BIT BY BIT: HOW COMPANIES SHOULD PROCEED BEFORE OFFERING CRYPTOCURRENCIES AS EXECUTIVE COMPENSATION

VIRGINIA L. BROWN*

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* B.B.A., Baylor University; J.D., Paul M. Hebert Law Center, Louisiana State University. Virginia is a contract attorney at Experian Health, Inc. in Franklin, TN. She would like to thank Professor Christina M. Sautter for the inspiration for this paper and Professor James R. McIlwain for his helpful guidance throughout the writing process.

INTRODUCTION

Online retailer Overstock.com recently authorized a Bitcoin-based bonus payment to the head of its cryptocurrency investment business, according to a securities filing in January of 2018.[1] This payment went to Jonathan E. Johnson III, an executive officer at Overstock and a member of its board of directors.[2] Overstock was the first major retailer to begin accepting Bitcoin payments in 2014, and this appears to be the first time the company has paid any executive compensation in cryptocurrency.[3] This transaction seems to be just the beginning of a potentially major shift in currency exchange around the world. As Bitcoin and other cryptocurrencies become more widely accepted as compensation, their value — and therefore their demand — also increases. It is possible that the future world sees a civilization in which cryptocurrency becomes more commonly exchanged than cash or credit cards.

With this development comes lots of questions regarding the widespread use of these currencies; as the Overstock case shows, it is not unreasonable to think that one day Bitcoin and other cryptocurrencies are offered as a primary form of executive compensation. Executive compensation, however, is not a new topic for debate or regulation. This issue was discussed as early as 1939 when the SEC enacted its first regulations regarding executive compensation disclosure.[4] This Comment suggests that companies should be free to issue cryptocurrencies as executive compensation as long as they take the necessary precautions. Part I explains how cryptocurrencies are created, shared, and regulated. Part II provides an overview of the law applicable to executive compensation, including the duties that officers owe their shareholders. Part III highlights the major issues with — and benefits of — offering cryptocurrency as executive compensation. The last Part provides corporations with guidelines they should consider when deciding whether to take this innovative step. The widespread use of cryptocurrency could be a defining moment in our civilization's development, and corporations should educate themselves so that they are prepared to develop along with society and can avoid falling behind.

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1 Overstock.com, Inc., Current Report (Form 8-K) (Jan. 10, 2018).
2 *Id.*
3 CORY HESTER, OVERSTOCK EXECUTIVE RECEIVES BONUS IN BITCOINS, Westlaw 472993 (Jan. 19, 2018).
4 Tracy Scott Johnson, *Pay For Performance: Corporate Executive Compensation in the 1990s*, 20 DEL. J. CORP. L. 183, 186 (1995).

I. THE CREATION AND REGULATION OF VIRTUAL CURRENCY

A. How Cryptocurrencies Work

1. Introduction to Cryptocurrencies

Bitcoin is the most well-known, but far from the only, cryptocurrency; other cryptocurrencies such as Litecoin, GeistGold, SolidCoin, BBQcoin, and PPCoin are similar in nature to Bitcoin but claim to offer technological improvements that will make them faster, safer, or more convenient than Bitcoin.[5] Nevertheless, Bitcoin is by far the most well-recognized and oft-discussed cryptocurrency on the market today, so it will be the main focus of this Comment.

To secure transactions, Bitcoin relies on public key encryption, a system that uses digital keys to send and receive information.[6] It uses two keys: a public key known to anyone, and a private key known only to the recipient of the message.[7] The coin is transferred through a series of digital signatures, linking the public key of past transactions to that of the new owner, similar to a chronological log book.[8] The receiving computer uses its private key to decode the symmetric key, and then uses the symmetric key to decode the document.[9] Then, the system broadcasts all of the transactions associated with each public key to the whole Bitcoin community.[10] The number of Bitcoins slowly expands over time, but will reach a pre-announced limit of twenty-one million around the year 2040.[11] Bitcoins may be used to make purchases from a growing number of merchants, although the currency is still strongly suspected of being associated with underground and illegal transactions.[12]

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5 Stephen T. Middlebrook & Sarah Jane Hughes, *Regulating Cryptocurrencies in the United States: Current Issues and Future Directions*, 40 WM. MITCHELL L. REV. 813, 819 (2014).

6 Satoshi Nakamoto, *Bitcoin: A Peer-to-Peer Electronic Cash System*, Bitcoin (last visited Feb. 11, 2019), https://bitcoin.org/Bitcoin.pdf. Many believe that it was Satoshi Nakamoto (pseudonym) who first conceptualized the idea of blockchain in this landmark paper which introduced his digital currency, Bitcoin, to the world.

7 *Id.*

8 *Id.*

9 *Id.*

10 Juliya Ziskina, *The Other Side of the Coin: The FEC's Move to Approve Cryptocurrency's Use and Deny its Viability*, 10 WASH. J. L. TECH. & ARTS 305, 314 (2015).

11 Middlebrook & Hughes, *supra* note 5, at 818.

12 *Id.*

2. How to Obtain Cryptocurrency

To obtain Bitcoins, one must either be a "miner" or purchase the coins on a currency exchange.[13] When an owner of a cryptocurrency transfers the cryptocurrency to a recipient, the transaction is verified in a process called "mining."[14] A crowd of miners consults the ledger, verifies the claim of ownership, and documents the transfer to the recipient, who from then on is logged on the ledger as the owner of the cryptocurrency.[15] The miners do not simply verify the transaction; they compete to solve a complex cryptographic problem. The first miner to succeed is awarded a new batch of cryptocurrency.[16]

Currently, Bitcoin miners receive twenty-five Bitcoins as reward for every "block" created, but over time this reward will decrease by fifty percent with every 210,000 created. This gradual decrease in availability systematically limits the supply of Bitcoins; this ensures that there will never be more than twenty-one million Bitcoins in circulation.[17] The new batch of cryptocurrencies is automatically generated by the software. It functions both as an incentive to participate in the mining process and as a decentralized mechanism for the issuance of new cryptocurrencies.[18] Because the supply of Bitcoin is automated, there is no opportunity for a central bank to change the money supply.[19] Alternatively, it is possible to obtain Bitcoin from online exchanges, which are subject to the same rules as banks and financial institutions in the United States.[20] Bitcoins can also be purchased directly by finding someone who is willing to exchange Bitcoins for cash, usually done face-to-face and facilitated by websites similar to Craigslist.[21]

3. No Decentralized Mechanism

There is no separate third-party controller verifying each transaction; instead, the "Bitcoin protocol" works as a decentralized ledger known as a

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13 *Id.*

14 Nakamoto, *supra* note 6, at 4. By incentivizing these transfers with the promise of a cryptocurrency award, Nakamoto compared the process to that of mining gold. This analogy by the founder of Bitcoin led to the widespread use of the term "miners" to describe the users that document each transaction.

15 Omri Marian, *A Conceptual Framework for the Regulation of Cryptocurrencies*, 82 U. CHI. L. REV. DIALOGUE 53, 55 (2015).

16 *Id.*

17 Ziskina, *supra* note 10, at 315.

18 Marian, *supra* note 15, at 55.

19 Nakamoto, *supra* note 6 at 4.

20 Ziskina, *supra* note 10, at 315.

21 *Id.*

"blockchain."[22] When someone initiates a transaction using Bitcoin, that transaction is broadcast throughout the network and bundled with thousands of others into a "block."[23] That block is then linked with previous blocks of bundled transactions into a "chain."[24] Through this protocol, the system is checked and rechecked multiple times; this allows for trustworthy verification and agreement regarding asset ownership and the state of a transaction across multiple platforms, without the need for centralized enforcement.[25] These ledgers allow for self-executing transactions with a high degree of trustworthiness and anonymity, and with no need for a specific middleman to regulate them.[26]

4. Holding on to Coins in a "Wallet"

Users keep their Bitcoins in a wallet, which is stored either in the cloud or on their personal computer.[27] Either storage method carries risks; an online wallet may be subject to hacking, and a personal computer could become infected with a virus, suffer physical damage, or be stolen.[28] Because Bitcoin is a ledger rather than an exchange of digital objects, the possibility exists for writing additional information into that ledger to expand its application to different types of transactions.[29] For example, the coding that underlies Bitcoin is already built to support escrow transactions and share financial management.[30] In turn, a digital wallet could be set to slowly dole out Bitcoins over time to pay out a lump sum when, in searching the internet, it sees that a certain event has occurred.[31] In essence, each Bitcoin is a chain of digital signature which, when decoded, provides the entire transactional history of that Bitcoin.[32]

5. Conversion to Legal Tender

Similar to traditional monetary exchange services that allow individuals and businesses to exchange one currency for another, there are online exchanges

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22 Theodore W. Reuter, *Bitcoin's Digital Enterprise Creates Alternative Business Transactions*, 57-AUG ADVOC. 33, 34 (2014); *see also* Fiammetta S. Piazza, *Bitcoin and the Blockchain as Possible Corporate Governance Tools: Strengths and Weaknesses,* 5 PENN. ST. J.L. & INT'L AFF. 262, 264 (2017) (arguing that blockchain technology is more suited than Bitcoin to be implemented in the realm of corporate governance because of its more reliable nature).
23 Piazza, *supra* note 22, at 276.
24 Reuter, *supra* note 22, at 34.
25 *Id.*
26 *Id.*
27 Middlebrook & Hughes, *supra* note 5, at 818.
28 Ziskina, *supra* note 10, at 316.
29 Reuter, *supra* note 22, at 34.
30 *Id.*
31 *Id.*
32 Middlebrook & Hughes, *supra* note 5, at 818.

that allow the exchange of Bitcoins for national and transnational currency.[33] Bitcoins may be converted to government-issued legal tender (commonly referred to as fiat currency[34]) or other types of virtual currency through an exchange. Alternatively, Bitcoins may be used to purchase goods and services from any of the tens of thousands of merchants who accept Bitcoins for payment.[35] Some "closed loop" virtual currencies may not be converted to fiat currency, but rather may only be used to obtain goods and services from the issuer.[36]

Unlike fiat currencies, whose value is derived through regulation or law and underwritten by the state, Bitcoins have no intrinsic value and their only real value is based on supply and demand — what people are willing to trade for them.[37] Some virtual currencies have value because they are a commonly accepted medium of exchange by a significant number of people; it is that acceptance that maintains their value.[38] Other virtual currencies have intrinsic value because they represent a claim on a commodity, such as gold or silver.[39]

B. Classification of Cryptocurrencies

Law enforcement first took notice of virtual currencies in 2007 when the federal government charged e-Gold, Ltd. and its owners with violating federal and state laws regarding "money transmission" services.[40] The court in *e-Gold, Ltd.* was clear that handling cash is not the touchstone of being a "money transmitting business" under federal law.[41] The term "money transmitting business" as used in Section 5330 of Title 31 of the U.S. Code includes all financial institutions that fall outside of the conventional financial system (and are not "depository institutions"), not just those that engage in cash transactions.[42]

Virtual currency does not have legal tender status and, thus, is not technically currency. Some virtual currency, however, has an equivalent value in real currency or may be used as a substitute for real currency, which The Financial Crimes Enforcement Network (FinCEN) deems "convertible virtual

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33 Ziskina, *supra* note 10, at 315.

34 This name comes from the Latin term "fiat" meaning "let it be done" or "so it shall be" in the sense of a governmental decree or order. Fiat currencies are different from commodity-based money like gold or silver because it does not have intrinsic value; instead, the national government, as issuer, declares its value as legal tender. Piazza*, supra* note 22, at 266.

35 James Gatto & Elsa S. Broeker, *Bitcoin and Beyond: Current and Future Regulation of Virtual Currencies*, 9 OHIO ST. ENTREPRENEURIAL BUS. L. J. 429, 429-30 (2015).

36 *Id.* A closed loop currency, also called a non-convertible virtual currency, includes a retail store-based credit card. For example, a Nordstrom store card can only be spent at Nordstrom.

37 Ziskina, *supra* note 10, at 313.

38 Gatto & Broeker, *supra* note 35, at 429.

39 *Id.*

40 United States v. e-Gold, Ltd., 550 F. Supp. 2d 82, 84 (D.D.C. 2008).

41 *Id.* at 93.

42 *Id.*

currency."[43] The regulations governing foreign exchange only cover currencies issued by other countries and, thus, do not apply to virtual currencies.[44] In *SEC v. Shavers*, a Texas District Court ruled on a matter of first instance that "[i]t is clear that Bitcoin can be used as money."[45] This ruling was issued only four months after FinCEN's guideline publication on the compliance obligations for virtual currencies, which prompted law enforcement action such as federal indictments and seizure orders.[46] The court did not determine, however, whether Bitcoin itself could be a security.

C. *Regulation (or Lack Thereof) of Cryptocurrencies*

The applicability of different regulations to virtual currency varies widely, depending upon the specific attributes of the virtual currency and how it is used.[47] When used as a currency, a virtual currency may be subject to state and federal currency transaction regulations. When used as the basis of a security, it may be subject to SEC regulation. When backed by commodities, it may be subject to regulation by the Commodities Futures Trading Commission (CFTC). When classified as property, it may be subject to taxation by the Internal Revenue Service (IRS).

The Currency and Foreign Transactions Reporting Act of 1970 (Bank Secrecy Act or BSA) requires U.S. financial institutions to assist U.S. government agencies to detect and prevent money laundering.[48] The Secretary of the Treasury may assess civil penalties on any person, including any directors, officers, or employees who willfully participate in the negligent or willful violation of any reporting, recordkeeping, or other requirements mandated by the BSA Regulations.[49]

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[43] Middlebrook & Hughes, *supra* note 5, at 828.

[44] *Id.* at 829.

[45] Sec. & Exch. Comm'n v. Shavers, No. 4:13-CV-416, 2013 WL 4028182, (E.D. Tex. Aug. 6, 2013), *adhered to on reconsideration*, No. 4:13-CV-416, 2014 WL 12622292 (E.D. Tex. Aug. 26, 2014) (addressing the issue of whether jurisdiction under the Securities Acts of 1933 and 1934 applied to the facts of the case involving a Bitcoin Ponzi scheme).

[46] Bank Secrecy Act, tit. I-II, Pub. L. No. 91-508, 84 Stat. 1114, 1114-24 (codified as amended at 12 U.S.C. §§ 1829b, 1951-1959; 31 U.S.C. §§ 5311-5314, 5316-5332 (2012)) (authorizing the Secretary of the Treasury to issue regulations requiring financial institutions to keep and file reports that the Secretary determines have a "high degree of usefulness in criminal, tax, or regulatory investigations or proceedings, or in the conduct of intelligence or counterintelligence matters, including analysis to protect against terrorism" (quoting 12 U.S.C. § 1829b(a)(1)(A)); 31 C.F.R. §§ 1000-1099 (2013) (FinCEN's BSA regulations).

[47] Gatto & Broeker, *supra* note 35, at 429.

[48] Currency and Foreign Transactions Reporting Act of 1970, Pub.L. 91–508, 84 Stat. 1118 (1970); Gatto & Broeker, *supra* note 35, at 430.

[49] Gatto & Broeker, *supra* note 35, at 438.

FinCEN is the federal agency responsible for enforcing compliance with the BSA regulations.[50] FinCEN defines currency (i.e. "real currencies") as "the coin and paper money of the United States or of any other country that [i] is designated as legal tender and that [ii] circulates and [iii] is customarily used and accepted as a medium of exchange in the country of issuance."[51] Virtual currencies are online payment systems that may function as "real" currencies but are not issued or backed by a central government.[52] They do not have legal tender status in any jurisdiction,[53] so they are not required to be accepted as a form of payment.[54]

FinCEN defines three categories of persons engaged in virtual currency transactions: a "user" is defined as a person who obtains virtual currency to purchase goods or services on the user's own behalf; an "exchanger" is defined as a person engaged in business in the exchange of virtual currency for real currency, funds, or other virtual currency; and an "administrator" is defined as a person engaged in the business of issuing (putting into circulation) a virtual currency, who also has the authority to redeem (to withdraw from circulation) such virtual currency.[55]

Financial transparency is one of the crucial tenets of campaign regulatory law.[56] In 2014, the Federal Election Commission (FEC) approved Bitcoin contributions in a unanimous advisory opinion.[57] All six commissioners agreed that Bitcoin donors are subject to existing (if not more stringent) disclosure laws: they are required to provide names, addresses, and employment information with every donation.[58] Political action groups may accept up to $100 worth of Bitcoin per election, per contributor. Contributors "should value tha[e] contribution based on the market value of Bitcoins at the time the contribution is received."[59] The FEC also requires that Bitcoin contributions and contributors be disclosed publicly, regardless of whether Bitcoin users want to remain pseudonymous. All contributors must provide their name, physical address, employer, affirmation

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50 *Id.* at 433.

51 31 C.F.R. § 1010.100(m) (2019).

52 Ziskina, *supra* note 10, at 309-10.

53 U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-13-516, VIRTUAL ECONOMIES AND CURRENCIES: ADDITIONAL IRS GUIDANCE COULD REDUCE TAX COMPLIANCE RISKS (2013), http://www.gao.gov/assets/660/654620.pdf.

54 Ziskina, *supra* note 10, at 310.

55 *See* Application of FinCEN's Regulations to Virtual Currency Mining Operations, Dep't Treasury Fin. Crimes Enforcement Network (Jan. 30, 2014) [hereinafter FIN-2014-R001], http://www.fincen.gov/news_ room/rp/rulings/pdf/FIN-2014-R001.pdf.

56 Ziskina, *supra* note 10, at 326.

57 FED. ELECTION COMM'N, ADVISORY OPINION 2014-02 (May 8, 2014), http://saos.fec.gov/ao docs/2014-02.pdf.

58 *Id.* at 2.

59 *Id*. at 6.

that he or she owns the contributed Bitcoins, and affirmation that he or she is not a foreign national.[60]

D. The Darker Side of Cryptocurrency

Cryptocurrency's biggest downside is the frequency with which it is used to facilitate harmful behaviors. Since the blockchain ledger is simply the documentation of ownership and transfers, the owners themselves are not identified by name.[61] Anyone can freely create as many wallets as he or she desires — at practically zero cost — without providing any identifying information.[62] This process could more accurately be described not as anonymous, but pseudonymous; each owner is identified by a set of letters and numbers representing his or her public cryptocurrency address.[63] If the owners of some addresses are known, the public ledger can be used to identify the owners of other addresses. The more addresses that are identified, the easier it is to identify other addresses (if there is a need to do so).[64] Bitcoin's own website asserts that "Bitcoin is not anonymous and cannot offer the same level of privacy as cash."[65]

America's current financial-regulation system heavily relies on regulating intermediaries to disrupt misconduct. To the extent that cryptocurrencies do become significant economic instruments, more intermediaries are likely to emerge; most users are not tech experts so they will naturally turn to intermediaries to acquire and dispose of their cryptocurrencies.[66] Direct regulation of individuals who participate in financial markets is immensely costly, so intermediaries offer a more fiscally responsible option.[67] However, intermediaries are market-created, not government-created, constructs that do not just serve as agents for buyers and sellers but, in fact, add value to financial markets.[68] The regulation of cryptocurrencies is not intended to reduce the current

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60 *Id.* at 2.
61 Marian, *supra* note 15, at 56.
62 *Id.*; *see also* Omri Marian, Are Cryptocurrencies Super Tax Havens?,112 MICH. L. REV. FIRST IMPRESSIONS 38, 42 (2013).
63 *See* Craig K. Elwell, M. Maureen Murphy, & Michael V. Seitzinger, Bitcoin: Questions, Answers, and Analysis of Legal Issues 3 (Oct. 13, 2015), https://fas.org/sgp/crs/misc/R43339.pdf.
64 Marian, *supra* note 15, at 63.
65 *Frequently Asked Questions*, Bitcoin, https://bitcoin.org/en/faq#is-bitcoin-anonymous (last visited Apr. 12, 2018).
66 Marian, *supra* note 15, at 67.
67 Marian, *supra* note 15, at 57.
68 *See generally* Franklin Allen & Anthony M. Santomero, What Do Financial Intermediaries Do?*,* 25 J BANK & FIN. 271 (2001). For the role of intermediaries in the context of online markets, *see generally* George M. Giaglis, Stefan Klein, & Robert M. O'Keefe, The Role of Intermediaries in Electronic Marketplaces: Developing a Contingency Model, 12 INFO SYS. J. 231 (2002).

level of criminal activity, but rather to ensure that cryptocurrencies do not *increase* criminal activity.[69]

II. OVERVIEW OF EXECUTIVE COMPENSATION

As Bitcoin and other cryptocurrencies become more commonly exchanged for goods and services, it is only a matter of time before companies will begin to look toward the use of blockchain and related technologies for other purposes, such as the issuance of executive compensation.

A. An Overview of the Relevant Law

Directors have the power, authority, and wide discretion to make decisions on executive compensation under existing Delaware law.[70] The doctrine of waste says a court will not defer to a board's decision because the compensation bears no reasonable relationship to the value of the services rendered.[71] Delaware law — and most modern corporate law — has shown justifiable deference to market forces and to the decision of directors who act for the enterprise in the marketplace.[72] In *In re Walt Disney Company Derivative Litigation*, the Delaware Supreme Court emphasized that classic corporate liability theories, including fiduciary duty, good faith, and waste theories, apply equally to the executive compensation arena.[73]

The Emergency Economic Stabilization Act of 2008 (EESA) and the American Recovery and Reinvestment Act of 2009 (ARRA) have implemented substantial restrictions on the ability of certain financially troubled companies to exercise their business judgment with regard to executive compensation.[74] Bankruptcy KERPs (key employee retention, severance, and bonus programs) arguably resulted in considerably greater pay for performance in bankruptcy cases than had existed prior to their enactment.[75] The Revised Regulations establish a federal minimum threshold of $10,000 as a trigger for disclosing perks.[76] While the Revised Regulation require the disclosures of more executive

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69 Marian, *supra* note 15, at 59 (emphasis in original).

70 Brehm v. Eisner, 746 A.2d 244, 263 (Del. 2000).

71 *Id.* at 259–63 (Del. 2000); *see also* Steiner v. Meyerson, 1995 WL 441999 at 1 (Del. Ch. 1995).

72 Gregg M. Galardi & Bruce Grohsgal, *Executive Compensation and the Great Recession Fundamental Policy Differences Between Delaware Corporate Law and Federal Law Have Shaped Their Respective Approaches to Executive Compensation*, 28 DEL. LAW. 26 (2010).

73 *In re* Walt Disney Co. Derivative Litig., 825 A.2d 275 (Del. Ch. 2003).

74 Galardi & Grohsgal, *supra* note 72, at 25.

75 *Id.* at 26.

76 Jennifer S. Martin, *The House of Mouse and Beyond: Assessing the SEC's Efforts to Regulate Executive Compensation*, 32 DEL. J. CORP. L. 481, 487 (2007).

compensation data, beyond that, the rules fail to give shareholders any additional options to address concerns.[77]

Corporate governance is traditionally a matter of state law; yet, the SEC has been increasing its role in corporate governance beyond disclosure-based regulations, and is currently more than a minor regulator in the area.[78] The ability to sue the individual board of directors is the most important affirmative initiative available under state law to shareholders objecting to the value of the executive compensation.[79] It is unclear if this right also extends to complaints regarding the *type* of executive compensation. *In re Walt Disney* highlights the fact that these state law remedies provide little recourse in duty of care cases for shareholder claims of excessive executive compensation due to the absence of a substantive inquiry.[80] Shareholder derivative suits under state law are constrained by the due care, good faith, and waste analyses.[81]

There is a gap between disclosure and state law regulations of executive compensation decision making. State law only creates accountability for some executive decisions.[82] Also, few shareholders sell their shares in response to their unhappiness with compensation policies.[83] A state's money services laws are triggered when conduct constituting any element of the regulated activity occurs within the state.[84] It can be assumed that any state laws on cryptocurrency would similarly apply to the issue at hand. Whether a person engaging in virtual currency transactions is subject to licensure under a state's money services law may depend upon whether the virtual currency is considered to be "money" with "monetary value" under the state's money services laws and whether such virtual currency activity also involves the transmission or exchange of real currency.[85]

B. The Entities That Regulate Cryptocurrency and Executive Compensation

In practice, some government regulation of public corporations has proven necessary to support orderly corporate operations and to protect the

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77 *Id.* at 489.
78 *Id.* at 529.
79 *See, e.g.*, *In re* Walt Disney Co. Derivative Litig., 906 A.2d 27 (Del. 2006); *see* Randall S. Thomas & Kenneth J. Martin, *Litigating Challenges to Executive Pay: An Exercise in Futility?*, 79 WASH. U. L.Q. 569, 571 (2001) (examining 124 cases where shareholders have brought claims of excessive compensation and concluding that shareholders are more likely to find success against smaller corporations when litigating outside of Delaware).
80 *In re* Walt Disney Co. Derivative Litig., 825 A.2d 275 (Del. Ch. 2003).
81 Martin, *supra* note 76, at 520.
82 *Id.* at 518.
83 Thomas & Martin, *supra* note 79, at 570.
84 Gatto & Broeker, *supra* note 35, at 451.
85 *Id.* at 452.

interests of the individual investor.[86] Since early 1992, federal government institutions have undertaken various actions which have had a profound effect on how executives are compensated in America's largest corporations.[87] The federal government must walk a delicate line: regulating enough to protect the public interest while also being careful not to overregulate and harm the capitalistic system that drives our economy.[88] Therefore, the government should take a similar approach to the regulation of cryptocurrency.

1. The SEC

The SEC's mission is "to protect investors; to maintain fair, orderly, and efficient markets; and to facilitate capital formation."[89] The SEC maintains that its jurisdiction over executive compensation is limited to information disclosure. It argues that the board and shareholders are vested with actual decision-making authority over such matters, presumably under state corporate law.[90] The SEC's primary initiative is aimed at full disclosure of all issues affecting compensation decisions.[91] From 1992-1993, the SEC adopted new executive compensation requirements and made other modifications to its regulation of the matter.[92] These revisions drastically altered the amount and nature of executive compensation information required to be disclosed under the securities law.[93]

Shareholders face a difficult task in challenging the board of directors' decision regarding the size and the content of compensation packages if the decision is made in good faith and with reasonable information.[94] The SEC will not be, and has not been, in the business of merit-review of executive compensation; aside from when material misstatements are contained in filed information, its involvement ends after filing.[95] The SEC only regulates accurate disclosure; the rest is left to state law.[96] At this point in time, it is unlikely that the SEC will step in to heavily regulate cryptocurrency, but it will still continue to take steps to protect consumers.

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86 Johnson, *supra* note 4, at 184–85.
87 *Id.* at 185.
88 *Id.*
89 *What We Do*, U.S. SEC. AND EXCHANGE COMM'N, https://www.sec.gov/Article/whatwedo.html (last visited Jan. 30, 2019).
90 Martin, *supra* note 76, at 489–90.
91 *Id.*
92 Johnson, *supra* note 4, at 194–95. Faced with the threat of impending Congressional action, the SEC changed the disclosure requirements of Regulations S-K and made modifications to Schedule 14A and Form 10K. These reporting requirements apply to most large United States corporations, including all publicly traded entities.
93 *Id.* at 196.
94 *In re* Walt Disney Co. Derivative Litig., 906 A.2d 27 (Del. 2006).
95 Martin, *supra* note 76, at 512.
96 *Id.* at 513.

The SEC periodically issues alerts to warn investors about fraudulent investment schemes and other investment risks.[97] Already, the SEC has issued several alerts to inform investors of the potential risks of investing in Bitcoin and other virtual currency enterprises. The SEC warns investors to consider the following risks when evaluating investments involving Bitcoin: such investments are likely not insured unlike many securities and bank accounts; such investments have a history of volatility; federal, state, or foreign governments may restrict the use and exchange of the currencies; Bitcoin may be stolen by hackers; and Bitcoin does not have an established track record of credibility and trust.[98]

Even though Bitcoin is not legal tender, Andrew M. Calamari of the SEC's New York Regional Office confirmed that "[f]raudsters are not beyond the reach of the SEC just because they use Bitcoin or another virtual currency to mislead investors and violate the federal securities laws."[99] Before the *Shavers* court, the SEC said that the Bitcoin investments were both contracts and notes, and therefore were securities that can be regulated.[100] The SEC encourages shareholders dissatisfied with executive compensation to take internal action through the normal director elective process instead of immediately involving the legal system.[101]

2. The IRS

The sale or exchange of virtual currency has tax consequences, including tax liability. The IRS has recognized Bitcoin as a virtual currency with equivalent

97 *See* U.S. SEC, *Investor Alerts and Bulletins*, https://www.sec.gov/investor/alerts (last visited Apr. 16, 2013).

98 *See* U.S. SEC Office of Investor Educ. and Advocacy, *Investor Alert: Ponzi Schemes Using Virtual Currencies*, (2018), https://www.sec.gov/servlet/sec/investor/alerts/ia_virtualcurrencies.pdf (last visited Apr. 24, 2018); U.S. SEC Office of Investor Educ. and Advocacy, *Investor Alert: Bitcoin and Other Virtual Currency-related Investments*, (May 7, 2014), https://www.sec.gov:80/oiea/investor-alerts-bulletins/investoralertsia_bitcoin.html; *see also Bitcoin: More Than a Bit Risky*, FINRA, http://www.finra.org/investors/alerts/bitcoin-more-bit-risky (last updated May 7, 2014); *Consumer Advisory: Risks to Consumers Posed by Virtual Currencies*, CFPB (Aug. 2014), https://files.consumerfinance.gov/f/201408_cfpb_consumer-advisory_virtual-currencies.pdf; Conference of State Bank Supervisors & N. Am. Sec. Adm'rs Ass'n, *Model State Consumer and Investor Guidance on Virtual Currency*, Tex. Dep't Banking (Apr. 23, 2014), http://www.dob.texas.gov/public/uploads/files/consumer-information/csbsvirtualcurrency.pdf.

99 Press Release, Securities Exchange Commission, *SEC Charges Texas Man with Running Bitcoin-Denominated Ponzi Scheme* (Jul. 23, 2013), available at https://www.sec.gov/news/press-release/2013-132.

100 Sec. & Exch. Comm'n v. Shavers, No. 4:13-CV-416, 2013 WL 4028182, at *1 (E.D. Tex. Aug. 6, 2013), *adhered to on reconsideration*, No. 4:13-CV-416, 2014 WL 12622292 (E.D. Tex. Aug. 26, 2014).

101 Exec. Comp. Disclosure, Release No. 6962 at 48, 138 (Oct. 16, 1992). "If shareholders are not satisfied with the decisions reflected in the report, the proper response is the ballot, not to resort to the courts to challenge the disclosure."

value in real currency but no legal tender status, at least in most jurisdictions.[102] The IRS has issued major rulings on the U.S. federal tax implications of transactions in, or transactions that use, Bitcoin and other convertible virtual currencies.[103] The IRS treats virtual currency as property for U.S. federal tax purposes; it reached this conclusion by focusing on the possessory interest of Bitcoin.[104] Therefore, general tax principles that apply to property transactions also apply to transactions using virtual currency.[105] Mining virtual currency triggers gross income at the fair market value of the virtual currency as of the date of receipt.[106] Generally, if services are performed as an independent contractor, the payments are gross income at the fair market value as of the date of receipt and is subject to self-employment tax.[107] If payment is wages, it is subject to information reporting "to the same extent as any other payment made in property."[108]

3. The Commodity and Futures Trading Commission (CFTC)

The CFTC has not yet issued guidance on how it might regulate virtual currencies,[109] but the Commissioner stated in 2013 that Bitcoin could come under CFTC jurisdiction as being a commodity for future delivery.[110] Certain types of alternative coins may be more susceptible to regulation by the CFTC because of their unique characteristics.[111]

4. The Federal Reserve

The Federal Reserve's investigation into cryptocurrencies is only in its early days, but so far it has not been overly enthusiastic about the idea of developing a central bank-issued currency in order to compete with Bitcoin. Randal Quarles, vice chair for supervision at the Federal Reserve, said on December 1, 2017 that while the central bank has no policy toward regulation of

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102 *In Re* Coinflip, Inc. et al, CFTC Docket No. 15-29 (CFTC Filed Sept. 17, 2015), https://www.irs.gov/pub/irs-drop/n-14-21.pdf.
103 Gatto & Broeker, *supra* note 35, at 447–48.
104 I.R.S. Notice 2014-21: Virtual Currency Notice at 1 (March 25, 2014), https://www.irs.gov/pub/irs-drop/n-14-21.pdf.
105 *Id.*
106 *Id.*
107 *Id.*
108 I.R.S. Bulletin, Bulletin No. 2014-36 (Sep. 2, 2014), https://www.irs.gov/pub/irs-irbs/irb14-36.pdf.
109 Gatto & Broeker, *supra* note 35, at 450.
110 *CFTC's Chilton Eyes Bitcoin 'House of Cards' Risk*, CNBC (May 7, 2013), http://video.cnbc.com/gallery/? video=3000166533.
111 Gatto & Broeker, *supra* note 35, at 463.

Bitcoin, it is "worth thinking about."[112] He stated that cryptocurrency may matter in the future, when the volume grows.[113] The outgoing Federal Reserve Chairwoman, Janet Yellen, expressly stated at a final schedule press conference that Bitcoin "at th[is] time, plays a very small role in the payment system."[114] Because cryptocurrency is "not a stable store of value," Ms. Yellen continued, "the Fed doesn't really play any role, any regulatory role, with respect to Bitcoin other than ensuring banking organizations that we do supervise are attentive [to their responsibilities]."[115]

C. Directors Owe Duties to Their Shareholders

Directors owe two primary duties to the corporations they serve: duty of care and duty of loyalty.[116] Generally, directors are vested with the authority to manage the corporation with the business judgment rule protecting their decisions.[117] These directors make the primary decisions regarding the amount and type of compensation for their company's executives. Some experts have argued that boards of directors do not in fact negotiate executive pay at arm's length; rather, companies delegate the task of working out the details of executive compensation packages to compensation committees composed of directors who are not truly independent.[118] Companies have had a marked tendency to compensate chief executives at levels somewhat above the mean or median of the range of pay packages for similar executives, thereby naturally ratcheting up pay overall.[119] Pay is too often tied to illusory performance incentives; it is tied to short-term gains that encourage excessive risk-taking in the long run.[120] Executive compensation decisions have characteristics of the compromise and impact cases in corporate governance, where decision making is normally subjected to additional processes or higher standards of review.[121] Investors rely on the availability of accurate disclosure of complete compensation data to assess

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112 Eric Lam, *Bitcoin: What are the World's Central Banks Saying About Cryptocurrencies?*, THE INDEPENDENT (Dec. 13, 2017), https://www.independent.co.uk/news/business/news/bitcoin-latest-updates-central-banks-say-regulation-cryptocurrency-digital-ecb-us-federal-reserve-a8106961.html.

113 *Id.*

114 C. Edward Kelso, *Federal Reserve Chair: "Fed Doesn't Really Play Any Regulatory Role" in Bitcoin*, Bitcoin.com (Dec. 14, 2017), https://news.bitcoin.com/federal-reserve-chair-fed-doesnt-really-play-any-regulatory-role-in-bitcoin/.

115 *Id.*

116 Galardi & Grohsgal, *supra* note 72, at 24.

117 Martin, *supra* note 76, at 493.

118 Galardi & Grohsgal, *supra* note 72, at 26.

119 *Id.*

120 *Id.* at 27.

121 Martin, *supra* note 76, at 517.

company prospects.[122] "Stealth," or undisclosed compensation, is an impediment to shareholder decision making.[123]

There is some federal guidance on the issue. Congress, in the post-Watergate period when concern over corruption was high, amended the securities laws to involve the SEC in corporate governance.[124] The Sarbanes-Oxley Act forbids certain types of executive compensation by prohibiting most types of loans to company executives.[125] Additionally, if the corporation has to file an accounting restatement due to misconduct, the CEO and CFO must return bonuses, incentives, equity-based compensation, and certain profits from the sale of securities.[126] Despite these steps, issues with the current compensation system remain. At this point in time, a new form of executive compensation could either be treated as a welcomed relief or yet another hurdle in the seemingly never-ending regulations. If companies decide they want to take the next step forward and consider issuing cryptocurrency as compensation to their executives, there are many factors to keep in mind. Nevertheless, a step in that direction might be the exact step that this area of regulation needs.

D. Other Regulatory Options

If governmental entities find they are not able to regulate cryptocurrencies as they would have hoped, they might have other avenues to take that can still affect the market. For example, the government could create price regulations that impose certain costs on cryptocurrency dealings in the open economy.[127] If this were the case, then regulatory costs associated with the use of cryptocurrencies should be conditioned on anonymity.[128] In that case, an elective anonymity tax could be imposed on cryptocurrency transactions.[129]

III. ISSUES WITH AND BENEFITS OF USING CRYPTOCURRENCIES AS EXECUTIVE COMPENSATION

Before a company decides to issue cryptocurrency as executive compensation, it should consider the following issues. While cryptocurrencies may increase transparency and reduce administrative costs, the biggest hurdles to

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122 *Id.* at 485–86.
123 *Id.*
124 *See* 15 U.S.C. § 78dd-1 (2018); 15 U.S.C. § 78dd-2 (2018) 15 U.S.C. § 78ff (2018); 15 U.S.C. § 78m(b)(2) (2018).
125 Sarbanes-Oxley Act of 2002 § 402(k) (codified at 5 U.S.C. § 78m(k)).
126 Sarbanes-Oxley Act of 2002 § 304 (codified at 15 U.S.C. § 7243). The SEC can free corporate assets to prevent payments of bonuses to executives in cases involving financial fraud.
127 Marian, *supra* note 15, at 61.
128 *Id.* at 62.
129 *Id.* at 64.

the use of cryptocurrencies are volatility and the absence of a supporting institutional infrastructure.

A. Valuing and Taxing the Compensation

The most fundamental question is that of the valuation and taxation of cryptocurrency. While virtual currencies are not afforded status as legal tender, they may still have an equivalent traditional currency value.[130] Before a company issues cryptocurrency to its employees, it should — at a minimum — know the value of it. However, unlike other forms of compensation, the value of virtual currencies is volatile and varied. According to its own website, Bitcoin derives its value from the very fact that it is "useful as a form of money."[131] This circular reasoning strengthens the fear that even though the public is currently interested in purchasing Bitcoin because of trust in its development, this belief could quickly disappear. If Bitcoin fails, there would be no central bank or government to provide restitution to the users who lost so much.[132] The basis of virtual currency as payment is typically the fair market value of the virtual currency in U.S. dollars as of the date of receipt, but this basis could change.[133]

When trying to conceptualize the offering of a non-tangible and volatile asset like cryptocurrency to its shareholders, companies can look toward stock options for a comparative example. Stock options currently comprise a large portion of the average executive's compensation package.[134] Historically, stock options have not led to senior executives developing large equity stakes in their corporations; instead, managers tended to exercise their options as soon as possible and immediately resell the holdings to convert the value to cash.[135] The 1990s revisions to the compensation disclosure rules introduced the requirement to report the estimated present value of stock option grants.[136] The adopted rules allow corporations to choose to either calculate a present value for the stock option using a standard pricing model or construct a table showing the future value of the stock options at the maturity date.[137]

There are more questions than answers when it comes to the proper taxation of cryptocurrency transfers. While boards of directors may find benefits in issuing cryptocurrency as compensation, executives are unlikely to want to receive this form of payment unless they are fully aware of the consequences.

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130 Piazza, *supra* note 22, at 264.
131 Bitcoin, *Frequently Asked Questions*, https://bitcoin.org/en/faq#why-do-people-trust-bitcoin.
132 Piazza, *supra* note 22, at 272.
133 Gatto &. Broeker, *supra* note 35, at 448–49.
134 Johnson, *supra* note 4, at 218.
135 *Id.* at 217.
136 *Id.* at 202.
137 *Id.*

First and foremost, executives will want to know when and how the cryptocurrency will be taxed. The IRS recognizes cryptocurrency as "property" in the hands of a taxpayer,[138] which means that its disposition is a taxable event to the extent that the cryptocurrency's value has changed since its acquisition by the taxpayer.[139] Yet, because no intermediaries are involved, the collection of such tax is possible only to the extent that the taxpayer voluntarily reports these transactions.[140]

Another question is whether executives should get tax deductions on any cryptocurrency they receive as compensation. A limit was placed on the deductibility of executive compensation as a part of the Revenue Reconciliation Act of 1993,[141] but it is unclear how far this limit will extend. Under the new tax code, a publicly held corporation generally cannot deduct any compensation over $1 million paid to certain executives from its gross income.[142] Corporations can only avoid this limit if the compensation is characterized as *performance related*, which is dependent on the classification of the currencies.[143]

B. *Accountability to Shareholders and Consumers*

Transparency and disclosure are at the base of good corporate governance models, in that they enable shareholders and stockholders to make informed decisions and hold corporate executives accountable.[144] Ultimately, a company and its board of directors are responsible to their shareholders, so they must make decisions that are in the best interest of all parties involved. Transparency is considered to be based on five pillars: truthfulness, completeness, materiality of information, timeliness, and accessibility.[145] In this particular case, companies that consider issuing cryptocurrency as executive compensation need to make sure that their shareholders are aware of the possible consequences. Corporations

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138 I.R.S. Notice 2014-21: Virtual Currency Notice at 1 (March 25, 2014), https://www.irs.gov/pub/irs-drop/n-14-21.pdf.

139 Marian, *supra* note 15, at 64.

140 *Id.*

141 Johnson, *supra* note 4, at 201. See generally Janice M. Johnson, The Revenue Reconciliation Act of 1993: Who Wins and Who Loses?, CPA J., Oct. 1993, at 18, 23 (discussing tax effects of act).

142 26 U.S.C. § 162(m). This requirement originally mirrored the SEC's disclosure rules but is no longer the same because of the SEC revision including retiring CEO's and possibly two additional corporate officers.

143 Johnson, *supra* note 4, at 211. ("For the compensation to qualify as performance related, the corporation must meet three requirements. First, the corporation's compensation committee must be comprised of two or more outside directors. Second, the compensation plan and performance goals must be approved by a majority of the shareholders. Finally, the compensation committee must "certif[y] that the performance goals and any other material terms were in fact satisfied.").

144 Piazza*, supra* note 22, at 288.

145 *Id.* at 289.

have a duty to give shareholders enough information so that they are informed, but corporations must balance this duty with their responsibility to the company as a whole.

While cryptocurrency transactions — especially those made on blockchain — are theoretically confidential, once any one user's unique wallet number is determined, anyone with access to the ledger may be able to review all of that user's transactions.[146] If a large company decides to invest heavily in cryptocurrency and begins to trade regularly on the public market, eventually investors should be able to determine the company's identity according to the volume and destinations of the payments sent and received. Once that initial hurdle is complete, any shareholders or investors in the corporation with their own Bitcoin accounts can witness all the corporation's transactions almost instantly. In a way, this increases the validity of the company's transactions because it is nearly impossible to create fraudulent Bitcoins.[147]

Implementation of distributed ledgers as a corporate governance tool could, at minimum, result in enhanced timeliness and accessibility of corporate information.[148] The use of shared ledgers would allow users to easily monitor transactions as well as recognize possible breaches to the system.[149] This would be beneficial because shareholders could immediately hold the board of directors accountable for any transactions they do not agree with. By allowing shareholders a way to monitor transactions in real time, the shareholders could better fulfill their role of serving as a check on both board decisions generally and executive compensation specifically.[150] This might become a problem, though, if inexperienced investors not familiar with typical corporate strategies were to misinterpret perfectly innocent board decisions.[151]

While this heightened transparency may increase the involvement of shareholders in the governance of companies, it may also result in inefficiencies and obstacles in a board's execution of its strategic and managerial role within the company.[152] This would be burdensome because a company could find itself in a position of having to explain and defend every single transaction it undergoes; the nature of the relationship between boards of directors and shareholders typically relies on trust. Instead of using a completely public ledger like Bitcoin, some suggest that each company set up their own private blockchain that is accessible

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[146] *Id.* at 276.
[147] Ziskina, *supra* note 10, at 317.
[148] Piazza, *supra* note 22, at 289.
[149] *Id.*
[150] *Id.* at 290.
[151] *Id.* at 292.
[152] David Yermack, Corporate Governance and Blockchains, (NYU Stern Sch. of Bus. & Nat'l Bureau of Econ. Research, Working Paper No. 21802, 2015), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2703207; Jill E. Fish, Taking Boards Seriously, 19 CARDOZO L. REV. 265, 272-275 (1997).

to authorized users only. Yet, this solution would *de facto* frustrate the goal of inspiring shareholders and investors' trust in the company.[153]

A board of directors may come to prefer issuing cryptocurrency as compensation, but it may still be liable to its customers for this policy choice. Some scholars charge that cryptocurrencies lack proper consumer protections, including consumers' rights to prompt and full redemption of funds on terms specified in contracts that consumers have with entities holding their virtual currency.[154] Although the finality of a transaction that cannot be disputed or reversed may appeal to sellers on the Silk Road,[155] ordinary, law-abiding individuals eventually will expect the same kinds of protections from unauthorized or fraudulent transactions that they receive on credit and debit cards.[156] Consumers, if they feel like these board decisions make them vulnerable, may take action against such a company in protest. A company's directors need to keep these possible ramifications in mind.

C. International Integration

When companies decide to compensate their executives with cryptocurrency, they must also keep in mind the international consequences of the transfer. While the United States may arguably be behind other developed nations on fully integrating Bitcoin and other virtual currencies into its economy, other countries have blazed a clear path forward. Today, virtual currencies such as Bitcoin play a key role in the transformational change affecting the world economy, reflecting the expanded venues available to consumers to access goods and services.[157]

During the 2008 financial crisis, public confidence in financial institutions plummeted, and many worried about a global financial failure. These turbulent circumstances led many people to fear the failure of government-controlled currencies and seek an alternative.[158] Cryptocurrencies are theoretically open to transfer funds to specially designated nations or to nations that are covered by one of many economic sanctions programs under the Treasury Department's Office of Foreign Asset Controls' supervision.[159] Bitcoin can be

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153 Piazza, *supra* note 22, at 289–90.
154 Middlebrook & Hughes, *supra* note 5, at 816.
155 The Silk Road is an online marketplace for illicit goods and services which allows users to transact anonymously. United States v. Ulbricht, 31 F. Supp. 3d 540, 547 (S.D.N.Y. 2014).
156 Middlebrook & Hughes, *supra* note 5, at 842.
157 Dong He et al., Virtual Currencies and Beyond Virtual Currencies and Beyond: Initial Considerations, INTERNATIONAL MONETARY FUND, 5 (2016), https://www.imf.org/external/pubs/ft/sdn/2016/sdn1603.pdf.
158 Ziskina, *supra* note 10, at 312–13.
159 Middlebrook & Hughes, *supra* note 5, at 817–18.

carried, stored, and spent across national borders without a tracking or accountability mechanism.[160]

Countries globally have moved towards implementation of legislation aimed at enhancing corporate disclosures in a broad attempt at curtailing a greater role for shareholders in corporate governance.[161] Some countries, such as the United Kingdom, Estonia, Israel, New Zealand, and South Korea, have already taken steps towards the implementation of distributed blockchain technologies paralleling the private corporate world with the goal of strengthening the digital economy.[162] Some foreign exchanges still allow users to create anonymous accounts, which will impact American corporate governance because of the global nature of today's economy and the ease of access to those foreign exchanges.[163]

Central banks play a pivotal role in managing currency stability.[164] Bitcoin's independence from countries' currency systems has been claimed to be its strength. However, while this may be somewhat true for highly unstable economies, it is not an automatic conclusion for more stable and confidence-inspiring ones.[165] Volatility — or potential volatility — of fiat currencies may have provided opportunities for Bitcoin's expansion into countries in economic crisis, such as Greece and Argentina.[166] Hypothetically, if Bitcoin's acceptance becomes more widespread, its volatility may decrease and this, in turn, may result in increased global acceptance of Bitcoin as a means of exchange.[167] However, Bitcoin's success may likely become the subject of a temporary financial bubble, fueled by mania rather than backed by infrastructure.[168] Some commentators have

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160 Ziskina, *supra* note 10, at 317.

161 For example, in the United States, the Sarbanes-Oxley Act of 2002 requires publicity of information including roles of and responsibilities of board and management executives and the Williams Act of 1968 requires disclosures regarding tender offers. Sarbanes-Oxley Act of 2002, 107 Pub.L. No. 204 (2002); Williams Act, Securities Exchange Act of 1934, 90 Pub.L. No. 439 (1968).

162 *See D5 London: About D5 Member Countries*, UNITED KINGDOM CABINET OFFICE AND GOVERNMENTAL DIGITAL SERVICE (Dec. 9, 2014), https://www.gov.uk/government/news/d5-london-about-d5-member-countries.

163 Dep't of the Treasury Fin. Crimes Enforcement Network, Guidance Paper FIN-2013-G001, Application of FinCEN's Regulations to Persons Administering, Exchanging, or Using Virtual Currencies (2013), https://www.fincen.gov/statutes_regs/guidance/pdf/FIN-2013-G001.pdf.

164 Douglas R. Holmes, *Communicative Imperatives in Central Banks,* 47 CORNELL INT'L L.J. 15, 17 (2014).

165 Piazza*, supra* note 22, at 271.

166 Mark Edwin Burge, *Apple Pay, Bitcoin, and Consumers: The ABCs of Future Public Payments Law*, 67 HASTINGS L.J. 1493, 1531–32 (2016).

167 Piazza*, supra* note 22, at 269-70.

168 Robert J. Shiller, *In Search of a Stable Electronic Currency,* N.Y. TIMES (Mar. 1, 2014), available at http://www.nytimes.com/2014/03/02/business/in-search-of-a-stable-electronic-currency.html.

speculated that Bitcoin had already been the subject of this type of "speculative bubble" in China in 2013.[169]

D. Other Negatives

Before making a large investment in cryptocurrencies for the purpose of remitting them to their executives, corporations must consider many risks and possible consequences. Registering a company's shares on the blockchain could possibly translate into added management costs, especially up front in the form of accountant and executive training and system transitioning.[170] Also, these transactions are ripe for black market transactions; Bitcoin allows people without any particular financial expertise to effectively enter into the business of selling illegal goods with few consequences.[171]

Once a company transfers ownership of cryptocurrency, it should be free of any responsibility regarding that coin going forward. Yet, there are cases in which a company could hypothetically continue to be liable. If the executive officers are not familiar with the blockchain technology or virtual currencies, the company may face a steep learning curve. This is especially true in cases of abandoned property. If the new owner of Bitcoin loses his or her long and detailed private key, then they can never again exchange their Bitcoin; it is considered "abandoned." Because there is no intermediate regulating entity, there is absolutely no way for redemption.

E. Other Benefits

Despite the additional concerns and risks, there are also many benefits to this new kind of executive compensation. First, it creates much lower transaction costs. By eliminating the middleman — typically banks, credit card companies, and brokers that take some portion of the funds in their care — the overall transaction cost decreases.[172] Bitcoin processors, for example, charge only one percent to process Bitcoin transactions, compared to the two to three percent often paid by merchants for credit card processing.[173] Also, the lower cost of administration facilitates more frequent transactions. In our present system, the high cost of a middle man means it is often cost-prohibitive to set up some transaction unless large enough sums of money are involved. With

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169 Anthony Cuthbertson, *Bitcoin Price Hits 2015 Peak Amid Speculation of 'Second Bitcoin Bubble,'* INT'L BUS. TIMES (Nov. 2, 2015), available at http://www.ibtimes.co.uk/bitcoin-price-hits-2015-peak-amid-speculation-second-bitcoin-bubble-1526956.
170 Piazza, *supra* note 22, at 292.
171 Reuter, *supra* note 22, at 34.
172 *Id.* at 35.
173 Ziskina, *supra* note 10, at 317.

cryptocurrency, once the initial setup costs are paid, the administrative cost for each transfer is negligible. Also, the transaction can take place at any time and in any place.[174] Lastly, Bitcoins are often touted as a cost-effective alternative for individuals wanting to make remittance payment to their home countries.

F. Summary of Cost/Benefit Analysis

Bitcoin's acceptance peaked in 2013 with over 64,000 businesses around the globe accepting it as a form of payment.[175] However, even lucrative businesses suffer from instability; for example, Mt. Gox, the largest Bitcoin exchange, filed for bankruptcy in 2014 after Bitcoin valued at around $500 million mysteriously disappeared.[176] The volume of cryptocurrency traded, the lack of personally-identifying information, and the absence of third party verification makes it very difficult for a person involved in a transaction to know what any other Bitcoin user is doing.[177] Yet, because Bitcoin is an open source system — meaning all transactions are stored publicly in the blockchain — a sender can only be truly anonymous as long as his or her account name or public key is not linked to his true identity.[178]

G. Other Proposed Solutions

If organizations are not ready to take this huge step into using Bitcoin, they could start by investing in its underlying blockchain technology. Other organizations are stepping up to take advantage of the blockchain technology that underpins Bitcoin, which can impact areas of corporate control and corporate governance. For example, if stock was issued in a protocol built on the blockchain technology, the same protection that ensures that a Bitcoin is only spent once would also protect stockholders' control over their holdings.[179] Blockchain could also be used for corporate elections, which are typically held through sometimes inaccurate corporate proxy systems.[180] In addition, implementation of blockchain accounting could reduce accounting and auditing costs because various units of a company would be able to directly and centrally

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[174] Reuter, *supra* note 22, at 34.

[175] Anton Badev & Matthew Chen, *Bitcoin: Technical Background and Data Analysis* (Oct. 7, 2014), https://www.federalreserve.gov/econresdata/feds/2014/files/2014104pap.pdf.

[176] *Id.*

[177] Reuter, *supra* note 22, at 34.

[178] Malte Möser, Rainer Böhme, & Dominic Breuker, *An Inquiry into Money Laundering Tools in the Bitcoin Ecosystem*, eCrime Researchers Summit (2013) (pre-publication copy), https://maltemoeser.de/paper/money-laundering.pdf.

[179] Reuter, *supra* note 22, at 34.

[180] *See* Piazza, *supra* note 22, at 288 (suggesting the blockchain technology, as distinguished from Bitcoin, may instead offer a viable tool in areas of corporate governance like voting).

record transactions into the ledger, and thus there would be no need for an auditor to examine the books of every unit and then assemble them ex post.[181] The uses for blockchain are potentially endless.

CONCLUSION

A high-tech future is arriving sooner than many people could have anticipated. Cryptocurrency, which once seemed too foreign and complicated for the average person to understand, has now become part of the everyday American jargon. As the use and demand for these digital currencies skyrockets, corporations and other entities need to seriously consider whether they will incorporate these currencies into their business structure. Regardless of the innovative approaches that a corporation decides to use — or not use — in connection with its executive compensation practices, the adoption of this technology or something similar is inevitable. Corporations that want to remain up-to-date should consider each of the elements presented by this Comment, weigh the pros and cons when deciding whether investment in this innovation is in its best interest, and then proceed bit by bit.

[181] *Id.* at 295.