XII. Digital Securities: Overstock.com and Beyond

A. Introduction

Digital securities and, more generally, peer-to-peer services such as BitCoin, have generated substantial media attention over the last few years.[1] BitCoin, in the context of this article, is a type of digital security that utilizes "Blockchain" technology to trade outside of highly regulated marketplaces like the NASDAQ.[2] Compared to digital securities generally, BitCoin is more widely known because it is the digital currency that allowed for *anonymous* transactions on the now infamous Silk Road.[3] The Silk Road is an online marketplace where users can purchase illegal products and services impersonally through the use of BitCoins.[4] Specifically, one could purchase guns, drugs, and, in the case of *United States v. Ulbricht*, hitmen.[5]

In spite of recent negative publicity, digital securities provide some benefits, particularly in regards to the speed inherent in the technology.[6] Notably, in December of 2015, the Securities and Exchange Commission (SEC) approved a request from Overstock.com to issue digital securities using similar technologies.[7]

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[1] *E.g.*, Leah McGrath Goodman, *The Face Behind Bitcoin*, NEWSWEEK (Mar. 6 2014), http://www.newsweek.com/2014/03/14/face-behind-bitcoin-247957.html [https://perma.cc/2JTB-DBU9].

[2] *See, e.g.*, Overstock.com, Registration Statement Under the Securities Act of 1933 (Form S-3), at 4 (Apr. 24, 2015) [hereinafter Overstock.com S-3] ("[S]ecurities will be uncertificated securities, the ownership and transfer of which are recorded on a cryptographically-secured distributed ledger system using technology similar to (or the same as) the distributed ledger technology used for trading digital currencies"); Satoshi Nakamoto, *BitCoin: A Peer-to-Peer Electronic Cash System*, BITCOIN.ORG, http://bitcoin.org/bitcoin.pdf [https://perma.cc/Z3ZE-N43Y].

[3] *See* U.S. v. Ulbricht, 79 F.Supp.3d 466, 476 (S.D.N.Y. 2015).

[4] *See id.* at 472.

[5] *See id.* at 476.

[6] Overstock.com S-3, *supra* note 2, at 4.

[7] *See* Tom Zanki, *SEC Approval of Digital Shares Could Spur Experimentation*, LAW360 (Dec. 18, 2015, 9:27 PM), http://www.law360.com/articles/739837/sec-approval-of-digital-shares-could-spur-experimentation [https://perma.cc/45RY-68R2] ("The legal attention follows the U.S. Securities and Exchange Commission's blessing earlier this month to an Overstock.com S-3 filing that calls for issuing up to $500 million in equity or debt securities using a digital platform that runs on technology similar to the blockchain system that powers bitcoin transactions.").

These securities will not trade on the NASDAQ or NYSE, but rather exclusively on a proprietary closed trading system.[8]

This article will provide a rudimentary understanding of how digital securities work. Part B of the article will explore the technology underlying Blockchain-based technology. Parts C and D provide an investigation into both the benefits and risks associated with digital securities. Next, Part E details the recent approval of Overstock.com's plan to issue digital securities. Part F explores related developments in Blockchain-based technology in order to flesh out some principles that will help future digital securities offerings gain regulatory approval. Finally, Part G provides concluding remarks.

B. The Technology Behind Digital Securities

It is helpful in understanding how digital securities work to inquire into the origin and underlying technology behind BitCoin. Although the actual beginning of the BitCoin era is murky, it appears that BitCoin started after the introduction of a theoretical paper written by an individual named Satoshi Nakamoto, who still remains largely unidentified despite media efforts to track him down.[9] Nevertheless, the underlying goal of BitCoin was to create "an electronic payment system based on cryptographic proof instead of trust, allowing any two willing parties to transact directly with each other without the need for a trusted third party."[10]

In simple terms, each BitCoin is actually a string of data that defines the coin's holder.[11] When a transaction occurs, the current holder of the BitCoin appends the new owner's information to the coin.[12] In order to avoid a potential "double-spend" problem, the transaction is sent to a computer network that checks to ensure the individual trying to transfer the BitCoin is actually holding the coin

[8] Overstock.com S-3, *supra* note 2, at 4.
[9] Nakamoto, *supra* note 2; *see* Goodman, *supra* note 1.
[10] Nakamoto, *supra* note 2, at 1.
[11] *Id.* at 2.
[12] *Id.*

and has not already spent it.[13] This computer system that monitors these transactions is called the "Blockchain."[14]

C. Benefits of Digital Securities that Utilize the BlockChain

The Blockchain, with its origins firmly rooted online, provides several benefits to the end user. One important benefit is security: BitCoin and related digital securities use cryptography[15]—math-based security—wherein each user has a unique BitCoin wallet containing that user's securities.[16] The only way to access a wallet is with the wallet's unique password, known as the "private key."[17] There is no central location, such as a bank, that can be attacked in this system.[18] The only way to access and transfer a BitCoin is with the private key associated with each BitCoin.[19] Moreover, the network protects itself by keeping the identities of the parties in a transaction private, thereby insulating a user from being individually targeted by a potential abuser.[20]

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[13] Double spend simply means that the holder of the coin tries to transfer the coin to two individuals, a problem that does not occur with traditional currency because it is physically held. To avoid double spending, the network will only accept and share valid transactions. *Id.* at 3.

[14] Evan L. Greebel & Kathleen H. Moriarty, *The Evolution of a New Asset Class*, LAW360 (Jan. 2, 2014, 6:04 PM), http://www.law360.com /articles/495823/the-evolution-of-a-new-asset-class [https://perma.cc/UJU4-WFFQ] ("The Blockchain serves as a public record of the chain of custody of all bitcoins issued and registers all Bitcoin transactions, including the issuance of new bitcoins, as discussed below, and all subsequent movements of bitcoins in later transactions between users.").

[15] *See id.*

[16] *See id.*

[17] *See id.* ("Wallets are accessed, and may be used to receive or send bitcoins, through a digital address coupled with the use of a 'public key' and a 'private key' that are part of the Bitcoin network's cryptographic security mechanism, which is a form of what is known as 'public key cryptography.'").

[18] *See* Nakamoto, *supra* note 2, at 2.

[19] *See id.*

[20] *Id.* at 6 ("The public can see that someone is sending an amount to someone else, but without information linking the transaction to anyone. This is similar to the level of information released by stock exchanges, where the time and size of individual trades, the 'tape', is made public, but without telling who the parties were.").

Moreover, digital securities are a quick way to effect trades.[21] The current standard for settlement of securities transactions is "T+3," or trade date plus three days.[22] By definition, digital securities avoid these time costs by settling immediately, or nearly immediately.[23]

D. Risks Associated with Digital Securities

There are, of course, inherent concerns in any new technology.[24] The first, and perhaps least obvious, is liquidity, deriving from the limited pool of individuals using the service.[25] Specifically, digital securities using the Blockchain, versus traditional securities trading on the market, will "trade on an alternative trading system," (ATS) meaning that only a comparably small number of individuals will have the access needed to trade.[26]

Fraud is also a potential risk associated with digital securities.[27] On a basic level, there is a concern that BitCoins will be stolen through unauthorized access to a user's wallet, which occurred in 2013 with Instawallet, an online service that provided users a simple platform on which to create a BitCoin wallet.[28] Also in 2013, a bug in the Android mobile operating system left certain wallets vulnerable to

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[21] *See* Zanki, *supra* note 7.
[22] Overstock.com S-3, *supra* note 2, at 4.
[23] *See id.*
[24] *See, e.g.*, Tom Zanki, *SEC Commissioner Says Bitcoin Tech Demands Closer Look*, LAW360 (Nov. 10, 2015, 4:40 PM), http://www.law360.com/articles/725512/sec-commissioner-says-bitcoin-tech-demands-closer-look [https://perma.cc/N96X-NNDV].
[25] *See* Zanki, *supra* note 7 ("But some attorneys aren't convinced that the benefits of any such arrangement outweigh its cost, not least of which is reduced liquidity.").
[26] *See id.* ("Overstock.com acknowledges in regulatory filings that limited liquidity and trading volume can create price volatility of such securities, which are not interchangeable with its common shares.").
[27] Valerie Diden Moore, *Will Wall Street Embrace Overstock's Digital Securities?*, Law360 (May 26, 2015, 3:45 PM), http://www.law360.com/articles/658998/will-wall-street-embrace-overstock-s-digital-securities [https://perma.cc/TT3R-QFX2].
[28] Joe Weisenthal, *Bitcoin Service Instawallet: We've Been Hacked, And Are Suspending Service Indefinitely*, BUS. INSIDER (Apr. 4, 2013, 12:06 AM), http://www.businessinsider.com/instawallet-suspended-2013-4 [https://perma.cc/2DLR-8EH6].

theft.[29] If this occurs, there really is no method of recourse.[30] BitCoins are a peer-to-peer service with no third party providing indemnity for fraud.[31] This same concern may apply to other digital securities. However, these concerns are mostly derived from flaws in the implementation of the new technology and not concerns with the technology itself.[32]

In addition, in February of 2014, a BitCoin exchange called Mt. Gox suddenly closed.[33] Soon after, Mt. Gox filed for bankruptcy protection.[34] Once the dust settled, it became clear that Mt. Gox was poorly run, which allowed hackers to penetrate Mt. Gox and operate undetected for years.[35] Ultimately, the company admitted to losing "a total of 850,000 bitcoins, more than $460 million."[36]

BitCoin exchanges are critical to the system, as they allow users to exchange traditional currency, like cash, for BitCoins.[37] A massive failure of the largest exchange at the time incited unrest and

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[29] *Android Security Vulnerability*, BITCOIN.ORG (Aug. 11, 2013), https://bitcoin.org/en/alert/2013-08-11-android [https://perma.cc/5XNZ-AN7S].

[30] Chris Morris, *Stop Those Thieves—They Have My Bitcoins!*, CNBC (Sep. 16, 2013), http://www.cnbc.com/2013/09/16/bitcoin-theft-on-the-rise.html [https://perma.cc/BHL8-S24D] ("And because bitcoin transactions are nonreversible, users often have little recourse when they discover that their bitcoin "wallet"—which stores their virtual coins and notes any transactions—has been ripped off.").

[31] *See id.* Perhaps there can be a regulatory requirement that protects against this issue by providing indemnity against this type of fraud, but that inquiry is beyond the scope of this article.

[32] *See id.* ("Virtual currency theft is often avoidable. . . . [W]allets kept on centralized, cloud-based services are more vulnerable than those on a local drive, not because of security failings but because they are larger targets with a substantial amount of bitcoin. Users of those services are often susceptible to malware or phising emails that can trick them into divulging passwords.").

[33] Emily M. Little, *Bitcoin*, 21 INV. LAWYER 22, 25 (2014).

[34] *Id.* at 25.

[35] Robert McMillan, *The Inside Story of Mt. Gox, Bitcoin's $460 Million Disaster*, WIRED (Mar. 3, 2014), http://www.wired.com/2014/03/bitcoin-exchange/ [https://perma.cc/E53M-MGG6] (highlighting that Mt. Gox did not use industry standard software development tools).

[36] *Id.*

[37] Dominic Aratari et al., *What is BitCoin*, CNN MONEY (2016), http://money.cnn.com/infographic/technology/what-is-bitcoin [https://perma.cc/Z3LB-85G3].

uncertainty.[38] Nevertheless, in November of 2015, SEC commissioner Kara Stein seemed to look positively on the Blockchain, stating generally that the "blockchain technology underpinning the bitcoin revolution could potentially help regulators monitor risk."[39] Stein says that public ledger technology may be useful in providing regulators a transparent way of tracking securities transactions.[40]

E. SEC Grants Overstock.com Approval to Issue $500 Million of Proprietary Digital Securities

In December of 2015, the SEC approved a plan by Overstock.com to offer up to $500 million in digital securities.[41] The securities will not be traded on conventional exchanges, such as the NASDAQ, where Overstock.com's regular common stock trades.[42] Instead, Overstock.com would issue digital securities on a proprietary Blockchain.[43] The primary benefit of raising money this way is speed, as trades settle much more quickly than traditional stock.[44]

Similar to BitCoin, the Overstock.com system will be based on Blockchain technology, where a secure private key is required to effectuate a trade and a public record keeps track of all transactions.[45] The shares offered through this process give the holder the same rights as a holder of common stock.[46] Moreover, the digital securities would be uncertificated, or lacking a physical document to indicate ownership like a typical stock.[47]

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[38] *See* Mcmillan, *supra* note 35 ("Mt. Gox stopped paying out customers in bitcoins, citing a flaw in the digital currency, and after days of silence from the company, protesters turned up outside its offices, asking whether it was insolvent.").
[39] Zanki, *supra* note 24.
[40] *Id.* ("Stein said[,] '[o]ne can imagine a world in which securities lending, repo and margin financing are all traceable through blockchain's transparent and open approach to tracking transactions.'").
[41] Adam Sege, *Overstock.com Clears SEC Hurdle to Digital Shares*, LAW360 (Dec. 16, 2015, 5:23 PM), http://www.law360.com /articles/738623/overstock-com-clears-sec-hurdle-to-digital-shares [https://perma.cc/A3FV-CUPF].
[42] *Id.*
[43] *Id.*
[44] *Id.*
[45] Overstock.com S-3, *supra* note 2, at 4-5.
[46] *Id.* at 4.
[47] *Id.*

However, Overstock.com will not use the same public ledger as BitCoin.[48] Specifically, Overstock.com will implement its own ledger used exclusively for trading the securities they issue.[49] This small pool of potential investors may result in a liquidity problem.[50] Another difference between the BitCoin ledger and the Overstock.com system is:

> To make the system more user-friendly, at least initially, either the ATS trading our digital securities or each broker-dealer participating on that ATS is expected to hold the private keys on behalf of securities holders. This will enable securities holders to manage their digital securities account with a simple login and password, similar to traditional online brokerage accounts.[51]

In spite of the potential benefits derived from reduced transaction costs, there are (expectedly) several risks with such a new and untested technology. [52] Overstock.com is certainly cognizant and transparent about many of these concerns, and included a detailed section in its initial S-3 entitled "Risks Applicable to Digital Securities Offerings" discussing the specific risks associated with Blockchain-based trading, which include such risks as illiquidity, privacy concerns, private key theft risk, and the risk of price manipulation.[53] Given the novelty of such financial instruments, this level of

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[48] Pamela L. Marcogliese & Marc B. Rotter, *Bitcoins and Blockchain – The Use of Distributed Ledger Technology for the Issuance of Digital Securities*, CLEARY GOTTLIEB (Jan. 4, 2016), http://www.clearymawatch.com/2016/01/bitcoins-and-blockchain-the-use-of-distributed-ledger-technology-for-the-issuance-of-digital-securities/ [https://perma.cc/PTG7-45Y6]. Recall that the Blockchain is essentially a public ledger for recording BitCoin transactions. Nakamoto, *supra* note 9, at 3.

[49] Overstock S-3, *supra* note 2, at 4 ("Digital securities will be issued, available for purchase and traded exclusively on a specific trading system that is registered with the SEC as an alternative trading system, or ATS.").

[50] *See* Zanki, *supra* note 7.

[51] Overstock.com S-3, *supra* note 2, at 5.

[52] *E.g.*, Zanki, *supra* note 7 ("Because Overstock.com digital securities would trade on an alternative trading system, such shares would only be accessible to customers of the sole broker-dealer licensed to access the platform.").

[53] Overstock.com S-3, *supra* note 2, at 4-6.

transparency pertaining specifically to digital securities is crucial for investors with a potential interest in the offering.

F. Future Considerations for Approval of Digital Securities Offerings

Moreover, the successful approval of related Blockchain-based services may provide some insight into how to gain regulatory approval for digital securities offerings in the future.[54] For instance, in May 2015, New York regulators granted financial technology company itBit the ability to operate a BitCoin exchange.[55] ItBit now has the "ability to operate across the country with a stamp of approval from one of the country's toughest regulators."[56] The approval brings with it very strict rules, requiring "Bitcoin exchanges and many other virtual currency operators to comply with strict anti-money laundering, consumer protection and capital requirements, among others."[57] The approval also mandates compliance with the final license requirements when they are issued and requires disclosure of potentially suspect transactions to both the state regulator and the U.S. Department of the Treasury.[58]

The itBit story may provide a framework for Blockchain-based services winning regulatory approval.[59] The key, it seems, is prioritizing regulatory approval by making best efforts to satisfy the

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[54] *See* 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-how-companies-issue-shares [https://perma.cc/4F3E-N37T].

[55] *E.g.*, Evan Weinberger, *NY Grants First Operating License to a Bitcoin Exchange*, LAW 360 (May 7, 2015, 12:06 PM), http://www.law360.com/articles/652935/ny-grants-first-operating-license-to-a-bitcoin-exchange [https://perma.cc/G3C7-TXB2] ("The New York Department of Financial Services awarded commercial Bitcoin exchange itBit Trust Co. LLC the first-ever BitLicense, the licensing regime that the agency is still working to finalize and the first of its kind in the United States.").

[56] *Id.*

[57] *Id.*

[58] *Id.*

[59] *See e.g.*, Evan Weinberger, *ItBit's NY Virtual Currency License Could Provide Road Map*, LAW360 (May 12, 2015, 2:24 PM), http://www.law360.com/articles/654249/itbit-s-ny-virtual-currency-license-could-provide-road-map [https://perma.cc/A2UK-KBFK].

not-yet codified requirements.[60] For instance, itBit established procedures early on for "anti-money laundering and know-your-customer protocols that met the highest global standards" and committed to triple checking new customer records.[61] In order to make a strong case for approval, companies need to show they are committed to compliance and should establish a rapport with regulators.[62]

Moreover, in a post-Overstock.com approval world, there is no doubt that Blockchain technology will continue to grow in usefulness in the securities market.[63] For instance, in January 2016, ASX, the operator of the Australian stock exchange, purchased about $10 million worth of equity in a "blockchain developer," a company that develops Blockchain platforms [64] The underlying goal of the purchase is "to use the speedy technology known for underpinning the bitcoin revolution to improve the functioning of [ASX's] equity markets."[65] ASX hopes to use the technology to speed up post-transaction processing, while reducing costs, as a result of T+0 settlements.[66] ASX's goal is to become the first operator to adopt Blockchain technology for trading.[67] ASX hopes to determine the feasibility of implementing this technology in its post-trade system by 2017.[68] ASX, following a model similar to that of itBit, has an eye on

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[60] *See id.*

[61] *Id.*

[62] *Id.* ("Those protocols allowed itBit to prove it was serious about compliance with the DFS and established a working relationship that allowed for an agreement on a charter in a matter of months after itBit approached the agency.").

[63] *See* Zanki, *supra* note 7.

[64] Tom Zanki, *ASX Buys Stake In Blockchain Co. To Speed Equities Trading*, LAW 360 (Jan. 22, 2015, 9:09 PM), http://www.law360.com /articles/750014/asx-buys-stake-in-blockchain-co-to-speed-equities-trading [https://perma.cc/27U9-6CK3].

[65] *Id.*

[66] *Id.* ("Sydney-based ASX said that Digital Assets' blockchain technology, also called distributed ledger technology, could radically accelerate and simplify post-trade processing while reducing risk and costs for its clients, who could see equities transactions settle in near real-time.").

[67] *Id.*

[68] *Id.* ("ASX said that development of the new blockchain-based system will take place alongside its existing system that provides clearing and settlement services to the Australian equities markets, known as CHESS, which will continue to operate as normal for the time being so that investors can compare

regulatory approval, and is planning to work closely with the Australian government.[69]

In addition, Bitcoin will continue to expand as several major retailers, including Microsoft and Dell, announced plans to accept BitCoin for transactions.[70] This is a step in a positive direction for expansion of Blockchain-based transactions, in spite of the fact that these companies do not *really* accept BitCoin.[71] In actual fact,

> Almost none of the businesses mentioned above technically accept bitcoin. Instead, they partner with a middleman—generally either Coinbase or BitPay—who takes a customer's bitcoin, immediately converts it into cash, and then deposits the cash in the company's bank account.[72]

In this sense, these companies are actually accepting the U.S. dollar equivalent of the BitCoins that are process by their BitCoin partners.[73] Nevertheless, these companies are at least acknowledging the potential usefulness of the Blockchain by moving towards supporting the technology.[74]

G. Conclusions

Blockchain-based technologies such as BitCoin offer a lot of potential as a mode of effecting transactions. The potential for increased speed and efficiency in trading provides a compelling reason to work through some of the risks associated with the new technology. In this vein, it seems that regulators are becoming more receptive to Blockchain-based transactions.[75] Overstock.com's interest in issuing

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results. The company said it will make a final determination on its post-trade technology in 2017.").

[69] *Id.*

[70] *See* Jacob Davidson, *No, Big Companies Aren't Really Accepting Bitcoin*, TIME (Jan. 9, 2015), http://time.com/money/3658361/dell-microsoft-expedia-bitcoin/ [https://perma.cc/HN8K-Y33V].

[71] *Id.* (stating that merchants are really employing middle-men who accept BitCoin on their behalf).

[72] *Id.*

[73] *Id.*

[74] *Id.*

[75] *See, e.g.*, Zanki, *supra* note 24 (discussing an SEC Commissioner's comments on transparency benefits inherent in Blockchain technology).

$500 million of digital securities shows that private business is taking the technology seriously. In addition, the lessons learned from itBit suggest that the best plan of attack for approval is a working partnership with regulators from the beginning. Overall, Blockchain technology is gaining traction and its development is a live issue.

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