Cryptosecurities: Navigating Regulatory Uncertainty and the Process of Issuing Securities Over the Blockchain

by Lisa LeFever

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Professor Houman Shadab
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Summary

Utilizing distributed ledger technology (DLT) in issuing and transferring securities is a progressive reality facing modern companies. The blockchain, a type of distributed ledger, can revolutionize our current trading markets by reducing intermediation costs, accelerating settlement, providing scalable transparency, and allowing direct asset ownership. Companies wishing to employ the technology, however, encounter regulatory uncertainty and the inherent risk in the novelty of the platform. Despite the lack of specific guidance, regulators have harmoniously acknowledged the immense transformative value of DLT. The Securities and Exchange Commission (SEC) expressed the need for an environment fostering innovation in the field. The SEC echoed this "no harm" approach when it approved Overstock's S-3 registration statement, permitting the company to issue "digital securities" to the public using blockchain technology. Overstock's steps in ensuring compliance with all applicable securities laws provide a guiding example of how companies considering similar offerings can proceed in this largely unchartered territory.

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I. INTRODUCTION

Distributed ledgers provide precise, real-time records of transactions that are maintained and shared among a network of participants without the need for validation by a centralized entity or trusted third-party.[1] A blockchain refers to a system of digital data storage in which "blocks" corresponding to transactions are connected in a chronological manner using a cryptographic hash to form a perpetual and immutable "chain" of transparency. It is best known as the technology underlying the Bitcoin cryptocurrency. Satoshi Nakamoto introduced the concept in his famous whitepaper where he discussed the need for a trustless "peer-to-peer" (P2P) system of payment bypassing intermediaries and preventing double spending.[2]

In wake of the cryptocurrency movement, interest in the technology underlying Bitcoin has proliferated due to its seemingly countless applications. Goldman Sachs reiterated that "the blockchain can change…well everything."[3] Practically every major financial institution is investigating applications of the technology. Innovators are looking to the blockchain to overhaul the outdated methods of recording data and transferring assets. As of July 2016, Bitcoin and blockchain-based startups raised over $1 billion in venture capital investments.[4]

Many, such as Overstock CEO Patrick Byrne, see the value of the blockchain to disrupt the functioning of capital markets and diminish the role of intermediaries in securities transactions. Overstock ventured into the field when it announced the company's plan to issue cryptosecurities to the public after its successful debt placement using the blockchain. Similarly, Nasdaq launched Linq, which utilizes the blockchain in its private markets sector to manage trading for pre-IPO companies. These significant undertakings illustrate not only the blockchain's ability to radically alter existing market infrastructure, but also the concurrent desire by major market participants to do so.

While noting the numerous applications of blockchain systems, this paper focuses on the practical use of DLT in securities markets and the substantial benefits available from its implementation. The benefits are not viewed in isolation, though, with considerable attention paid to the risks inherent in such systems. Next, this paper examines the current regulatory environment encompassing cryptosecurities and possible future regulatory implications. Finally, it offers an analysis of Overstock's efforts in issuing digital blockchain shares, providing precedent for other companies contemplating similar offerings.

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[1] European Securities and Markets Authority, *The Distributed Ledger Technology Applied to Securities Markets* 8 (Feb. 6, 2016), https://www.esma.europa.eu/sites/default/files/library/2016-773_dp_dlt_0.pdf.

[2] Satoshi Nakamoto, *Bitcoin: A Peer-to-Peer Electronic Cash System* 1 (2008).

[3] Goldman Sachs, *What if I Told You* (Dec. 2, 2015).

[4] Moody's Investors Service, *Robust, Cost-effective Applications Key to Unlocking Blockchain's Potential Credit Benefits* (July 21, 2016).

II. Blockchains Transforming Securities Markets

Just as the Internet emerged as a medium for information exchange, blockchain technology provides an enhanced medium for value exchange.[5] Distributed ledgers can overhaul the inefficient and antiquated systems plaguing modern securities markets. The "transformational opportunity" created by blockchains is the fact that "we can now attach behavior to money—which opens the gate for new capital market instruments."[6] Distributed ledgers not only provide a shared digital database, but they can also set the rules that govern the transactions themselves.[7]

Financial markets present an exemplary need for the improvements DLT offers to each step of the trading process. The conditions illustrated in current market infrastructures warrant application of DLT: (1) multiple parties share and update data; (2) validation is necessary to ensure accuracy; (3) the value associated with the data compels trust; (4) intermediaries slow down the process; (5) transactions are time sensitive such that there is value in shortening the process; and (6) dependency exists between the interactions.[8] It is estimated that savings in U.S. equities markets alone could exceed $2 billion annually.[9]

A. Clearing and Settlement: An Evolving Future

Modern securities trading represents a vast departure from the direct asset exchange systems of the past with physical certificates representing ownership exchanging hands. As trading volumes increased, the dematerialization of certificates required intervention of centralized authorities to maintain records and safeguard investor assets.[10] Banks and brokers began to place certificates representing thousands of shares in the name of depositories.[11] Now, legal ownership of practically all U.S. stock is transferred to the Depository and Trust Company (DTC), subsidiary of the Depository Trust & Clearing Corporation (DTCC).[12]

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[5] Valerie Szczepanik, Gen. Att'y, SEC, Panel at SEC FinTech Forum in Washington, D.C. (Nov. 14, 2016).

[6] Finextra, *Banking on the Blockchain* 14 (Jan. 2016), https://www.ingwb.com/media/1609652/banking-on-blockchain.pdf.

[7] Mark Walport, U.K. Chief Sci. Adviser, *Distributed Ledger Technology: Beyond Block* Chain 17 (Dec. 2015), https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/492972/gs-16-1-distributed-ledger-technology.pdf.

[8] Grainne McNamara, co-leader of PwC's blockchain for financial services practice, Panel at the SEC FinTech Forum (Nov. 14, 2016).

[9] Goldman Sachs, *Blockchain Putting Theory Into Practice* 44 (May 24, 2016), http://www.the-blockchain.com/docs/Goldman-Sachs-report-Blockchain-Putting-Theory-into-Practice.pdf. It is estimated that $650 to $900 million can be saved in compensation costs for clearing and $500 to $700 million in IT savings. The economic savings are estimated at $500 billion due to lower capital commitments. *Id.* at 46–47. The blockchain can also reduce costs in the realm of proxy vote processing services, where issuers pay more than $200 million a year to communicate with stockholders. *See infra* Section II.B.

[10] Brad Peterson, Exec. V.P. and CIO, Nasdaq, Panel at SEC FinTech Forum in Washington, D.C. (Nov. 14, 2016).

[11] J. Travis Laster, V.C., *The Block Chain Plunger: Using Technology to Clean Up Proxy Voting and Take Back the Vote*, Address to Council of Institutional Investors, at 4 (Sept. 29, 2016).

[12] *Id.* at 5.

Clearing refers to the process by which arrangements are made for the transfer of assets and the separate ledgers of the involved parties are updated.[13] Settlement entails the executed coordination between participants where payment is transferred to the seller and the securities to the buyer. This typically occurs three days after the trade date, or T+3 in the U.S. markets.[14] Lagging settlement times create counterparty risk—potential that the other party won't fulfill its obligations—such that clearing members must maintain capital until finalization of settlement.[15]

A blockchain platform reduces the need for intermediaries because the cryptographic algorithms and consensus features converge the clearing and settlement process. The use of public-private keys confers authority to enter transactions and participants, or "nodes," collaborate to reach a consensus about the validity of the transactions using cryptographic puzzles, thus maintaining the ledger's integrity.[16] Blockchains permit virtually immediate settlement with autonomous validation and transfer, eliminating the risk intermediaries were put in place to mitigate.[17]

While displacing intermediaries may be a goal, it is more likely the transformative effect of blockchains will be to alter the role that clearing parties play in the trading process. Operations can be converged and streamlined, purging many back-office functions. Custodians could become so-called "keepers of the keys."[18] Capital requirement obligations could become unnecessary.[19] Intermediaries recognize the impending movement—the DTCC is investigating ways the technology can be integrated into their systems. Likewise, the Australian Securities Exchange (ASX) is rebuilding their clearing and settlement system utilizing DLT.

B. Direct Ownership and Corporate Relations

The current system of stock ownership in which a single security may be held in as many as five or six layers of custody is not only complex and costly, but it often leads to strained relationships between issuers and investors.[20] Intermediaries displace legal rights and create operational hurdles such that shareholder rights are easily consumed in the maze of ownership.[21] Many, including Delaware Judge Travis Laster, envision blockchain's potential to improve shareholder relations by restoring direct ownership and voting rights.[22] Laster argues that the

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[13] *Id.* at 45–46.
[14] Goldman Sachs, *supra* note 9, at 46.
[15] Gareth Peters & Efstathios Panayi, *Understanding Modern Banking Ledgers through Blockchain Technologies: Future of Transaction Processing and Smart Contracts on the Internet of Money*, 28 (Nov. 19, 2015).
[16] *See supra* note 1. "Mining," a variation of this used by cryptocurrencies, is the process by networks of computers expounding resources validate transactions by finding the cryptographic key.
[17] Peters & Panayi, *supra* note 15, at 28 (describing trades that clear bilaterally on a private blockchain in less than 17 seconds).
[18] Oliver Wyman, *Blockchain in Capital Markets*, 13 (Feb. 2016), http://www.oliverwyman.com/content/dam/oliver-wyman/global/en/2016/feb/BlockChain-In-Capital-Markets.pdf.
[19] Finextra at 14 ("Central counterparties were put in place to mitigate counterparty risk… but if you had instant collateralisation and instant settlement, you would not have counterparty risk.").
[20] Oliver Wyman, *supra* note 18, at 10.
[21] *See* Walport, *supra* note 7, at 58 (describing the numerous parties involved in distributing nearly all corporate data to investors, which is expensive and frequently involves errors).
[22] J. Travis Laster at 8.

present stockholding infrastructure is rife with imbalances—it invites mistakes and manipulation by third-parties, thus "undermining the legitimacy of our corporate governance system."[23]

The blockchain can replace the DTC by allowing unequivocal legal ownership to be vested solely in the shareholder, displacing the need for a nominee system.[24] Shareholder communications or dividends can be automatically distributed by a trigger, such as a set date or event. Accurate voter lists can be consistently updated. Vote tabulation can be quick and streamlined, removing opportunity for manipulation or mistake.[25] IPOs could be executed over a blockchain, granting issuers direct access to global capital without unnecessary expenses.[26] Reporting and compliance obligations can be simultaneously maintained, providing another means of reduced cost and third-party reliance.[27]

C. Transparency

The financial crisis of 2008 illustrated the painful consequences of trusting institutions that engage in obscure investment activities hidden under countless layers of bifurcated audit trails. Market operations still compel significant trust by investors with only little accomplished to enhance transparency, despite lack of visibility acting as a critical element to 2008 economic meltdown.[28] Hidden accounting mechanisms allow for practices such as rehypothecation, where banks or brokers use assets posted as collateral to engage in transactions for their own benefit.[29]

The decentralized architecture of distributed ledgers removes the trust generally required in securities transactions, thus removing many issues surrounding centralized ledgers. Not only is fraud clearly observable and deterrable, but also nearly impossible to effectuate due to the consensus protocol requiring transactions meet specified validation criteria.[30] Transparency could impact the secrecy of hostile parties attempting to develop positions in a takeover attempt.[31]

While the transparency afforded by blockchains is largely heralded as collectively beneficial, companies must consider the consequences of such visibility and the degree of transparency desired. Ledger transparency could increase scrutiny paid to executive transactions if their movements can be viewed in real-time by either shareholders or regulators. Enhanced

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[23] *Id.* at 12 ("Because the ownership of individual shares held beneficially is not tracked in the U.S. clearance and settlement system . . . imbalances occur."). Mistakes occur when such imbalances require broker-dealers to decide who "will be permitted to vote and how many shares each customer will be permitted to vote." *Id.*
[24] *Id.* (calling this as a "utopian vision of a share ownership system" comprised of only record owners).
[25] David Yermack, *Corporate Governance and Blockchains*, 28 (Nov. 28, 2016).
[26] Sanjay Bhanot et al., *Distributed Ledgers: Possibilities and Challenges in Capital Markets Applications*, Cognizant, 2–3 (June 2016), https://www.cognizant.com/whitepapers/distributed-ledgers-possibilities-and-challenges-in-capital-markets-applications-codex1974.pdf.
[27] Peters & Panayi, *supra* note 15, at 28.
[28] *See* J. Christopher Giancarlo, CFTC Comm'r, Address before the Cato Institute, Cryptocurrency: The Policy Challenges of a Decentralized Revolution (April 12, 2016).
[29] *See generally* Manmohan Singh, *The Economics of Collateral Chains*, Banque Stratégie (Jan 2012).
[30] Innovate Finance, *Blockchain and the Captial Markets Journey* 17 (2016).
[31] Yermack at 16 (describing how companies could view blockchains as a type of takeover defense).

transparency could reduce instances of insider trading.[32] Backdating of instruments such as stock compensation or options would be nearly impossible in a blockchain system.[33] Immediate visualization of shareholder reactions could create a volatile effect in the market.[34] Shareholders without access to the distributed data could complain of informational asymmetry and unfair advantage gained by holders of the digital shares. Additionally, transparency generates privacy concerns depending on the amount of investor data stored perpetually on the blockchain.[35]

While Bitcoin is based on a "unpermissioned" ledger, a "permissioned" ledger could provide companies with tailored transparency and privacy—companies could grant access to authorized participants.[36] Some companies have experimented with ledgers in the form of a public-private hybrid, combining certain advantages of each.

D. Security and Technical Competence

Cryptosecurities are accompanied by concerns like the security of assets maintained on a distributed ledger. Failures of some cryptocurrency operations illustrate the shortcomings and risks inherent in novel methods of asset transfers.[37] Companies must ensure their systems protect investor assets and are sufficiently operational as to avoid the malfunctions experienced by other crypto-based enterprises.

Distributed ledgers operate foundationally based on decentralized shared information. On one hand, a ledger with no single centralized location promotes security. A distributed ledger held and maintained by many is less vulnerable to hacking.[38] However, blockchains are not completely immune. Large scale hacks, or so-called "51% attacks," involve hackers accessing 51% of the computing power to essentially "rewrite history."[39] Even with a secure ledger, the storage of private keys is susceptibility to hacking and theft.

Technologically, blockchain systems are difficult to build, especially to cater to the trading demands handled by traditional clearing systems.[40] Technical issues warrant consideration of how new systems will operate beside current ones. Ill-prepared systems could suffer from gaps in security and increase the operational risk of anomalies. In a rush to the marketplace, companies could offer premature products that perform defectively, displace investor funds, violate securities laws, and result in a host of liability issues. A cryptosecurity,

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[32] *Id.* at 22 (suggesting that scrutiny resulting in less insider trading could also result in higher pay to offset the loss).
[33] *Id.* at 4. Research shows that in the past decade managers have received sizeable financial and tax benefits from the backdating of various instruments. *Id.* at 23.
[34] *Id.* at 4.
[35] *See infra* Section III, Subsection B, Part iii (discussing regulatory implications of transparency).
[36] Walport, *supra* note 7, at 17.
[37] For example, hackers infiltrated the Bitcoin exchange, Mt.Gox, stealing the Bitcoin equivalent of over $400 million. "The DAO," a particular decentralized autonomous organization (DAO), was also hacked.
[38] Walport, *supra* note 7, at 6.
[39] *See* Larissa Lee, *New Kids on the Blockchain: How Bitcoin's Blockchain Technology Could Reinvent the Stock Market*, S.J. Quinney College of Law 30 (2015).
[40] Erin Gun Sirer, Assoc. Professor, Cornell Univ., Panel at the SEC FinTech Forum (Nov. 14, 2016).

intended to represent an ownership interest in the company, could represent no such interest due to misstructuring or lack of jurisdictional recognition.[41]

III. The Regulatory Environment Relevant to Cryptosecurities

Regulatory uncertainty stands as a primary concern facing companies planning entry into the cryptosecurities sphere. It's uncertain how the current framework accommodates cryptosecurities and other emerging blockchain applications. Navigating the myriad of fragmented state and federal regulations and not-yet codified requirements proves daunting. Any cryptosecurity issuance should be accompanied by extensive due diligence with thorough consideration of applicable laws governing such an offering.[42]

A. Attitude of Federal Regulators

Regulators are paying close attention to blockchain developments. At the recent Financial Technology (FinTech) Forum hosted by the SEC, the Commission expressed its duty to encourage innovation of DLT systems and facilitate capital formation.[43] It relayed the immense benefits made available by DLT, such as increasing ease of regulatory oversight. The SEC realizes that premature rules could hinder innovation and suffer from untimely misinformation. However, it will likely continue to attentively monitor for products that facilitate increased risk of fraud or harm to investors.[44]

Other regulators have echoed the SEC's "no harm" approach, reconciling blockchain innovations with the rise of the Internet.[45] Despite resounding potential, not all attention has been so ardently positive. The U.S. Financial Stability and Oversight Council (FSOC) identified blockchain as a potential risk to market stability in its 2016 annual report.[46] The report noted market participants' lack of experience working with distributed ledgers and the potential for exposure of operational vulnerabilities with scale deployment of such systems.[47] The Council urged regulators to remain vigilant in monitoring blockchain developments and emphasized the need for coordination among regulatory bodies.[48]

B. Applicability of Current Law

The SEC tasked its DLT Working Group with the goal of analyzing how existing rules address the challenges presented by the technology.[49] Current securities transactions are governed primarily by the Securities Acts of 1933 (1933 Act) and the Securities Exchange Act of

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[41] Tim Swanson, *The Anatomy of a Money-like Informational Commodity: A Study of Bitcoin*, 271 (Aug. 2014).
[42] *Id.*
[43] Michael S. Piwowar, Comm'r, SEC, Panel at SEC's FinTech Forum (Nov. 14, 2016).
[44] Mary Jo White, Comm'r Chair, SEC, Panel at SEC's FinTech Forum (Nov. 14, 2016).
[45] J.C. Giancarlo, Comm'r, CFTC, Address to the DTCC (2016).
[46] FSOC 2016 Annual Report, https://www. treasury.gov/initiatives/fsoc/studies-reports/Documents/.
[47] *Id.*
[48] *Id.*
[49] Mary Jo White, *supra* note 44.

1934 (Exchange Act). The Acts sought to protect investors by addressing corporate misdealing, requiring more information from companies, and preventing fraud in the sale of securities.[50] As markets progress, it's likely that the principles underlying this framework will remain.[51] The future will reveal how the blockchain fits within current regimes or necessitates modifications. For example, adoption of systems in which the trade and settlement occur simultaneously would compel updates to current regulation such as Rule 15c6-1(a) that set the T+3 standard.[52]

i. Defining "Securities" and Registration Requirements

The emergence of complex blockchain assets places special importance on the defining qualities of such instruments. Cryptographic tokens can represent units of account on a blockchain.[53] Tokens can embody a monetary value such as Bitcoins. Others can serve as equivalent to shares in a company, function solely as a tracking mechanism, or represent a pre-sale to access to software.[54] While some tokens are not clearly "securities," tokens serving as stock will likely be subject to the same laws and regulations as traditional securities.[55]

The seminal case SEC v. Howey sets forth criteria for determining whether a transaction constitutes a security.[56] Section 2(a)(1) of the 1933 Act[57] broadly defines a "security" to include not only the commonly known instruments used for speculation or investment, but also instruments of "a more variable character."[58] This expansive definition encompasses items such as a "certificate of interest or participation in any profit-sharing agreement," an "investment contract," and "in general, any interest or instrument commonly known as a security." Howey set forth factors requiring: (1) an investment of money (2) in a common enterprise (3) with the expectation of profits derived from the efforts of third-parties.[59]

Sections 5(a) and (c) of the 1933 Act make it unlawful for any person to offer or sell securities without the necessary registration, unless the offerings are exempt pursuant to Section 4(a).[60] SEC v. Shavers illustrates that registration cannot be bypassed by use of crypto-instruments.[61] The SEC alleged that the defendant operated a classic Ponzi scheme in his unregistered Bitcoin trust offerings in which he promised large returns for investors.[62] The court held that the investments constituted "securities" such that registration was required.[63]

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[50] *Id.*

[51] Mark Wetjen, DTCC, Panel at SEC FinTech Forum in Washington, D.C. (Nov. 14, 2016).

[52] 17 CFR § 240.15c6-1.

[53] Kathleen Moriarty et. al., *A Primer on Cryptosecurities*, Blockchain Workshops 1 (Dec. 2015).

[54] *Id.* at 1–2.

[55] Melodie Lamarque, *The Blockchain Revolution: New Opportunities in Equity Markets, Massachusetts Institute of Technology*, 29 (June 8, 2016). *See also* Overstock Registration Statement (Form S-3), at 34 (Nov. 10, 2015) (hereinafter Overstock S-3) (describing how the shares will have the same rights, but be settled differently).

[56] 328 U.S. 293 (1946).

[57] 15 U.S.C. § 77b(a)(1).

[58] Howey at 297.

[59] *Id.* at 298–299.

[60] 15 U.S.C. §§ 77e(a), 77e(c).

[61] No. 4:13-CV-416, 2014 U.S. Dist. LEXIS 130781 (E.D. Tex. Sept. 18, 2014).

[62] *Id.* at *2–3.

[63] *Id.* at *28.

ii. Exchanges for Cryptosecurities

An alternative trading system (ATS) provides the platform for trading unique assets like cryptosecurities. Operating an ATS requires compliance with a host of regulations detailing its existence and registration usually as a broker-dealer, though some could be required to register as an exchange.[64] An ATS that trades NMS and non-NMS stock exceeding volume thresholds will be subject to Regulation SCI, requiring procedures in place to ensure operational capability and compliance.[65]

Regulation ATS promulgated under the Exchange Act defines an exchange as any person or organization which "constitutes, maintains, or provides a market place or facilities for bringing together purchasers and sellers of securities or for otherwise performing with respect to securities the functions commonly performed by a stock exchange..."[66] In the matter of BTC Trading Corporation and Ethan Burnside, the SEC sanctioned the operator of two unregistered "virtual stock exchanges" that used cryptocurrencies to trade securities. The SEC established that Burnside operated without broker-dealer or exchange registration in violation of Sections 5 and 15(b) of the Exchange Act and Sections 5(a) and (c) of the 1933 Act.[67]

Another concern is whether the exchange allows a trader to ensure he achieves the best possible price, or "best execution," for his client. This could be questionable when dealing with cryptosecurities due in part to their disconnected nature and the uncertainty of whether a proposed transaction will fit into the proposed "block."[68]

iii. Recordkeeping and Transfer Agents

DLT provides data collection means long sought after by regulators. For example, the consolidated audit trail (CAT) initiative under SEC Rule 613 of Regulation NMS was adopted to monitor and track market activity through large databases of collected information.[69] Blockchains offer an effective means to implement and comply with such recordkeeping obligations.

Blockchains perform many tasks previously required of transfer agents.[70] Section 3(a)(25) of the Exchange Act defines "transfer agents" as any person who engages on behalf of an issuer of securities or on behalf of itself as an issuer in: monitoring issuance, preventing unauthorized issuance, registering the transfer, and transferring record of ownership without

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[64] 17 CFR § 242.301(a).

[65] SEC Release No. 34-73639 (Feb. 3, 2015), https://www.sec.gov/rules/final/2014/34-73639.pdf.

[66] 17 CFR § 242.300(a).

[67] BTC Trading, Corp. and Ethan Burnside, Securities Act Release No. 9685 (Dec. 8, 2014), http://www.sec.gov/litigation/admin/2014/33-9685.pdf.

[68] Angus Champion de Crespigny, *From Overstock to Issuing Stock: Takin on Asset and Securities Distribution on the Blockchain,* Adroit Lawyers (2016).

[69] https://www.sec.gov/divisions/marketreg/rule613-info.htm.

[70] *See infra* Section IV, Subsection C (discussing Overstock's transfer agent dilemma).

physical certificates.[71] Section 17(c)(1) requires transfer agents to register with the SEC or appropriate agency unless exempt.[72]

The current rules do not clarify whether DLT providers must register as transfer agents.[73] If so, much of the language in the rules is ill-suited for such systems.[74] For example, Rule 17Ad-12 concerns the safeguarding of assets and where securities are located, which in the case of blockchains could be on every node of the ledger.[75] Understanding the need to address the DLT paradigm shift, the SEC released a notice for proposed rulemaking discussing the utility distributed ledgers provide to the transfer agent process.[76]

Similarly, blockchains pose recordkeeping concerns regarding the specific requirements under the Investment Company Act of 1940 on mutual funds registered under the Act.[77] Section 31(a) and Rules 31a-1 through 31a-3 promulgated thereunder detail the types of records to be maintained by funds and who may maintain them.[78] SEC amendments permitted electronic recordkeeping, but additional amendments may be necessary to address whether the blockchain's shared data recording methods conform to these requirements.[79]

The SEC's Regulation S-P introduces another regulatory complexity with respect to the blockchain. The rule requires certain registered parties to "adopt written policies and procedures that address administrative, technical, and physical safeguards for the protection of customer records and information."[80] Compliance entails submitting annuals reports to customers detailing information-sharing processes. The rule is aimed at protecting against unauthorized use of records that "could result in substantial harm or inconvenience to any customer."[81] It's worth considering how this rule plays into the storage of private keys. Further, the rule contains certain "opt-out" provisions for customers.[82] In the case of immutable blockchains, one might consider how excess information can be redacted.

C. Envisioning the Regulatory Future

Future regulatory framework will necessarily involve consideration of the blockchain. Regulatory clarification may be necessary to define the legality blockchain assets.[83] One such

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[71] 15 USC § 78c(a)(25).
[72] 15 USC § 78q-1(c)(1).
[73] Marco Satori, Letter to SEC Regarding Proposed Rulemaking, 3 (Apr. 14, 2016), https://www.sec.gov/comments/s7-27-15/s72715-36.pdf.
[74] *Id*. at 4.
[75] *Id.* at 6.
[76] SEC Release No. 34-76743 (Dec. 22, 2015).
[77] 15 U.S.C. §§ 80a-1–80a-64.
[78] 15 U.S.C. § 80a-30.
[79] Investment Company Act Release No. 24890 (Mar. 31, 2001).
[80] 17 CFR § 248.30(a).
[81] 17 CFR § 248.30(a)(3).
[82] 17 CFR §§ 248.4–9.
[83] Although, some argue cryptosecurities fit squarely within Article 8 of the UCC's definition of an uncertified security, which is defined as "a security that is not represented by a certificate." *See* Jeanne Schroeder, *Bitcoin and the Uniform Commercial Code*, 24 U. Miami Bus. L. Rev. 1, 69 (2016).

initiative is underway in Delaware—the state is amending its law to add distributed leger shares as a new class of securities.[84] Delaware has partnered with technology start-up Symbiont, whose focus is on blockchain's capability of executing "smart contracts" that are automatically triggered in response to certain agreed upon events.[85] Delaware envisions a future where state filings are conducted over the blockchain, but it's unclear to what extent regulators will be comfortable decentralizing official registries.

As transition to decentralized platforms continue, regulation focusing on centralized actors will not suffice.[86] The code built into distributed ledgers facilitates self-regulation, rendering some current rules obsolete.[87] Regulations could be affixed to the technical code dictating operations of the systems. This alternative means of regulating could address the challenges posed by mainstream use of decentralized entities.[88] This could permit regulatory flexibility that tracks technological developments and applies systematically across the growing decentralized ecosystem.[89]

IV. Overstock: A Case Study in Compliance

Overstock, a Delaware corporation, has been a pioneer in the realm of blockchain applications. It was the first major retailer to accept Bitcoin. Now, the company is utilizing the blockchain to issue its own shares. CEO Patrick Byrne calls this "the start of a new age for global capital markets."[90] Byrne understands the complexities of Overstock's endeavor, including the large expenses associated with preparing for such an offering.[91] An unfamiliar public, including investors and broker-dealers, must be educated on the concept of cryptosecurities and how to participate in the unique offering. Overstock's filings attempt to overcome this hurdle, offering a blueprint for companies contemplating cryptosecurities offerings.[92]

A. The Process: Conception to Reality

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[84] *See* Brian Patrick Eha, *You Don't Really Own Your Securities; Can Blockchain Fix That?,* American Banker (July 27, 2016) http://www.americanbanker.com/news/bank-technology/you-dont-really-own-your-securities-can-blockchains-fix-that-1090436-1.html?zkPrintable=1&nopagination=1.

[85] *Id.*

[86] *See* Carla Reyes, *Moving Beyond Bitcoin to an Endogenous Theory of Decentralized Ledger Technology Regulation,* 61 Vill. L. Rev. 191, 221 (2016).

[87] Walport, *supra* note 7*,* at 42.

[88] *Id.* at 228.

[89] *Id.* at 229–231.

[90] Overstock Free Writing Prospectus Filed Pursuant to Rule 433 (Nov. 15, 2016).

[91] Overstock Form 8-K Filed Pursuant to Section 13 or 15(d) of the Exchange Act (Nov. 14, 20116).

[92] Byrne stated that if companies want to issue cryptosecurities "they could just copy the language in our S-3 and do their own filing." Selina Wang, *Overstock Wins SEC's Nod to Upend How Companies Issue Shares*, Bloomberg Bus. (Dec. 17, 2015), http://www.bloomberg.com/news/articles/2015-12-17/overstock-wins-sec-s-nod-to-upend-howcompanies-issue-shares.

Byrne recognized blockchain's potential to restructure financial markets in a way that eliminates the middleman, while also preventing fraud and practices such as naked short selling.[93] His company's use of the blockchain aims to bring back investor confidence by providing a platform void of manipulative pricing schemes and indirect lines of ownership.

In 2014, Overstock acquired a 25% stake in PRO Securities, an ATS registered as a broker-dealer.[94] Overstock formed Medici, doing business as tØ, to develop the trading platform for cryptosecurities, which was subsequently licensed to PRO Securities.[95] Using the tØ technology, the company completed the placement of $25 million in corporate bonds in the form of digital securities in June 2015.[96] It filed its Form S-3 "shelf" registration statement and received SEC approval in December 2015 to issue up to $500 million in public cryptosecurities.[97]

Overstock employed a team of support for the offering. Georgeson LLC will act as information agent. Source Capital, as "dealer-manager," will manage the offering, but it will not be acting as an underwriter or placement agent.[98] Overstock defined the role of their transfer agent, Computershare, as holding identifying investor information as to match transactions recorded on the ledger (referred to as the "Public Records").[99] Keystone Capital Corporation, providing brokerage services, will create the digital wallets and key pairs for each customer.[100]

Overstock released a certificate of designation introducing the new class of shares—Blockchain Voting Series A Preferred Stock.[101] The certificate stated that the number of Series A shares would be 2 million.[102] At the close of the subscription period in December 2016, all investors could open a digital account with Keystone and participate in the offering. Companies looking to issue their own cryptosecurities can inquire about obtaining a license to trade on the platform.

B. Educating Investors

Cryptosecurities, like cryptocurrencies, are novel instruments such that information understandable to the ordinary investor is pivotal. The company's prospectus and supplement attempt to overcome the information gap. Rule 421 of Regulation C governs that a prospectus

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[93] Overstock Free Writing Prospectus Filed Pursuant to Rule 433 (Nov. 14, 2016). Naked short selling occurs when a seller short-sells shares without first borrowing or assuring that they are available such that more shares are shorted than can be delivered to the buyer. *Id.* at 2.

[94] Overstock S-3 at 2.

[95] *Id.*

[96] This unregistered placement was pursuant to Rule 506(c) of Regulation D with participants meeting the "accredited investor" requirement. *Id.*

[97] *Id.* at 4.

[98] Overstock Prospectus Supplement Filed Pursuant to Rule 424(b)(2) at S-92 (Nov. 14, 2016).

[99] Overstock S-3 at 36.

[100] Overstock Prospectus Supplement at S-55.

[101] Form of Certificate of Designation of Blockchain Voting Series A Preferred Stock of Overstock.com (2016).

[102] *Id.*

should present information in a "clear, concise, and understandable manner" with "plain English principles."[103]

Overstock conveyed the concept of its digital securities in plain terms. They are described as uncertified, registered securities, "the ownership and transfer of which are recorded on a proprietary ledger that will be publicly distributed."[104] The prospectus stated that the validity of the distributed ledger can be mathematically proven "utilizing cryptographically-secured distributed ledger network technology."[105]

Cryptosecurity holders will be deemed record holders without need for holding in a "street name" by a broker-dealer.[106] The voting rights attached to the shares will be identical to that of the Series B Preferred and holders of common stock with the difference being that the digital shares will settle nearly instantaneously.[107] Overstock clarified that the cryptosecurities cannot be shorted nor pledged as collateral.[108]

Adequate investor comprehension could also entail separating the idea of Bitcoin and blockchain. Overstock detailed that tØ uses the Bitcoin blockchain only for anchoring purposes, though this could change in the future.[109] The platform will "embed a digital fingerprint in the Bitcoin blockchain" to confirm that copies of the ledger have not been altered, though ordinary investors may not have the technical skills to personally make this confirmation.[110] The Bitcoin blockchain will not be used to transmit value, but nominal amounts of Bitcoin will be submitted by tØ for the data confirmation functions.[111]

C. Addressing Risk

Cryptosecurities pose unique issues, requiring companies to address inherent risks clearly to inform investors and limit liability. Rule 503 of Regulation S-K requires a company's prospectus discuss significant risks pertaining to the specific offering in a concise and logical manner.[112] Risks may include lack of an operating history, lack of a market for securities, or lack of convertibility.[113]

Overstock laid out the major risks pertaining to their cryptosecurities, including risks in liquidity, privacy, and market volatility.[114] Overstock discussed the novelty of the "untested"

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[103] 17 CFR § 230.421 ("Plain English Rule"). *See* Securities Act Release No. 33-7497 (January 28, 1998).
[104] Overstock S-3 at 4.
[105] *Id.* at 4.
[106] *Id.* at 11.
[107] Form of Certificate of Designation *supra* note 102.
[108] *Id.*
[109] Overstock Prospectus Supplement at S-74.
[110] *Id.* at S-23.
[111] *Id.* at S-26.
[112] 17 CFR § 229.503(c).
[113] 17 CFR § 229.503(c)(1)–(5).
[114] Overstock S-3 at 4–6.

system resulting in the possibility of breakdowns, undiscovered flaws, and cyberattacks.[115] It clarified that cryptosecurities will not be tied to the price of nor fungible with the company's traditional stock.[116] It advised that the cryptosecurities might have a lower market value than Overstock's common stock.[117] The company stressed that use of a closed-system ATS and a wholly separate class of securities presents liquidity issues with less investors having access to the platform disconnected from traditional exchanges.[118] Additionally, the supplement stated that some investors may desire more anonymity than available on the tØ platform, further hindering liquidity.[119]

The supplement discussed the copious legal complexities surrounding the offering. It clarified that application of U.S. and foreign law is unclear with respect to the use of cryptosecurities and the Bitcoin blockchain.[120] The ATS could fall out of compliance with Regulation ATS or the SEC could determine it is required to register as an exchange, resulting in adverse effects possibly reaching holders of cryptosecurities.[121] PRO Securities and tØ could also be required to register as transfer agents.[122] Despite present concerns, the supplement ensured that the company is engaged in an ongoing dialog with regulatory authorities.[123]

V. CONCLUSION

Overstock illustrates that transition to the blockchain is a conceivable reality for companies and securities markets. DLT systems are dramatically altering the trading landscape by allowing efficient data distribution, unambiguous ownership, and standardized procedures.[124] The enabling attitude in the marketplace suggests that decentralized platforms will become increasing popular avenues of asset transfers. More companies will follow Overstock's lead, venturing to the blockchain as an alternative means of capital-raising. Issuers improve odds of approval by working with regulators, establishing rapport, and displaying commitment to compliance.[125]

The benefits are undeniable, but the impact of the nascent technology might be more evolutionary rather than revolutionary.[126] Only time will reveal whether the blockchain is the answer to our market inefficiencies, replacing the golden standard or coexisting as a mere alternative. Mainstream integration will continue to face regulatory, operational, and financial

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[115] *Id.* at 6.

[116] *Id.* at 7.

[117] Overstock Prospectus Supplement S-32.

[118] *Id.* at S-19.

[119] *Id.* at S-20 (discussing how trading history will be available and the public could determine the holders of the wallets, thus subjecting traders to the risk of complete loss of anonymity).

[120] *Id.* at S-25–26.

[121] *Id.* (adding that the ATS could also become subject to Regulation SCI).

[122] *Id.* at S-27.

[123] *Id.*

[124] Oliver Wyman, *supra* note 18, at 9.

[125] Michael Sherlock, *Digital Securities: Overstock and Beyond*, Rev. of Banking and Fin. Law, 586, 594 (2016).

[126] Goldman Sachs, *supra* note 9, at 44 (explaining that entities such as clearing houses will likely continue playing a role in the modern trading ecosystem).

hurdles. It's evident, however, that capital markets are only beginning to tap into the potential available by the transformative technology of the distributed ledger.