Investment Chief*, GUARDIAN (Feb. 15, 2018, 6:11 AM), <https://www.theguardian.com/technology/2018/feb/15/bitcoin-is-noxious-poison-says-warren-buffett-investment-chief>.

5. For a discussion of how cryptography is used to authenticate and maintain security for the blockchain, see Carol Goforth, *The Lawyer’s Cryptionary: A Resource for Talking to Clients about Crypto-transactions*, 41 CAMPBELL L. REV. 47 (2019).

6. “The blockchain is an incorruptible digital ledger of economic transactions that can be programmed to record not just financial transactions but virtually everything of value.” *What is Blockchain Technology? A Step-by-Step Guide for Beginners*, BLOCKGEEKS, <https://blockgeeks.com/guides/what-is-blockchain-technology/> (last updated Sept. 13, 2018) [hereinafter *Guide for Beginners*] (quoting DON TAPSCOTT & ALEX TAPSCOTT, BLOCKCHAIN REVOLUTION (2016)).

7. In the context of blockchains, a “block” is a permanently recorded, time-stamped transaction aggregated with other transactions that occurred at about the same time. One of the simplest ways to think about this is as a “block” being the equivalent of a page in a ledger or record book. Jake Frankenfield, *Block (Bitcoin Block)*, INVESTOPEDIA, <https://www.investopedia.com/terms/b/block-bitcoin-block.asp> (last update July 5, 2018).

8. The ledger is decentralized because it is distributed to a network of computers rather than being held in one central location.

9. See *Guide for Beginners*, *supra* note 6.

information to be accessed by anyone in the network, but that data may not be altered unilaterally by any of them.¹⁰

As one might expect with new technology, there have been a wide variety of developments relative to the use and utility of blockchain technology. In fact, those developments have been increasing at an exponential rate. Originally conceived as a vehicle with the potential to create interests that could act as a medium of exchange, blockchain has evolved into a platform for virtually limitless innovation (no pun intended).¹¹ In essence, while blockchain was initially focused on applications involving cryptocurrencies,¹² it now allows for programmable transactions dependent on a preset condition or a set of conditions. Blockchain technology therefore creates a range of new economic opportunities previously unavailable on the web, including such things as microtransactions, decentralized exchange, and smart contracts.¹³ Smart contracts are scripts executed in the context of a blockchain, and it is these smart contracts that create the potential for tokenization of investments in a manner that both allows and requires agreement on the parameters of relationships traditionally confined by statutes, regulations, and common-law rules.

The first interests that were created and marketed with blockchain technology were all designed as virtual currencies, like Bitcoin and its altcoin progeny,¹⁴ and before considering other cryptographic assets, it is important to make sure that there is a basic understanding of how cryptocurrencies function.¹⁵

10. *Id.*

11. The expanded functionality is sometimes called “Blockchain 2.0.” Roman Alyoshkin, *Blockchain 2.0. The Purpose of Blockchain*, POLYS BLOG (Oct. 3, 2017), <https://medium.com/polys-blog/blockchain-2-0-the-purpose-of-blockchain-e84e5a95cdd9>.

12. Martin von Haller Gronbaek, *Blockchain 2.0, Smart Contracts and Challenges*, BIRD & BIRD (June 2016), <https://www.twobirds.com/en/news/articles/2016/uk/blockchain-2-0—smart-contracts-and-challenges>.

13. Alyoshkin, *supra* note 11.

14. “Altcoin” is the general term for cryptocurrencies that have been specifically designed as alternatives to Bitcoin. Most of these promote themselves as better than Bitcoin in one or more ways and were launched after the initial success of Bitcoin. Jake Frankenfield, *Altcoin*, INVESTOPEDIA, <https://www.investopedia.com/terms/a/altcoin.asp> (last updated July 5, 2018).

15. The term “cryptocurrency” is often used more generally than the term is employed in this Article. This Article uses “cryptocurrency” to refer to digital assets specifically designed to serve as alternatives to government-backed currency by having characteristics that make them suitable as a potential medium of exchange, unit of account, and store of value. The definition of virtual currency used by the Uniform Law Commission in its recently promulgated Uniform Regulation of Virtual Currency Businesses Act uses “or” instead of “and.” In that act, “Virtual Currency” means a digital representation of value that: “(i) is used as a medium of exchange, unit of account, or store of value; and (ii) is not legal tender, whether or not denominated in legal tender,” with certain enumerated exceptions. UNIF. REGULATION OF VIRTUAL-CURRENCY BUSS. ACT § 102(23) (UNIF.

The technological foundation for Bitcoin was first publicized in 2008, in the form of a paper entitled “Bitcoin – A Peer to Peer Electronic Cash System,” which originally appeared in an online discussion of cryptography.¹⁶ It was posted by a person or persons using the pseudonym Satoshi Nakamoto, whose real identity remains a mystery.¹⁷ The innovation announced in this paper was the development of an answer to the question of how consensus can be reached as to the validity of transactions on a decentralized network absent the ability to trust the other parties who are involved.

Before Bitcoin, many efforts at establishing peer-to-peer decentralized currency systems failed because participants were unable to solve the “Byzantine Generals Problem.” That problem has been described like this: suppose in a world before mobile communications, several army groups surround a castle they hope to conquer. Only a simultaneous attack will succeed. Suppose further that the groups are dispersed, meaning that the general for each group must send messages between the various groups to relay and obtain agreement about the time to attack. Complicating matters, some generals may not obey instructions, and some might actually seek to sabotage the attack, conveying incorrect timing information to others. How can the participants guarantee a successfully coordinated attack?

LAW COMM’N 2017) [hereinafter UNIFORM ACT]. The same characteristics are also used by numerous regulatory authorities, including the IRS. “Virtual currency is a digital representation of value that functions as a medium of exchange, a unit of account, and/or a store of value. In some environments, it operates like “real” currency” I.R.S. Notice 2014-21, IR-2014-16 (Mar. 25, 2014). In addition, the following sources employ a similar definition of the phrase. The Conference of State Bank Supervisors (“CSBS”), defines “virtual currency” as “a digital representation of value used as a medium of exchange, a unit of account, or a store of value, . . . [that] does not have legal tender status as recognized by the United States Government.” CONFERENCE OF STATE BANK SUPERVISORS, STATE REGULATORY REQUIREMENTS FOR VIRTUAL CURRENCY ACTIVITIES: CSBS MODEL REGULATORY FRAMEWORK 2 (2015) [hereinafter CSBS REQUIREMENTS]. The New York Department of Financial Services defines “virtual currency” to mean “any type of digital unit that is used as a medium of exchange or a form of digitally stored value.” N.Y. COMP. CODES R. & REGS. tit. 23, § 200.2(p) (2018).

On the other hand, other sources will use the term “cryptocurrency” to cover the world of cryptographic coins and tokens, not only those designed to replace the functions of traditional currency. See Aziz, *Coins, Tokens & Altcoins: What’s the Difference?*, MASTER THE CRYPTO, <https://masterthecrypto.com/differences-between-cryptocurrency-coins-and-tokens/> (last visited Dec. 30, 2018) (“all coins and tokens are regarded as cryptocurrencies, even if most of the coins do not function as a currency or medium of exchange.”). That source does acknowledge that using “cryptocurrency” in this way is misleading. *Id.*

16. SATOSHI NAKAMOTO, BITCOIN: A PEER-TO-PEER ELECTRONIC CASH SYSTEM (2008), <https://bitcoin.org/bitcoin.pdf>.

17. Mark Hodge, *Crypto Creator: Who is Satoshi Nakamoto? Bitcoin Creator Whose Identity Is Unknown but Could Be One of the Richest People in the World*, SUN (Feb. 12, 2018, 7:30 PM), <https://www.thesun.co.uk/news/5037060/satoshi-nakamoto-bitcoin-inventor-richest-world/> (describing the unsuccessful efforts at identifying him (or her or them)).

In the context of modern blockchains, absent a solution to this problem, there is no way to proceed safely. There must be a way for all participants in the network to agree on things, such as whether they will recognize a transaction as valid. Certainly in a decentralized, massive network, trusting everyone would not work. A middleman would require some payment for coordinating a transaction, and in addition, that would introduce the risk that the middleman could be compromised by an outside source or might inappropriately and unilaterally alter the information on the chain. This mirrors the Byzantine Generals Problem.

As a result of Satoshi Nakamoto's innovations, Bitcoin was able to solve this conundrum by utilizing something now known as the Proof-of-Work protocol (sometimes called PoW).¹⁸ This protocol works as follows. A transaction is reported to the network. At that point every network node (in other words, every computer with access to the network) examines the ledger (the digital record of prior transactions) to ensure the transaction is legitimate. Stated differently, the computers each must agree that the ledger shows that the transferor has the Bitcoins that are proposed to be transferred. Once the transaction is accepted as legitimate, it becomes part of the aggregated transactions that form a potential block in the chain. However, in order to actually be added to the chain, the nodes must solve the mathematical puzzle or problem known as the "Proof-of-Work." Nodes that attempt to solve the puzzle are said to be miners, and a miner that successfully solves the puzzle sends the solution to the network for verification. Upon verification, that block becomes part of the chain, and the miner is rewarded for the "work" in solving the puzzle.¹⁹ This innovation successfully solved the Byzantine Generals Problem and thereby ushered in the blockchain era.

18. For a detailed discussion of the problem of consensus for decentralized networks, see *Basic Primer: Blockchain Consensus Protocol*, BLOCKGEEKS, <https://blockgeeks.com/guides/blockchain-consensus/> (last visited Dec. 31, 2018).

19. Debraj Ghosh, *How the Byzantine General Sacked the Castle: A Look Into Blockchain*, MEDIUM (Apr. 5, 2016), <https://medium.com/@DebrajG/how-the-byzantine-general-sacked-the-castle-a-look-into-blockchain-370fe637502c>.

The next group of innovators tried to improve on Bitcoin with “alt-coins,”²⁰ although Bitcoin never lost its place as the “gold standard” of cryptocurrencies.²¹ By way of example, Dash has been described as “a more secretive version of Bitcoin.”²² This product was originally launched in January of 2014 as “Darkcoin,” but was rebranded in March of 2015 to become Dash (which stands for digital cash).²³ Dash is self-funded, meaning that when new Dash are minted, ten percent are set aside to improve the functionality of the cryptocurrency.²⁴ Another difference between Dash and Bitcoin is that Dash has a two-tiered structure involving “masternodes” that perform key functions, such as determining which projects are funded and which private transactions are enabled.²⁵ Just as with Bitcoin, however, Dash is clearly designed to act as an alternative to traditional, fiat currencies.

Litecoin, introduced in 2011, is an altcoin which has the stated objective of becoming the “silver” to Bitcoin’s “gold.”²⁶ As of January 1, 2019, Litecoin market capitalization was somewhat under \$1.9 billion.²⁷ While that falls considerably below Bitcoin’s capitalization of approximately \$65.3 billion as of January 2019,²⁸ it is certainly not an insignificant amount. There are certain attributes that distinguish Litecoin from Bitcoin. One difference, which may be more apparent than real, is that Bitcoin is limited to 21 million

20. See *supra* note 14.

21. Prableen Bajpai, *The 10 Most Important Cryptocurrencies Other Than Bitcoin*, INVESTOPEDIA, <https://www.investopedia.com/tech/most-important-cryptocurrencies-other-than-bitcoin/> (last updated Oct. 5, 2018).

22. From its outset, Dash emphasized privacy for its users. See Sajalali, *The Six Most Important Cryptocurrencies Other than Bitcoins*, STEEMIT, <https://steemit.com/cryptocurrency/@sajalali/the-six-most-important-cryptocurrencies-other-than-bitcoins> (last visited Dec. 31, 2018).

23. *Id.*

24. Jeff Kaufin, *Dash Is up 8,000% in 2017. Is This ‘Darkcoin’ a Better Version of Bitcoin?*, FORBES (Dec. 22, 2017, 10:06 AM), <https://www.forbes.com/sites/jeffkaufin/2017/12/22/dash-is-up-7600-in-2017-is-this-darkcoin-a-better-version-of-bitcoin/#657364ce1a02>.

25. *Id.* “To become a masternode, you must buy at least 1,000 dash coins When new coins are created, 45% of them go to miners, 45% go to masternodes, and 10% go to the network.” *Id.* When that story was written, the buy-in was approximately \$1 million. As of February 15, 2017, the buy-in would have been approximately \$700,000. See COIN MARKET CAP, *supra* note 4. As of May 11, 2018, the buy-in would have been about \$392,000. *Id.* On July 5, 2018, the buy-in would have been a relative bargain at just under \$250,000. *Id.* As was the case for most other cryptocurrencies, Dash did not do well in 2018, and as of January 2019, the buy-in to become a masternode in the Dash network would have been the relatively paltry sum of \$74,000. *Id.*

26. Litecoin is used for peer-to-peer payments. *What is the Difference Between Litecoin and Bitcoin?*, COINDESK, <https://www.coindesk.com/information/comparing-litecoin-bitcoin/> (last updated Apr. 2, 2014).

27. See COIN MARKET CAP, *supra* note 4. This is a substantial decrease from the approximate capitalization of \$8.7 billion in February 2018, \$7.8 billion in May 2018, and \$4.8 Billion in July 2018. *Id.*

28. *Id.*

coins, while Litecoin can issue up to 84 million coins.²⁹ This is not likely to have any practical significance because both coins can be divided into extremely small fractional amounts.³⁰ A potentially more significant difference is the speed with which transactions are confirmed. While transactions themselves occur instantaneously, it takes an average of ten minutes for the Bitcoin network to confirm transactions, while the equivalent figure for Litecoin is approximately two and a half minutes.³¹ The difference in transaction fees is also notable.³² Perhaps the most significant difference between the two coins involves the cryptographic algorithms that they each employ. Bitcoin utilizes the SHA-256 algorithm, while Litecoin makes use of a newer algorithm known as Scrypt, which affects how the coins are mined.³³ Specialized hardware systems have become quite successful and overwhelmingly prevalent in Bitcoin mining operations because of the way the SHA-256 algorithm operates, while Scrypt “was deliberately designed to be less susceptible to the kinds of custom hardware solutions employed in ASIC-based mining.”³⁴

As a third example, Monero, founded in 2014, is an altcoin marketed with an emphasis on privacy.³⁵ Monero claims on its website that “[t]he most

29. Jason Fernando, *Bitcoin vs. Litecoin: What's the Difference?*, INVESTOPEDIA, <https://www.investopedia.com/articles/investing/042015/bitcoin-vs-litecoin-whats-difference.asp> (last updated Oct. 11, 2018).

30. *See id.* (noting that “the minimum quantity of transferable bitcoin is one hundred millionth of a bitcoin (0.00000001 bitcoins) known colloquially as one ‘satoshi’”).

31. The ten-minute mining time for Bitcoin is explained in *Why Do Bitcoin Transactions Take 10 Minutes?*, BITCOIN CASINO, <http://bitcoincasino.best/why-do-bitcoin-transactions-take-10-minutes/> (last visited Dec. 31, 2018); *see also Bitcoin vs. Litecoin*, *supra* note 29 (discussing the Litecoin mining speed). Note also that a Bitcoin transaction generally needs six confirmations from miners before being processed, which would lead one to suspect that it would take a transaction about an hour on average to be added to the chain. However, the network has recently experienced considerable congestion. “The average time for one confirmation has recently ranged anywhere from 30 minutes to over 16 hours in extreme cases.” Steven Buchko, *How Long Do Bitcoin Transactions Take?*, COIN CENT. (Dec. 12, 2017), <https://coincentral.com/how-long-do-bitcoin-transfers-take/>.

32. The price to send Litecoin is typically around twenty-five cents while the price to send Bitcoin varies but is typically between \$5 and \$25. *See Bitcoin, Litecoin Avg. Transaction Fee Historical Chart*, BIT INFO CHARTS, <https://bitinfocharts.com/comparison/transactionfees-btc-ltc.html#3m> (last visited Dec. 31, 2018).

33. *See* Buchko, *supra* note 31.

34. *See Bitcoin vs. Litecoin*, *supra* note 29.

35. Monero offers money movement with an emphasis on privacy. Julia Beyers, *5 of the Most Innovative Cryptocurrencies to Watch*, CRYPTOCOIN.NEWS (Jan. 16, 2018), <https://cryptocoinnews.com/analysis/5-of-the-most-innovative-cryptocurrencies-to-watch-5701/>. Monero has also been listed as one of the six most important cryptocurrencies other than Bitcoin. *See Bajpai, supra* note 21. Monero’s capitalization as of July 5, 2018, was approximately \$2.2 billion, but that had dropped to under \$762 million at the start of 2019. *See* COIN MARKET CAP, *supra* note 4.

critical flaw in Bitcoin is its lack of privacy.”³⁶ Given that starting point, it is not surprising the Monero focuses on privacy as the attribute that distinguishes it from most other cryptocurrencies. Reports suggest that “Monero is favored for its untraceable and highly secure transactions.”³⁷ Monero transactions are made anonymous by use of an integrated mixing process automatically applied to every transaction,³⁸ in contrast to the Bitcoin transactions, which are visible to the public once a wallet address is provided. Monero also claims a superior mining algorithm, an “adaptive block size limit,” and a particularly sophisticated development and research team.³⁹

The economic success of these cryptocurrencies has created a huge incentive for companies to attempt to “cash in” on the crypto market, and the amounts of money involved have fueled a tremendous amount of innovation. Some companies have developed and marketed coins that function on their own blockchain,⁴⁰ and others have developed tokens designed to reside and function on top of another platform.⁴¹ Because of the interest in creating tokens, one of the most important developments to date has proven to be the Ethereum blockchain and its corresponding token, Ether.⁴²

36. *The Merits of Monero: Why Monero vs. Bitcoin*, MONERO.HOW, <https://www.monero.how/why-monero-vs-bitcoin> (last visited Dec. 31, 2018) [hereinafter *Merits of Monero*].

37. Beyers, *supra* note 35.

38. *See Merits of Monero, supra* note 36.

39. *Id.*

40. *Difference Between Cryptocurrency Coins and Tokens*, CRYPTONIAM (Dec. 5, 2017), <http://www.cryptoniam.com/what-is-the-difference-between-cryptocurrency-coin-and-tokens/>. For a further explanation of coins, see *Is Your Crypto Digital Gold, Gas, or Something Else?*, STEEMIT, <https://steemit.com/cryptocurrency/@basiccrypto/is-your-crypto-digital-gold-gas-or-something-else> (last visited Dec. 31, 2018) (citing Litecoin, DASH, NEM, Monero, and ZCash as other examples of coins serving as virtual currencies).

41. There is general agreement that from a technical standpoint, a “token” is a cryptoasset that functions on another blockchain. *See* CRYPTONIAM, *supra* note 40. This means that there is a wide range of interests that can be classified as “tokens.” A cryptotoken can act as a digital asset, and owning that kind of token can represent ownership of an interest in any kind of property. It can serve as a way of accessing membership in a community or group. It can function as an ownership stake in a business venture. It can be a means of rewarding those who contribute to the system. Because there are so many options, it is often difficult to appropriately and consistently classify any particular token. Pavel Kravchenko, *Know Your Tokens: Not All Crypto Assets Are Created Equal*, COINDESK (Aug. 14, 2017, 10:00 AM), <https://www.coindesk.com/what-is-token-really-not-all-crypto-assets-created-equal/>. It is the fact that tokens can support such a range of functions that means they have the potential for allowing contractual rules to supplant statutory or common-law limits traditionally associated with equity and debt investment in corporations. *See infra* Part II of this Article for a consideration of how this is likely to occur.

42. The relative importance of Ether can be measured in a number of ways. As of July 5, 2018, its market capitalization exceeded every other coin or token other than Bitcoin, at \$47.7 billion, and although its total capitalization had dropped to \$13.4 billion by the start of 2019, it was still the third most highly capitalized cryptoasset, behind Bitcoin and XRP (Ripple’s token). *See* COIN MARKET CAP, *supra* note 4. In addition, the SEC has currently opined that only two cryptoassets are so widespread and diverse that they should no longer be considered securities. Ether and Bitcoin

The terms Ether and Ethereum have come to be used interchangeably,⁴³ although speaking technically Ethereum is the blockchain on which Ether operates. Ethereum was conceived in 2013 to extend blockchain use to areas beyond traditional currency-like applications and instead is designed to facilitate the use of smart contracts.⁴⁴ According to the Ethereum website, “Ethereum is a decentralized platform that runs smart contracts: applications that run exactly as programmed without any possibility of downtime, censorship, fraud or third-party interference.”⁴⁵ Ether is the platform-specific token that allows for the development and functioning of such applications. In other words, “Ether is like a vehicle for moving around on the Ethereum platform,”⁴⁶ and it is used by developers looking to “create markets, store registries of debts or promises, move funds . . . and many other things . . . without a middleman or counterparty risk.”⁴⁷

This is not to suggest that the development of this particular platform has always been smooth. Given the amounts of money involved, it is not at all surprising that outside parties have sought to exploit vulnerabilities in the system. While the Ethereum platform itself has never been compromised, there was a particularly infamous attack on one of the early users of the platform, The DAO, in 2016.⁴⁸

Usually, “DAO” stands for decentralized autonomous organization, which is an entity that is organized on a blockchain and operates through smart contracts. By coding the rules by which an organization is to operate on a blockchain, the organization becomes both decentralized and autonomous. In this particular case, The DAO, also known as The Genesis DAO,⁴⁹ was indeed designed as a decentralized autonomous organization, through

are the two cryptoassets in question. See Anna Irrera, *U.S. SEC Official Says Ether Not a Security, Price Surges*, REUTERS (June 14, 2018, 3:24 PM), <https://www.reuters.com/article/us-cryptocurrencies-ether/u-s-sec-official-says-ether-not-a-security-price-surges-idUSKBN1JA30Q>.

43. One commentator described this “casual interchangeability” as a “common headache.” Frederick Reese, *Ether vs. Ethereum: What Is the Difference?*, BITCOIN MKT. J. (Dec. 26, 2017, 8:00 AM), <https://www.bitcoinmarketjournal.com/ether-vs-ethereum/>.

44. *Id.* Thus, the Ethereum platform allows moving and storing value on the web or in applications, creating completely new economic models for applications.

45. ETHEREUM, <https://www.ethereum.org/> (last visited Dec. 31, 2018). Ethereum has continuously highlighted the ability of its platform to support smart contracts. See Beyers, *supra* note 35.

46. Bajpai, *supra* note 21.

47. ETHEREUM, *supra* note 45.

48. David Siegel, *Understanding The DAO Attack*, COINDESK (June 25, 2016, 4:00 PM), <https://www.coindesk.com/understanding-dao-hack-journalists/>.

49. The original poll to name the project is still accessible online. See *The Genesis DAO*, DAO (May 7, 2016), <https://dao.consider.it/the-genesis-dao>.

open-source coding developed by Slock.It.⁵⁰ Initiated in early May of 2016 by a few members of the Ethereum community, the original objective of The DAO was to sell DAO tokens, which would then be used as a kind of venture capital fund for decentralized cryptocurrency projects.⁵¹ In the initial phase of its existence, the creators allowed anyone to send Ether to a special wallet address in exchange for 100 DAO tokens per Ether contributed.⁵² This offering was an unprecedented success, raising approximately \$150 million in Ether at its then current market value.⁵³ Once operational, The DAO was designed to allow companies to make proposals for funding. If approved by a curator, the proposal would be submitted to a vote of The DAO token holders, and any proposals that received a twenty percent vote (of the total of outstanding tokens) were funded.⁵⁴ The DAO also included an “out” in the event that the community invested in a proposal that a particular investor objected to, and this was known as the “split function.” This process allowed users to back out of The DAO by creating a “Child DAO,” to which contributed Ether would be returned after twenty-eight days.⁵⁵

On June 17, 2016, an unidentified hacker found a loophole in this “split function,” which allowed him or her to drain 3.6 million Ether (then worth about \$70 million) by requesting multiple refunds of the same tokens before The DAO could update its records.⁵⁶ The end result was a division in the Ethereum community over what to do. Eventually, a supermajority of community members voted to adopt what is known as a hard fork (essentially a mandatory revision to the coding of the smart contract), which had “the sole function of returning all the Ether taken from the DAO to a refund smart contract.”⁵⁷

While the story of The DAO is a cautionary one, in that it emphasizes the importance of clear and careful coding of smart contracts, it is also one

50. Samuel Falcon, *The Story of the DAO—Its History and Consequences*, STARTUP (Dec. 24, 2017), <https://medium.com/swlh/the-story-of-the-dao-its-history-and-consequences-71e6a8a551ee>.

51. Emma Avon, *The DAO Hack – What Happened and What Followed?*, COINCODEX, <https://coincodex.com/article/50/the-dao-hack-what-happened-and-what-followed/> (last visited Dec. 31, 2018).

52. *Id.*

53. See Alex Lielacher, *Top 10 Biggest ICOs (by Amount Raised)*, BITCOIN MKT. J. (Aug. 1, 2018, 8:00 AM), <https://www.bitcoinmarketjournal.com/biggest-icos/>. The DAO ICO came in fifth on this list, having raised \$152 million between May 1st and May 28th of 2017.

54. Antonio Madeira, *The DAO, The Hack, The Soft Fork and The Hard Fork*, CRYPTOCOMPARE (July 26, 2016), <https://www.cryptocompare.com/coins/guides/the-dao-the-hack-the-soft-fork-and-the-hard-fork/>.

55. *Id.*

56. See Falcon, *supra* note 50.

57. See Madeira, *supra* note 54.

that illustrates the potential of blockchain in the context of investment. The DAO was intended to operate as a venture capital fund for the crypto community, and as evidenced by the amount of money raised in a very short period of time, there was substantial interest in the idea. This raises the question of what else the technology might do with regard to facilitating investment in business enterprises.

III. HOW DOES BLOCKCHAIN TECHNOLOGY RELATE TO CONTRACTUAL ORDERING OF RELATIONSHIPS WITH CORPORATE INVESTORS?

Tokens can fulfill a number of distinct functions, and a single token can have more than one such purpose. For example, it is possible for tokens to serve as a medium of exchange, like a currency, in which they act as a payment system between participants.⁵⁸ Alternatively (or additionally), they can act as digital assets, or in other words, as digital rights; owning this kind of token can represent ownership of an interest in any kind of property.⁵⁹ Tokens can also serve as a means of access or membership to a community or

58. Bitcoin certainly functions in this way, which helps explain why it is often viewed as an alternative to fiat currency. “The first generation of cryptocurrencies were designed as digital stores of value. Their purpose was to replace fiat currency as the medium for transactions Bitcoin is the classic example” See *Is Your Crypto Digital Gold, Gas, or Something Else?*, *supra* note 40.

59. Perhaps the most obvious examples of these kinds of tokens or coins would be gold-based cryptocurrencies. For these, “[a] token or coin is issued that represents a value of gold (for example 1 gram of gold equals 1 coin). The gram of gold is stored by a trusted custodian (preferably third party), and can be traded with other coin holders.” James, *A Guide to Gold-backed Cryptocurrency*, GOLDSCAPE.NET (Nov. 24, 2018), <http://www.goldscape.net/gold-blog/gold-backed-cryptocurrency/>.

group.⁶⁰ Tokens can serve as a reward for those who contribute to the system.⁶¹ Tokens can, in theory at least, offer a virtually unlimited array of functional utility,⁶² and because there are so many options, it is often difficult to appropriately and consistently classify any particular token. The difficulty in classifying tokens is only increased by the fact that they are often designed to be a cross between shares, internal currency, and accounting units.⁶³ For

60. Access tokens have been described like this:

Tokens can also play a role of being needed to access the network and pay transaction fees. It's not the sole means of payment—other currencies can be used—but small amounts are needed to use the platform at all. In some ways, Ethereum and all platform blockchains are like this: the native cryptocurrency is just needed to pay gas fees, but people can still transfer (and pay with) meta-tokens. Another example is Melon, which accepts multiple forms of tokens as payment across the network but which also requires that transaction fees be paid in Melon tokens.

See *Token Rights: Key Considerations in Crypto-Economic Design*, SMITH & CROWN (Mar. 30, 2017), <https://www.smithandcrown.com/token-rights/>.

61. Bitcoin miners, for example, receive coins for successfully solving the mathematical puzzles that are necessary to authenticate blocks on the blockchain. See *How Bitcoin Mining Works*, COINDESK, <https://www.coindesk.com/information/how-bitcoin-mining-works/> (last updated Jan. 29, 2018).

62. As of May 15, 2018, there were 738 distinct tokens listed on Coinmarket, and they had a total capitalization of \$57,740,803,913, up from 611 tokens having a total capitalization of \$54,085,903,703 in mid-February. See COIN MARKET CAP, *supra* note 4. By January 14, 2019, there were 1218 tokens listed, but the total market capitalization had dropped to \$9,913,358,299. *Id.*

Many of the newer tokens were not designed to serve as cryptocurrencies at all and rather were intended to provide purchasers with a particular functionality. Tokens such as these were often referred to as “utility tokens,” and represent “services or units of services that can be purchased.” See Micha Benoliel, *Understanding the Difference Between Coins, Utility Tokens and Tokenized Securities*, STARTUP GRIND (Aug. 8, 2017), <https://medium.com/startup-grind/understanding-the-difference-between-coins-utility-tokens-and-tokenized-securities-a6522655fb91>. “Filecoin,” which was designed to “provide users with access to its decentralized cloud storage,” is an example of a utility token. Josiah Wilmoth, *ICO 101: Utility Tokens vs. Security Tokens*, STRATEGIC COIN, <https://strategiccoin.com/ico-101-utility-tokens-vs-security-tokens/> (last visited Dec. 31, 2018).

Most of the new tokens launched in 2016 and 2017 “were utility tokens,” but because speculators often invested in these new assets, they also “acted as proprietary payment currencies.” See Kyle Samani, *New Models for Utility Tokens*, MULTICOIN CAP. (Feb. 13, 2018), <https://multi-coin.capital/2018/02/13/new-models-utility-tokens/>. Interestingly, Samani specifically notes that Filecoin, while designed as a utility token, also functioned as a cryptocurrency. *Id.*

Unfortunately, the use of the “utility token” descriptor often created great confusion between members of the crypto-community and regulators, with the former often suggesting or believing that a utility token would not be regulated, while the latter found classification as a utility token to be irrelevant to appropriate regulatory treatment. Compare JUAN BATIZ-BENET, JESSE CLAYBURGH & MARCO SANTORI, *THE SAFT PROJECT: TOWARD A COMPLIANT TOKEN SALE FRAMEWORK* 15–16 (2017), <https://saftproject.com/static/SAFT-Project-Whitepaper.pdf> [hereinafter *THE SAFT PROJECT*] (asserting that functional utility tokens should not be securities), with Joseph Young, *SEC Hints at Tighter Regulation for ICOs, Smart Policies for “True Cryptocurrencies”*, COINTELEGRAPH (Feb. 9, 2018), <https://cointelegraph.com/news/sec-hints-at-tighter-regulation-for-icos-smart-policies-for-true-cryptocurrencies> (reporting that SEC Chairman Jay Clayton has rejected the notion that “utility tokens” would not be securities, concluding instead that “every ICO token the SEC has seen so far is considered a security . . .”).

63. Kravchenko, *supra* note 41.

the purposes of this Article, the most important observation is that a token can function as a share of or stake in a business venture.⁶⁴

The Securities and Exchange Commission (“SEC”) certainly sees parallels between tokens and more conventional investments in business enterprises, generally employing a presumption that the issuance and sale of tokens is subject to regulation under the federal securities laws.⁶⁵ According to the SEC, the appropriate analysis is whether the underlying token is an investment contract, as such term has been defined by the courts.⁶⁶ In essence, this approach asks the following questions: (1) is there an investment of money (or something else of value); (2) is there a common enterprise; (3) is the investor expecting a share of profits; and (4) is the investor relying on the essential entrepreneurial efforts of others to realize those profits?⁶⁷ A token that is designed to involve these characteristics would not only be a security,

64. Another way of looking at this kind of token is to think of it as a tokenized security. See Alex Lielacher, *ICO Tokens 101: Understanding Token Types*, BITCOIN MKT. J. (Nov. 21, 2017, 8:00 AM), <https://www.bitcoinmarketjournal.com/ico-token/> (suggesting that new tokens from tZero, a portfolio company of Overstock, Inc., would fit this categorization). Meta-tokens are described as being like a share in the underlying project. See Tristan Winters, *Meta-Tokens, ICOs and the Ethereum Blockchain*, ETH NEWS (Sept. 10, 2016, 9:30 AM), <https://www.ethnews.com/meta-tokens-icos-and-the-ethereum-blockchain>.

65. On February 6, 2018, the Senate heard testimony from SEC Chairman Jay Clayton that “every ICO token the SEC has seen so far is considered a security and explained that if a crypto-asset issued by a company increases in value over time depending on the performance of the company, it is considered a security.” See Young, *supra* note 62.

More recently, the Chairman has opined that Bitcoin and Ether are “no longer” securities, apparently because they have become so decentralized that there is no “discernible third party upon whom we would really expect investors to be reliant.” Louise Matsakis, *Rest Easy, Cryptocurrency Fans: Ether and Bitcoin Aren’t Securities*, WIRED (June 14, 2018, 4:19 PM), <https://www.wired.com/story/sec-ether-bitcoin-not-securities/>. In other comments, William Hinman, the SEC’s Director of the Division of Corporate Finance, acknowledged that Ether should not be regulated like stocks and bonds, although he “notably stopped short of declaring that the initial investments made in ether weren’t securities. It’s possible that investments made early, before the currency became truly decentralized, could still be viewed as traditional investment vehicles.” *Id.* Clayton and Hinman apparently agree that most ICOs or initial sales of tokens are still likely to be subject to regulation as involving the sale of securities. *Id.*

For a more detailed consideration of the impact of securities law on token sales, see Carol Goforth, *Securities Treatment of Tokenized Offerings under U.S. Law*, 46 PEPP. L. REV. (forthcoming 2019), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3212689.

66. The definition of “investment contract” originated in the U.S. Supreme Court opinion in *SEC v. W.J. Howey Co.*, 328 U.S. 293, 298–99 (1946). For an explanation of how the SEC applies the *Howey* test to the sales of cryptoassets, see William Hinman, Dir., Div. of Corp. Fin., Digital Asset Transactions: When Howey Met Gary (Plastic), Remarks at the Yahoo Finance All Markets Summit: Crypto (June 14, 2018).

67. For one explanation of how this test may be applied, see THE SAFT PROJECT, *supra* note 62, at 6–11.

it could easily function as a replacement for traditional equity investment, although it certainly does not have to operate in this way.⁶⁸

Obviously, in order to understand the implications of what it could mean for securities tokens to eventually replace traditional investment vehicles such as stock, it is essential to have a common understanding of what is meant by the phrase “securities token.” As is common with terminology in the crypto space, the phrase has not always been used precisely, and it certainly has been given different meanings in various sources. Crypto-entrepreneurs often state that any cryptoasset regulated by the SEC is a “security token,”⁶⁹ and this would certainly be one way to use the term. However, this statement appears to be predicated on an inaccurate assumption that some kinds of tokens will be automatically regulated as securities, while others will not. The usual dichotomy postulated by commentators in the crypto world is that some tokens will be utility tokens, while others will be security tokens.⁷⁰ In reality, the Chairman of the SEC has concluded that every initial coin offering (“ICO”) he has seen to date is a security, regardless of the attributes of the

68. In fact, most of the original SEC actions against cryptotokens have not involved tokens that were designed to function as replacements for traditional equity or debt investment. For example, on April 2, 2018, the SEC halted trading in an ICO for the “CTR Token,” which was supposed to finance the development of financial products, such as a debit card that would allow users to convert cryptocurrencies into U.S. dollars. *See* Press Release 2018-53, U.S. Sec. and Exch. Comm’n, SEC Halts Fraudulent Scheme Involving Unregistered ICO (Apr. 2, 2018). Earlier, on December 1, 2017, the SEC’s Cyber Unit filed an enforcement action against “PlexCoin,” which was supposed to be a new cryptocurrency, and on December 11, 2017, the same unit offered to settle its action against Munchee Inc., which was offering Munchee tokens to improve iPhone applications, pay for food reviews, and advertise restaurants. William Ross, *SEC Brings Enforcement Actions Against Promoters of Initial Coin Offerings*, LEXOLOGY (Jan. 3, 2018), <https://www.lexology.com/library/detail.aspx?g=2d79beba-d1ed-4c6d-a57e-dbd31043b7c5>. A wave of dozens of SEC subpoenas was also sent out in early 2018, most geared at obtaining data from all kinds of token offerings, “many” of which were reportedly for “transactions where investors received a token that does not yet have any use because the proposed blockchain network has yet to be built.” Marc Hochstein & Bailey Reutzel, *SEC ICO Probe Underway, but Stories Conflict on Size of Sweep*, COINDESK (Mar. 1, 2018, 3:45 AM), <https://www.coindesk.com/sec-ico-probe-underway-stories-conflict-extent-sweep/>.

69. “Security Tokens are digital assets subject to federal security regulations.” Anthony Pompiano, *The Official Guide to Tokenized Securities*, MEDIUM (Feb. 25, 2018), <https://medium.com/@apompiano/the-official-guide-to-tokenized-securities-44e8342bb24f>.

70. Commentators taking this position often make blanket assertions like: “Utility tokens, also called user tokens or app coins, represent future access to a company’s product or service. The defining characteristic of utility tokens is that they are not designed as investments; if properly structured, this feature exempts utility tokens from federal laws governing securities.” Wilmoth, *supra* note 62. Others happily conclude that “not all tokens are security ones. Two types of them are recognized—security and utility. Security tokens are designed to be the company’s share, while utility tokens represent access to a company’s product or service, i.e. have practical use. Utility tokens are exempted from regulation and security laws.” Bonpay, *Security Tokens vs. Utility Tokens*, MEDIUM (Feb. 22, 2018), <https://medium.com/@bonpay/security-tokens-vs-utility-tokens-1aa7531aabe8>.

underlying tokens.⁷¹ If every token is, under current rules, going to be regulated as a security when it is issued, what meaning should the phrase “security token” have?

Some commentators have suggested that “[i]f a crypto token derives its value from an external, tradable asset, it is classified as a security token and becomes subject to federal securities regulation.”⁷² While this is another possible approach to the term, it makes more sense (from a legal standpoint) to use the phrase “security token” to mean a token specifically designed to function in lieu of a traditional debt or equity security.⁷³ This is in line with some of the most thoughtful commentary on current developments in the crypto space. While some sources suggest other terms, such as “tokenized” or “digitized” securities instead of securities tokens,⁷⁴ this Article accepts the latter as the more frequently employed terminology. “A security token represents traditional, private security interest. It could represent a share in a company, an LP interest in a fund or a trust, a member share in an LLC. Essentially,

71. Young, *supra* note 62, reported the SEC position which would treat all recent ICOs as involving the sale of securities. Commentators who focus on the SEC’s actual pronouncements agree that the utility-security dichotomy is inaccurate and misleading. *See, e.g.*, Daniel C. Zinman, James Q. Walker, Margaret Winterkorn Meyers & Whitney O’Byrne, *SEC Issues Warning to Lawyers on ICOs*, BLOOMBERG L. (Feb. 22, 2018), <https://www.bna.com/sec-issues-warning-n57982089230/> (examining a number of recent pronouncements and actions taken by the SEC and concluding that “the SEC has essentially adopted a rebuttable presumption that ICO tokens are securities that must comply with the registration requirements of the securities laws”); *see also* Evelyn Cheng, *The SEC Just Made it Clearer That Securities Laws Apply to Most Cryptocurrencies and Exchanges Trading Them*, CNBC (Mar. 7, 2018, 5:14 PM), <https://www.cnbc.com/2018/03/07/the-sec-made-it-clearer-that-securities-laws-apply-to-cryptocurrencies.html>. *Accord But I Have a ‘Utility Token’ Not a ‘Security Token’*, CRYPTO INV. SUMMIT (Mar. 28, 2018), <https://cryptoinvestsummit.io/2018/03/but-i-have-a-utility-token-not-a-security-token/> (concluding that any token sold “for the purpose of raising capital . . . [where] purchasers are buying based upon speculation that the token will increase in value, . . . [is likely to amount to] the offering of a security . . . regardless of whether you call it a utility token or a security token”).

72. Wilmoth, *supra* note 62.

73. Certainly, some sophisticated writers also adopt this terminology. One wrote that “since *security tokens are actual financial securities*, your tokens are backed by something tangible like the assets, profits, or revenue of the company.” Michael K. Spencer, *Security Token Offerings—STOs Are the New ICOs*, MEDIUM (May 9, 2018), <https://medium.com/futuresin/security-token-offerings-sto-are-the-new-icos-d697ece5b6f9> (emphasis in original). Another author says that a security token is different from the traditional utility-based token model, and that security tokens are:

backed by assets, profits, or revenue generated by companies. This means these tokens will have tangible value from day one, rather than be based on hype and speculation first and foremost. It is a financial security just like that which is issued by traditional companies, but with a few cryptocurrency-related elements added to the mix.

JP Buntinx, *What Is a Security Token Offering?*, NULLTX (May 7, 2018), <https://themerke.com/what-is-a-security-token-offering/>.

74. *E.g.*, Carlos Domingo, *Whether Utility or Security Tokens, What We’re Really Talking About are Digitized Securities*, CROWD FUND INSIDER (Apr. 25, 2018, 5:41 PM), <https://www.crowdfundinsider.com/2018/04/132585-whether-utility-or-security-tokens-what-were-really-talking-about-are-digitized-securities/>.

you're taking something that today you have on paper and you're putting an electronic wrapper around it.”⁷⁵

One source proclaimed in early 2018 that “Security Token Offerings will revolutionize the traditional finance world.”⁷⁶ For the most part, that article suggests that a “security token” should be regarded as “programmable ownership,” in much the same way that Bitcoin is “programmable money,” and the author predicts that “any asset with ownership can and will be tokenized (public & private equities, debt, real estate, etc.).”⁷⁷ That article therefore treats “security token,” “tokenized security,” and “digitized security” as being synonymous, although it generally uses the first of these terms.⁷⁸ Some writers have opined that “security tokens” (as used in this more narrow sense) will be the “next big thing in cryptoassets.”⁷⁹ Others posit an impressive range of potential benefits that might be achievable if American companies move towards allowing tokens to replace conventional investments such as “bonds, equities, stocks, and futures.”⁸⁰ Those comparative advantages could include faster transactions, freedom to invest around the world, lower fees, transparency, and the availability of micro shares.⁸¹

There is, in fact, evidence that the world is preparing to move in this direction. In April of 2018, Forbes published an article proclaiming the benefits of “Tokenized Security Offerings (TSOs),” as “a new fundraising method for both companies that need capital to grow their businesses and for accredited investors who wish to invest in these companies.”⁸²

75. Polina Marinova, *What Is a Security Token? Harbor's CEO Explains*, FORTUNE (May 18, 2018), <http://fortune.com/2018/05/18/security-token-harbor-ceo/> (quoting Josh Stein, CEO, of tokenized securities startup Harbor, described *infra* notes 84–85 and accompanying text).

76. Pompliano, *supra* note 69. The author of this commentary modestly claims that he is a “Crypto capitalist hell-bent on tokenizing the world.”

77. *Id.* It is worth noting that Pompliano’s article also assumes that security tokens are any “digital assets subject to federal security regulations,” which is probably inaccurate within the confines of U.S. law because the SEC is not drawing the same distinctions about which tokens will be subject to the securities laws that Pompliano seems to assume are accurate.

78. *Id.*

79. Ben Arnon, *Security Tokens Could Be the Next Big Thing in Cryptoassets*, HILL (Mar. 10, 2018, 12:00 PM), <http://thehill.com/opinion/technology/377592-security-tokens-could-be-the-next-big-thing-in-cryptoassets>. This source projected that “[a] ton of capital is expected to flow into the cryptoassets ecosystem from Wall Street, not to utility coins but to security coins.” *Id.*

80. *The Tokenization of Securities: How Could It Impact Market Behavior?*, NEWS BTC (Apr. 21, 2018, 6:38 PM), <https://www.newsbtc.com/2018/04/21/tradeconnect-tokenized-securities-impact-market-behavior/> [hereinafter *Tokenization of Securities*].

81. *Id.*

82. Joe Forbes, *Tokenized Security Offerings Offer a New Way to Raise Capital*, FORBES (Apr. 11, 2018, 8:45 AM), <https://www.forbes.com/sites/forbestechcouncil/2018/04/11/tokenized-security-offerings-offer-a-new-way-to-raise-capital/#1175a2bc5942>. This article defines a tokenized se-

Tokenized securities businesses are already beginning to appear. For example, in mid-April 2018, a group of major Silicon Valley venture capital funds contributed \$28 million to “tokenized securities startup Harbor,” which intends to use the funds to develop an Ethereum-based platform designed to facilitate compliant trading in tokenized offerings by adopting protocol-based safeguards to ensure that “investors can execute trades only if they satisfy pertinent regulations, such as know your customer (“KYC”) and anti-money-laundering (“AML”) requirements.”⁸³ The plan was to announce the platform for issuers and licensed broker-dealers during the summer of 2018.⁸⁴ Another recent ICO offered “a new trading Token called ThinkCoin,” the proceeds of which are apparently intended to fund the development of a new blockchain trading network to be known as TradeConnect, which was scheduled for beta launch in August of 2018.⁸⁵

One of the most visible efforts geared at paving the way for tokenized securities has been the securities token platform Polymath.⁸⁶ Polymath is designed to “simplify[y]... the legal process of creating and selling security tokens. It makes a new token standard . . . and enforces government compliance.”⁸⁷ Another source explains that “Polymath is a platform like Ethereum, but instead of creating utility tokens like an ICO platform, it offers equity in a company – a model which has a well-established regulatory framework.”⁸⁸

curity offering as a “‘public-private’ security offering that utilizes a Securities and Exchange Commission (SEC) regulatory framework, such as SEC Rule 506(c) and the issuance of securities that are sold via blockchain technology like the Ethereum Network.” *Id.*

83. Annaliese Milano, *A16z, Founders Fund Back \$28 Million Raise for Tokenized Securities Startup*, COINDESK (Apr. 17, 2018, 11:01 AM), <https://www.coindesk.com/a16z-founders-fund-back-28-million-raise-tokenized-securities-startup/>. Harbor CEO Joshua Stein told CoinDesk that “[t]here’s literally tens of trillions of dollars of real-world assets that would benefit from the ownership interest being tokenized, and that can unlock tremendous economic value.” *Id.* For a more detailed discussion on the KYC and AML banking regulations, see *infra* notes 147–49, 156–58; see also Scott D. Hughes, *Cryptocurrency Regulations and Enforcement in the U.S.*, 45 W. ST. L. REV. 1, 13–16 (2017).

84. *Id.*

85. See *Tokenization of Securities*, *supra* note 80. Thinkcoin was apparently not sold in either the U.S. or China, presumably because of restrictive rules in these two jurisdictions. See *ThinkCoin ICO: Token Crowdsale Info*, ICO WATCH LIST, <https://icowatchlist.com/ico/thinkcoin> (last visited Dec. 31, 2018).

86. See POLYMATH, <https://polymath.network/> (last visited Dec. 31, 2018) (claiming to be the future of finance, tokens, securities and Wall Street, enabling “trillions of dollars of securities to migrate to the blockchain”). Polymath raised nearly \$140 million through the sale of Polymath tokens to support the development of its platform. *Polymath (Blockchain Service)*, ICO DROPS, <https://icodrops.com/polymath/> (last visited Dec. 31, 2018).

87. Paul Andrew, *What is Polymath (POLY)? Everything You Should Know*, COINCENTRAL (Nov. 6, 2018), <https://coincentral.com/what-is-polymath-beginners-guide/#about-polymath>.

88. Brian Penny, *What Is Polymath Network? Introduction to POLY Token*, COINGUIDE (Nov. 20, 2018), <https://cryptobriefing.com/what-is-polymath-network-introduction-to-poly-token/>.

Another company seeking to move into this space is RenGenX, formerly SaftLaunch.⁸⁹ According to its website, RenGenX is designed to function as a decentralized security token exchange which will “host companies offering tokenized securities and equity tokens. [It] . . . endeavor[s] to set a globally compliant standard in offerings, by providing a compliant platform designed for investors and issuers, working with broker/dealers, and providing KYC/AML and Accreditation services.”⁹⁰

In addition to platforms designed to provide support services for offerings of securities tokens, at least some companies have already begun exploring the issuance of these kinds of tokens. The “first major Security Token Offering” was announced for early 2018 by tZero, a subsidiary of Overstock.⁹¹ In essence, this deal offers investors a “simple agreement for future equity” or SAFE where the future equity will take the form of tokens that are intended to operate somewhat like preferred stock.⁹² The offering does not quite involve the sale of traditional equity, with one reviewer describing the tZero “equity” token as being like “preferred stock ‘light.’ . . . There are no rights to the company’s equity, by conversion to common or otherwise. And the dividends are not guaranteed, only discretionary. In addition, token preference is not guaranteed, but can be subordinated in a subsequent offering.”⁹³

This provides a perfect transition into the next section of this Article. If tokenized offerings of interests that would traditionally have been packaged as equity are going to succeed, what is the practical consequence with regard to the importance of and need for contractual provisions defining the relationships? What kinds of contractual provisions will need to be added, and can be added, that might not be helpful or even possible with traditional equity sales?

89. See RENGEX LABS, <https://www.rengexlabs.com/#/> (last visited Dec. 31, 2018).

90. *Id.* For more information about AML and KYC requirements, see *infra* notes 147–49, 156–58.

91. William Restis, *tZERO’s Security Token Offering (STO) Unpacked*, RESTIS L. (Apr. 4, 2018), <https://restislaw.com/tzero-security-token-offering-unpacked/>. This source does note that while tZero is not technically the first STO, it is the first by a “major company.” *Id.*

92. See tZERO, CONFIDENTIAL PRIVATE PLACEMENT OFFERING MEMORANDUM (2018), https://www.sec.gov/Archives/edgar/data/1130713/000110465918013731/a18-242_1ex99d1.htm.

93. Restis, *supra* note 91.

IV. THE PRACTICAL CONSEQUENCES OF TOKENIZED INVESTMENT

Traditionally, equity investment in U.S. corporations has been made through the purchase of stock. However, as described in the preceding section of this Article, “[m]any industry observers . . . believe that mainstream companies will one day issue shares through ICOs, either in place of or in addition to traditional public offerings.”⁹⁴ If this is accurate, and there are considerable resources and a lot of energy being devoted to the goal of seeing that it will be, then there will need to be considerable attention paid to the rights and responsibilities of the various parties with regard to these new security tokens. Traditional rules applicable to protect equity investors will not automatically translate to owners of these new tokenized securities, and this opens up a range of both possibilities and potential problems.⁹⁵

Many of the most widely recognized and accepted attributes of stock, and the rights of stockholders, are set out in the applicable corporate statutes, which under the internal affairs doctrine would be the state in which the enterprise has been incorporated;⁹⁶ applicable federal regulations (for publicly held corporations in particular, that will include the Securities Exchange Act

94. Wilmoth, *supra* note 62.

95. This reality is one reason why the phrase “digitized security,” proposed by some commentators as a less ambiguous phrase, is not used in this Article. *See supra* note 74 and accompanying text. Technically speaking, most existing equity shares in public corporations are “digitized,” in the sense that they are maintained digitally in electronic databases rather than being certificated. As one source explained, “[t]he public markets mostly abandoned certificates decades ago in favor of the Direct Registration System (DRS), which ‘allows you to have your security registered in your name on the books of the issuer without the need for a physical certificate to serve as evidence of your ownership.’” Todd Miller, *Why Private Companies Don’t Need to Issue Stock Certificates*, CAPSHARE BLOG (Sept. 25, 2015), <https://www.capshare.com/blog/why-private-companies-dont-need-to-issue-stock-certificates/>. Although the shares are “digitized,” that is not the same as being “tokenized,” which is where the underlying interests (shares) are replaced by tokens, rather than merely being shares recorded on an electronic ledger.

96. *See* RESTATEMENT (SECOND) OF CONFLICT OF LAWS § 302 (AM. LAW INST. 1971). For information on the development of the corporate internal affairs doctrine, see generally Frederick Tung, *Before Competition: Origins of the Internal Affairs Doctrine*, 32 J. CORP. L. 33 (2006).

of 1934);⁹⁷ and various common-law requirements.⁹⁸ Many of these rights are mandatory, and the ability of the parties to modify those terms by contract are often limited.⁹⁹

97. Section 12(g) of the Securities Exchange Act of 1934 makes it clear that issuers who have a “class of equity security” held by either 2000 persons or 500 non-accredited investors will be subject to the myriad mandatory reporting and other obligations of the ‘34 Act. *See* 15 U.S.C. § 78l(g)(1) (2012). For a description of the ongoing reporting requirements under the ‘34 Act, see generally MARY E. T. BEACH, *CONTINUOUS REPORTING REQUIREMENTS UNDER THE EXCHANGE ACT OF 1934* (2010).

Note that there is no guarantee that ownership of security tokens by more than 2000 persons will make the issuer subject to these requirements because it is not at all clear that security tokens will be considered to be “equity securities.” The definition of “equity security” in the ‘34 Act refers to “any stock or similar security,” but tokenized interests do not necessarily act at all like stock. *See* 15 U.S.C. § 78c(a)(11). The Financial Industry Regulatory Authority (“FINRA”) has, for example, expressly warned the public that tokenized offerings are not like traditional equity, reporting that “[u]nlike stocks, ICOs typically confer no ownership rights in the company” *Initial Coin Offerings: Know Before You Invest*, FINRA, <http://www.finra.org/investors/alerts/initial-coin-offerings-know-before-you-invest> (last updated Aug. 31, 2017) [hereinafter *Initial Coin Offerings*].

98. The common law, for example, grants shareholders certain rights to corporate books and records, and under the majority approach these rights are not abrogated by state statutes dealing with such rights. *See* Browning Jeffries, *Shareholder Access to Corporate Books and Records: The Abrogation Debate*, 59 *DRAKE L. REV.* 1087, 1113 (2011). It also obligates directors to protect the interests of shareholders in a range of circumstances, ranging from insolvency to contests for control and fundamental changes in corporate structure. *See* Florence Shu-Acquaye, *American Corporate Law: Directors’ Fiduciary Duties and Liability During Solvency, Insolvency, and Bankruptcy in Public Corporations*, 2 *U. PUERTO RICO BUS. L.J.* 1, 6 (2011) (shareholder rights in the context of insolvency proceedings). *See generally* Jonathan D. Springer, *Corporate Constituency Statutes: Hollow Hopes and False Fears*, 1999 *ANN. SURV. AM. L.* 85 (1999) (describing how even legislation ostensibly permitting corporate directors to consider interests of others such as employees or creditors has not materially limited the common-law rights of shareholders to enforce duties owed to them).

99. The contractarian view of corporate law advocates a paradigm in which corporate statutes essentially provide a set of default rules that govern the relationships between the shareholders, the corporation, and its managers. *See* James D. Cox, *Corporate Law and the Limits of Private Ordering*, 93 *WASH. U. L. REV.* 257, 260 (2015) (“In a world of private ordering, the state corporate statute is understood to have the limited role of providing default rules in those instances where the parties have not otherwise specified how their affairs or activities are to occur.”). Under this approach, which often uses the label of “nexus of contracts,” stockholders and directors would generally be free to freely negotiate the terms of their relationship, retaining only those default rules that best serve their interests. *See* Frank H. Easterbrook & Daniel R. Fischel, *The Corporate Contract*, 89 *COLUM. L. REV.* 1416, 1426 (1989) (“[Nexus of contracts] is just a shorthand for the complex arrangements of many sorts that those who associate voluntarily in the corporation will work out among themselves.”).

While this paradigm has been extraordinarily impactful in the legal academy, in the real world, a range of rules exist which the parties in the corporate realm are not free to contract around. *See, e.g.,* Frederick H. Alexander & James D. Honaker, *Power to the Franchise or the Fiduciaries?: An Analysis of the Limits on Stockholder Activist Bylaws*, 33 *DEL. J. CORP. L.* 749 (2008) (discussing how and why Delaware law precludes certain attempts to reorder corporate relationships through bylaw amendments); *see also* Jeffrey N. Gordon, *The Mandatory Structure of Corporate Law*, 89 *COLUM. L. REV.* 1549, 1550–51 (1989) (arguing that viewing the corporation as being freely susceptible to private ordering by shareholders and directors is too narrow, as this limits the corporation to being seen solely as a vehicle for wealth maximization, ignoring other considerations that statutes and courts may rightfully wish to consider).

Under state law, which varies from jurisdiction to jurisdiction, shareholders are generally provided with certain, albeit limited, rights. Because state laws vary so widely in the wording if not the general intent, this Article will rely on two primary sources to illustrate the kinds of statutory rules that apply to protect the interests of shareholders: the Model Business Corporation Act (“MBCA”)¹⁰⁰ and the Delaware General Corporation Law (“DGCL”).¹⁰¹ Both of these statutes have been very influential and are generally representative of traditional state-law requirements,¹⁰² and they cover many of the major issues in a similar but not identically worded way.¹⁰³

One of the fundamental rights of shareholders, and one which is often litigated and discussed in the academic literature, involves the power of shareholders to inspect and copy a corporation’s books and records, so long as the inspection is done for a proper purpose.¹⁰⁴ Under the MBCA, a shareholder has fairly automatic rights to inspect records like the corporation’s

100. The MBCA is the work product of the ABA Corporate Laws Committee of the Business Law Section, which has as its mission the goal of “adopt[ing] amendments to and provid[ing] expert commentary on the Model Business Corporation Act.” CORP. LAWS COMM., AM. BAR ASS’N, MISSION STATEMENT (2018), <https://apps.americanbar.org/dch/committee.cfm?com=cl270000>. The MBCA, together with official comments and statutory cross references as revised through December 2010, may be found in MODEL BUS. CORP. ACT (AM. BAR ASS’N 2016). In this Article, references will be to the MBCA.

101. The DGCL may be found at DEL. CODE ANN. tit. 8, §§ 101–398 (West 2018), but will be referred to in this Article simply as the DGCL.

102. “The Model Business Corporation Act (MBCA) is the dominant blue-print for state incorporations, although the Delaware judiciary is immensely influential.” Jennifer G. Hill, *Regulatory Show and Tell: Lessons from International Statutory Regimes*, 33 DEL. J. CORP. L. 819, 843 (2008) (citing Michael P. Dooley & Michael D. Goldman, *Some Comparisons Between the Model Business Corporation Act and the Delaware General Corporation Law*, 56 BUS. LAW. 737, 737–39 (2001)). Similarly, the influence of Delaware law as a leading source of corporate law is indisputable. See Brian R. Cheffins, *Delaware and the Transformation of Corporate Governance*, 40 DEL. J. CORP. L. 1, 1 (2015) (“The corporate governance arrangements of publicly traded companies have been transformed over the past four decades. Various observers have suggested that Delaware, where more than half of U.S. public companies are incorporated, has done much to influence corporate governance changes.”). See generally Faith Stevelman, *Regulatory Competition, Choice of Forum, and Delaware’s Stake in Corporate Law*, 34 DEL. J. CORP. L. 57 (2009) (discussing Delaware’s efforts at retaining its influential role in corporate law).

103. Dooley & Goldman, *supra* note 102, note that the MBCA and Delaware corporate laws are substantially similar in content.

104. For a consideration of some of the innumerable cases involving shareholder inspection rights, see generally S. Mark Hurd & Lisa Whittaker, *Books and Records Demands and Litigation: Recent Trends and Their Implications for Corporate Governance*, 9 DEL. L. REV. 1 (2006); Debra T. Landis, Annotation, *What Corporate Documents are Subject to Shareholder’s Right to Inspection*, 88 A.L.R.3d 663 (1978); W.E. Shipley, *Purposes for Which Stockholder or Officer May Exercise Right to Examine Corporate Books and Records*, 15 A.L.R.2d 11 (1951). For an academic article discussing various aspects of these rights, see Browning Jeffries, *Shareholder Access to Corporate Books and Records: The Abrogation Debate*, 59 DRAKE L. REV. 1087, 1099 (2011). See generally Gabrielle Palmer, *Stockholder Inspection Rights and an “Incredible” Basis: Seeking Disclosure Related to Corporate Social Responsibility*, 92 DENV. U. L. REV. ONLINE 125 (2015); Abbe

articles and bylaws (with any amendments), any directors' resolutions creating or describing shares, minutes of shareholder meetings and communications to shareholders (including financial statements) for the past three years, a list of directors and officers, and the company's most recent annual report.¹⁰⁵ More extensive statutory inspection rights exist for other specified records, including minutes of directors' meetings and similar records of committee meetings, actions taken without a meeting, accounting records not already required, and a list of shareholders;¹⁰⁶ but access to this information is more restricted. In order to obtain the more extensive records, a shareholder must demonstrate that the request for access is made in good faith and for a proper purpose, describes the records and purpose with reasonable particularity, and demonstrates how the records relate to the purpose.¹⁰⁷ The statute is very clear that the corporation may neither abolish nor limit these rights.¹⁰⁸

The Delaware corporate statutes also give shareholders certain rights to access information. For example, at least ten days before any meeting of shareholders, the corporation must produce a list of shareholders.¹⁰⁹ In addition, stockholders (either in person or through any agent), "shall, upon written demand under oath stating the purpose thereof, have the right during the usual hours for business to inspect for any proper purpose . . . the corporation's stock ledger, a list of its stockholders, and its other books and records . . ." ¹¹⁰ Delaware does recognize that a corporation has the option of granting similar inspection rights to "holders of any bonds, debentures or other obligations issued or to be issued by the corporation,"¹¹¹ but this is not required and does not explicitly include cryptocurrencies in the list of "obligation" holders as to whom these rights may be extended.¹¹²

M. Stensland, *Protecting the Keys to the Magic Kingdom: Shareholders' Rights of Inspection and Disclosure in Light of Disney*, 30 J. CORP. L. 875 (2005).

105. These rights appear in MBCA § 16.02(a), entitled "Inspection of Records by Shareholders," and require only that the shareholder give the corporation five days' written notice.

106. *Id.* § 16.02(c).

107. *Id.* § 16.02(d).

108. *Id.* § 16.02(e) ("The right of inspection granted by this section may not be abolished or limited by a corporation's articles of incorporation or bylaws.").

109. DGCL § 219 (entitled "List of stockholders entitled to vote; penalty for refusal to produce; stock ledger").

110. *Id.* § 220(b)(1) (entitled "Inspection of books and records").

111. *Id.* § 221 (entitled "Voting, inspection and other rights of bondholders and debenture holders"). "Every corporation may in its certificate of incorporation . . . confer upon such holders of bonds, debentures or other obligations the same right of inspection of its books, accounts and other records, and also any other rights, which the stockholders of the corporation have . . ." *Id.*

112. Although one may presume that the intent behind including this language in the statute is to clarify the broad powers of a corporate charter to grant rights to those other than shareholders, by enumerating bonds and debentures, there is at least the possibility that this language may be limiting under the principle of *eiusdem generis*, which means "of the same kind." As a general rule, this

Similarly, both the MBCA and the DGCL give shareholders certain, albeit limited, voting rights.¹¹³ The most important of these is the right to vote for the election of directors,¹¹⁴ and under the universal American rule,¹¹⁵ only holders of voting shares or those acting on their behalf are entitled to vote in such elections.¹¹⁶ Both the MBCA and DGCL require corporations to call shareholder meetings on at least an annual basis for this purpose, unless the shareholders consent to act without a meeting.¹¹⁷ If the corporation fails to have the annual meeting, shareholders may enforce that requirement through

means that where general words follow specific words, “the general words are construed to embrace only objects similar in nature to those objects enumerated by the preceding specific words.” 2A SUTHERLAND STATUTORY CONSTRUCTION *Ejusdem generis* § 47:17 (7th ed. 2018). There are innumerable cases following this canon of statutory construction, including opinions from the United States Supreme Court. *See, e.g.*, Wash. State Dep’t of Soc. & Health Servs. v. Guardianship Estate of Keffeler, 537 U.S. 371, 384 (2003); Circuit City Stores, Inc. v. Adams, 532 U.S. 105, 114–15 (2001); Gutierrez v. Ada, 528 U.S. 250, 255 (2000) (“[W]ords . . . are known by their companions”); United States v. Stever, 222 U.S. 167, 174 (1911) (“[U]nless there is a clear manifestation to the contrary, general words, not specific or limited, should be construed as applicable to cases or matters of like kind with those described by the particular words.”).

The problem is that cryptoassets generally do not work like debt. They generally do not create a repayment obligation, do not bear interest, do not give the holder a claim to any assets of the issuing entity, and have never given rise to creditors’ claims. For a radical explanation of what it would take to have crypto function as debt, see Landon Mutch, *Debtcoin: Credit, Debt, and Cryptocurrencies*, CRYPTO INSIDER, <https://cryptoinsider.21mil.com/debtcoin-credit-debt-and-cryptocurrencies/> (last visited Jan. 1, 2019). This may mean that cryptoassets are sufficiently different from bonds and debentures that they will not be encompassed within the more general phrase “other obligation” as it appears in DGCL § 221, which would presumably mean that corporate charters in Delaware are not allowed to give token holders voting rights.

113. The MBCA discusses “voting entitlement of shares” in MBCA § 7.21. In subsection (a), this provision explicitly states that “[o]nly shares are entitled to vote.” *Id.* In the DGCL, voting rights are dealt with in § 212, entitled “Voting rights of stockholders; proxies; limitations.” DGCL § 212(a) creates the default right to vote on a one vote per share basis, and DGCL § 151(b) requires that at all times the corporation must have “outstanding 1 or more shares of 1 or more classes or series of stock, which share, or shares together, shall have full voting powers.”

114. “Shareholders’ ability to elect directors has been characterized as one of shareholders’ most fundamental rights. Because shareholders are the only group empowered to vote, their voting right appears to reflect a critical source of power within the corporation.” Lisa M. Fairfax, *The Future of Shareholder Democracy*, 84 IND. L.J. 1259, 1262 (2009).

115. This is not the universal rule outside of the United States. For example, in the European Union, most companies are governed not by a single, shareholder-elected board of directors but instead will have “two administrative bodies: the management board, which deals with day-to-day business and representation of the company; and the supervisory board, which controls the management and must approve certain fundamental decisions” Annette M. Schüller, Paul G. Thompson & David B. Wilson, *Doing Business in the European Union: An Overview of Common Legal Issues*, COLO. LAW., June 2002, at 9, 16. It is employees or workers who elect one of these groups, which will have “varying degrees of control over the company.” *Id.*

116. *See supra* note 113 and accompanying text.

117. Annual meetings of shareholders are required under both statutes unless a sufficient number of shareholders agree to the proposed actions (including annual election of directors) by written consent. *See* DGCL § 211(b); MBCA § 7.01 (entitled “annual meeting”); § 7.04(a) (requiring unanimous consent if no meeting is held).

a judicial proceeding.¹¹⁸ In addition, the MBCA gives shareholders that own at least the specified minimum percent of outstanding shares the right to ask that a meeting be convened,¹¹⁹ although Delaware law is not as generous in this regard.¹²⁰ Delaware does, however, expressly grant corporations the power to provide in their corporation charter that certain debt or “obligation” holders have “the power to vote in respect to the corporate affairs and management of the corporation to the extent and in the manner provided in the certificate of incorporation”¹²¹

Under both statutes, shareholders are given the statutory right to vote on certain matters in addition to the election of directors. Included in the list of other items on which shareholders have a statutory right to vote are all of the following: (1) any substantive amendment to the articles of incorporation;¹²²

118. The MBCA gives any shareholder the right to have a court order a meeting if the corporation fails to have an annual meeting within the earlier of six months after the end of a corporation’s fiscal year or fifteen months after the prior annual meeting. *See* MBCA § 7.03. Delaware law also gives shareholders the right to force an annual meeting for the election of directors if one is not held in a timely fashion. *See* DGCL § 211(c) (entitled “Meetings of Stockholders”).

119. The MBCA gives shareholders who have at least ten percent of the votes entitled to be cast at any meeting, the default right to call a special meeting, although “the articles of incorporation may fix a lower percentage or a higher percentage not exceeding 25% of all the votes entitled to be cast on any issue proposed to be considered.” MBCA § 7.02(a)(2). The MBCA also gives any shareholder the right to have a court order a meeting if the corporation fails to call the special meeting within thirty days of a proper request. *Id.* § 7.03.

120. The Delaware corporate code does not give shareholders a default right to call special meetings, providing only that special meetings may be called by the directors or any person or persons authorized to do so in the certificate of incorporation. *See* DGCL § 211(e).

121. DGCL § 221 entitled “Voting, inspection and other rights of bondholders and debenture holders,” reads as follows: “Every corporation may in its certificate of incorporation confer upon the holders of any bonds, debentures or other obligations issued or to be issued by the corporation the power to vote in respect to the corporate affairs and management of the corporation to the extent and in the manner provided in the certificate of incorporation” For a brief consideration of whether this extends to investors in cryptoassets issued by a company, see discussion *supra* note 112.

122. MBCA § 10.03 states that once a corporation has issued shares, most amendments to the articles require adoption by the directors, followed by shareholder approval. The exceptions to the requirement of shareholder approval are found in MBCA §§ 10.05, 10.07, and 10.08, which allow the board to accomplish things like extending the corporate duration, removing the names of initial directors, changing the registered office or agent, increasing the shares of a single authorized class of shares to allow a share split or share dividend, changing the corporate name, reducing the number of authorized shares if the corporation has repurchased its own shares and the articles prohibit reissue, and facilitating the issuance of blank-check shares. MBCA § 10.05. Directors can also restate articles to consolidate amendments, *see* MBCA § 10.07, or amend articles pursuant to court ordered reorganization, *see* MBCA § 10.08.

DGCL § 242(b) similarly provides that once a corporation has issued stock, most amendments to the corporate charter require director recommendation and shareholder approval. The exceptions to the requirement of shareholder approval, which are found in § 242(a)(1)–(7), allow directors to accomplish things like amending the name of the corporation, deleting the names of the original incorporators, or removing provisions in any amendment that were previously necessary to finish a “a change, exchange, reclassification, subdivision, combination or cancellation of stock.”

(2) any amendment to the corporation's bylaws;¹²³ (3) removal of a director from the board;¹²⁴ (4) any sale of all or substantially all of the corporation's assets;¹²⁵ (5) any merger, consolidation, or other structural change in the corporation;¹²⁶ (6) the right to have a receiver appointed under certain circumstances;¹²⁷ and (7) the voluntary dissolution of the corporation.¹²⁸

123. MBCA § 10.20(a) specifies that “[a] corporation’s shareholders may amend or repeal the corporation’s bylaws.” DGCL § 109(a) similarly states that “after a corporation other than a non-stock corporation has received any payment for any of its stock, the power to adopt, amend or repeal bylaws shall be in the stockholders entitled to vote.”

124. MBCA § 8.08(a) allows “[t]he shareholders [to] remove one or more directors with or without cause unless the articles of incorporation provide that directors may be removed only for cause.” There are additional provisions applicable if the director was elected by a specific voting group of shareholders. DGCL § 141(k) states that “[a]ny director or the entire board of directors may be removed, with or without cause, by the holders of a majority of the shares then entitled to vote at an election of directors” There are special rules for classified boards and directors elected through cumulative voting.

125. MBCA § 12.02(a) states that “[a] sale, lease, exchange, or other disposition of assets . . . [other than in the ordinary course of business] requires approval of the corporation’s shareholders if the disposition would leave the corporation without a significant continuing business activity.” DGCL § 271(a) authorizes a corporation’s board of directors to sell or exchange “all or substantially all of its property and assets . . . when and as authorized by a resolution adopted by the holders of a majority of the outstanding stock of the corporation entitled to vote thereon”

126. For example, under the MBCA, the statute explicitly states that neither a merger nor mandatory share exchange may be effectuated by the directors unless they “submit the plan to the shareholders for their approval.” MBCA § 11.04. There are certain exceptions to this requirement, particularly for shareholders of the surviving corporation whose shares and ownership are not materially affected by the transaction. Similarly, the Delaware statutes require any merger or consolidation of corporations to be “submitted to the stockholders of each constitution corporation” DGCL § 251(c). Again, there are exceptions to the requirement of shareholder approval, but if the deal is going to change the ownership interest of the shareholders, they must generally be given the right to vote. The Delaware statute does not authorize mandatory share exchanges, so the voting rights for that kind of transaction are not covered in the Delaware statutes.

127. Shareholders in jurisdictions governed by the MBCA are allowed to petition for dissolution. MBCA § 14.30. In any such proceeding the court “may appoint one or more receivers to wind up and liquidate, or one or more custodians to manage, the business and affairs of the corporation.” MBCA § 14.32. This power terminates if the non-petitioning shareholder elects to buy-out the petitioner at a fair price. With regard to Delaware law, DGCL § 226(a) gives the Court of Chancery explicit authority to appoint a custodian (or receiver if the corporation is insolvent) and for any corporation “upon application of any shareholder” where the shareholders are so divided that they have been unable to elect directors, or the directors are so divided that the business is suffering or threatened with irreparable injury, or if the corporation has abandoned its business but has failed to reasonably proceed with dissolution. Any shareholder has a similar right to petition for a receiver if the corporation is insolvent. DGCL § 291.

128. MBCA § 14.02 allows a corporate board to propose dissolution, but subsection (b)(2) specifies that “[t]he shareholders entitled to vote must approve the proposal to dissolve” DGCL § 275(a) also allows the directors to recommend dissolution, but to actually effectuate that recommendation the board must give “notice of the adoption of the resolution and of a meeting of stockholders to take action upon the resolution”

Under the MBCA, shareholders also have the right to petition for judicial dissolution even in the absence of a director recommendation or shareholder vote. MBCA § 14.30.

Nor are voting rights the only rights given to shareholders. In some situations, shareholders are given appraisal rights,¹²⁹ and if the directors are not acting in accordance with the requirements of law in protecting corporate interests, shareholders who meet the requirements for standing are given the authority to bring derivative actions on behalf of the corporation.¹³⁰ The corporate statutes may also specifically authorize the corporation's certificate of incorporation or bylaws to include additional rights specifically for shareholders, which at least creates the implication that without such statutory authorization similar powers may not be granted to others.¹³¹

129. Most commonly, where a shareholder objects to a fundamental change in the structure of the corporation (such as in the case of a sale of substantially of the company's assets, or a merger or consolidation), dissenting shareholders are often entitled to obtain the appraised value of their shares in lieu of the deal that would otherwise be forced upon them. *See* DGCL § 262 (explaining when shareholders are entitled to appraisal rights and the fair value of their shares); MBCA § 13.02 (covering the same topic).

It is worth noting that as of the date when this Article was written, it is unclear as to whether a common shareholder's appraisal rights are subject to the parties' contrary agreement. Delaware courts have allowed preferred shareholders to waive their rights to appraisal but until recently had not addressed the question of whether a shareholder agreement containing a waiver of such rights would be enforceable against common shareholders. *See In re Appraisal Metromedia Int'l Grp. Inc.*, 971 A.2d 893 (Del. Ch. 2009); *In re Appraisal of Ford Holdings Inc. Preferred Stock*, 698 A.2d 973 (Del. Ch. 1997) (both holding that a waiver of a preferred shareholders' rights was binding but not addressing the issue of whether the rule would apply to common shareholders). In late 2018, the Delaware Court of Chancery held in *Manti Holdings LLC v. Authentix Acquisition Co.*, Action No. 2017-0887-SG, 2018 WL 4698255 (Del. Ch. Oct. 1, 2018), that under Delaware law, a shareholder agreement could waive a common shareholder's appraisal rights. This determination has been appealed.

130. Delaware law plainly states that "[i]n any derivative suit instituted by a stockholder of a corporation, it shall be averred in the complaint that the plaintiff was a stockholder of the corporation at the time of the transaction of which such stockholder complains or that such stockholder's stock thereafter devolved upon such stockholder by operation of law." DGCL § 327. The MBCA seems to assume that derivative litigation is to be brought by shareholders, and it includes provisions specifying which shareholders have standing to maintain a derivative action, *see* MBCA § 7.41, as well as the requirement that a shareholder make a demand on the directors prior to commencing the action, *see* MBCA § 7.42. This assumption probably makes sense, given that the rules of civil procedure also limit derivative actions to owners of a business, such as shareholders of a corporation. *See* FED. R. CIV. P. 23.1 (dealing with Derivative Actions). Rule 23.1 applies "when one or more shareholders or members of a corporation or an unincorporated association bring a derivative action to enforce a right that the corporation or association may properly assert but has failed to enforce." FED. R. CIV. P. 23.1(a). The Delaware Chancery Court Rules state that "[i]n a derivative action brought by one or more shareholders or members to enforce a right of a corporation or of an unincorporated association, the corporation or association having failed to enforce a right which may properly be asserted by it, the complaint shall allege that the plaintiff was a shareholder or member" DEL. CH. CT. R. 23.1.

The importance of a shareholder's right to seek redress in the courts for director mis- or malfeasance is widely recognized. *See, e.g.*, Jessica Erickson, *The Gatekeepers of Shareholder Litigation*, 70 OKLA. L. REV. 237, 237–38 (2017) (explaining that "[s]hareholder litigation is a key tool" in controlling costs associated with directors' failure to act in the corporation's best interests).

131. For example, both the MBCA and the DGCL contain guidance as to the provisions that a corporation may elect to include in its corporate bylaws. The MBCA specifies that the bylaws may

In addition to the rules governing the rights and powers of shareholders contained within state corporate statutes, for publicly owned corporations, the federal securities laws also include a number of mandatory “rights” for shareholders.¹³² Among the most important of rights specifically targeted to shareholders is the power to communicate with other shareholders via shareholder proposals that a publicly owned corporation must include in its own

contain “[a] requirement that if the corporation solicits proxies or consents with respect to an election of directors, the corporation include in its proxy statement and any form of its proxy or consent, to the extent and subject to such procedures or conditions as are provided in the bylaws, one or more individuals nominated by a shareholder in addition to individuals nominated by the board of directors” MBCA § 2.06(c)(1). The DGCL says that a corporation’s “bylaws may provide that if the corporation solicits proxies with respect to an election of directors, it may be required, to the extent and subject to such procedures or conditions as may be provided in the bylaws, to include in its proxy solicitation materials (including any form of proxy it distributes), in addition to individuals nominated by the board of directors, 1 or more individuals nominated by a stockholder.” DGCL § 112. Neither statute allows anyone other than a shareholder to have such access to the corporation’s proxy materials.

132. There are also federal securities laws that apply to securities offerings, regardless of whether the securities in question are stock, other forms of equity, debt, or otherwise. For example, virtually all sales of securities are subject to a wide variety of anti-fraud provisions, most of which are found in the Securities Act of 1933 (“‘33 Act”), codified at 15 U.S.C. §§ 77a–77mm (2012), or the ‘34 Act, codified at 15 U.S.C. §§ 78a–78qq. For fraudulent conduct prohibited under the ‘33 Act, see 15 U.S.C. § 77q(a) (prohibiting “any device scheme or artifice to defraud,” “any untrue statement of material fact,” or “any transaction, practice, or course of business which operates or would operate as a fraud of deceit” in connection with the “offer of sale of any securities”). For conduct prohibited under the 1934 Act, the most commonly used provisions are Rule 10b-5, codified at 17 C.F.R. § 240.10b-5 (2018), and § 10(b), codified at 15 U.S.C. § 78j(b) (authorizing the SEC to promulgate rules “necessary or appropriate in the public interest or for the protection of investors”) or § 32(a), codified at 15 U.S.C. § 78ff(a) (imposing criminal liability for willful violations of § 10(b) of the ‘34 Act, SEC rules promulgated under that provision (such as Rule 10b-5), and other provisions of the ‘34 Act).

proxy materials.¹³³ Another set of important rights are triggered if the corporation is the subject of a tender offer,¹³⁴ including the right to notice, as well as certain substantive provisions with which any tender offer must comply.¹³⁵

133. Most shareholder votes in public corporations are cast via proxy. Fairfax, *supra* note 114, at 1264. The entire proxy voting process for such corporations is governed by federal law. See Securities Exchange Act of 1934 (“‘34 Act”), Pub. L. No. 73-291, 48 Stat. 881 (codified as amended at 15 U.S.C. §§ 78a–78qq; 17 C.F.R. § 240.14A). The federal proxy rules not only require the corporation to send out written proxy materials, *see* ‘34 Act; 17 C.F.R. § 240.14a-3(a), they also require the corporation to include shareholder proposals that meet certain specific requirements. *See* Jayne W. Barnard, *Shareholder Access to the Proxy Revisited*, 40 CATH. U. L. REV. 37, 56 (1990); Lucian Arye Bebchuk, *The Case for Increasing Shareholder Power*, 118 HARV. L. REV. 833, 856 (2005); Lucian A. Bebchuk, *The Myth of the Shareholder Franchise*, 93 VA. L. REV. 675, 688 (2007). The requirements that must be met along with grounds for excluding possible proposals can be found at ‘34 Act; 17 C.F.R. § 240.14a-8.

134. Sections 14(d) and 14(e) of the ‘34 Act regulate tender offers. *See* 15 U.S.C. §§ 78n(d)–(e). These provisions were originally enacted as parts of the Williams Act, Pub. L. No. 90-439, 82 Stat. 454 (1968), but the provisions have never explicitly defined what is included within the term “tender offer.” *See* Notes, *The Developing Meaning of “Tender Offer” Under the Securities Exchange Act of 1934*, 86 HARV. L. REV. 1250, 1256 (1973). Courts are not consistent in how they determine if an offer to buy shares involves a tender offer, but some courts use a multi-factor approach. *See* Wellman v. Dickinson, 475 F. Supp. 783 (S.D.N.Y. 1979), *aff’d on other grounds*, 682 F.2d 355 (2d Cir. 1982) (direct purchases from large institutional investors constituted a tender offer because it involved widespread solicitation of public shareholders for substantial percentage of target’s stock, and the offer was made at a premium under non-negotiable conditions for fixed number of shares with limited time to respond); S-G Sec., Inc. v. Fuqua Inv. Co., 466 F. Supp. 1114, 1126 (D. Mass. 1978) (purchasers’ public announcement of intent to acquire control and subsequent rapid acquisition of large blocks of target’s stock through open market and privately negotiated purchases was a tender offer); Cattleman’s Inv. Co. v. Fears, 343 F. Supp. 1248, 1251–52 (W.D. Okla. 1972) (“active and widespread solicitation of public shareholder in person, over the telephone and through the mails” was a tender offer). On the other hand, the Second Circuit, in Hanson Tr. PLC v. SCM Corp., 774 F.2d 47 (2d Cir. 1985), decided that a better approach was to ask whether the offerees needed the protections of the Williams Act, looking at whether they were sophisticated and capable of fending for themselves. *See also* SEC v. Carter Hawley Hale Stores, 760 F.2d 945 (9th Cir. 1985) (direct purchases of 15 million shares was not a tender offer); D-Z Inv. Co. v. Holloway, No. 74 Civ. 2379, 1974 WL 440 (S.D.N.Y. Aug. 23, 1974) (open market purchase and private negotiated purchases from sophisticated investors of about thirteen percent of target’s equity securities was not a tender offer).

135. These rights include:

- (1) The right to have notice that a tender offer is being made if after the offer, the buyer would own more than five percent of any class of “equity security.” 15 U.S.C. § 78n(d)(1). The statute does not talk about shares as such, but is limited to equity securities. *Id.*
- (2) The right to withdraw tendered shares. 15 U.S.C. § 78n(d)(5) (extended for entire duration of offer by 17 C.F.R. § 240.14d-7).
- (3) The right to have any tendered shares accepted on a pro rata basis rather than having acceptance based on who tenders first. 15 U.S.C. § 78n(d)(6).
- (4) The right to be paid the highest price offered and accepted. 15 U.S.C. § 78n(d)(7).
- (5) The right to be included in any tender offer involving holders of the same class of securities that are the subject of the tender offer. 17 C.F.R. § 240.14d-10.
- (6) The right to have the tender offer last at least twenty days. 17 C.F.R. § 240.14e-1(a).
- (7) The right to have at least ten days to consider the offer if the offeror changes the amount of securities being sought. 17 C.F.R. § 240.14e-1(b).

In addition, publicly traded securities are generally bought and sold on an exchange which is subject to the regulatory oversight of the SEC.¹³⁶ These exchanges can impose substantial requirements that relate to the rights of stockholders. For example, the New York Stock Exchange (“NYSE”) has a wide range of specific requirements as to when shareholders must give approval of certain transactions, “which are in addition to any applicable requirements under state law and SEC rules.”¹³⁷ These include shareholder approval requirements for most equity compensation plans and arrangements, employment inducement awards, mergers and acquisitions, qualified retirement plans, certain issuances of common stock or securities convertible or

(8) The right to insist that the consideration be paid unless the shares are promptly returned. 17 C.F.R. § 240.14e-1(c).

(9) The right to have notice if the offer is extended. 17 C.F.R. § 240.14e-1(d).

In addition, in order to avoid unfair price manipulation by the issuer, the issuer cannot buy its own shares during a registered tender offer by a third party unless it files publicly with the SEC notice that it is doing so. 17 C.F.R. § 240.13e-1. The target company must also give its security holders notice of whether it recommends acceptance or rejection of the offer, if it is remaining neutral, or if it can take no position, as well as the reasons for its response. 17 C.F.R. § 240.14e-2. There is also a federal cause of action for fraud in connection with a tender offer, *see* 15 U.S.C. § 78n(e), and it is unlawful for anyone to trade during a tender offer if they are in possession of material, non-public information about the offer. 17 C.F.R. § 240.14e-3. This rule is designed to see that there is a fair and level playing field for stockholders and others during the pendency of a tender offer.

136. Section 19(b) of the ‘34 Act requires SEC approval for all national securities exchanges, *see* 15 U.S.C. § 78s(b), with such approval being conditioned on compliance with all rules and regulations. Rule 19b-4 contains requirements for filing of all proposed rules changes. *See* 17 C.F.R. § 240.19b-4.

137. Stuart H. Gelfond & Burcin Eren, *The NYSE’s Complex Shareholder Approval Rules: Issuing New Securities? Do You Need Shareholder Approval?*, LEXISNEXIS (Sept. 13, 2016), <https://www.lexisnexis.com/lexis-practice-advisor/the-journal/b/lpa/archive/2016/09/13/the-nyse-s-complex-shareholder-approval-rules-issuing-new-securities-do-you-need-shareholder-approval.aspx>.

The NYSE rules, however, are subject to change, and definitely evolve over time. For example, a distaste for non-voting shares was evident in long-standing NYSE policies. “[T]he New York Stock Exchange, since 1926, has refused to list nonvoting common shares and, since 1940, has refused to list voting stock in a company that has nonvoting common shares outstanding in public hands,” instead preferring the one share – one vote approach. *See* Dale A. Oesterle & Alan R. Palmiter, *Judicial Schizophrenia in Shareholder Voting Cases*, 79 IOWA L. REV. 485, 498–99 (1994) (footnote omitted). This policy was changed in 1986, when the NYSE proposed allowing common stock with disparate voting rights if approved by two-thirds of all shares and a majority of independent directors. *See* Richard Y. Roberts, Comm’r, U.S. Sec. & Exch. Comm’n, *Shareholder Voting Rights and Transparency: NYSE Legal Advisory Speech 4–7* (Oct. 23, 1992). The SEC responded with Rule 19c-4 “which prohibited disenfranchisement of a company’s existing common stockholders.” *Id.* at 2. That rule was subsequently invalidated in *Bus. Roundtable v. SEC*, 905 F.2d 406 (D.C. Cir. 1990), and according to some sources, more than ten percent of large, Fortune 500 companies in the U.S. now offer shares with limited voting power. *See* Madison Marriage, *State Street Asks SEC to Block Non-Voting Shares*, FIN. TIMES (June 17, 2017), <https://www.ft.com/content/9595e5c4-51db-11e7-bfb8-997009366969>. Snap, Inc., in March of 2017, became the first company to go public on a U.S. stock exchange offering only non-voting shares to the public. Steven Davidoff Solomon, *Snap’s Plan Is Most Unfriendly to Outsiders*, N.Y. TIMES (Feb. 3, 2017), https://www.nytimes.com/2017/02/03/business/dealbook/snap-ipo-plan-evan-spiegel.html?_r=0.

exercisable for common stock, issuance of shares that would result in an increase of more than twenty percent of such shares, and change of control transactions.¹³⁸ These rules include minimum protections that cannot necessarily be contracted around.¹³⁹

Nor are state and federal statutes and regulations the only sources of rules that govern the rights and responsibilities of shareholders. Courts have also imposed certain obligations designed to protect shareholders even in the absence of statutory mandates or contractual arrangements. The strongest of these revolve around directors' fiduciary duties to shareholders. While almost everyone agrees that directors owe obligations akin to the fiduciary duties of care and loyalty (although the parameters of those duties are often subject to debate), theorists have begun to challenge the "conventional" view of fiduciary duty, arguing that a director's responsibilities "should" run to the corporation rather than to shareholders.¹⁴⁰ One influential treatise has noted the two positions, observing that some cases have found "that a director's or officer's liability for breach of fiduciary duty runs only to the corporation itself and not to individual shareholders of the corporation," while also noting that there is "authority that a director is a trustee for an individual shareholder and that the directors and officers of a corporation stand in a fiduciary relationship

138. *Id.* For a complete listing of the rules of the NYSE, see RULES, NYSE (2018), http://wallstreet.cch.com/nysetools/PlatformViewer.asp?SelectedNode=chp_1_2&manual=nyse/rules/nyse-rules/.

139. Consider, for example, the discussion surrounding the 2017 Snap, Inc. IPO, which involved the public sale of no-vote stock. While at first glance this would seem to be an instance where the parties voluntarily structured their relationship so that the public shareholders agree to have no say, this may not be the case. As explained by Jim Moloney at Gibson Dunn:

The NYSE, NASDAQ, and other self-regulating organizations have rules requiring the submission of certain transactions to a shareholder vote, such as a change of control transactions or certain issuances of more than 19.9 percent of the Company's outstanding shares. With most shareholders lacking any voting rights altogether, how Snap and other companies that may follow in their wake can cleanse such transactions via disinterested shareholder approval remains an open question.

James Moloney et al., *Non-Voting Shares Make Their Public Debut and Generate Some Governance Concerns, but How Will Courts View the Structure When First Presented?*, GIBSON DUNN (Mar. 12, 2017), <http://securitiesregulationmonitor.com/Lists/Posts/Post.aspx?ID=288>.

For a further discussion of some of the open questions about the Snap IPO, see John Jenkins, *Snap: Overlooked Issues About Non-Voting Stock*, CORP. COUNS. (Mar. 14, 2017), <https://www.thecorporatecounsel.net/blog/2017/03/snap-overlooked-issues-about-non-voting-stock.html>. And for more information about the rights that still apply to owners of non-voting stock, see generally STEVEN M. HAAS & CHARLES L. BREWER, *NONVOTING COMMON STOCK: A LEGAL OVERVIEW* (2017), <https://www.hunton.com/images/content/3/4/v2/34138/nonvoting-common-stock.pdf>.

140. See Kelli A. Alces, *Debunking the Corporate Fiduciary Myth*, 35 J. CORP. L. 239, 245 (2009) (citing Douglas G. Baird & M. Todd Henderson, *Other People's Money*, 60 STAN. L. REV. 1309, 1322 (2008); Margaret M. Blair & Lynn A. Stout, *A Team Production Theory of Corporate Law*, 85 VA. L. REV. 247, 299 (1999)). Professor Alces is one of the few scholars to argue that there is no such thing as corporate fiduciary duties in modern jurisprudence.

to the individual shareholders.”¹⁴¹ The citation to numerous cases makes it clear that a number of jurisdictions continue to accept the traditional notion that directors are bound by fiduciary duties to a corporation’s shareholders,¹⁴² and many commentators accept this view as well.¹⁴³ Perhaps this is a debate with little significance, because if duties are owed to the corporation, logically they will also be owed to the shareholders, albeit derivatively.¹⁴⁴ However, the obligations do not run to all constituencies, as the Delaware Supreme Court noted in 2007 when it explicitly determined that corporate directors owe no direct fiduciary duties to corporate creditors,¹⁴⁵ and creditors have no right to pursue a derivative action for harm to the corporation.¹⁴⁶

How then do these rights compare with the rights and powers of those who might choose to invest in cryptoassets, potentially including tokenized securities offerings designed to mimic either equity or even debt? The answer is that there is simply no corresponding set of mandatory—or even default—rules applicable to token holders. Within the United States, however, there

141. 3 WILLIAM MEADE FLETCHER ET AL., *FLETCHER CYCLOPEDIA OF THE LAW OF CORPORATIONS* § 848 (perm. ed., rev. vol. 2018).

142. *Id.* at nn.2–3. By way of example, *Burcham v. Unison Bancorp, Inc.*, 77 P.3d 130, 148 (Kan. 2003), held that directors owe fiduciary duties to shareholders. Alaska law also imposes fiduciary duties upon directors (and others), running to the shareholders. *See Meidinger v. Koniag, Inc.*, 31 P.3d 77, 87 (Alaska 2001). Under Illinois law, individuals who control corporations owe fiduciary duties to their corporations and their shareholders. *See Small v. Sussman*, 713 N.E.2d 1216, 1221 (Ill. App. Ct. 1999); *Doherty v. Kahn*, 682 N.E.2d 163, 174 (Ill. App. Ct. 1997); *Wencordic Enters., Inc. v. Berenson*, 511 N.E.2d 907, 918 (Ill. App. Ct. 1987). “In Delaware, a board of directors owes fiduciary duties to the corporation, the shareholders, and the minority shareholders . . .” Laurence V. Parker, Jr., *Virginia Is for Lovers and Directors: Important Differences Between Fiduciary Duties in Virginia and Delaware*, 2 WM. & MARY BUS. L. REV. 51, 56 (2011) (citing *Weinberger v. UOP, Inc.*, 457 A.2d 701, 710 (Del. 1983)). In Virginia, the fiduciary duties of directors run to shareholders and the corporation. *See Remora Invs., L.L.C. v. Orr*, 673 S.E.2d 845, 848 (Va. 2009) (quoting *Am. Gen. Ins. Co. v. Equitable Gen. Corp.*, 493 F. Supp. 721, 741 (E.D. Va. 1980)).

Cases like *Omnicare, Inc. v. NCS Healthcare, Inc.*, 818 A.2d 914 (Del. 2003), contain especially explicit recitals of the directors’ obligations: “Notwithstanding the corporation’s insolvent condition, the . . . board ha[s] no authority to [preclude itself] from effectively discharging its ongoing fiduciary responsibilities. The stockholders of a Delaware corporation are entitled to rely upon the board to discharge its fiduciary duties at all times.” *Id.* at 938.

143. Frederick H. Alexander, *Reining in Good Intentions: Common Law Protections of Voting Rights*, 26 DEL. J. CORP. L. 897, 899 (2001) (“[A] board’s fiduciary duties . . . require directors to act with due care, loyalty, and good faith on behalf of the corporation and its stockholders.”); Byron F. Egan, *Fiduciary Duties of Corporate Directors and Officers in Texas*, 43 TEX. J. BUS. L. 45, 49 (2009) (“[I]ndividuals who serve in leadership roles for corporations are fiduciaries in relation to the corporation and its owners.”); Sabin Willett, *Gheewalla and the Director’s Dilemma*, 64 BUS. LAW. 1087, 1088 (2009) (noting that the board has “a fiduciary duty to shareholders”).

144. This very point was made in BARBARA BLACK, *CORPORATE DIVIDENDS AND STOCK REPURCHASES* § 6:30 (perm. ed., rev. vol. 2018).

145. *N. Am. Catholic Educ. Programming Found., Inc. v. Gheewalla*, 930 A.2d 92, 103 (Del. 2007). “The court in *Gheewalla* held that a corporate director has no fiduciary duty to the corporation’s creditors, regardless of the company’s financial health.” Willett, *supra* note 143, at 1088.

146. *See supra* note 130 and accompanying text.

are some federal laws that operate in the crypto space which restrict, in limited ways, the manner in which a business interacts with purchasers of cryptoassets. The rules that are the most targeted to these kinds of transactions originate from the banking realm, and particularly with the Bank Secrecy Act (“BSA”).¹⁴⁷

As described on the U.S. Department of the Treasury’s website, the Financial Crimes Enforcement Network (FinCEN), was established in April 1990 by Treasury Order Number 105-08. It was made a Treasury bureau by the USA Patriot Act of October 2001 and is one of the Treasury Department’s “primary agencies to oversee and implement policies to prevent and detect money laundering,” although it also acts to prevent other financial crimes, such as the funding of terrorist groups and activities.¹⁴⁸

147. The Bank Secrecy Act, codified at 31 U.S.C. §§ 5311–5314, 5316–5324, imposes a number of monitoring and reporting requirements designed to protect against money laundering and to restrict funding of illegal activities such as terrorism. It is therefore not surprising that the bank regulators are especially active in considering the impact of cryptotransactions in financial markets. It is hard to overestimate the legacy of the Silk Road, a “dark web” version of the Amazon online marketplace, where criminals used Bitcoin to buy and sell cocaine, weapons, fake IDs, and even contracts for illegal services. See Donna Leinwand Leger, *How FBI Brought Down Cyber-Underworld Site Silk Road*, USA TODAY (Oct. 21, 2013, 6:11 PM), <http://www.usatoday.com/story/news/nation/2013/10/21/fbi-cracks-silk-road/2984921/>. The downfall of the Bitcoin-funded market has had a profound and lasting impact on how cryptocurrencies are perceived and regulated. See Marco Santori, *Silk Road Goes Dark: Bitcoin Survives Its Biggest Market’s Demise*, COINDESK (May 5, 2017, 11:30 AM), <https://www.coindesk.com/bitcoin-milestones-silk-road-goes-dark-bitcoin-survives-its-biggest-markets-demise/>. Santori, then a fintech lawyer in the Cooley LLP firm, recounts having attended a meeting with representatives from a wide array of regulatory agencies, including “FinCEN, IRS, FBI, DEA, SEC, CFPB, CFTC. . . just about any agency with a potential interest in magical internet money . . .” *Id.* According to Santori, they all came with the mindset that “bitcoin is for criminals.” As he explained, the government’s interest in regulation peaked along with recognition that cryptocurrencies could be used for illicit activity. *Id.* “As Silk Road gained global notoriety, cryptocurrencies became synonymous with illegal activity – and not just drugs. Reports began circulating that bitcoin was being used to fund terrorism, and commentators estimated that the majority of transactions were illegal.” *The Silk Road to Bitcoin: Has the Crypto Escaped Its Dark Past?*, IG ANALYST (Feb. 5, 2018, 8:58 AM), <https://www.ig.com/au/trading-opportunities/the-silk-road-to-bitcoin—has-the-crypto-escaped-its-dark-past—41990-180205>.

This perception places Bitcoin and other cryptocurrencies squarely within the focus of the Bank Secrecy Act, which was specifically designed to combat money laundering and terrorist financing. See *Bank Secrecy Act (BSA)*, OFF. COMPTROLLER CURRENCY, <https://www.occ.treas.gov/topics/compliance-bsa/bsa/index-bsa.html> (last visited Jan. 5, 2018).

It would, of course, be a mistake to assume that this is the only reason that banking regulators are interested in cryptocurrencies. For an overview of the ways in which the banking industry may be impacted by blockchain technologies, see Madiha M. Zuberi, *A Silver (‘Chain’) Lining: Can Blockchain Technology Succeed in Disrupting the Banking Industry?*, BANKING & FIN. SERVICES POL’Y REP., March 2017, at 1.

148. *About: Financial Crimes Enforcement Network*, U.S. DEP’T TREASURY, <https://www.treasury.gov/about/history/Pages/fincen.aspx> (last updated Nov. 13, 2010, 8:19 PM). The mission of FinCEN is to “safeguard the [U.S.] financial system from illicit use and combat money laundering.” *Mission*, FIN. CRIMES ENFORCEMENT NETWORK, <https://www.fincen.gov/about/mission> (last visited Jan. 5, 2018). It also acts to “promote national security through

FinCEN has issued guidance explaining how it applies the Bank Secrecy Act and other Anti-Money-Laundering laws to virtual currencies.¹⁴⁹ In general, the guidance provides that “administrators and exchangers” of “convertible virtual currencies”¹⁵⁰ are subject to the money transmitter rules, while “users” of virtual currencies are exempt.¹⁵¹ The guidance defines a user as “a person that obtains virtual currency to purchase goods or services.”¹⁵² “An exchanger is a person engaged as a business in the exchange of virtual currency for real currency, funds, or other virtual currency,”¹⁵³ and “[a]n administrator is a person engaged as a business in issuing (putting into circulation) a virtual currency, and who has the authority to redeem (to withdraw from circulation) such virtual currency.”¹⁵⁴ An exchanger or administrator who accepts and transmits virtual currencies, or buys and sells them for any reason is a money transmitter, unless there is an applicable exemption or limitation on the application of these rules.¹⁵⁵

the collection analysis and dissemination of financial intelligence and strategic use of financial authorities.” *Id.*

In May of 2016, FinCEN specifically addressed its focus in regard to anti-terrorism initiatives, noting that it did not want to stifle innovation by over-regulation. See *Stopping Terror Finance: A Coordinated Government Effort*, H. Comm. on Fin. Servs. Task Force to Investigate Terrorism Fin., 114th Cong. (2016) (testimony of Jennifer Shasky Calvery, Director Financial Crimes Enforcement Network, United States Department of the Treasury).

149. In 2011 FinCEN issued final regulations implementing certain AML provisions of the Bank Secrecy Act relating to money services businesses. See *Bank Secrecy Act Regulations; Definitions and Other Regulations Relating to Money Services Businesses*, 76 Fed. Reg. 43,585 (July 21, 2011) (codified at 31 C.F.R. pt. 1010, 1021, 1022). In 2013, FinCEN released guidance on when these regulations would apply to parties administering, exchanging, or using virtual currencies. FIN. CRIMES ENF’T NETWORK, U.S. DEP’T OF THE TREASURY, FIN-2013-G001, APPLICATION OF FINCEN’S REGULATIONS TO PERSONS ADMINISTERING, EXCHANGING, OR USING VIRTUAL CURRENCIES 1 (2013) [hereinafter 2013 FINCEN GUIDANCE], <https://www.fincen.gov/resources/statutes-regulations/guidance/application-fincens-regulations-persons-administering>.

150. A virtual currency that cannot be converted into a “real” currency, i.e., government or fiat currency or one that is accepted as legal tender, is not within the guidance. See 2013 FINCEN GUIDANCE, *supra* note 149. Note that because a convertible virtual currency is not a “real” currency, FinCEN’s Prepaid Access regulations do not apply since the definition of “prepaid access” under the regulations is limited to “access to funds or the value of funds.” *Id.* at 5 n.18 (citing and quoting 31 C.F.R. § 1010.100(w)). Similarly, FinCEN’s regulations regarding dealers in foreign exchange do not apply to accepting real currency in exchange for convertible virtual currency, and vice versa, because those regulations only apply to the exchange of one “real” currency for another. *Id.* at 5–6.

151. *Id.*

152. *Id.* at 2.

153. *Id.*

154. 2013 FINCEN GUIDANCE, *supra* note 149, at 2.

155. *Id.* The definition of a money transmitter does not distinguish between “real” or “fiat” currencies (i.e., those that work as legal tender) and convertible virtual currencies (i.e., virtual currency that can be converted into legal tender). Accepting and transmitting anything of value that substitutes for currency makes a person a money transmitter under the regulations implementing the BSA. *Id.* at 2–3.

This means that exchangers and administrators of cryptocurrencies are expected to register with FinCEN as a Money Service Business, and any firm working with cryptocurrencies must comply with AML and KYC regulations.¹⁵⁶ Companies that are in the business of exchanging cryptoassets, particularly for fiat currency, must file suspicious activity reports on customer transactions over \$2000.¹⁵⁷ Such exchanges must also allow the federal government to access business records of the exchange in a transparent manner, must make regular reports to FinCEN, and must subject themselves to random audits by FinCEN.¹⁵⁸

This kind of regulation may provide some assurance to persons desiring to invest in these enterprises via tokenized interests that the company is not engaging in systematic, illegal activities such as money-laundering or supporting terrorist activities, but they offer little in the way of direct protections for the investors or their investment. In fact, enforcement actions by FinCEN have taken substantial sums away from companies in the forms of fines and penalties, at least indirectly harming investors (while protecting other constituencies).

One of the first of such efforts involved an action by the U.S. Department of Homeland Security in June of 2013, when a warrant was obtained to seize

Note also that “cryptocurrency” as used in this particular context is not necessarily limited to cryptoassets intended to function as currencies. According to FinCEN, a virtual currency “is a medium of exchange that operates like a currency in some environments, but does not have all the attributes of real currency.” *Id.* at 1.

To document FinCEN’s understanding that “virtual currency” is broader than interests that were designed to function simply as replacements for fiat currencies, consider its approach to Ripple, whose digital asset XRP is “specifically designed for financial institutions and payment providers” wishing to increase transaction speed. Shanna Leonard, *10 Things You Need to Know about XRP*, RIPLE, <https://ripple.com/insights/10-things-need-know-xrp/> (last visited Jan. 6, 2019). Despite having a function other than serving as a replacement for traditional fiat currencies, in 2015 FinCEN initiated an action against and finally reached a settlement with Ripple pursuant to which Ripple paid a \$700,000 fine. See Peter Van Valkenburgh, *Securities Laws Aren’t the Only Rules Token Sales Have to Consider*, COINDESK (May 20, 2017, 10:55 PM), <https://www.coindesk.com/securities-laws-arent-rules-token-sales-consider/>.

State authorities have been influenced by the FinCEN approach, and many states also take a very broad approach in considering what constitutes a “virtual currency.” For example, the Conference of State Bank Supervisors (“CSBS”) has determined that for its purposes “Virtual Currency is a digital representation of value used as a medium of exchange, a unit of account, or a store of value, but does not have legal tender status as recognized by the United States Government.” CSBS REQUIREMENTS, *supra* note 15 (exceptions omitted). The Uniform Law Commission, in its Uniform Regulation of Virtual Currency Businesses Act says that virtual currency means: “a digital representation of value that: (i) is used as a medium of exchange, unit of account, or store of value; and (ii) is not legal tender, whether or not denominated in legal tender,” with certain exceptions. UNIFORM ACT, *supra* note 15, at § 102(23). For other definitions under state laws, see sources cited *supra* note 15.

156. For a brief explanation of these obligations, see Hughes, *supra* note 83.

157. *Id.* at 14.

158. *Id.*

money from a U.S. subsidiary of Mt. Gox.¹⁵⁹ The warrant was based on an allegation that the subsidiary had failed to obtain a license to act as a money transmitter from FinCEN.¹⁶⁰ This resulted in a chain of events that eventually led to Mt. Gox, which was then the world's largest trader in Bitcoin,¹⁶¹ suspending trading, closing its website, and filing for bankruptcy, while simultaneously acknowledging the theft of approximately \$480 million in Bitcoin.¹⁶²

A more recent incident involving an enforcement action initiated by FinCEN involved Ripple Labs, Inc., and its subsidiary XRP II, LLC. In this instance, Ripple was charged by FinCEN and the U.S. Attorney's Office for the Northern District of California with failing to register as a money transmitter and failing to comply with AML and KYC requirements.¹⁶³ This effort resulted in a settlement agreement pursuant to which Ripple Labs paid a \$700,000 fine to FinCEN for failing to register as a money transmitter, \$450,000 of which was satisfied by a forfeiture to the U.S. Attorney's Office

159. Romain Dillet, *Feds Seize Another \$2.1 Million from Mt. Gox, Adding up to \$5 Million*, TECHCRUNCH, <https://techcrunch.com/2013/08/23/feds-seize-another-2-1-million-from-mt-gox-adding-up-to-5-million/> (last visited Jan. 6, 2019).

160. The affidavit in support of the seizure warrant, which is reproduced in this source, alleges that Mutum Sigillum LLC was acting as an unlicensed money transmitter in violation of 18 U.S.C. § 1960. *See id.*

161. Robert McMillan & Cade Metz, *The Rise and Fall of the World's Largest Bitcoin Exchange*, WIRED (Nov. 6, 2013, 6:30 AM), <https://www.wired.com/2013/11/mtgox/>. According to a leaked business plan, the company at one point owned 100,000 bitcoin or \$50 million, and Karpelès apparently owned eighty-eight percent of the company. Robert McMillan, *The Inside Story of Mt. Gox, Bitcoin's \$460 Million Disaster*, WIRED (Mar. 3, 2014, 6:30 AM), <https://www.wired.com/2014/03/bitcoin-exchange/>.

162. *See* V. Gerard Comizio, *Virtual Currencies: Growing Regulatory Framework and Challenges in the Emerging Fintech Ecosystem*, 21 N.C. BANKING INST. 131, 139–40 (2017). Not only did this have a catastrophic impact on those involved in Mt. Gox, it also resulted in a sudden plunge in the value of Bitcoin. At the time that Mt. Gox was forced into bankruptcy, it was handling roughly seventy percent of Bitcoin trading. Paul Vigna, *5 Things about Mt. Gox's Crisis*, WALL STREET J. (Feb. 25, 2014, 2:03 PM), <https://blogs.wsj.com/briefly/2014/02/25/5-things-about-mt-goxs-crisis/>. This hack caused the price of Bitcoin to plummet from \$900 to below \$200 over the next year. *Id.* For additional discussion about this intervention in the marketplace by federal agencies, see Stephen T. Middlebrook & Sarah Jane Hughes, *Virtual Uncertainty: Developments in the Law of Electronic Payments and Financial Services*, 69 BUS. LAW. 263, 264 (2013).

163. *See* Comizio, *supra* note 162, at 143–44; Joe Ciccolo, *An Analysis of the Ripple Labs FinCEN Enforcement Action*, BITCOIN MAG. (May 23, 2015, 5:53 PM), <https://bitcoinmagazine.com/articles/analysis-ripple-labs-fincen-enforcement-action-1432417986/>.

for the Northern District of California to account for illegal activity that occurred because of Ripple's actions.¹⁶⁴ While Ripple survived the investigation and sizable fine, there is no doubt that the beneficiaries of these actions were not the company's investors.¹⁶⁵

FinCEN continues to be active in this space, acting to enforce money transmitter requirements in a number of cases.¹⁶⁶ Again, these requirements contain valuable protections for society, but do not do much to regulate or protect individuals who might actually invest in the enterprise.

Similarly, the SEC has asserted jurisdiction over sales of tokenized interests on the grounds that such interests are "investment contracts," and therefore securities.¹⁶⁷ As of early 2018, it was the SEC's position that "no ICOs that raised capital in 2017 had so far registered or made clear that they had any plans to register with the SEC."¹⁶⁸ Either sellers are continuing to

164. News Release, Fin. Crimes Enf't Network, FinCEN Fines Ripple Labs Inc. in First Civil Enforcement Action Against a Virtual Currency Exchanger, (May 5, 2015), <https://www.fincen.gov/news/news-releases/fincen-fines-ripple-labs-inc-first-civil-enforcement-action-against-virtual>. For the text of the Assessment, see *In re* Ripple Labs, Inc., No. 2015-05 (2015), https://www.fincen.gov/sites/default/files/shared/Ripple_Assessment.pdf.

165. This is not to suggest that the federal requirements are unwise or unjustified. While the crypto markets reacted to the Ripple fine as a "shot across the bow," the long-term impacts are likely to be positive from a societal perspective, where interests in opposition to money-laundering and terrorist activities appropriately predominate. See Sarah Todd & Ian McKendry, *What Ripple's FinCEN Fine Means for the Digital Currency Industry*, AM. BANKER (May 6, 2015, 5:58 PM), <https://www.americanbanker.com/news/what-ripples-fincen-fine-means-for-the-digital-currency-industry>.

166. In most cases, FinCEN has successfully applied its money transmitter requirements to businesses involved in the exchange of virtual currencies, particularly but not exclusively Bitcoin. See, e.g., *United States v. Lord*, No. CR 15-00240-01/02, 2017 WL 1424806 (W.D. La. Apr. 20, 2017); *United States v. Murgio*, 209 F. Supp. 3d 698, 707-715 (S.D.N.Y. 2016). But see *United States v. Petix*, 15-CR-227A, 2016 WL 7017919 (W.D.N.Y. Dec. 1, 2016) (finding that the defendant had not violated the terms of his supervised release by acting as an illegal money transmitter notwithstanding his exchange of Bitcoins); *Florida v. Espinoza*, No. F14-2923, slip op. at 5-6 (Fla. Cir. Ct. July 22, 2016) (holding that Bitcoins were not payment instruments under Florida law).

It is, however, worth noting that one major announcement attributed to FinCEN is not completely accurate. In March of 2018 it was widely reported that FinCEN had declared that anyone launching an ICO would be subject to money transmitter requirements. See, e.g., Amy Castor, *FinCEN Deals Major Regulatory Blow to ICOs and Exchanges*, BITCOIN MAG. (Mar. 7, 2018, 11:38 AM), <https://bitcoinmagazine.com/articles/fincen-deals-major-regulatory-blow-icos-and-exchanges/>. In reality, the letter that sparked the reports was actually an explanation of FinCEN activities written by someone at the Treasury Department designed to explain regulatory requirements, not to outline any change or expansion of regulatory reach. See Robert Kim, *FinCEN's ICO Letter: Not FinCEN's, Not ICO Focused, and Not Surprising*, BLOOMBERG NEWS (Apr. 6, 2018), <https://www.bna.com/fincens-ico-letter-n57982090869/>.

167. See *supra* notes 65-68 and accompanying text.

168. See Castor, *supra* note 166.

operate under the misguided assumption that the securities laws will not apply,¹⁶⁹ they are taking their sales out of the U.S. entirely,¹⁷⁰ or they are selling in reliance on one or more of the exemptions from registration available under the '33 Act.¹⁷¹ The notice requirements associated with most exemptions are relatively limited, especially since it appears that most of these sales are generally being limited to accredited investors who are presumed to be capable of fending for themselves.¹⁷² This means that the securities laws (outside of the general anti-fraud provisions) are not doing much to regulate the relationships being formed when a company issues securities tokens.¹⁷³

169. This attitude has caused considerable consternation within the SEC, which at various times has announced that it has been “disturbed” by non-complying ICOs and more recently that it has been “underwhelmed” by industry response to the need to register online trading platforms as exchanges before allowing the trading of cryptoassets. See Jeff John Roberts, *SEC Chair Blasts Lawyers Over ‘Disturbing’ ICOs*, FORTUNE (Jan. 23, 2018), <http://fortune.com/2018/01/23/sec-ico-cryptocurrency/>; see also JD Alois, *ICO Industry Adjusts as SEC & CFTC Warn Both Issuers & Advisors Including Attorneys Engaged Token Offerings*, CROWD FUND INSIDER (Jan. 26, 2018, 9:44 AM), <https://www.crowdfundinsider.com/2018/01/127606-ico-industry-adjusts-sec-cftc-warn-issuers-advisors-including-attorneys-engaged-token-offerings/> (relating to concern over non-compliant ICOs); William Suberg, *SEC: US Crypto Exchanges Not ‘Enthusiastic’ Enough About Regulatory Compliance*, COIN TELEGRAPH (June 7, 2018), <https://cointelegraph.com/news/sec-us-crypto-exchanges-not-enthusiastic-enough-about-regulatory-compliance> (relating to the reluctance of businesses to register as exchanges).

170. “Most token sales have shunned U.S. investors, out of fear by the promoters that their participation would bring the SEC calling.” Francine McKenna & Katie Marriner, *Here’s the Blueprint for How ICOs Are Getting off the Ground Without SEC Vetting*, MARKETWATCH (Feb. 22, 2018, 6:41 AM), <https://www.marketwatch.com/story/number-of-icos-getting-regulation-lite-treatment-is-growing-2018-02-21>. For a relatively brief overview of how issuers arrange offshore sales of tokens in compliance with U.S. securities laws, see Chris, *Reg S: A Safe Harbor for Blockchain Securities*, DECENTRALIZED LEGAL (Sept. 6, 2016), <https://decentralizedlegal.com/reg-s/>.

171. For domestic sales, the only available exemptions if more than \$1,000,000 in funds is sought are Reg D and Reg A (since Reg S is solely for offshore sales, as discussed *supra* note 170). See jrlmaker, *Securities Exemptions for ICOs*, STEEMIT, <https://steemit.com/crypto-news/@jrlmaker/securities-exemptions-for-icos> (last visited Jan. 6, 2019); McKenna & Marriner, *supra* note 170 (noting Reg D as a possible path to compliant sales without formal registration). For a more detailed consideration of how U.S. securities law is likely to apply to offerings of tokenized interests, see Goforth, *supra* note 65.

172. See generally *Initial Coin Offerings*, *supra* note 97. In discussing ICOs, this report explains that “[o]fferings that are performed under an exemption from registration typically require investors to meet certain income or net worth thresholds to be eligible to invest. For example, exempted offerings often are limited to accredited investors . . .” This source also specifically points out that these tokenized interests are like neither traditional equity nor debt. “Unlike stocks, ICOs typically confer no ownership rights in the company; and unlike bonds, ICOs do not involve investors lending money to the issuer. Instead, ICOs involve new technologies and products that are highly technical and complex, and investors can lose some or all of the money they invest in an ICO.” *Id.*

173. See McKenna & Marriner, *supra* note 170. Although the label “ICO” may be reminiscent of “IPO,” the two are really not all that similar. An IPO involves the public sale of securities pursuant to a registration statement, and following the offering the company becomes subject to the ongoing reporting requirements of the ‘34 Act. See discussion *supra* note 97. An ICO simply refers to an initial sale of “coins” or cryptoassets, which are not generally made pursuant to a registration

Some states have enacted specific provisions applicable to the issuance of cryptoassets, whether they are coins or tokens, but these laws also focus on issues other than providing a substantive framework of either default or mandatory rules for persons seeking to invest in security tokens. At one end of the spectrum there are states like Wyoming, which in an effort to be seen as tech-savvy and crypto-welcoming has exempted cryptotransactions from many state laws. On March 6, 2018, the Wyoming legislature passed a law which effectively exempts cryptoassets from state securities regulation so long as they are not explicitly marketed as an investment.¹⁷⁴ Governor Matt Mead signed the bill into law two days later.¹⁷⁵ Like every other state's corporate law,¹⁷⁶ the Wyoming corporate code makes no mention of tokenized

statement. In fact, as of the date this was written, only a single ICO had been conducted via a registration statement. *See supra* notes 91–93 and accompanying text for a description of the tZERO offering by Overstock. Because the ICO does not typically involve a public offering, many of the protections that the federal securities laws might provide in terms of access to information, access to the proxy, and ongoing disclosures will not apply unless the issuer already has another class of publicly traded securities and is thereby subject to the '34 Act. *See also supra* note 97 (discussing why the '34 Act provisions may not apply even if there are more than 2000 token holders).

One source suggests that upwards of eighty-four percent of all tokens are being sold in private or pre-sales, further reducing the likelihood that token holders will receive the benefit of '34 Act protections. *See* Karim Dabbouz, *ICOs: The Community Does the Marketing, Large Investors Grab the Tokens*, HACKERNOON (Mar. 2, 2018), <https://hackernoon.com/icos-the-community-does-the-marketing-large-investors-grab-the-tokens-2551bba51e1f>.

174. *See* Aaron Wood, *US: Wyoming Set Precedent by Creating New Asset Class for Cryptos, Hopes to Inspire Feds*, COIN TELEGRAPH (Mar. 13, 2018), <https://cointelegraph.com/news/us-wyoming-set-precedent-by-creating-new-asset-class-for-cryptos-hopes-to-inspire-feds> (referencing Wyoming House Bill 70). Obviously, a true security token marketed as an investment would not fit within this exemption, but the provision is indicative of the enthusiastic reception for blockchain-based initiatives in the state.

175. *Id.* This measure is only part of the legislative package that Wyoming has enacted in seeking to become the "crypto capital" of the U.S. For example, Wyoming also exempts crypto from property, income, and corporate taxes. *See* Shiraz Jagati, *Wyoming Takes Another Step to Become the Cryptocurrency Capital of America*, CRYPTOSLATE (Mar. 20, 2018), <https://cryptoslate.com/wyoming-takes-another-step-become-cryptocurrency-capital-america/> (noting that "[a]ll of these bills aim to facilitate the use of cryptocurrencies and blockchain technology within local governmental setups").

176. This should be distinguished from corporate blockchain initiatives, which essentially allow a corporation to use blockchain (or distributed ledger) technology to track stockholders and outstanding stock. On August 1, 2017, the Delaware blockchain initiative became effective, making Delaware the first state to explicitly authorize corporations to keep track of stockholders in this way. Cindy L. Dole & Doneld G. Shelkey, *Delaware Blockchain Law Goes into Effect*, MORGAN LEWIS: TECH & SOURCING (Aug. 11, 2017), <https://www.morganlewis.com/blogs/sourcingatmorganlewis/2017/08/delaware-blockchain-law-goes-into-effect>. Even without this new language, there is no general statutory prohibition on using blockchain in this manner, but the new legislation removed any possible regulatory uncertainty. *See* DGCL § 224. For a description of how the new provision works, see Wonnie Song, *Bullish on Blockchain: Examining Delaware's Approach to Distributed Ledger Technology in Corporate Governance Law and Beyond*, 8 HARV. BUS. L. REV. ONLINE 9, 11–20 (2017). Arizona's governor signed similar legislation into law on April 3, 2018. *See* Nikhilesh De, *Arizona's Governor Signs Latest Blockchain Bill into Law*, COINDESK (Apr. 5, 2018, 8:00 AM), <https://www.coindesk.com/arizonas-governor-signs-latest-blockchain-bill-into-law/>.

interests (outside of the recent exemption from securities law),¹⁷⁷ and legal opinions from the state make it clear that a corporate director's fiduciary duties run to the corporation and its owners,¹⁷⁸ and not to holders of any cryptoasset or tokenized interest.¹⁷⁹ Thus, under the current regime, there are very few statutory rules (default or mandatory) applicable to rights that would exist for purchasers of cryptoassets in Wyoming, and case law has not yet recognized any such protection either. Other states, such as North Dakota and New Hampshire, are "also planning to pass similar laws in order to attract

177. See generally WYO. STAT. ANN. §§ 17-16-101 to 17-16-1810 (2018) (entitled "Wyoming Business Corporation Act"). Within the act, § 17-4-206 contains the open blockchain token exemption, which became effective March 10, 2018. In essence, and as mentioned *supra* note 174, this section excludes an "open blockchain token" from being treated as a security under Wyoming law if the developer files a notice of intent to rely on this provision; issues the token with a consumptive purpose; the token is only exchangeable for goods, services, or content; and the token is not sold to the initial buyer as a financial investment. *Id.* § 17-4-206(a). This statute defines "open blockchain token" as a "digital unit":

(i) Created:

(A) In response to the verification or collection of a specified number of transactions relating to a digital ledger or database;

(B) By deploying computer code to a blockchain network that allows for the creation of digital tokens or other units; or

(C) Using any combination of the methods specified in subparagraphs (A) and (B) of this paragraph.

(ii) Recorded in a digital ledger or database which is chronological, consensus-based, decentralized and mathematically verified in nature, especially relating to the supply of units and their distribution; and

(iii) Capable of being traded or transferred between persons without an intermediary or custodian of value.

Id. § 17-4-206(e). The only other place where "crypto" or "blockchain" appears in the Wyoming corporate statute is in the definitions section, which defines "broker-dealer" to exclude a person who facilitates the exchange of open blockchain tokens as defined above. *Id.* § 17-4-102(a)(iv)(F).

178. One of the most recent pronouncements to this effect was by the Wyoming Supreme Court in its 2015 decision in *Forbes v. Forbes*, 341 P.3d 1041, 1051 (Wyo. 2015), which actually involved duties owed by the trustee of a business trust. In that case, the court stated unequivocally that a "trustee of a business trust, like a director and officer of a corporation, owes the trust and its investors fiduciary duties of care and loyalty . . ." *Id.* at 1051 (quoting *Bergeron v. Ridgewood Sec. Corp.*, 610 F. Supp. 2d 113, 135 (D. Mass. 2009)).

179. In no Wyoming opinion, or any other reported decision, is there any reference to fiduciary duties owed by directors to any holder of any cryptoasset. A July 2018 search of the Allstate database on Westlaw revealed two cases where the words "director," "fiduciary," and either "crypto" or "blockchain" appear. One unpublished opinion talked in a single place about a director's "crypto-disloyalty," but did not appear to involve in any sense the issuance or ownership of any cryptoassets in the underlying companies. See *In re Cornerstone Therapeutics Inc. Stockholder Litig.*, Civil Action No. 8922-VCG, 2014 WL 4418169, at *11 (Del. Ch. Sept. 10, 2014), *rev'd sub nom. In re Cornerstone Therapeutics Inc. Stockholder Litig.*, 115 A.3d 1173 (Del. 2015). The other was a 1979 opinion that not only predates the advent of blockchain technology, but also simply mentions the fact that the respondent had been a cryptographer for the NSA at one point during his career. See *In re McDonough*, 296 N.W.2d 648, 683 (Minn. 1979). A January 15, 2019, repeat of this search duplicated these results.

crypto and blockchain companies,”¹⁸⁰ although some states have taken a more regulatory-heavy approach.

New York, for example, has enacted extensive provisions that regulate issuers of cryptoassets, and those provisions clearly provide some protections for purchasers of cryptoassets, albeit not the kinds of protections that are likely to be most familiar to corporate attorneys or equity investors. Final rules imposing a specific regulatory framework for “virtual currency business activit[ies]” were published in the New York State Register on June 24, 2015.¹⁸¹ Known as the BitLicense framework, these rules define virtual currency so broadly that virtually any cryptoasset will be included in the regulation’s reach.¹⁸² Any person that receives for transmission or transmits more than a nominal amount of a virtual currency for any financial purpose; or holds or stores any virtual currency; or buys and sells or exchanges virtual currencies as a customer business; or who controls, administers, or issues a virtual currency is deemed to be conducting a “virtual currency business activity.”¹⁸³ A person seeking to engage in any such activity must obtain a license by filing an application that includes information about the applicant, its affiliates, directors, principal officers, principal shareholder, and mailing

180. Olivia Oscar, *Wyoming State Is Aiming to Become America’s Cryptocurrency Capital*, CRYPTONA (May 16, 2018), <https://cryptona.co/wyoming-state-is-aiming-to-become-americas-cryptocurrency-capital/>.

181. See *BitLicense Regulatory Framework*, N.Y. DEP’T FIN. SERVICES, https://www.dfs.ny.gov/legal/regulations/bitlicense_reg_framework.htm (last visited Jan. 6, 2019). The rules themselves may be found at N.Y. COMP. CODES R. & REGS. tit. 23, §§ 200.1–.22 (2019).

182. N.Y. COMP. CODES R. & REGS. tit. 23, § 200.2(p) defines “virtual currency” as follows:

Virtual Currency means any type of digital unit that is used as a medium of exchange or a form of digitally stored value. Virtual Currency shall be broadly construed to include digital units of exchange that (i) have a centralized repository or administrator; (ii) are decentralized and have no centralized repository or administrator; or (iii) may be created or obtained by computing or manufacturing effort. Virtual Currency shall not be construed to include any of the following:

- (1) digital units that (i) are used solely within online gaming platforms, (ii) have no market or application outside of those gaming platforms, (iii) cannot be converted into, or redeemed for, Fiat Currency or Virtual Currency, and (iv) may or may not be redeemable for real-world goods, services, discounts, or purchases;
- (2) digital units that can be redeemed for goods, services, discounts, or purchases as part of a customer affinity or rewards program with the issuer and/or other designated merchants or can be redeemed for digital units in another customer affinity or rewards program, but cannot be converted into, or redeemed for, Fiat Currency or Virtual Currency; or
- (3) digital units used as part of Prepaid Cards

Since virtually any cryptoasset can be seen or used as a medium of exchange or store of value, this definition is broad enough to cover all kinds of interests, not just those that function solely in this way.

183. *Id.* § 200.2(q).

addresses, as well as a background report for each such person.¹⁸⁴ Financial statements and a projected balance sheet and income statement for the next year are also required for the applicant and all principal officers and the principal stockholder.¹⁸⁵ Additional financial information and background information must also be provided.¹⁸⁶ While this must be provided to the superintendent of financial services rather than the investor, at least this requirement ensures that the information is available somewhere.

As well as having informational requirements, the BitLicense rules also impose substantive obligations. For example, before engaging in a virtual currency activity, a company must adopt anti-fraud, anti-money-laundering, cyber security, privacy and information security, and certain other specified policies.¹⁸⁷ These could also provide certain minimum protections for investors. There are capital requirements designed to see that the applicant maintains capital “sufficient to ensure the financial integrity of the Licensee and its ongoing operations based on an assessment of the specific risks applicable to each Licensee.”¹⁸⁸ The capital requirements must be met through “cash, virtual currency, or high-quality, highly liquid, investment-grade assets,” in proportions set by the New York superintendent of financial services.¹⁸⁹ The applicant must also have a surety bond or trust account to protect customers,¹⁹⁰ and if it holds, stores, or keeps custody of virtual currencies, it must actually hold the amounts of each such currency.¹⁹¹ All of these requirements should provide some protection for investors in cryptoassets issued by any company in compliance with the New York law, although the regulations talk about persons they are intended to protect as “customers.”

In addition to the foregoing requirements, there are notice requirements if the company wants to make any material change to its business,¹⁹² or if it seeks to merge or combine with another company.¹⁹³ The business must maintain books and records and make them available to the superintendent.¹⁹⁴ While most of these rules do not explicitly seek to protect investors, they do

184. *Id.* § 200.4(a)(1)–(4).

185. *Id.* § 200.4(a)(7).

186. *Id.* § 200.4(a)(8)–(15).

187. *Id.* § 200.7(c).

188. N.Y. COMP. CODES R. & REGS. tit. 23, § 200.8(a).

189. *Id.* § 200.8(b).

190. *Id.* § 200.9(a).

191. *Id.* § 200.9(b).

192. *Id.* § 200.10.

193. *Id.* § 200.11.

194. N.Y. COMP. CODES R. & REGS. tit. 23, § 200.12.

provide some assurance about legitimacy of the business. They are also mandatory and may not be avoided by agreement of the parties. Unfortunately for those in favor of detailed regulation, the impact of these rules has essentially been to encourage crypto-based businesses to operate outside of New York.¹⁹⁵

Other states have adopted a range of rules applicable to cryptoassets and transactions involving them. There is so little consistency that it is difficult to talk thematically or coherently about them.¹⁹⁶ If, however, states were to accept a more uniform approach to crypto-based businesses, the regulations might provide some baseline rules that could operate to protect investors.

One possible source of a more uniform set of rules could come from the Uniform Law Commission (“ULC”).¹⁹⁷ The ULC released the Uniform Regulation of Virtual-Currency Businesses Act (“Uniform Act”) on October 9,

195. The negative reaction to the BitLicense regulations was swift. The first Bitcoin start-up driven out of the state by the new regulations was ShapeShift.io, which left New York “barely a week” after the BitLicense regulations were released. Daniel Roberts, *Bitcoin Company Ditches New York, Blaming New Regulations*, FORTUNE (June 11, 2015), <http://fortune.com/2015/06/11/bitcoin-shapeshift-new-york-bitlicense/>. This was swiftly followed by additional departures. See Jamie Redman, *Poloniex Leaves New York Due to BitLicense*, BITCOIN.COM (Aug. 7, 2015), <https://news.bitcoin.com/poloniex-leaves-new-york-due-to/>; David Ridely, *New York BitLicense: Court Challenge May Have Worldwide Bitcoin Implications*, CRYPTOCURRENCY TIMES (Oct. 7, 2017), <http://cryptotimes.org/bitcoin/new-york-bitlicense-court-challenge-may-worldwide-bitcoin-implications/> (reporting that at least ten Bitcoin businesses have announced departures from the state as a result of the restrictive regime). Nor has New York yet ameliorated its relatively strict position on cryptoassets. For example, New York recently announced surcharges for electricity used by Bitcoin miners. David Z. Morris, *Bitcoin Miners Can Now Be Charged Extra for Electricity, New York Power Authorities Say*, FORTUNE (Mar. 17, 2018), <http://fortune.com/2018/03/17/bitcoin-miners-can-now-be-charged-extra-for-electricity-new-york-power-authorities-say/>. On the other hand, some state legislators are pushing for a relaxation of the current licensing requirements. See Colin Harper, *New York Legislator Proposes BitLicense Alternative for Cryptocurrency Users*, BITCOIN MAG. (Mar. 13, 2018, 3:21 PM), <https://bitcoinmagazine.com/articles/new-york-legislator-proposes-bitlicense-alternative-cryptocurrency-users/>. This article also notes that as of March 2018, there were fewer than ten BitLicense holders in the state of New York. *Id.*

196. One source collected then current state regulations on virtual currencies and blockchain and laid out the state of such rules in an easy-to-follow format. The regulations are rated as neutral (mostly for states with no regulation), murky (especially where legislation was introduced but defeated), hostile, or friendly to cryptocurrencies. See Frederick Reese, *Bitcoin Regulation by State*, BITCOIN MKT. J. (Aug. 4, 2017, 9:49 PM), <https://www.bitcoinmarketjournal.com/bitcoin-state-regulations/>. This source notes that “[m]ost states have yet to consider legislation on bitcoin” *Id.*; see also Justin S. Wales & Matthew E. Kohen, *United States: State Regulations on Virtual Currency and Blockchain Technologies*, MONDAQ, <http://www.mondaq.com/united-states/x/645308/fin+tech/State+Regulations+On+Virtual+Currency+And+Blockchain+Technologies> (last updated Nov. 10, 2017) (noting “most states have not yet enacted regulations that provide virtual currency operators with any guidance”).

197. The ULC, formerly known as the National Conference of Commissioners on Uniform State Laws, has as its mission the goal of providing “states with non-partisan, well-conceived and well-drafted legislation that brings clarity and stability to critical areas of state statutory law.” *About Us*, UNIFORM L. COMMISSION, <https://www.uniformlaws.org/aboutulc/overview> (last visited Jan. 6, 2019).

2017, after it was approved at the annual meeting in July of that year.¹⁹⁸ Although as of January 1, 2019, no state had enacted the Uniform Act, a few states have considered bills that would implement the Act.¹⁹⁹ Moreover, according to the ULC website, the Act was endorsed by the American Bar Association in 2018, and past experience indicates that uniform legislation promulgated by the ULC is often influential on state legislatures.²⁰⁰

One of the stated goals of the Uniform Act is to provide “a balanced and reasonable regulatory structure that should validate good business practice and thus enhance trust for users of virtual currency, and may lead to SEC approval of virtual-currency offerings.”²⁰¹ The Uniform Act is also clearly drafted with both state money transmission laws and FinCEN money services business regulations in mind, with the express observation that the Uniform Act provides protections and obligations that are generally similar to those legal regimes.²⁰² Clearly, the New York BitLicense regulations were influential in the drafting process,²⁰³ although the ULC elected not to be quite as restrictive as the New York laws.²⁰⁴

198. The full text of the Uniform Act along with a detailed prefatory note and commentary following each of the substantive sections is available online. UNIFORM ACT (UNIF. LAW COMM'N 2017), <https://www.uniformlaws.org/HigherLogic/System/DownloadDocumentFile.ashx?DocumentFileKey=ef45a10b-ac62-ad3d-2f42-588d7eac3e40&forceDialog=0>. This Act was approved by the ULC at its annual meeting in July 2017 and was published October 9, 2017. *See id.*

199. Connecticut, Hawaii, and Nebraska were considering the Uniform Act as of July 15, 2018. *See Legislative Tracking*, UNIFORM L. COMMISSION, <http://www.uniformlaws.org/Act.aspx?title=Regulation%20of%20Virtual-Currency%20Businesses%20Act> (last visited July 2018).

200. *See Virtual-Currency Businesses Act, Regulation of (Home)*, UNIFORM L. COMMISSION, <https://my.uniformlaws.org/committees/community-home?communitykey=e104aaa8-c10f-45a7-a34a-0423c2106778&tab=groupdetails> (last visited Jan. 15, 2019). Jeremy M. McLaughlin & Eric A. Love, *K&L Gates Discusses the Virtual-Currency Businesses Act and Coming Cryptocurrency Regulation*, CLS BLUE SKY BLOG (Nov. 17, 2017), <http://clsbluesky.law.columbia.edu/2017/11/17/kl-gates-discusses-the-virtual-currency-businesses-act-and-coming-cryptocurrency-regulation/> (noting that “it is not unusual for multiple states to adopt the ULC legislation”).

201. UNIFORM ACT, prefatory note at 12.

202. *Id.* at 1–2.

203. *See id.* at 9–10 (expressly referring to the New York BitLicense Regulations).

204. For example, the Uniform Act specifically avoids any requirement of surety bonds, because “[s]urety bonds and letters of credit are not readily available to virtual-currency business start-ups at this time. Accordingly, the security described in Section 204 does not require surety bonds or letters of credit because such a requirement effectively would prevent some start-up virtual-currency businesses from being licensed at this time.” UNIFORM ACT § 204 cmt. 1. The New York law nonetheless imposed this requirement. N.Y. COMP. CODES R. & REGS. tit. 23, § 200.9(a) (2019). In addition, the Uniform Act has a tiered system, with an exemption for small start-up operations, intermediate status, and full licensure. *See* UNIFORM ACT § 207 cmt. 1.

In essence, with certain exemptions, the Uniform Act requires a license in order for a business to legally “engage in virtual-currency business activity” or to hold oneself out as doing so.²⁰⁵ This includes having control²⁰⁶ over the “exchanging, transferring, or storing virtual currency or engaging in virtual-currency administration”²⁰⁷ “Virtual currency” is defined as a digital representation that “(i) is used as a medium of exchange, unit of account, or store of value; and (ii) is not legal tender, whether or not denominated in legal tender.”²⁰⁸ Notwithstanding this very broad definition, “virtual currency” specifically does not include nonconvertible merchant affinity or rewards interests or most representations of value limited to online games.²⁰⁹

For companies engaged in virtual currency business activities without an exemption,²¹⁰ the licensing requirements are extensive. As is the case in New

205. UNIFORM ACT § 201.

206. The definitions for exchanging, transferring, or storing of virtual currency (UNIFORM ACT §§ 102(5), (20), (21)) all require the business to be exercising “control” over the particular activity on behalf of someone other than the “owner,” and the definition of control means that the business must have the power to unilaterally execute or prevent a virtual currency transaction. *Id.* § 102(3).

207. *Id.* § 102(25). The definition of “virtual currency administration” means the power to issue the virtual currency with authority to redeem it for legal tender, bank credit, or other virtual currency. *Id.* § 102(24). Interests in precious metal and exchanging digital representations of value within an online game or gaming platform can also be regulated under certain circumstances. *Id.* § 102(25)(B)–(C).

208. *Id.* § 102(23)(A).

209. UNIFORM ACT § 102(23)(B). These definitions were apparently adopted to ensure that the Uniform Act tracks FinCEN treatment of virtual currencies. *See id.* § 102 cmt. 1 (citing an unpublished FinCEN No-action letter dated April 2016 on file with the ULC).

210. There are, in fact, numerous potential exemptions built into the act. For example, there is a three-tiered system of regulation designed to allow businesses to “ramp up” their activities before obtaining the license described in the Uniform Act. *See id.* § 103. However, the first tier (which would exempt a business from licensure) is limited to businesses whose virtual currency business activity within a state “is reasonably expected to be valued, in the aggregate [within that state], on an annual basis at \$5,000 or less.” *Id.* § 103(b)(8). The second tier allows a business to register rather than obtaining a license, but it is limited to entities whose annual virtual currency activity in the state is not expected to exceed \$35,000. *See id.* § 207. This is not a particularly helpful exemption since, in addition to the relatively low dollar limit, the registration requirements for this option are similar to the licensure requirements in several respects, *see id.* § 207(a), and the option is only available for two years, after which the entity must cease its virtual currency business or apply for a license even if it will not exceed annual in-state earnings of \$35,000. *See* UNIFORM ACT § 207(d)(4).

The Uniform Act does include several exemptions that appear to mirror most common exemptions in state money transmission statutes. Among these are exemptions for government agencies, most banks, entities providing processing or clearing services, and persons using virtual currency on their own behalf; for personal, family, or household purposes; or for academic purposes. *See id.* §§ 103(1), (2), (4), (7). Entities that are licensed under the state’s money transmission statute and which have obtained permission to engage in virtual currency activities need not be licensed under the Uniform Act, although they must comply with certain of its provisions. *See id.* § 103(b)(3).

There are other exemptions from the licensing requirements, including exemptions for any person who only provides processing, clearing, or settlement services to exempt virtual currency businesses; and any person who “contributes only connectivity software or computing power to a decentralized virtual currency, or to a protocol governing transfer of the digital representation of

York under the BitLicence requirements,²¹¹ the application process requires a detailed application covering a wide variety of information about the business, all of its executive officers,²¹² its funds, and various licenses that the business may be required to hold.²¹³ In addition, the Uniform Act requires applicants to deposit security with the state to secure performance of its duties, but the amounts and kinds of security that can be used vary and may include funds or investment property, a letter of credit, a surety bond, or other security satisfactory to the state.²¹⁴ States may permit virtual currency businesses to meet the requirement in a variety of ways.²¹⁵ The Uniform Act also includes minimum net worth standards and requires applicants to maintain sufficient unencumbered reserves to wind down operations.²¹⁶ The Uniform Act imposes recordkeeping,²¹⁷ reporting,²¹⁸ and other requirements that are similar to traditional state money transmitter laws. Applicants are required to have satisfactory policies and procedures and to implement a compliance program.²¹⁹ Finally, licensees (and registrants)²²⁰ must make numerous disclosures to residents regarding fees and charges, insurance, and error resolution rights before establishing a “relationship” with them.²²¹

value,” or who “provides only data storage or security services” for a virtual currency business. *Id.* §§ 103(b)(4), (6). Other exemptions exist for dealers in foreign exchange, attorneys, and title insurance companies providing escrow services, securities or commodities intermediaries, secured creditors, virtual currency control-services vendors, and persons that do not charge for their virtual currency business activities. *See id.* §§ 103(b)(5), (9)–(14). The Act also exempts any virtual currency transaction that is subject to the Electronic Fund Transfer Act, the Securities Exchange Act of 1934, or the Commodities Exchange Act. *See id.* § 103(b).

211. *See supra* notes 181–95 and accompanying text.

212. “Executive officer” is broadly defined to include “director, officer, manager, managing member, partner, or trustee of a person that is not an individual.” UNIFORM ACT § 102(6).

213. The list of information required in the license is set out in the UNIFORM ACT. *See id.* § 202.

214. *Id.* § 204(a)(1)–(3).

215. *Id.* § 204 cmt. 1, 5. Apparently this was deemed important because of the difficulty that some virtual currency businesses might have in obtaining surety bonds or other traditional forms of security.

216. *Id.* at § 204(b). The applicant can use virtual-currency, not including virtual-currency over which it has control on behalf of a resident, to meet the net worth requirement. *Id.* § 204(c).

217. Required recordkeeping obligations are set out in the Uniform Act. UNIFORM ACT § 302.

218. *Id.* § 305 (stating the mandates for interim reports).

219. *Id.* §§ 601–602. These include policies and procedures for (1) an information-security and operational-security program; (2) a business-continuity program; (3) a disaster-recovery program; (4) an anti-fraud program; (5) an anti-money-laundering program; (6) a program to prevent funding of terrorist activity; and (7) a program designed to ensure compliance with all other relevant state and federal law. *Id.* § 601(a).

220. *See infra* notes 265–69 and accompanying text for a description of registrants.

221. UNIFORM ACT § 501.

The Uniform Act does include enforcement provisions for material violations of the Act's provisions.²²² It also permits actions against people who "engage . . . in unsafe or unsound act[s] or practices," and "unfair or deceptive act[s] and practice[s]."²²³ The Act does, however, provide only a very limited private right of action,²²⁴ meaning that while some of the Act's provisions may protect investors indirectly, that is clearly not the major import of its provisions.

This creates a situation where there could be an entirely new class of interests, distinct from traditional equity or debt, in which investors have no real safety net in the form of either default rules or minimum standards. That is an incredibly strong incentive to create comprehensive expectations for the topics that need to be addressed when negotiating and drafting the contracts needed to govern cryptoassets.

V. WHAT CONTRACTUAL ORDERING IS NEEDED?

In rather stark contrast to deals involving sales of stock, the parties involved in the sale of securities tokens will need to draft provisions that cover all of the usual rights, responsibilities, powers, obligations, and potential liabilities of both the issuer and the investor. State corporate law offers no default rules as gap-fillers, and there are few limits on what the parties may agree to accept as the terms of their deal.²²⁵ Outside of prohibitions against fraud,²²⁶ the law does not currently impose mandatory rights, responsibilities,

222. *Id.* § 402(a)(1).

223. *Id.* § 402(a)(3).

224. *Id.* § 407. Comment 1 to that section suggests that there may be a private right of action under section 502 for a person acting as a securities intermediary who violates UCC § 8-503. Comment 2 says that the other exception may be for section 502 violations that involve fraudulent acts "such as fraudulently covering up a failure to maintain the required amount of virtual currency under control, or converting for the virtual-currency business' own use the virtual currency under its control for other persons."

225. Beyond the obligation to avoid outright fraud in connection with the offer of sale of any cryptoasset classified as a security or commodity, existing law does not clearly impose any restriction on what the parties can agree to. For example:

In 1990, 1992, and 2004, Delaware adopted a series of amendments to its alternative entity acts that authorize owners to contractually limit or eliminate duties and liabilities, including fiduciary duties of owners or managers to each other, the entity, or another person that is a party to the entity's private agreement, so long as no attempt is made to limit or restrict the implied contractual covenant of good faith and fair dealing.

Ann E. Conaway, *Lessons to Be Learned: How the Policy of Freedom to Contract in Delaware's Alternative Entity Law Might Inform Delaware's General Corporation Law*, 33 DEL. J. CORP. L. 789, 790–91 (2008).

226. For a brief consideration of various federal securities laws that include anti-fraud requirements, see *supra* note 133. With regard to common-law fraud actions, see generally Andrew R. Simank, *Deliberately Defrauding Investors: The Scope of Liability*, 42 SAINT MARY'S L.J. 253, 258–59 (2010) (explaining why common-law fraud "should remain a viable claim in mitigating

or liabilities such as those that traditionally apply to equity investments under state corporate statutes, existing case law, or federal securities laws. This leaves a lot of work for the transactional attorney.

Because there is no existing framework within which to consider the rights and responsibilities of a corporation, its agents, and potential token holders, it is difficult to know where to start. Some considerations that may appear less significant to attorneys may assume much greater importance to members of the crypto community. For example, privacy and confidentiality appear to be a major concern to some potential investors.²²⁷ Fear about the potential release of investors' financial information, for example, resulted in the creation of a number of coins because Bitcoin was deemed to be insufficiently private.²²⁸ This may not be the first thing that occurs to attorneys despite its importance to members of the crypto community.

This concern could affect such nonobvious issues as how the company should treat the identity of its investors. Usually, a corporation is required to maintain a list of shareholders,²²⁹ and under a wide variety of circumstances must make that information available to any shareholder who asks.²³⁰ Does

fraudulent behavior"). In addition, it is worth noting that state securities laws may also include anti-fraud provisions, and remedies may be less restricted than under the federal regime. See Jennifer J. Johnson, *Secondary Liability for Securities Fraud: Gatekeepers in State Court*, 36 DEL. J. CORP. L. 463, 475 (2011).

227. The creators of Monero, an alternative to Bitcoin, have opined that Bitcoin's "lack of privacy" is its "most critical flaw." *Merits of Monero*, *supra* note 36.

228. Some notable privacy coins, which highlight the need for and benefits of increased privacy, include Monero, Zcash, Dash, Verge, PIVX, and Hush. Aaron Mangal, *Privacy Coins – What Are They, How Do They Work and Why Are They Needed*, COIN CENT. (Sept. 25, 2017), <https://co-central.com/privacy-coins-what-are-they-how-do-they-work-and-why-are-they-needed/>.

229. MBCA § 16.01(c); DGCL § 219(a) (defining stock ledger). Delaware specifically authorizes the list to be kept on a distributed electronic database. DGCL § 224.

230. This is made less intrusive as a result of the reality that for public corporations, at least, most shares are not actually held in the name of the ultimate owner. This reality is illustrated in *Distributed Stock Ledgers and Delaware Law*, which states:

Most public corporations had outsourced control over their stock ledgers to their transfer agent. Moreover, the federal response to a paperwork crisis on Wall Street during the late 1960s and early 1970s resulted in a further outsourcing of the stock ledger to the Depository Trust Company ("DTC"). To solve the paperwork crisis, the Securities and Exchange Commission ("SEC") encouraged brokerages and banks to create depositories and deposit their shares centrally with the depositories in the form of jumbo certificates, often representing tens or hundreds of thousands of shares. DTC emerged as the only domestic depository. DTC's nominee, Cede & Company ("Cede"), became the largest stockholder of record in most public companies.

J. Travis Laster & Marcel T. Rosner, *Distributed Stock Ledgers and Delaware Law*, 73 BUS. LAW. 319, 326 (2018). In fact, the DTC holds more than seventy-five percent of the shares of publicly traded companies, making the "shareholder list" a very incomplete listing, indeed. See John C. Wilcox, John J. Purcell III & Hye-Won Choi, "Street Name" Registration & The Proxy Solicitation Process, in A PRACTICAL GUIDE TO SEC PROXY AND COMPENSATION RULES 10-3, 10-4 n.2 (Amy Goodman et al. eds., 4th ed. 2007).

a security token need to have contractual arrangements that mirror those requirements?²³¹ Alternatively, should the parties draft specific provisions about the circumstances under which the issuer may or must relay information about the identity of a token holder and the nature of any investments and trades by such person? Can limitations on accessibility and reporting of information go too far? How do obligations imposed by the Bank Secrecy Act²³² impact and limit the legitimate interests of investors in maintaining their privacy? These concerns will all have to be considered in the context of determining the terms of the deal regarding collection and release of information about the identity of token holders and any subsequent trades by such holders. This task will be complicated by the fact that customary rules relating to investments in stock may not provide a reliable starting point for describing the relative rights of the parties in this new setting.

At the same time, transparency is another ideal which underpins and permeates blockchain ideals and operations. It is touted as a critical consideration in the crypto community.²³³ Access to information about the company and its operations may therefore also be especially important to persons interested in cryptoassets, such as securities tokens. This could include the

231. See Rhys Dipshan, *The Problem with Smart Contracts*, LEGALTECH NEWS (May 14, 2018, 12:22 PM), <https://www.law.com/legaltechnews/2018/05/14/the-problem-with-smart-contracts/?sreturn=20180609124328>. At the current time, smart contracts are actually quite limited in what they can accomplish. Some commentators have suggested that they essentially operate like vending machines, where relatively simple mathematical calculations can be made automatically. E.g., Jon Roethke & Hunter Gebron, *A Story about Smart Contracts*, MEDIUM (Jan. 9, 2018) <https://medium.com/metax-publication/a-story-about-smart-contracts-736497541e4d>. This could include determining how many votes a particular node might have at any given point in time, or how much of a total pool of funds available for distribution might be allocated to a particular holder. To date there is no direct way for smart contracts to include more complicated functions such as determining when a proper purpose has been demonstrated, so unless this is a fully automated determination, the place where the explanation of holders' rights would have to appear would probably be in the description of the underlying relationship. There, either a side contract would have to be entered into or the anti-fraud rules applicable to sales of securities would have to suffice as protection for the investor. For a more detailed consideration of the limits of smart contracts, see *infra* note 245.

232. For a brief description of The Bank Secrecy Act, see *supra* notes 147–49, 156–58 and accompanying text.

233. Rosie Leizrowice, *The Benefits of Transparency: How Bitcoin & Blockchains Could Change the World*, WIREX (Feb. 9, 2018, 12:00 PM), <https://wirexapp.com/benefits-transparency-bitcoin-blockchains-change-world/>. Transparency has been hailed as a primary attribute of blockchain technology. “There will be nowhere to hide on the open ledger system. It won’t be just what these companies decide to tell us in their annual reports and sustainability brochures. Every transaction, subsidiary and supplier will be open to scrutiny.” Jemma Green, *Blockchains, Diamonds and the New Transparency*, FORBES (Aug. 20, 2017, 6:45 PM), <https://www.forbes.com/sites/jemma-green/2017/08/20/blockchains-diamonds-and-the-new-transparency/#3ae7fbcf6a6c>. Furthermore, there have even been comments about best practices in transparency. See William Mougayar, *Best Practices in Transparency and Reporting for Cryptocurrency Crowdsales*, BRAVE NEWCOIN (Feb. 16, 2015, 10:03 AM), <https://bravenewcoin.com/news/best-practices-in-transparency-and-reporting-for-cryptocurrency-crowdsales/>.

kinds of financial data that would be readily available to shareholders acting in good faith who have a proper purpose,²³⁴ since that information is not necessary to others (unless the disclosure requirements for public corporations under the '34 Act are applicable).²³⁵ However, it might be substantially broader than that. It could also include the expectation that token holders will receive information about any significant actions planned or taken by directors or officers.²³⁶ Because state corporate statutes usually set out when shareholders have rights to obtain information,²³⁷ attorneys may not be used to thinking about the need to carefully draft provisions relating to the kinds of information accessible to token holders, or the conditions under which such information might be released. Automatic release of all information on request could compromise a company's ability to protect its proprietary information,²³⁸ so creating appropriate rules may be particularly difficult for counsel, especially if investors expect or demand "transparency" in the management and operation of the company in which they are placing their funds.²³⁹

Similarly, some proponents of blockchain are huge supporters of democratic processes.²⁴⁰ Does this mean that purchasers of security tokens will

234. Under state law, shareholders seeking access to such information must generally have a "proper purpose" related to their interest as shareholders. *See generally* Browning Jeffries, *Shareholder Access to Corporate Books and Records: The Abrogation Debate*, 59 *DRAKE L. REV.* 1087 (2011).

235. *See supra* note 97.

236. *See* MBCA § 1602(b) (explaining shareholders' rights to access directors' minutes); DGCL § 220 (describing general inspection rights of shareholders). Note that DGCL § 221 authorizes a corporation to include in its certificate of incorporation similar inspection rights for "holders of any bonds, debentures or other obligations issued or to be issued by the corporation." This list does not expressly include token holders, so it is not completely clear that Delaware law would allow a similar work-around for investors in cryptoassets. *See supra* note 112 for a discussion of this issue.

237. MBCA § 16.02(b) (providing that "[a] shareholder is entitled" to the records upon showing of a proper purpose, with no possibility of eliminating this right by prior agreement); DGCL § 220 (couched in similarly mandatory language).

238. Omitting rights to information might be unacceptable to investors. Note that it may be impossible to include such requirements in the smart contracts themselves. For example, requirements for a proper purpose such as those applicable for shareholders may mean that the kind of automatic determinations that can currently be made through smart contracts will not suffice. For a description of the limits on smart contracts, see *supra* note 231, and for a description of the usual requirements that shareholders have a proper purpose to access corporate data, see *supra* notes 104–11 and accompanying text.

239. Because the information likely to be of interest to investors is not the kind of data that can be completely described so that release is automatic, this function is one that will probably need to be described in a side contract. Failure to do so could potentially create liability for fraud or misrepresentation if the securities tokens are described as being "like equity" or as an "equity security," simply because such basic informational rights are so important to traditional equity interests.

240. "The democratic ideals echoed throughout blockchain are an important aspect of understanding the technology's future." Jack Filiba, *Why Democracy and Blockchain Need Each Other*,

expect direct participation in day-to-day operational decisions? Even shareholders in corporations do not generally have such power,²⁴¹ but the extent to which persons who would choose to invest in tokenized alternatives to traditional equity will be satisfied with traditional rules is simply uncertain. Even if token holders accept that direct participation in the day-to-day management of the corporation's affairs is impractical, they may expect or want the right to vote on directors. They may not be thinking that this needs to be set out in a distinct contract simply because the right of equity "owners" to elect directors is so established in the corporate setting,²⁴² with state law requiring periodic reelection of directors by shareholders.²⁴³ Persons who buy a security token, particularly one that mimics the traditional rights associated with conventional equity, might simply expect that this would also include a say on who serves as a director.²⁴⁴ Such terms would, however, have to be negotiated and included as part of the contractual documentation in order to be viable in the context of a tokenized interest,²⁴⁵ unless the courts somehow

COINSQUARE (Dec. 2, 2017), <https://news.coinsquare.com/government/blockchain-democracy-work-together/>; see also Alex Tapscott, *Blockchain Democracy: Government of the People, by the People, for the People*, FORBES (Aug. 6, 2016, 2:38 PM), <https://www.forbes.com/sites/alextapscott/2016/08/16/blockchain-democracy-government-of-the-people-by-the-people-for-the-people/#359ecabd4434> (listing a number of design principles inherent in blockchain, including valuing individual identity, encouraging integrity, equality of power where "[e]veryone has a right to participate in government," privacy and protection of rights, security, and inclusion).

241. While some close corporation statutes or provisions give shareholders in smaller enterprises the option to have a direct say in the operation of the business, as a practical matter this would be unwieldy and impractical in a larger entity with widely dispersed participants. Explaining the practical realities of this in a way that respects the ideals of democratic governance to the extent possible may be a particular challenge for attorneys tasked with drafting rules applicable to tokenized interests.

242. See Lawrence A. Hamermesh, *Director Nominations*, 39 DEL. J. CORP. L. 117, 120 (2014).

Reflecting the perceived importance of the right to vote on the election of directors, corporate statutes extensively define the stockholders' right to vote on the election of directors: invariably, those statutes confer, upon each share of capital stock, one vote on all matters, including the election of directors, on which stockholders may vote, subject only to modification or elimination in the articles or certificate of incorporation.

Id.

243. MBCA §§ 8.05, 8.06 taken together limit the terms of directors to no more than three years and require that at least one-third of the directors be elected each year, while § 8.04 gives shareholders the right to elect the directors. DGCL § 141 includes terms for directors, and DGCL § 211(b) sets the annual meeting of shareholders as the default for the election of directors.

244. Notions of equity ownership and the right to elect directors have been inextricably intertwined. "Shareholder election of directors is widely accepted as an important tool in corporate governance." See Hamermesh, *supra* note 242. The Delaware Chancery Court once famously stated that the shareholders' power to elect directors was "the ideological underpinning upon which the legitimacy of directorial power rests." *Blasius Indus., Inc. v. Atlas Corp.*, 564 A.2d 651, 659 (Del. Ch. 1988). Historically, it has taken an explicit acknowledgment that stock has no or limited voting rights in order to disenfranchise equity owners in a corporation.

245. It is worth emphasizing that the goal of including all operative terms in the "smart contract" relating to such security tokens is not currently feasible, as only automated, deterministic

find that it amounts to fraud or a misrepresentation not to explicitly disclaim such a power.

In addition, and regardless of whether token holders insist upon or are given the right to vote on the election of directors to represent their interests, an ideological interest in democracy may also mean that token holders will want to communicate with each other and potentially with shareholders, particularly if only shareholders have the power to actually vote. While traditionally the federal securities laws give any voting shareholder in a publicly held corporation the right to have certain proposals included in the corporation's annual proxy materials,²⁴⁶ none of the federal rules giving shareholders this right currently provide any such opportunity to token holders.²⁴⁷ This is therefore another issue that may be of particular importance to investors committed to the blockchain ideal of democratic participation.²⁴⁸

There are some voting issues that may be more likely to be considered by attorneys than by potential investors. For example, decisions such as whether to authorize the creation of a new class of shares, or to change the rights and preferences of shareholders, or to subordinate various rights to another group may be important to security token holders in the long term, but

functions are within the scope of current technology. "Everything that takes place on a blockchain must be completely deterministic, with no possible way for differences to creep in. The moment that two honest nodes disagree about the chain's state, the entire system becomes worthless." Gideon Greenspan, *Why Many Smart Contract Use Cases Are Simply Impossible*, COINDESK (Apr. 17, 2016, 1:00 PM), <https://www.coindesk.com/three-smart-contract-misconceptions/>.

Technically, the smart contract is not really the "contract" at all; it is the computer program which implements the terms of the parties' agreement. "The word contract has no legal meaning in this context." See ANDREAS M. ANTONOPOULOS & GAVIN WOOD, *MASTERING ETHEREUM: BUILDING SMART CONTRACTS AND DAPPS 128* (2018) (chapter entitled "Smart Contracts and Solidity").

The terms of the parties' agreement are in fact likely to be embodied in the offering documentation and descriptions of the rights, privileges, responsibilities, obligations, and powers of the interested parties. This is one reason why it is critical to be very precise in describing the nature of any security token that is being promised. For example, calling such an interest an "equity token" might open an issuer up to claims of fraud or misrepresentation because tokenized interests do not automatically carry with them the rights traditionally associated with equity interests. In addition, as investors in tokenized interests become increasingly sophisticated, they are likely to be more particular about expecting a clear articulation of the rights and responsibilities of the parties, precisely because there are no default rules applicable to cryptoassets issued by corporations under existing law. See *supra* Part III of this Article for a consideration of the range of default rules that apply to corporate stock but not cryptoassets.

246. See *supra* note 133 for a brief description of federal proxy rules and shareholder proposals.

247. They also do not apply to corporations unless the entity is subject to ongoing reporting requirements of the '34 Act. See *supra* note 97.

248. See *supra* note 240.

not something they are likely to be thinking about when they consider a tokenized investment.²⁴⁹ Attorneys should probably be well aware of the importance of these kinds of possibilities. While state corporate statutes allow articles of incorporation to grant directors the legal authority to define the terms of so-called “blank-check” shares,²⁵⁰ other changes to shares and rights of equity owners would not be permissible without specific shareholder approval.²⁵¹ This does not mean that token holders will automatically have equivalent rights. How rules should function in the case of sales of tokenized securities designed to mimic common stock without technically being common stock is likely to be an issue that will again require attention to the preferences of the attorneys’ clients in any given situation.

249. Some investors in the crypto space are simply unsophisticated. See Mr Money Mustache, *So You’re Thinking About Investing in Bitcoin? Don’t*, GUARDIAN (Jan. 15, 2018, 5:00 AM), <https://www.theguardian.com/technology/2018/jan/15/should-i-invest-bitcoin-dont-mr-money-mustache> (concluding that much of the trading frenzy in cryptoassets has been funded by unsophisticated investors looking to get rich quick). Even commentators who generally speak about the technical expertise within the crypto community recognize that “there are also a lot of ‘unsophisticated’ investors who are throwing money into questionable projects, and either making or losing a lot of money.” David Truong, *A New Breed of Investors: Crypto-Investors*, MEDIUM (Nov. 12, 2017), <https://medium.com/@mrdavey/a-new-breed-of-investors-crypto-investors-d25460a11c7c>. Others may be thinking about protecting their interest from dilution by restricting the number of tokens that may be offered, without realizing that other classes of ownership interest may have or later be given superior rights. For an example of investment considerations focusing on whether the sale of tokens has a soft cap or a hard cap, see *Understanding Soft Caps, Hard Caps & Emission Schedules*, COINIST, <https://www.coinist.io/crypto-hard-caps-soft-caps/> (last visited Jan. 8, 2019) (showing an example of investment considerations focusing on whether the sale of tokens has a soft cap or a hard cap). A similar piece written for the issuer of tokens also focuses on the total tokens to be issued as a critical consideration. Beon d., *A Token Metrics Lesson for the ICO Team*, GOOD AUDIENCE (Feb. 7, 2018), <https://blog.goodaudience.com/a-token-metrics-lesson-for-the-ico-team-22c081a4c0e>.

250. See Carol Goforth, *Proxy Reform as A Means of Increasing Shareholder Participation in Corporate Governance: Too Little, but Not Too Late*, 43 AM. U. L. REV. 379, 393 (1994).

Blank-check shares are created when a corporation’s certificate of incorporation authorizes its board of directors to issue a class of shares having rights, designations, and preferences to be determined in the future by the board of directors. Normally, shareholders must approve any class of shares having such differences before they are issued, but with blank[-]check shares, the board can decide on the rights, designations, and privileges without consulting the shareholders even if the original blank-check authorization was adopted for a purpose other than one for which it is ultimately used.

Id. (footnotes omitted).

251. There may, for example, be common-law restrictions on the director’s authority to issue blank-check shares. See, e.g., *Asarco Inc. v. Court*, 611 F. Supp. 468, 476–77 (D.N.J. 1985) (generally allowing board of directors to issue blank-check shares for purposes other than those originally intended, but not if doing so would destroy the equality of voting power between stockholders of the same class of shares.) Listing requirements may come into play. For example, if shares are listed on NASDAQ (the National Association of Securities Dealers Automated Quotations), “Rule 5635 limits the number of shares or voting power that can be issued or granted without shareholder approval prior to the issuance of certain securities.” NASDAQ Interpretive Material IM-5635-2, http://nasdaq.cchwallstreet.com/NASDAQTools/PlatformViewer.asp?searched=1&selected-node=chp_1_1_4_3_8_26&CiRestriction=20%25&manual=%2Fnasdaq%2FMain%2Fnasdaq-eq-uityrules%2F (last visited July 2018) (with certain specified exceptions).

Another issue that is likely to occur to attorneys, perhaps before it crosses the minds of potential investors, is the question of when the owner of a security token (particularly one designed to mirror an equity interest) will have any say on decisions that could fundamentally alter the underlying business operations of the issuer. Shareholders typically have automatic voting rights with regard to decisions such as whether or not to amend the articles of incorporation (or other organizational documents for other forms of business) in order to change the nature of the company's business,²⁵² or to change the company's state of incorporation (which will affect the law applicable to its operations).²⁵³ While perhaps less fundamental than the interests of a stakeholder in electing directors²⁵⁴ or overseeing the number of authorized shares (or other interests) as well as the relative classes, preferences, and subordination of such shares or interests,²⁵⁵ these are still the kinds of decisions that token holders might expect or wish to have,²⁵⁶ even if they may not be at the forefront of considerations at the time of investment. In fact, a change in the company's business might be extraordinarily important in the context of particular offerings, especially if prefunctional tokens are being offered.²⁵⁷

It is, for example, quite common for companies to offer prefunctional tokens in an ICO.²⁵⁸ The only offering registered with the SEC to date involving a token that was designed like a tokenized equity security, the tZero

252. MBCA § 10.03 (establishing when shareholders have the right to vote on amendments to the certificate of incorporation); DGCL § 242 (same); *see also supra* note 122 and accompanying text for a discussion of these rights.

253. The potential significance of a change in the state of incorporation is illustrated by the relatively recent migration of News Corporation from Australia to Delaware in 2007. For a discussion of some of the issues presented in that instance, see Jennifer G. Hill, *Subverting Shareholder Rights: Lessons from News Corp.'s Migration to Delaware*, 63 VAND. L. REV. 1, 2 (2010).

254. *See supra* notes 242–44 and accompanying text.

255. The importance of these kinds of issues to investors is probably demonstrated most convincingly by the behavior of existing venture capital investors who typically ask for and negotiate “veto rights and rights of first offer on the future issuance of securities that allow the investor to block new equity financings” Robert P. Bartlett III, *Venture Capital, Agency Costs, and the False Dichotomy of the Corporation*, 54 UCLA L. Rev. 37, 53 (2006) (citing Michael Klausner & Kate Litvak, *What Economists Have Taught Us About Venture Capital Contracting*, in BRIDGING THE ENTREPRENEURIAL FINANCING GAP 60 (Michael J. Whincop ed., 2001)).

256. Again, because traditional statutory rules do not give these rights to token holders, any such voting power would need to be described and incorporated into either the supporting documentation and/or the smart contracts themselves when such programming becomes feasible.

257. For example, a corporation might propose an offering of prefunctional tokens as to which the blockchain is not yet functional and the smart contracts have not yet been written. When completed, the tokens are supposed to provide holders with a share of the company's profits, in much the same way that shareholders have a right to dividends. Persons interested in the tokens might be particularly attracted because of the nature of the anticipated business, and they could be very unhappy if the company veers off in a different direction entirely.

258. For a general discussion of the prefunctional stage, see Sammy Naji, *ICOs Primer: 'SEC Compliant' Initial Coin Offerings*, LONG LEAF L. BLOG (Apr. 9, 2018), <https://nccbarblog.com/icos->

offering,²⁵⁹ specifically warned investors that the anticipated token might never actually be finalized and may never become functional.²⁶⁰ In an offering such as that, a decision to amend the deal by changing the enterprise's business in such a way as to cause material changes in the anticipated token would seem to be one in which token holders would have a particular interest. To protect against such changes, however, token holders would need to have some say in any decision with that kind of impact.²⁶¹ Such input would have to come about as a result of agreement.

Similarly, attorneys may also be more likely to be concerned about voting rights in the case of fundamental structural changes in the business, regardless of whether a specific amendment to the organizational document is required. Mergers, combinations, consolidations, mandatory share exchanges, sales of substantially all assets, and even tender offers all give equity owners voting rights, but no such say to investors who hold tokenized interests.²⁶² Moreover, these kinds of transactions (excluding tender offers, which are voluntary and require the approval of every affected shareholder)²⁶³ may also give rise to dissent and appraisal rights,²⁶⁴ which are also limited to shareholders. Which of these, if any, should be offered to holders of tokenized interests, and how should the terms of any such agreement be negotiated, disclosed, and explained?

primer-sec-compliant-initial-coin-offerings/. Commentators have suggested that the sale of prefunctional tokens is particularly likely to involve the sale of securities, since it “will almost always involve an expectation of profits derived from the developer’s efforts.” Max Dilendorf & Rika Khurdayan, *When Your Utility Token is a Security: Why Munchee Failed*, DILENDORF KHURDAYAN (Dec. 18, 2017), <http://dilendorf.com/resources/when-your-utility-token-is-a-security-why-munchee-failed-html>.

259. For a description of the tZERO offering, see *supra* notes 91–92.

260. The front page of the Confidential Private Placement Offering Memorandum (as restated as of March 1, 2018), notes at the bottom of the first page that “[t]here can be no assurance that tZERO will ever issue the Tokens.” See tZERO, *supra* note 92.

261. Shareholders would be owed fiduciary duties that might block any such change. See *supra* notes 140–44 and accompanying text. In addition, if the alteration in business direction necessitates an amendment to the articles of incorporation, that would also generally require a shareholder vote. See MBCA § 10.03; DGCL § 242.

262. Shareholders are given a right to vote on actions such as mergers, combinations, and consolidations under both the MBCA and Delaware law. See MBCA §§ 11.01–11.08; DGCL §§ 251–267. Under the MBCA, shareholders must also be allowed to vote on any mandatory share exchange. MBCA § 11.04; see also *supra* note 126. Delaware law does not currently authorize mandatory share exchanges. Voting rights for shareholders when there is a proposed sale of substantially all assets, other than in the ordinary business of the corporation, are described in MBCA § 12.02(a); DGCL § 271(a); see also *supra* note 125. Tender offers are regulated by federal law. See *supra* note 134.

263. Tender offers are subject to numerous federal requirements, all designed to protect shareholders. For a discussion of various requirements governing tender offers under the federal securities laws, see *supra* notes 134–35.

264. MBCA §§ 11.01–11.08; DGCL § 262.

Finally (when it comes to the issue of the kinds of actions on which investors may expect or wish to have a vote), there is the question of voluntary dissolution. Corporate statutes typically give shareholders a say in whether or not to dissolve their corporation.²⁶⁵ Do token holders also get a say in this decision? It is certainly conceivable that the timing of a voluntary dissolution could have a significant impact of the payout owed to investors (depending on the terms of the arrangement), and it might make sense to give them some input. On the other hand, if this is desired, it will have to be specifically included in the agreement between the parties.

With regard to all of these considerations, note that it is not enough to merely “agree” that token holders will “have” voting rights. There is a host of procedures (covered in the statutes for shareholders) that will need to be spelled out. How do token holders get notice of an upcoming vote? Is there a record-date for ownership and how is it determined? Are there quorum requirements? How are votes cast, recorded, verified, reported, and implemented?²⁶⁶

In a particularly confusing twist, can the corporation buy or hold tokens that it has issued, and if so, does the corporation gain the participation or voting rights that would be associated with such tokens if they were held by a third party? If it cannot issue such tokens directly to itself, and if it repurchases previously outstanding tokens, what happens to the participation and voting rights previously associated with those interests? This kind of issue will need to be spelled out, both in a form that is comprehensible to potential investors and in any smart contract coding that deals with either participation in economic distributions or voting rights. Attorneys are unlikely to be accustomed to thinking about this kind of issue because in the corporate context the law has been abundantly clear that a corporation may not vote with shares that it owns in itself.²⁶⁷

Some issues are likely to be important to both potential investors in tokenized securities and attorneys who work on the documentation describing

265. MBCA §§ 13.01–13.40; DGCL § 275.

266. State corporate statutes generally spell out shareholder voting rights and procedures in substantial detail. *See* MBCA §§ 7.01–7.29; DGCL §§ 211 (shareholder meetings), 212 (general voting rights of shareholders), 213 (determining shareholders of record), 214 (describing optional cumulative voting for directors), 216 (quorum and required vote), 222 (notice requirements), 231 (voting procedure).

267. *See* DGCL § 160(c) (“Shares of its own capital stock belonging to the corporation or to another corporation, if a majority of the shares entitled to vote in the election of directors of such other corporation is held, directly or indirectly, by the corporation, shall neither be entitled to vote nor be counted for quorum purposes.”). The result under the MBCA is the same, although the path to get there is a little more circuitous. First, under MBCA § 7.21(a) “outstanding shares” are entitled to vote. Another section explains that “shares that are issued are outstanding,” *see* MBCA § 6.03(a), and still another specifies that when a corporation acquires its own shares they are “unissued” (and therefore not outstanding). MBCA § 6.31(a).

the interests. It is likely that both investors and the issuer's counsel will focus on the clear drafting of provisions and descriptions relating to these issues. First and foremost of these is likely to be the nature of any interest in profits or dividends, however they are described. Applicable documentation will need to describe how any economic rights are to be calculated, by whom and when they will be ascertained, and to whom and when actual payments are to be distributed. If rights are designed to function in the same way as cumulative preferred dividends, both the preference and the fact that payments are intended to be cumulative will need to be very carefully articulated. An attorney would also be well advised to be careful to draft terms governing how the token holder is to protect any financial rights against the risk of director mismanagement, such as approving expenditures that would amount to a waste of assets. This needs to be spelled out because token holders, unlike shareholders, are neither protected under default rules against breaches of fiduciary duties²⁶⁸ nor by the right to bring derivative actions for such things as waste of assets.²⁶⁹ In addition, just as with any voting rights, a provision regarding payouts of profits or dividends will need to carefully address whether the corporation may own or repurchase tokens that include the right to share in profits, dividends, or distributions.²⁷⁰ While a corporation is not generally entitled to receive dividends on any shares it holds or repurchases,²⁷¹ there are no default statutory rules on this issue in the context of token holders and to date, no case law on point. In addition, the agreement should disclose how the corporation should proceed if particular payments are unclaimed.²⁷²

268. See *supra* notes 140–44 for a discussion of the current state of the law relating to a directors' fiduciary obligations. See also *infra* note 277.

269. Derivative suits are included in the Federal Rules of Civil Procedure, such as FED. R. CIV. P. 23.1, but are also dealt with in state corporate codes. See MBCA § 7.41; DGCL § 327.

270. See *supra* note 267.

271. *Id.* The same analysis applicable to a corporation's right to vote with shares of itself which it holds will also apply to a corporation's right to participate in distributions.

272. If payments are made directly into the electronic wallet of token holders, there is a risk that tokens could be lost in a number of circumstances. For example, if a particular wallet service does not support receipt of the tokens, tokens that are sent to those wallets may never be recoverable. See *Altcoins and ICOS*, COINBASE, <https://support.coinbase.com/customer/en/portal/articles/2829461-altcoins-and-icos> (last visited Jan. 9, 2019) (noting that “[a]ny unsupported digital currencies or tokens sent to a Coinbase address will effectively be lost”). Similarly, if a user loses the private key to his or her wallet, any tokens “stored” in that wallet may be effectively gone forever. See *Lost Private Key*, MYETHERWALLET, <https://kb.myetherwallet.com/private-keys-passwords/lost-eth-private-key.html> (last visited Jan. 9, 2019) (noting that for this service, a private key cannot be recovered, passwords cannot be recovered or reset, and accounts cannot be recovered).

In addition to the complexity inherent in simply describing the nature of the financial interest being conveyed with a securities token designed to function in lieu of traditional equity, an attorney should be wary of potential tax consequences that may not mirror those applicable in the case of dividend payments to shareholders. Under current tax rules, a corporation is not entitled to deduct dividends paid out to shareholders as a business expense.²⁷³ However, qualified dividend payments are taxed at the same rate as long-term capital gains, which is fifteen percent for most taxpayers.²⁷⁴ It is not clear whether payments from a corporation to a token holder will be treated as dividends (with a concomitant lower tax rate for the recipient of the payment) or a business expense similar to an interest payment (meaning that the corporation might be eligible to deduct the payment as a business expense). Different drafting might have an impact on the tax treatment of payments, meaning that this could become a trap for the unwary – and that the description of how payments are to be calculated and made must be very precise.

In addition to the preceding issues, there are also the concerns that any investors (whether they are looking to purchase traditional equity interests or new tokenized securities) are likely to have because of the absence of default rights. Thus, an attorney experienced in venture capital sales is probably already familiar with contractual piggy-back, tag-along, and drag-along²⁷⁵ rights, and experienced large investors may ask for contractual provisions covering these kinds of issues regardless of whether they are buying stock or tokens. Repurchase and conversion rights²⁷⁶ are also something with which

273. Business expenses are generally deductible by the corporation when it calculates its taxable income. “There shall be allowed as a deduction all the ordinary and necessary expenses paid or incurred during the taxable year in carrying on any trade or business” 26 U.S.C. § 162(a) (2012). Dividends, however, are not regarded as a business expense, and are therefore not deductible by the corporation. *See* 26 U.S.C. § 162(k)(2)(iii).

274. FED. TAX COORDINATOR, QUALIFIED DIVIDEND INCOME TAXED AS ADJUSTED NET CAPITAL GAIN ¶ 1-5115 (Thomson Reuters, 2d ed. 2018). Dividend payments to a corporation from a related corporation may be entitled to a special dividends received deduction under 26 U.S.C. § 243.

275. A piggy-back right is the right of an investor to sell his or her stock if the company proceeds with a later public offering of its own shares. Tag-along rights are rights or options given to shareholders allowing them to participate in a sale of shares arranged by another shareholder (typically a founding or very large owner). Drag-along rights give a shareholder the option to require other owners to participate in a sale of stock on the same terms agreed to by the holder of the rights. *See* Peter Siviglia, *Shareholder Arrangements*, N.Y. ST. B.J., Feb. 2015, at 48, 50.

276. A repurchase agreement is generally an agreement that governs the terms and conditions under which a corporation may or is required to repurchase its own shares from investors. 18 PAUL J. GALANTI, INDIANA PRACTICE SERIES, BUSINESS ORGANIZATIONS § 17.1 (perm. ed., rev. vol. 2018). “In the absence of a specific agreement by the corporation to do so, shareholders generally have no right to compel the corporation to repurchase their shares.” *Id.* Repurchase agreements may appear in separate contracts or may be included in the corporation’s articles or bylaws. *Id.*

traditional investors and counsel accustomed to dealing with the investment community should already have some familiarity. There are many transactional drafting guides that cover these issues,²⁷⁷ and this might make these kinds of provisions easier to deal with.

Finally, the question of how directors should be constrained in their behavior towards or affecting token holders will need to be considered. Once the issue is brought to their attention, potential investors are likely to have significant concerns about the nature of their relationship with the corporation's directors. Directors in corporations owe duties of loyalty and care to their shareholders,²⁷⁸ although the effective extent of those obligations under statutory default rules is limited by the business judgment rule.²⁷⁹ There is,

A conversion feature must generally appear in the articles and generally “enables shares to be exchanged for another class of shares of the corporation (usually converting preferred shares into shares of common stock).” 1 STEPHEN A. HESS, COLORADO PRACTICE SERIES, METHODS OF PRACTICE § 2:38 (7th ed. 2018). There are a number of common considerations that go into drafting of these features including a variety of anti-dilution provisions. 3 LEIB ORLANSKI, CALIFORNIA TRANSACTIONS FORMS—BUSINESS ENTITIES § 11:56 (perm. ed., rev. vol. 2018).

277. See 1 H. WARD CLASSEN, ADVISING SMALL BUSINESSES: FORMS § 15:1 (perm. ed., rev. vol. 2018); ALAN S. GUTTERMAN, BUSINESS TRANSACTIONS SOLUTIONS § 31:118 (perm. ed., rev. vol. 2019) (for example § 156:361.50 “Standard investment terms for Series A preferred stock financing”); 6 SECURITIES REGULATION FORMS § 1:66 (perm. ed., rev. vol. 2018); MODERN CORPORATION CHECKLISTS (perm. ed., rev. vol. 2018) (see especially § 23:12 entitled “Drafting venture agreements”); Alan S. Gutterman, *Documentation for Venture Capital Financings*, BUS. COUNS. UPDATE, Nov. 2017, at 3; Stephen Marcovich & Amanda Balog Sanders, *Documentation for a Venture Capital Investment in a Private Company (with Forms)*, PRAC. LAW., June 2006, at 49. Some states also have extensive forms. See 3 ALAN S. GUTTERMAN, CALIFORNIA TRANSACTIONS FORMS—BUSINESS ENTITIES (perm. ed., rev. vol. 2018) (see especially § 11:69 entitled “Model venture capital financing documents”); 15 J. MARLIN HAWTHORNE, WILLIAM V. HOVEY & ALLEN B. KOENIG, MASSACHUSETTS PRACTICE SERIES, LEGAL FORMS § 3:12 (perm. ed., rev. vol. 2018).

278. “Historically, there existed two main fiduciary duties in corporate law, care and loyalty. . . .” Julian Velasco, *How Many Fiduciary Duties are There in Corporate Law?*, 83 S. CAL. L. REV. 1231 (2010). For a general discussion of fiduciary duties in business entities, see *supra* notes 140–44. See also Edwin W. Hecker, Jr., *Fiduciary Duties in Business Entities Revisited*, 61 U. KAN. L. REV. 923 (2013). The rules in this regard are not completely consistent across states, with the concept of shareholder oppression varying between jurisdictions. See George Parker Young, Vincent P. Circelli & Kelli L. Walter, *Fiduciary Duties and Minority Shareholder Oppression from the Defense Perspective: Differing Approaches in Texas, Delaware, and Nevada*, 45 TEX. J. BUS. L. 257 (2013); Laurence V. Parker, Jr., *Virginia Is for Lovers and Directors: Important Differences Between Fiduciary Duties in Virginia and Delaware*, 2 WM. & MARY BUS. L. REV. 51 (2011). There has also been commentary on the parties to whom such duties are owed. See generally Andrew S. Gold, *Dynamic Fiduciary Duties*, 34 CARDOZO L. REV. 491 (2012). However, even if the duties are owed to the corporation, they would indirectly benefit the entity's equity owners, potentially giving shareholders the right to bring derivative actions on behalf of the company. See *supra* note 130 for a discussion of derivative actions by shareholders.

279. For a look at the business judgment rule as it is applied in Delaware, see generally Lyman Johnson, *Unsettledness in Delaware Corporate Law: Business Judgment Rule, Corporate Purpose*, 38 DEL. J. CORP. L. 405 (2013). Because the Delaware approach to this issue is not universally followed, for a more general explication of the impact of the business judgment rule on the nature of duties owed by directors, see Bernard S. Sharfman, *The Importance of the Business Judgment Rule*, 14 N.Y.U. J.L. & BUS. 27 (2017); Robert Sprague & Aaron J. Lyttle, *Shareholder Primacy*

however, at least an obligation of good faith and fair dealing which must be respected by the directors when their acts impact shareholders,²⁸⁰ and the extent of a director's responsibility can also be heightened when a director's self-interest is involved, such as in a takeover context²⁸¹ or when a fundamental shareholder right such as voting in at stake.²⁸² Moreover, if directors engage in activities which violate their duty of care or loyalty in a manner that harms the shareholders directly, shareholders have the right to bring a direct claim for any harm they suffer.²⁸³ In addition, if the corporation is harmed (such as would be the case if the directors were wasting corporate

and the Business Judgment Rule: Arguments for Expanded Corporate Democracy, 16 STAN. J.L. BUS. & FIN. 1 (2010).

280. See generally Clark W. Furlow, *Good Faith, Fiduciary Duties, and the Business Judgment Rule in Delaware*, 2009 UTAH L. REV. 1061 (2009). For a general discussion of some of the limits of the covenant of good faith and fair dealing, see generally Paul MacMahon, *Good Faith and Fair Dealing as an Underenforced Legal Norm*, 99 MINN. L. REV. 2051 (2015). On the other hand, some commentators have argued that the obligation of good faith and fair dealing would provide a better balance than the imposition of traditional fiduciary duties with regard to protection of shareholders and advancing the interests of private ordering. See generally James D. Cox, *Corporate Law and the Limits of Private Ordering*, 93 WASH. U. L. REV. 257 (2015); Benjamin Means, *A Contractual Approach to Shareholder Oppression Law*, 79 FORDHAM L. REV. 1161 (2010). In fact, although traditional fiduciary duties have not been applied to persons owning cryptoassets, there are good reasons to suspect that the obligation of good faith and fair dealing could apply insofar as that relationship is based on contractual understandings.

281. For a general discussion of the impact of self-interest on claims against directors, see generally 19 C.J.S. *Corporations* § 584 (2018); Lewis H. Lazarus & Brett M. McCartney, *Standards of Review in Conflict Transactions on Motions to Dismiss: Lessons Learned in the Past Decade*, 36 DEL. J. CORP. L. 967 (2011). For a general primer on directors' responsibilities to shareholders in hostile takeover situations, see ARTHUR FLEISCHER, JR., ALEXANDER R. SUSSMAN & GAIL WEINSTEIN, *TAKEOVER DEFENSE: MERGERS & ACQUISITIONS* § 14.02 (8th ed. 2018). For a more nuanced examination of Delaware law applicable to such transactions, see William M. Lafferty et. al., *A Brief Introduction to the Fiduciary Duties of Directors Under Delaware Law*, 116 PENN ST. L. REV. 837, 849–77 (2012).

282. See *Blasius Indus., Inc. v. Atlas Corp.*, 564 A.2d 651, 662 (Del. Ch. 1988) (helping establish as a basic principle of corporate law that that directors must have a compelling justification for acts that have the “primary purpose of thwarting” fundamental shareholder rights).

283. See David Feliciano, *Shenker v. Laureate Education, Inc.: Where Corporate Directors Exercise Non-Managerial Fiduciary Duties Beyond Those Enumerated in Section 2-405.1(a) of the Corporations and Associations Article, They Remain Liable Directly to Shareholders for any Breach of those Fiduciary Duties*, 40 U. BALT. L.F. 277 (2010); William Jordan, *Shareholders May Bring Direct Action Against Directors for Failing to Maximize Shareholder Value in Cash-Out Transactions*, PROF. LIABILITY REP., Dec. 2009, art. 28. For this rule to apply, however, the harm must be direct and not derivative. “Shareholders may maintain direct actions for injury to their interest as shareholders. E.g., actions to enjoin the corporation from violating shareholder inspection rights; or damage actions against controlling shareholders for breaching fiduciary duties owed to minority shareholders.” JUDGE BEVERLY REID O’CONNELL & JUDGE KAREN L. STEVENSON, *RUTTER GROUP PRACTICE GUIDE: FEDERAL CIVIL PROCEDURE BEFORE TRIAL* ch. 10-D (perm. ed., rev. vol. 2018) (citing *In re Kaplan*, 143 F.3d 807, 811 (3rd Cir. 1998) (holding that a shareholder of closely held corporation could sue for injuries inflicted upon him distinct from his corporation)).

assets with excessive salaries), the shareholders may generally bring a derivative action to enforce those obligations.²⁸⁴ Shareholders also have the right, in many situations, to be consulted before any such derivative claim is settled.²⁸⁵ These rights do not apply to others, not even traditional creditors.²⁸⁶ Given the number of circumstances where such claims are made,²⁸⁷ it would be highly prudent for investors thinking of purchasing tokens in lieu of stock to assure themselves that they are protected by contractual provisions and remedies in the event of acts that would constitute breaches of a duty of loyalty or care, or would violate the standards of good faith and fair dealing, if the interest was framed as a traditional equity security instead of a token.

VI. CONCLUSION

This is, of course, not an exhaustive or universally important list of all the things that should be negotiated or considered in a deal between a corporation and persons investing in its tokens. In any given case, other terms may become important, and some of the issues raised above may not be relevant. In the case of particularly large purchasers, concepts like discounts and anti-dilution measures, for example, may become relevant in a way that would not be applicable for smaller, more widely dispersed investors lacking bargaining position or sophistication.

In addition, it should not be assumed that bargaining for each of these concepts will always—or even usually—take place on a one-to-one basis.

284. “When a corporation is solvent, directors and officers owe fiduciary duties of care, duty loyalty, and duty to act in good faith to the corporation and its shareholders. If directors breach their fiduciary duties, the corporation’s shareholders may enforce the duties owed to them by directors by bringing derivative action claims on behalf of the corporation.” John A. Pearce II & Ilya A. Lipin, *The Duties of Directors and Officers within the Fuzzy Zone of Insolvency*, 19 AM. BANKR. INST. L. REV. 361, 370 (2011).

285. Rules of procedure prohibit settlement of derivative claims without notice to other shareholders who potentially have the opportunity to object. *See* FED. R. CIV. P. 23.1(c). “The plaintiff-shareholder has no power to settle or compromise a derivative action without court approval. Notice of the proposed dismissal or compromise ‘must be given’ to all other shareholders of the corporation before such approval may be obtained.” O’CONNELL & STEVENSON, *supra* note 283. This source also notes that only shareholders who meet the qualifications of being a “representative” shareholder (such as the contemporaneous ownership requirement) will have standing to object. *Id.*

286. “[C]reditors are not owed fiduciary duties by the corporation’s directors or officers because of the complete lack of privity among these parties. If any duty is owed to creditors, it is contractual in nature. No fiduciary duty exists because in solvency creditors, unlike shareholders, are free to negotiate and solidify their rights through contractual agreements” Pearce & Lipin, *supra* note 284, at 371.

287. “It is unquestioned in today’s business and litigation climate that corporate officers and directors face significant exposure” Lawrence J. Trautman & Kara Altenbaumer-Price, *D & O Insurance: A Primer*, 1 AM. U. BUS. L. REV. 337, 337 (2012). “Claims against officers and directors come in many forms, ranging from common law claims for breach of fiduciary duty to shareholder class actions for violations of the securities laws.” *Id.*

Rather, corporations seeking to issue tokens are likely to present a relatively comprehensive deal to potential investors on a take-it or leave-it basis, and even if some potential investors decline to accept the offered terms, so long as a sufficient number of purchasers come forward, the “contract” will be accepted. However, corporations will have a vested stake in creating attractive contracts, especially where there are likely to be many alternative investments. In addition, because anti-fraud rules will apply, it will be very important to accurately describe the deal, and as investors (and their counsel) become increasingly sophisticated, inclusion of and respect for the priorities of the investors are likely to be more and more important to the success of offerings.²⁸⁸

This discussion is designed to highlight the range of issues that become open for contractual arrangements when a corporation proposes to offer securities tokens to investors, making it clear that blockchain both creates the opportunity and need for contractual rules to govern the relationships between the corporation and token holders. For proponents of contractual ordering, this offers a test of whether fair and equitable arrangements will be made absent interference from state and federal regulators. Alternatively, it might provide ammunition for commentators who have been concerned that the lack of default rules or mandatory minimum standards of behavior will be insufficient to reasonably protect unsophisticated participants, or those who lack meaningful bargaining power. The ultimate conclusions to be drawn will depend on how successful companies and investors are in providing reasonable contractual arrangements for this new and evolving realm of investment opportunities.

288. In addition, lead investors may be sufficiently important to firms that corporations will negotiate on terms. Certainly, as larger venture capital firms become interested in tokenized interests, it is not surprising to see “ICO-relating language . . . making its way into term sheets.” Brady Dale, *What If They ICO? Investors Seek Veto Power Over Future Token Sales*, COINDESK (Apr. 4, 2018, 4:00 AM), <https://www.coindesk.com/ico-investors-seek-veto-power-future-token-sales/>. This already marks a change in the environment as early deals apparently had “very few (if any) governance provisions.” *Id.* (citing an anonymous venture fund investor). The need for continually updating and improving investor protections seems obvious. Wayne Chang, *Why Tokens Need Customer Development*, TOKEN FOUNDRY (May 3, 2018), <https://blog.tokenfoundry.com/why-tokens-need-customer-development/>.