

# RACING TO REGULATION: A COMPARATIVE ANALYSIS OF VIRTUAL CURRENCY REGULATION IN ALASKA AND THE PROPOSED ALASKA MONEY SERVICES ACT

## ABSTRACT

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*The emergence of virtual currencies has revolutionized the financial industry by creating an alternative form of payment that seeks to insulate individuals from government and bank influence. Yet, federal regulation of virtual currency has remained limited. Many state legislators have rushed to fill the gap by enacting laws regulating virtual currency use and transmission. This state-by-state approach has led to significant variation between state regulatory regimes, creating a regulatory spectrum of lenient to strict regulatory approaches. In March 2017, Alaska House Representatives Zach Fansler and Sam Kito proposed the Alaska Money Services Act to require licensing for virtual currency activity. The bill's proposed requirements lean towards the strict side of the regulatory spectrum, bringing the potential to drive virtual currency businesses away from Alaska. This Note proposes that Alaska legislators enact virtual currency legislation that adequately balances technological innovation with consumer protection through several recommendations, including: (1) enacting virtual currency-specific legislation rather than importing regulation into existing and outdated laws, (2) clearly defining the legislation's scope, (3) collaborating with stakeholders in enacting legislation, (4) including an on-ramp to ensure emerging startups are not overly burdened, (5) tailoring the level of regulation to the level of risk a virtual currency business poses to Alaska consumers by tiering requirements to transmission volume, (6) requiring only relevant information in the application, and (7) reducing agency discretion to revoke licenses.*

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## I. INTRODUCTION

Virtual currency technology has forever changed the way we think about money. Virtual currencies, such as bitcoin, were founded on a philosophy of taking power over money away from governments and banks and putting that power back in the hands of the people.<sup>1</sup> These “cryptocurrencies” have thus emerged as alternative forms of payment and created a new digital medium of exchange where users can make financial transactions directly with one another without intermediaries.<sup>2</sup> Bitcoin’s underlying blockchain technology also has the potential to revolutionize industries beyond the financial world.<sup>3</sup> Other virtual currencies utilizing blockchain have been created<sup>4</sup> and many more are on the horizon.<sup>5</sup>

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1. Jose Alvarez, *Bitcoin & Libertarianism – A Dream Combination?*, BLOCKONOMI (April 5, 2018), <https://blockonomi.com/bitcoin-libertarianism/>; see also Corin Faife, *Live Free or Mine: How Libertarians Fell in Love With Bitcoin*, COINDESK (Oct. 10, 2016, 1:19 PM), <https://www.coindesk.com/live-free-or-mine-how-libertarians-fell-in-love-with-bitcoin/> (“[Bitcoin is a chance] for the individual to be in complete control of his or her funds.”).

2. Alexander Lipton & Alex Pentland, *The Future of Money: Breaking the Bank*, 318 SCI. AM. 26, 29 (2018).

3. See Don Tapscott & Rik Kirkland, *How Blockchains Could Change the World*, MCKINSEY&COMPANY (May 2016), <https://www.mckinsey.com/industries/high-tech/our-insights/how-blockchains-could-change-the-world> (describing blockchain as “[a]n immutable, unhackable distributed database of digital assets” whose “implications are staggering, not just for the financial services industry but also right across virtually every aspect of society”); see also DON TAPSCOTT & ALEX TAPSCOTT, REALIZING THE POTENTIAL OF BLOCKCHAIN: A MULTISTAKEHOLDER APPROACH TO THE STEWARDSHIP OF BLOCKCHAIN AND CRYPTOCURRENCIES 5 (June 2017), <http://www3.weforum.org/docs/WEFRealizingPotentialBlockchain.pdf> (stating that blockchain’s potential is beyond the financial services industry because the digital ledger can be programmed to record anything of value such as medical history, location of assets, and rights to intellectual property).

4. For example, Ethereum and Cardano are two software platforms that have built upon Bitcoin’s blockchain technology to create “smart contracts,” which are self-executing contracts that automatically handle the enforcement, management, performance, and payment of the contract. *What Is Ethereum? A Step-by-Step Beginners Guide*, BLOCKGEEKS, <https://blockgeeks.com/guides/ethereum/> (last visited Mar. 17, 2018). Likewise, Ripple and its associated currency XRP is a more centralized cryptocurrency that is controlled by a single company and other financial institutions that allows for extremely fast global banking transactions. Jon Martindale, *What is Ripple?*, DIGITAL TRENDS (Jan. 18, 2018, 12:00 PM), <https://www.digitaltrends.com/computing/what-is-ripple/>.

5. See, e.g., Lipton & Penton, *supra* note 2, at 31 (discussing MIT’s Tradecoin, which is a blockchain based cryptocurrency anchored to physical assets to stabilize its price volatility). Additionally, central banks around the world are considering implementing their own form of state-controlled virtual currency, currently known as central bank digital currency (CBDC). JP Koning, *A Central Bank Cryptocurrency? Not in 2018*, COINDESK (Dec. 26, 2017, 5:30 PM), <https://www.coindesk.com/central-bank-cryptocurrency-not-2018/>.

Virtual currencies' application to modern society, especially its underlying blockchain technology, is beginning to look less like a fad and more like the future.<sup>6</sup> However, bitcoin's price volatility<sup>7</sup> has created a modern day gold rush in the cryptocurrency.<sup>8</sup> Many speculative investors looking to make a quick return on their investment have flocked to invest in bitcoin.<sup>9</sup> Moreover, the possibility of a "bubble" looms over this cryptocurrency craze.<sup>10</sup>

Although many federal agencies have released guidance and opinions on virtual currency,<sup>11</sup> Congress has yet to enact legislation directly regulating its use. State regulators have rushed to fill the gap.<sup>12</sup>

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The Federal Reserve may soon follow suit. Jeff Cox, *Federal Reserve Starting to Think About its Own Digital Currency*, *Dudley Says*, CNBC (Nov. 29, 2017, 10:21 AM), <https://www.cnn.com/2017/11/29/federal-reserve-starting-to-think-about-its-own-digital-currency-dudley-says.html>.

6. *But see* Lawrence Baxter, *Hooray for Bitcoin (But Don't Buy It)*, THE WALL STREET JOURNAL (Dec. 11, 2017, 6:44 PM), <https://www.wsj.com/articles/hooray-for-bitcoin-but-dont-buy-it-1513035892> (asserting that Bitcoin is on a "collision course" with government because it would "entail the elimination of central banks," causing regulation that would cause investors to flee); Suzy Waite & Nishant Kumar, *Hedge-Fund Platforms Fear Bitcoin is a Fad Like Tamagotchi*, BLOOMBERG (Nov. 27, 2017, 11:27 AM), <https://www.bloomberg.com/news/articles/2017-11-27/remember-tamagotchi-hedge-fund-platforms-fear-bitcoin-is-a-fad> (questioning whether Bitcoin is like "Tamagotchi from 20 years ago" or whether it is here to stay). Jamie Dimon, CEO of JPMorgan Chase, also called Bitcoin a "fraud" and stated that people are "wasting [their] time" because "[t]here will be no currency that gets around government controls." Robert Hackett, *No, JPMorgan Chase CEO Jamie Dimon Has Not Changed His Stance on Bitcoin*, FORTUNE (Jan. 9, 2018), <http://fortune.com/2018/01/09/bitcoin-price-chase-jamie-dimon/>. However, he has recognized blockchain's potential. *Id.*

7. *Cryptocurrency Market Capitalizations: Bitcoin*, COINMARKETCAP, <https://coinmarketcap.com/currencies/bitcoin/#charts> (last visited Mar. 14, 2018).

8. *See* Yifan Yu, *Despite Soaring Bitcoin Value, It's Unclear How Many Millionaires Have Been Minted as a Result*, PENTA, BARRON'S (Jan. 11, 2018 3:35 PM), <https://www.barrons.com/articles/despite-soaring-bitcoin-value-its-unclear-how-many-millionaires-have-been-minted-as-a-result-1515702929> (stating that 23,943 addresses hold at least \$1 million worth of Bitcoin).

9. *See* Chris Burniske & Adam White, *Bitcoin Investing: Where Wall Street and Silicon Valley Meet*, COINDESK (Jan. 11, 2017 12:04 PM), <https://www.coindesk.com/bitcoin-where-wall-street-and-silicon-valley-meet/> (stating that Bitcoin's growth has increased investor interest and enthusiasm).

10. Cormac Mullen, *Bitcoin is Worthless, Bubble May Pop Soon*, *Allianz Global Says*, BLOOMBERG (Mar. 14, 2018, 3:04 AM), <https://www.bloomberg.com/news/articles/2018-03-14/bitcoin-is-worthless-bubble-may-pop-soon-allianz-global-says>.

11. *See infra* Section IV A and accompanying text.

12. *See* Francine McKenna, *Here's How the U.S. and the World Regulate Bitcoin and Other Cryptocurrencies*, MARKETWATCH (Dec. 28, 2017, 11:19 AM), <https://www.marketwatch.com/story/heres-how-the-us-and-the-world-are-regulating-bitcoin-and-cryptocurrency-2017-12-18> (quoting a law firm partner stating "[a]s the technology underpinning these developments disrupts products

However, states have varied widely in their regulatory approaches, creating a diverse regulatory spectrum.<sup>13</sup> Some have opted for strict regulation, some have chosen lenient regulation, and others have chosen to not regulate at all.<sup>14</sup>

This Note evaluates Alaska's proposed Money Services Act (HB 180) and compares Alaska's proposed regulatory approach to that of other states to determine Alaska's location on this regulatory spectrum. Section II explains what bitcoin is and how it is used. Section III evaluates bitcoin's asserted benefits and potential dangers. Section IV surveys the current regulatory spectrum both at the federal and state level, with a focus on regulatory approaches in New York, North Carolina, and Texas. Section V analyzes the proposed Alaska Money Services Act's specific provisions and compares them with regulations in New York and North Carolina. Section VI posits alternative approaches and additional considerations that Alaska legislators should consider in the current proposed Alaska Money Services Act and all future virtual currency legislation.

## II. WHAT IS BITCOIN?

### A. Introduction

Virtual currency is generally defined as “[a] digital representation of value that functions as a medium of exchange, a unit of account, and/or a store of value.”<sup>15</sup> Bitcoin is a particular type of virtual currency, among many,<sup>16</sup> that can best be explained by dividing it into its uses as a currency and as an investment vehicle.

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and services in nearly every industry, law makers, regulators, and law enforcement are scrambling to keep up”).

13. *State of Regulation 2017, Bitcoin and Blockchain Regulation in the United States*, DINBITS (Jan. 17, 2017, 6:17 AM), <https://news.dinbits.com/2017/01/state-of-regulation-2017-bitcoin-and.html>.

14. *Id.*

15. Notice 2014-21, INTERNAL REVENUE SERV., <https://www.irs.gov/pub/irs-drop/n-14-21.pdf>. In reality, bitcoin has only successfully operated as a store of value. Bitcoin UK Team, *Bitcoin: A Store of Value or a Medium of Exchange?*, BITCOIN.CO.UK (Feb. 12, 2018), <https://bitcoin.co.uk/page/bitcoin-store-value-medium-exchange/>. A lack of sufficient mainstream popularity and increasing miner transaction fees have diminished its use as a unit of account or medium of exchange. *Id.*

16. As of the time of this writing, 1,562 different cryptocurrencies exist, with an estimated market cap of \$337,190,851,851. *Cryptocurrency Market Capitalizations: All Cryptocurrencies*, COINMARKETCAP, <https://coinmarketcap.com/currencies/bitcoin/#charts> (last visited Mar. 14, 2018).

## B. Bitcoin as Currency

Bitcoin is a digital cryptocurrency that is maintained on a decentralized peer-to-peer payment network.<sup>17</sup> “Decentralization” means that no central authority (such as a central bank) or other intermediary plays a role in the payment transaction; users make financial transactions directly with one another.<sup>18</sup> Through the use of mathematical formulas and cryptography, all parties to a transaction remain anonymous.<sup>19</sup> The identities of the individual parties to the transaction are replaced with a sequence of alphanumeric characters so that uncovering their true identities is extremely difficult.<sup>20</sup>

All transactions are maintained on a distributed ledger called a blockchain.<sup>21</sup> Once a transaction is initiated, it is broadcast to a peer-to-peer network of computers to verify its validity.<sup>22</sup> A peer-to-peer network is a web of computers linked so that all computers can communicate directly with each other without going through a central server.<sup>23</sup> Each individual computer in the network is called a “node” and can be located anywhere in the world.<sup>24</sup> Each node in the network individually verifies the transaction, including ensuring that the person transferring bitcoin actually has enough bitcoin to complete the transaction.<sup>25</sup> If the nodes in the network agree that the transaction is valid, the transaction is packaged with other verified transactions into a “block.”<sup>26</sup>

Once a block is generated, special nodes called “miners” compete with each other for the right to add the block to the chain.<sup>27</sup> Miners’ computers attempt to solve a difficult mathematical puzzle by trial-and-error.<sup>28</sup> The first miner to find the answer (or “hash value”) then “mines” the block (adds it to the chain) and is rewarded with newly created bitcoin.<sup>29</sup> This is how bitcoin is created.<sup>30</sup> The end result is a chain of

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17. Lipton & Pentland, *supra* note 2, at 29.

18. *Id.*

19. Aaron van Wirdum, *Is Bitcoin Anonymous? A Complete Beginner's Guide*, BITCOIN MAG. (Nov. 18, 2015, 2:34 PM), <https://bitcoinmagazine.com/articles/is-bitcoin-anonymous-a-complete-beginner-s-guide-1447875283/>.

20. *Id.*

21. John Pavlus, *The Future of Money: The World Bitcoin Created*, 318 SCI. AM. 32, 33 (2018) [hereinafter Pavlus].

22. *Id.*

23. *Id.* at 32.

24. *Id.*

25. *Id.* at 33.

26. *Id.*

27. *Id.*

28. *Id.*

29. *Id.*

30. *Id.*

validated transactions grouped into blocks that is distributed to all nodes on the network, publicly available, and cannot be altered or hacked.<sup>31</sup>

### C. Bitcoin and Bitcoin-Based Derivatives as Investment Vehicles

Because bitcoin is not backed by a central authority or any asset, its value is completely determined by supply and demand.<sup>32</sup> As a result, its price often fluctuates drastically in short periods of time.<sup>33</sup> These price fluctuations make bitcoin extremely speculative and volatile, causing many investors to invest in bitcoin and bitcoin-based derivatives for profit instead of as a payment alternative.<sup>34</sup> Some investors have treated bitcoin as an asset or commodity, choosing to purchase bitcoin in the hopes of selling it later at a higher price.<sup>35</sup>

Some investors purchase bitcoin-based derivatives, such as futures and options, whose value is “derived” from the underlying bitcoin price.<sup>36</sup> These derivatives are thus separate financial instruments whose value fluctuates as the underlying bitcoin’s value fluctuates. Most recently, investors have funneled money into bitcoin futures.<sup>37</sup> In the bitcoin futures market, two parties agree to purchase and sell a specified amount of bitcoin on a specific future date at a specific price.<sup>38</sup> A key feature of futures and other bitcoin derivatives is that the parties do not have to actually own bitcoin; they can simply agree to pay the difference between the market price and the strike price at expiration.<sup>39</sup> The

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31. *Id.* at 33–37.

32. *Frequently Asked Questions*, BITCOIN, <https://bitcoin.org/en/faq#what-determines-bitcoins-price> (last visited Mar. 15, 2018).

33. See Bitcoin Price History Chart, BUY BITCOIN WORLDWIDE, <https://www.buybitcoinworldwide.com/price/> (last visited Mar. 14, 2018) (showing a price fluctuation of a little under \$1,000 in January 2017 to as high as \$17,549 in December 2017); Daniel Palmer, *Bitcoin’s Price Just Dropped Over \$1,300 in 1.5 Hours*, COINDESK (Jan. 16, 2018), <https://www.coindesk.com/bitcoins-price-just-dropped-over-1300-in-1-5-hours/>; Jennifer Bisset, *Bitcoin Continues its Slide, Hovering Around \$7K*, CNET (Feb. 6, 2018, 8:37 AM), <https://www.cnet.com/news/bitcoin-continues-its-downhill-slope-dropping-below-7k/> (showing a loss of two-thirds of its value within two months).

34. Burniske & White, *supra* note 9.

35. See Martha C. White, *Want to Invest in Bitcoin? Here’s What You Need to Know*, MONEY (Dec. 14, 2017), <http://time.com/money/5063203/how-to-invest-in-bitcoin/> (noting that the best and simplest way to invest in Bitcoin is to set up a cryptocurrency wallet, purchasing Bitcoin, and trading it later).

36. *Id.*

37. *Id.*

38. Chrisjan Pauw, *Bitcoin Futures, Explained*, COIN TELEGRAPH (Dec. 17, 2017), <https://coingeography.com/explained/bitcoin-futures-explained>.

39. *Id.*

introduction of bitcoin futures has caused bitcoin's price to spike upwards.<sup>40</sup>

### III. ASSERTED BENEFITS AND POTENTIAL DANGERS OF BITCOIN

#### A. Asserted Benefits

Bitcoin has several asserted benefits that make it attractive as an alternative to fiat currency. One of bitcoin's most touted features is its decentralized nature, which makes it free from government and bank control.<sup>41</sup> In fact, bitcoin was created at the apex of the 2008 financial crisis, when trust in the ability of governments and banks to manage the economy and money supply was at an all-time low.<sup>42</sup> It was founded on the belief that currency and the economy should be controlled by individuals and not by governments or banks.<sup>43</sup> With bitcoin and other decentralized virtual currencies, governments cannot create currency on a whim or artificially manipulate its value to control the economy.<sup>44</sup> Instead, the supply of bitcoin is objectively determined based on a predetermined algorithm and is created through the mining process, where miners are awarded bitcoin for adding blocks to the blockchain.<sup>45</sup> This decentralization feature has benefited people in countries like Venezuela, where the government's failure to control hyperinflation has caused its national currency's value to crash.<sup>46</sup> In response, Venezuelans have exchanged their bolivars for bitcoin to preserve the value of their net income.<sup>47</sup>

Additionally, because all bitcoin transactions are recorded on a distributed and public ledger that is constantly verified by thousands of

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40. *Id.*

41. Kevin V. Tu & Michael W. Meredith, *Rethinking Virtual Currency Regulation in the Bitcoin Age*, 90 WASH. L. REV. 271, 283 (2015).

42. *Id.*

43. See Alan Feuer, *The Bitcoin Ideology*, N.Y. TIMES (Dec. 14, 2013), <http://www.nytimes.com/2013/12/15/sunday-review/the-bitcoin-ideology.html> (stating that Bitcoin's "goal is to unleash repressed economies, to take down global banking, [and] to wage a war against the Federal Reserve" and that Bitcoin attracted libertarians and anarchist groups who saw Bitcoin as "a means of removing the money supply from the grasping hands of governments").

44. See Tu & Meredith, *supra* note 41, at 284 (stating that the mining process "would render the currency immune from inflation and political manipulation").

45. *Id.* at 283-84.

46. Christine Armario & Fabiola Sanchez, *Venezuelans Facing Currency Crisis Turn to Bitcoin to Survive*, THE CHRISTIAN SCI. MONITOR (Dec. 14, 2017), <https://www.csmonitor.com/World/Americas/2017/1214/Venezuelans-facing-currency-crisis-turn-to-bitcoin-to-survive>.

47. Pavlus, *supra* note 21, at 35.

miners around the world, hacking the system is almost impossible.<sup>48</sup> Hackers would have to gain control of over half of all nodes in the network, which are scattered across the globe, to take control of the bitcoin blockchain and add illegitimate transactions to the ledger.<sup>49</sup> Doing so would be a very unlikely and unprofitable feat because the hacker would likely have to invest millions of dollars to sustain the attack for several weeks, during which time the value of the currency would plummet.<sup>50</sup>

Furthermore, bitcoin payment transactions are more efficient than traditional financial transactions in certain respects.<sup>51</sup> Bitcoin transactions are made directly from one person to another without an intermediary like a bank or credit card company.<sup>52</sup> As a result, merchants can accept electronic payment without paying the typical two to three percent fees that credit card networks charge per transaction<sup>53</sup> and users can send money anywhere in the world for minimal fees.<sup>54</sup>

Bitcoin transactions also offer a great degree of privacy. Unlike transactions using bank accounts or other payment systems, each party's personal identifying information is not revealed in a bitcoin transaction.<sup>55</sup> Instead, the parties' names are replaced with a "public address," which is a unique sequence of alphanumeric characters.<sup>56</sup> However, because all

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48. *Advantages and Disadvantages of Decentralized Blockchains*, WORLD CRYPTO INDEX, <https://www.worldcryptoindex.com/advantages-disadvantages-decentralized-blockchains/> (last visited Mar. 15, 2018). However, some have asserted that the advent of quantum computing could make hacking the blockchain much easier and jeopardize the security of all cryptographic encryption methods. Natalie Fratto, *Commentary: This New Technology Will Crack the Blockchain Like an Egg*, FORTUNE (Jan. 31, 2018), <http://fortune.com/2018/01/31/commentary-this-new-technology-will-crack-the-blockchain-like-an-egg/>.

49. Pavlus, *supra* note 21, at 33.

50. See Laura Shin, *Should You Invest in Bitcoin? 10 Arguments Against*, FORBES (Dec. 28, 2015, 8:00 AM), <https://www.forbes.com/sites/laurashin/2015/12/28/should-you-invest-in-bitcoin-10-arguments-against-as-of-december-2015/#a5ebde63895b> (noting that a hacker would have to invest up to \$400 million to be able to gain control of Bitcoin's network).

51. *Advantages and Disadvantages of Decentralized Blockchains*, *supra* note 48.

52. Tu & Meredith, *supra* note 41, at 282-83.

53. *Id.* at 282.

54. See, e.g., Carlos Terenzi, *\$300 Million Dollars Sent in Bitcoin for Just \$0.04 USD*, USE THE BITCOIN (June 29, 2018), <https://usethebitcoin.com/300-million-dollars-sent-in-bitcoin-for-just-0-04-usd/>; Joseph Young, *\$194 Million was Moved Using Bitcoin With \$0.1 Fee, True Potential of Crypto*, CCN (Oct. 16, 2018 11:35 PM), <https://www.ccn.com/194-million-was-moved-using-bitcoin-with-0-1-fee-true-potential-of-crypto/>.

55. Van Wirdum, *supra* note 19.

56. *What is a Bitcoin Wallet Address?*, LUNO, <https://www.luno.com/help/en/articles/1000168404-what-is-a-bitcoin-wallet-address> (last visited Mar. 15, 2018).

transactions are broadcast to a public ledger, transactions are not completely anonymous—instead, they are considered pseudonymous.<sup>57</sup> If someone is able to link your personal identity to your public address, they can use the blockchain to track every transaction you have ever made.<sup>58</sup>

While bitcoin transactions maintain individual privacy through cryptography, they are also very transparent. While this might seem counterintuitive, the bitcoin protocol is transparent because the history of all bitcoin transactions is publicly displayed on a ledger for all to see while the identities of individual parties to the transactions are kept pseudonymous.<sup>59</sup> Compare this to the way banks have opaquely used depositor funds in the past and the resulting financial crisis of 2008.<sup>60</sup> This transparency creates a degree of accountability and integrity in the financial system.<sup>61</sup>

## B. Potential Dangers

Many of the features that distinguish virtual currency from traditional forms of payment also have downsides. For example, the speculative value that makes bitcoin so attractive to investors also makes its price too volatile to be used as a mainstream form of payment.<sup>62</sup> It is untenable for a modern economy to consistently use currency that has the potential to fluctuate 50% in value within 24 hours.<sup>63</sup>

Furthermore, investing in virtual currency could pose systemic financial risk. In fact, the Federal Reserve has issued warnings stating that investing in virtual currencies could pose “financial stability risks” if the volume of investing continues to increase at the current rate.<sup>64</sup> Massive

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57. Van Wirdum, *supra* note 19.

58. *Bitcoin Transactions Aren't as Anonymous as Everyone Hoped*, MIT TECH. REV. (Aug. 23, 2017), <https://www.technologyreview.com/s/608716/bitcoin-transactions-arent-as-anonymous-as-everyone-hoped/>.

59. Natalie Smoleski, *The Future of Money: The Evolution of Trust*, SCI. AM., Jan. 2018, at 40.

60. *Id.*

61. *Blockchain Transparency Explained*, LISK, <https://lisk.io/academy/blockchain-basics/benefits-of-blockchain/blockchain-transparency-explained> (last visited May 1, 2018).

62. See Baxter, *supra* note 6 (stating that Bitcoin's value is “too volatile to be a reliable store of value”).

63. See David Yermack, *Bitcoin Lacks the Properties of a Real Currency*, MIT TECH. REV. (Feb. 18, 2014), <https://www.technologyreview.com/s/524666/bitcoin-lacks-the-properties-of-a-real-currency/> (stating that bitcoin's extreme volatility undermines its utility as a unit of account and store of value).

64. Matthew Tompkins, *US Federal Reserve Issues Bitcoin Warning*, BITCOINIST (Dec. 3, 2017, 12:15 AM), <http://bitcoinist.com/us-federal-reserve-issues-bitcoin-warning/>.

price fluctuations following a price increase could be signs of a bubble about to burst.<sup>65</sup> Sharp price drops and other events like regulation or an exchange going out of business could trigger a full-scale run, leaving investors who have funneled thousands of dollars into bitcoin and other virtual currencies with nothing.<sup>66</sup> Moreover, virtual currencies are not backed by Federal Deposit Insurance Corporation (FDIC) insurance in the event of a loss.<sup>67</sup>

Additionally, the cryptography that makes parties to a payment transaction pseudonymous allows criminals to conduct illegal transactions on the dark web and accept payment in bitcoin without being traced.<sup>68</sup> Criminals have offered drugs, guns, and even hitman services in exchange for cryptocurrency.<sup>69</sup> For example, in 2013, the Federal Bureau of Investigation (FBI) shut down the website Silk Road, which was an online black market that allowed for the purchase and sale of illicit goods and services with bitcoin.<sup>70</sup> Hackers, scammers, and fraudsters have also demanded payment in bitcoin from their victims.<sup>71</sup>

Finally, cybersecurity is a major concern.<sup>72</sup> Although blockchain is almost un-hackable, the exchanges that store and trade bitcoin are not.<sup>73</sup>

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65. Aaron Brown, *Bitcoin Has an Unusual Relationship With Volatility*, BLOOMBERG OPINION (Nov. 19, 2017, 10:00 PM), <https://www.bloomberg.com/view/articles/2017-11-20/bitcoin-has-an-unusual-relationship-with-volatility#footnote-1510952499109>.

66. See Baxter, *supra* note 6 (stating that government action to regulate or bank virtual currency will cause Bitcoin's price to "crash to zero," causing "[p]anicked owners [to] rush to exit" and the bubble to burst); see also Preston J. Byrne, *Bitcoin Is An Emerging Systemic Risk*, COINDESK (Dec. 1, 2017, 2:00 AM), <https://www.coindesk.com/bitcoin-emerging-systemic-risk/>.

67. *Investor Alert: Bitcoin and Other Virtual Currency-Related Investments*, U.S. SEC. AND EXCH. COMM'N (July 29, 2014), [https://www.sec.gov/oiea/investor-alerts-bulletins/investoralertsia\\_bitcoin.html](https://www.sec.gov/oiea/investor-alerts-bulletins/investoralertsia_bitcoin.html).

68. Baxter, *supra* note 6.

69. Miles Goslett & Nick Pritchard, *Bitcoining It In: Criminals Are Cashing In On Bitcoins For Illegal Activity From Buying Drugs, Hiring Hitmen and Forging Passports on the Dark Web*, THE SUN (Dec. 8, 2017, 2:03 AM), <https://www.thesun.co.uk/tech/5092224/criminals-use-bitcoin-for-dark-web-illegal-activity/>.

70. Jessica Roy, *Everything You Need to Know About Silk Road, the Online Black Market Raided by the FBI*, TIME (Oct. 4, 2013), <http://nation.time.com/2013/10/04/a-simple-guide-to-silk-road-the-online-black-market-raided-by-the-fbi/>.

71. Frederick Coleman, *The Dark Side of Bitcoin: Illegal Activities, Fraud, and Bitcoin*, BLOCKONOMICS (June 16, 2017), <https://blog.blockonomics.co/the-dark-side-of-bitcoin-illegal-activities-fraud-and-bitcoin-360e83408a32>.

72. Sean Williams, *4 Reasons I'll Never Invest in Bitcoin (and You Shouldn't Either)*, THE MOTLEY FOOL (June 14, 2017, 7:32 AM), <https://www.fool.com/investing/2017/06/14/4-reasons-why-ill-never-invest-in-bitcoin-and-you.aspx>.

73. See Frances Coppola, *Yet Another Theft From a Cryptocurrency Exchange – But Who Is Really To Blame*, FORBES (Feb. 11, 2018, 12:40 PM), <https://www.forbes.com/sites/francescoppola/2018/02/11/yet-another-theft-from-a-cryptocurrency-exchange-but-who-is-really-to-blame/#7ceaf112f6dd>

For example, in 2014, an estimated \$460 million worth of bitcoin was stolen from Mt. Gox, the largest virtual currency exchange at the time.<sup>74</sup> More recently, \$530 million of a lesser-known virtual currency called NEM disappeared from an exchange in Japan.<sup>75</sup> These cyber-thefts are just some of many taking place around the world.<sup>76</sup> Due to the pseudonymity and permanency of transactions on the blockchain, recovery of stolen coins is almost impossible.<sup>77</sup>

## IV. THE REGULATORY SPECTRUM

### A. Federal Regulation

As of the time of this writing, Congress has not enacted legislation directly regulating virtual currency.<sup>78</sup> However, several House and Senate committees have held hearings to investigate cryptocurrencies, signaling that federal legislation regulating virtual currency may be on the horizon.<sup>79</sup> During these hearings, the Securities and Exchange Commission (SEC) and the Commodity Futures Trading Commission (CFTC) have stated that they are coordinating with the Treasury Department and the Federal Reserve to better understand virtual currency and may ask Congress to pass additional legislation.<sup>80</sup> For now,

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(noting that virtual currency is only as secure as the exchange's security, which is not necessarily secure).

74. Robert McMillan, *The Inside Story of Mt. Gox, Bitcoin's \$460 Million Disaster*, WIRED (Mar. 3, 2014, 6:30 AM), <https://www.wired.com/2014/03/bitcoin-exchange/>.

75. Daniel Shane, *\$530 Million Cryptocurrency Heist May Be Biggest Ever*, CNNTECH (Jan. 29, 2018, 11:55 AM), <http://money.cnn.com/2018/01/29/technology/coincheck-cryptocurrency-exchange-hack-japan/index.html>.

76. *See id.* (noting smaller thefts that have occurred in South Korea and Slovenia).

77. Greg Rynerson, *Surety Bond for Cryptocurrency: How It Works and Which States Are Requiring It*, LINKEDIN (Nov. 27, 2017), <https://www.linkedin.com/pulse/surety-bond-cryptocurrency-how-works-which-states-greg-rynerson-cpcu/>.

78. Tony Romm, *Bitcoin Could Face New Regulations in the U.S. After Top Financial Cops and Lawmakers Raise New Fears About Virtual Currency*, RECODE (Feb. 6, 2018, 1:48 PM), <https://www.recode.net/2018/2/6/16979498/bitcoin-regulation-sec-cftc-congress>.

79. *Id.*; Kate Rooney, *Congressional Hearing on Cryptocurrencies Devolves into Bitcoin Bash Fest*, CNBC (Mar. 14, 2018, 4:49 PM), <https://www.cnbc.com/2018/03/14/congressional-hearing-devolves-into-bitcoin-bash-fest.html>. More recently, Congress has introduced three bills that would regulate cryptocurrencies. Jimmy Aki, *U.S. Congressman Drafts Blockchain Development Bills*, BITCOIN MAG. (Sept. 22, 2018 11:09 AM), <https://bitcoinmagazine.com/articles/us-congressman-drafts-blockchain-development-bills/>.

80. Michelle Price & Pete Schroeder, *U.S. Regulators May Ask Congress for Virtual Currency Legislation*, REUTERS (Feb. 6, 2018, 1:06 AM),

federal virtual currency regulation is limited to guidance and opinions from administrative agencies.

In 2013, the Financial Crimes Enforcement Network (FinCEN) issued guidance stating that individuals who use virtual currency to purchase goods and services are not a “money services business” under the Bank Secrecy Act, and therefore are not subject to FinCEN oversight.<sup>81</sup> However, exchanges and payment processors are money transmitters under the guidance and are subject to registration, reporting, and recordkeeping regulations.<sup>82</sup> In 2014, the Internal Revenue Service (IRS) classified bitcoin as property and not currency for federal tax purposes.<sup>83</sup> Thus, capital gains taxes apply to virtual currency sales and exchanges.<sup>84</sup>

In 2015, the CFTC designated bitcoin and all other virtual currencies as commodities, subjecting virtual currency futures and options to CFTC oversight.<sup>85</sup> As of December 2017, the Chicago Mercantile Exchange and Cboe Futures Exchange (CFE) self-certified bitcoin futures and the Cantor Exchange self-certified bitcoin binary options.<sup>86</sup>

Due to the “gold rush” in virtual currency, many companies have begun issuing their own virtual currency to raise capital.<sup>87</sup> Through these initial coin offerings (ICOs), a company creates a new virtual currency (a “token”) and offers it to investors in exchange for a mainstream cryptocurrency (like bitcoin or Ether) or cash.<sup>88</sup> The SEC has stated that certain tokens may be considered securities within SEC jurisdiction, depending on their characteristics.<sup>89</sup> SEC Chairman Jay Clayton declared

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<https://www.reuters.com/article/us-global-bitcoin-congress/u-s-regulators-may-ask-congress-for-virtual-currency-legislation-idUSKBN1FQ0KU>.

81. DEP'T OF THE TREASURY FIN. CRIMES ENF'T NETWORK, FIN-2013-G001, APPLICATION OF FINCEN'S REGULATIONS TO PERSONS ADMINISTERING, EXCHANGING, OR USING VIRTUAL CURRENCIES (2013), <https://www.fincen.gov/sites/default/files/shared/FIN-2013-G001.pdf>.

82. *Id.*

83. I.R.S., Notice 2014-21, 2, <https://www.irs.gov/pub/irs-drop/n-14-21.pdf>.

84. *Id.*

85. Justin O'Connell, *CFTC: Bitcoin is a Commodity*, CCN (Sept. 18, 2015, 8:56 AM), <https://www.ccn.com/cftc-bitcoin-commodity/>.

86. *Id.*

87. *What is an Initial Coin Offering? Raising Millions in Seconds*, BLOCKGEEKS, <https://blockgeeks.com/guides/initial-coin-offering/> (last visited May 3, 2018).

88. *Id.*

89. See SEC Chairman Jay Clayton, *Public Statement: Statement on Cryptocurrencies and Initial Coin Offerings*, U.S. SEC. AND EXCH. COMM'N (Dec. 11, 2017), <https://www.sec.gov/news/public-statement/statement-clayton-2017-12-11> (stating that the answer to whether an offering is legal depends on many factors); see also SEC. AND EXCH. COMM'N, RELEASE NO. 81207, REPORT OF INVESTIGATION PURSUANT TO SECTION 21(A) OF THE SECURITIES EXCHANGE ACT OF 1934: THE DAO (2017) (“[T]he Commission deems it appropriate and in the public interest to issue this Report in order to stress that

that all ICOs he had seen to date were securities.<sup>90</sup> However, as of the time of this writing, no ICO has been registered with the SEC,<sup>91</sup> although one has recently been filed and is pending SEC approval.<sup>92</sup> The SEC has also denied all requests from Wall Street to approve Exchange Traded Funds (ETFs) for virtual currencies,<sup>93</sup> citing “significant investor protection issues” and the difficulty of valuing cryptocurrencies on a daily basis (as required for ETFs) due to their price volatility.<sup>94</sup> The SEC has also issued warnings to potential virtual currency investors, warning that investors are substantially less protected when investing in virtual currency as compared to traditional securities.<sup>95</sup>

## B. State Regulation

With no federal legislation directly regulating virtual currency, state regulators have enacted regulations to fill in the gap.<sup>96</sup> State approaches to regulation vary widely.<sup>97</sup> Some states have shoehorned virtual currency regulation into their existing money transmission laws, while others have enacted new legislation specifically tailored to virtual currency.<sup>98</sup> Some legislatures have left virtual currency activities within their states unregulated.<sup>99</sup> The result has been an erratic regulatory spectrum, with some states opting for strict regulation and other states

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the U.S. federal securities law may apply to various activities, including distributed ledger technology, depending on the particular facts and circumstances.”).

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

91. *Id.*

92. Renaissance Capital, *Here’s a First: The Praetorian Group Files \$75 Million ICO with the SEC*, NASDAQ (Mar. 7, 2018 3:13 AM), <https://www.nasdaq.com/article/heres-a-first-the-praetorian-group-files-75-million-ico-with-the-sec-cm931057>.

93. See, e.g., Jen Wiczner, *What the SEC Bitcoin ETF Decision Means for the Future of Cryptocurrency*, FORTUNE (Mar. 10, 2017), <http://fortune.com/2017/03/10/bitcoin-price-etf-winklevoss-approval/>; David Meyer, *Cryptocurrency ETFs Are Off the Table for Now, the SEC Says*, FORTUNE (Jan. 19, 2018), <http://fortune.com/2018/01/19/sec-cryptocurrency-etfs-bitcoin/>.

94. SEC AND EXCH. COMM’N, STAFF LETTER: ENGAGING ON FUND INNOVATION AND CRYPTOCURRENCY-RELATED HOLDINGS (2018), <https://www.sec.gov/divisions/investment/noaction/2018/cryptocurrency-011818.htm>.

95. SEC Chairman Jay Clayton, *supra* note 89.

96. See McKenna, *supra* note 12 (describing recent state regulatory activity).

97. See Tu & Meredith, *supra* note 41, at 305 (“[T]he regulatory landscape in the United States evidences a number of differing approaches to clarifying the regulatory requirements applicable to virtual currencies. . .”).

98. *Id.* at 306-13.

99. *Id.* at 308.

opting for lenient or no regulation. This section will survey three states at different points on the regulatory spectrum.

### 1. New York

In June 2015, the New York Department of Financial Services (NYDFS) promulgated a rule specifically regulating virtual currency that was separate from New York's existing money transmission laws.<sup>100</sup> This was the first state regulatory regime imposed specifically on virtual currencies.<sup>101</sup> Its requirements are stringent but vague.

The rule requires that any person engaged in any "virtual currency business activity" obtain a license,<sup>102</sup> which has become notoriously known as the "BitLicense."<sup>103</sup> "Virtual currency business activity" is broadly defined to include transmitting, storing, holding, maintaining custody or control, buying and selling, or administering virtual currency, as well as performing "Exchange Services."<sup>104</sup> Merchants and consumers who only use virtual currency to buy or sell goods or services or for investment purposes are explicitly exempt from the BitLicense requirement.<sup>105</sup> Likewise, bitcoin miners are exempt from the BitLicense requirement because they are not "administering" bitcoin.<sup>106</sup> The ambiguity of the rule's language has created uncertainty as to which businesses are engaging in "virtual currency business activity" and are required to obtain a BitLicense.<sup>107</sup> The FAQs on NYDFS's website are just

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100. N.Y. COMP. CODES R. & REGS. tit. 23, § 200 (2015).

101. Peter Luce et al., *New York Becomes First State to Propose Virtual Currency Regulations*, PAYMENT LAW ADVISOR (Aug. 13, 2014), <https://www.paymentlawadvisor.com/2014/08/13/new-york-becomes-first-state-to-propose-virtual-currency-regulations/>.

102. Section 200.3(a).

103. Daniel Roberts, *New York's Bitcoin Business Policy Has Arrived*, FORTUNE (Jun. 5, 2015), <http://fortune.com/2015/06/05/new-york-bitcoin-business-policy/>.

104. Section 200.2(q).

105. Section 200.3(c)(2).

106. See Nermin Hajdarbegovic, *Lawsy: Bitcoin Developers and Miners Exempt from BitLicense*, COINDESK (May 18, 2015, 4:16 PM), <https://www.coindesk.com/lawsy-bitcoin-developers-miners-exempt-bitlicense/> (recognizing this reasoning is consistent with FinCEN's stance on bitcoin miners). See also DEP'T OF THE TREASURY FIN. CRIMES ENF'T NETWORK, FIN-2014-R001, APPLICATION OF FINCEN'S REGULATIONS TO VIRTUAL CURRENCY MINING OPERATIONS (2014), <https://www.fincen.gov/sites/default/files/shared/FIN-2014-R001.pdf> (stating that Bitcoin miners are not administrators because mining "imposes no obligations on a Bitcoin user to send mined Bitcoin to any other person or place for the benefit of another").

107. Sarah Brennan, *Contortions for Compliance: Life Under New York's BitLicense*, COINDESK (Jan. 22, 2018, 8:01 AM), <https://www.coindesk.com/contortions-compliance-life-new-yorks-bitlicense/>.

as vague and unhelpful in guiding companies that are trying to determine whether they fall within NYDFS's purview.<sup>108</sup>

Furthermore, the rule contains extremely burdensome application requirements. Under the rule, the applicant and each "Principal Officer, Principal Stockholder, and Principal Beneficiary" must provide detailed biographical information about themselves<sup>109</sup> and must submit a background check prepared by an independent investigatory agency.<sup>110</sup> Additionally each "Principal Officer, Principal Stockholder, and Principal Beneficiary" and "[a]ll individuals to be employed by the applicant *who have access to any customer funds*" must provide fingerprints and photographs of themselves.<sup>111</sup> Applicants must also pay a \$5000 non-refundable application fee<sup>112</sup> and draft and submit policies and procedures to ensure compliance with the rule's requirements before obtaining a license.<sup>113</sup>

Further, the superintendent has broad discretion in setting various licensing requirements. The licensee must maintain a surety bond, the amount of which is up to the superintendent's discretion.<sup>114</sup> No maximum is set on the amount of the surety bond. Any "material change" to the business must be approved by the superintendent prior to implementation.<sup>115</sup> The term "material change" is very broadly defined.<sup>116</sup> Changes of control must also be approved.<sup>117</sup>

Licensees must also submit quarterly financial statements and audited annual financial statements,<sup>118</sup> as well as maintain an anti-money laundering program<sup>119</sup> and cybersecurity program.<sup>120</sup> Even if a business receives a license and can meet all of its requirements, the superintendent

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108. See *BitLicense Frequently Asked Questions*, N.Y. STATE DEPT. OF FIN. SERV., [http://www.dfs.ny.gov/legal/regulations/bitlicense\\_reg\\_framework\\_faq.htm](http://www.dfs.ny.gov/legal/regulations/bitlicense_reg_framework_faq.htm) (last visited Nov. 15, 2018) (merely restating the statutory language and responding to the FAQs with simple yes or no answers and restating the questions).

109. Section 200.4(a)(3)

110. Section 200.4(a)(4)

111. Section 200.4(a)(5) (emphasis added).

112. Section 200.5.

113. Section 200.4(a)(10).

114. Section 200.9.

115. Section 200.10.

116. *Id.* (broadly defining "material change" to include any proposed change that may raise a "legal or regulatory issue" about the activity or product, any proposed change that may raise "safety and soundness or operational concerns," and any proposed change that may make the business' product, service, or activity "materially different" than previously listed on the license application).

117. Section 200.11.

118. Section 200.14.

119. Section 200.15.

120. Section 200.16.

can revoke a BitLicense “for good cause.”<sup>121</sup> “Good cause” is shown merely when the licensee “has defaulted *or is likely to default* in performing its obligations . . . .”<sup>122</sup> This grants the superintendent broad authority to revoke licenses.

New York’s infamous BitLicense regime clearly falls on the strict side of the regulatory spectrum. Its sweeping definition of “virtual currency business activity” subjects a broad range of businesses to the state’s demanding licensure requirements. The BitLicense has had a profound impact on the virtual currency industry and created significant barriers to entry for start-up businesses due to its compliance costs and burdensome requirements.<sup>123</sup> As of June 2018, only nine companies have received a BitLicense.<sup>124</sup> Virtual currency businesses have fled New York to avoid its prohibitively expensive regulatory requirements.<sup>125</sup>

## 2. North Carolina

In 2016, North Carolina amended its existing money transmission laws to cover virtual currency.<sup>126</sup> Unlike New York’s BitLicense rule, which was adopted through agency rulemaking, North Carolina enacted its virtual currency regulation through legislation.<sup>127</sup>

The statute requires a license for any person that engages in “the business of money transmission.”<sup>128</sup> The definition of “money transmission” was amended to include “maintaining control of virtual currency on behalf of others.”<sup>129</sup> This definition, although somewhat vague, narrows the scope of the licensure requirements and provides

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121. Section 200.6(c).

122. *Id.* (emphasis added).

123. DAVIS POLK, NEW YORK’S FINAL “BITLICENSE” RULE: OVERVIEW AND CHANGES FROM JULY 2014 PROPOSAL 3, 3 (2015), [https://www.davispolk.com/files/2015-06-05\\_New\\_Yorks\\_Final\\_BitLicense\\_Rule.pdf](https://www.davispolk.com/files/2015-06-05_New_Yorks_Final_BitLicense_Rule.pdf) (describing BitLicense application requirements).

124. *DFS Grants Virtual Currency License to Square*, N.Y. ST. DEP’T OF FIN. SERVS. (June 18, 2018), <https://www.dfs.ny.gov/about/press/pr1806181.htm>.

125. *See id.* (“[T]he BitLicense has prompted flight from New York by larger players such as Bitfinex and Shapeshift and has had a chilling effect on others acting in an abundance of caution.”); *see also Localbitcoins.com Joins Exodus, Discontinues Services to New York Over BitLicense*, DINBITS (Aug. 12, 2015, 3:18 AM), <https://news.dinbits.com/2015/08/localbitcoincom-joins-exodus.html?m=1> (“Companies of all sizes have been marching out of New York in both protest and self-survival.”).

126. North Carolina Money Transmitters Act, 2015 N.C. Sess. Law 2016-81, 2016 N.C. Sess. Laws 242 (codified as amended at N.C. GEN. STAT. §§ 53-208.41-64 (2016)).

127. Pete Rizzo, *North Carolina Governor Signs Bitcoin Bill Into Law*, COINDESK (July 6, 2016, 8:05 PM), <https://www.coindesk.com/north-carolina-governor-signs-bitcoin-bill-law/>.

128. N.C. GEN. STAT. § 53-208.43 (2016).

129. N.C. GEN. STAT. § 53-208.42(13) (2016).

more clarity as to which businesses are required to obtain a money transmission license.<sup>130</sup> The statute explicitly provides various exemptions for virtual currency<sup>131</sup> and excludes miners and software companies implementing blockchain technology.<sup>132</sup>

North Carolina's initial application process is not as burdensome as New York's. Unlike New York's intrusive informational requirements,<sup>133</sup> "control persons" only need to provide minimal information: name, address, and five year employment history.<sup>134</sup> The definition of "control" is narrow and includes only those who can "direct the management or policy of the licensee."<sup>135</sup>

Additionally, many of the statute's licensure requirements are tailored specifically to the particular entity being regulated. For example, the application requires a non-refundable application fee of \$1500 plus an annual fee that is based on the transmission volumes of the business.<sup>136</sup> The annual fee begins at \$5000 a year and increases as the transmission volume exceeds \$1,000,000, and can result in substantial fees.<sup>137</sup> Likewise, the statute's surety bond requirement has five tiers which are also based on transmission volume.<sup>138</sup> The maximum amount for the surety bond is \$250,000.<sup>139</sup> The surety bond requirement remains in effect for no less than five years after the licensee has stopped operating in the state.<sup>140</sup>

However, some of the statute's licensure requirements are relatively stringent. Businesses seeking a license must have a net worth of at least \$250,000 to qualify.<sup>141</sup> This net worth requirement is relatively high, although some states' requirements are as high as \$500,000 and \$1,000,000.<sup>142</sup> Like New York's BitLicense regime, the North Carolina regime requires businesses to provide audited annual financial statements and quarterly reports<sup>143</sup> and policies and procedures such as

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130. See Lester Coleman, *North Carolina Governor Signs Bitcoin-Friendly 'Virtual Currency Law'*, CCN (July 8, 2016, 3:23 PM), <https://www.ccn.com/north-carolina-bitcoin-law-signed/> ("The North Carolina action contrasts with New York State's separate licensing regime.").

131. Section 53-208.44.

132. Coleman, *supra* note 130.

133. See *supra* notes 109-11 and accompanying text.

134. Section 53-208.44.

135. Section 53-208.42(5) (emphasis added).

136. Section 53-208.49.

137. *Id.*

138. Section 53-208.47.

139. Section 53-208.47(b).

140. Section 53-208.47(h).

141. Section 53-208.46.

142. Ashley Grimes, *Money Transmitter Licensing*, GRIMES LAW PLLC, [http://www.grimeslawaz.com/money-transmitter-licensing/#\\_ftn4](http://www.grimeslawaz.com/money-transmitter-licensing/#_ftn4) (last visited Mar. 18, 2018).

143. Section 53-208.53.

an anti-money laundering compliance program.<sup>144</sup> Additionally, all changes in control and material events must be reported within fifteen days,<sup>145</sup> but do not require prior approval, as in New York. The North Carolina Commissioner also has broad discretion to revoke a license if the licensee “has conducted business in an unsafe or unsound manner.”<sup>146</sup>

North Carolina’s licensure requirements put the state around the middle of the regulatory spectrum. North Carolina’s limited application requirements and transmission-volume-specific annual and surety bond requirements ensure that start-ups are not overly burdened. However, North Carolina’s net worth requirements and the Commissioner’s wide discretion to revoke licenses are less business-friendly. Overall, the statute has been touted as a thoughtful, bitcoin-friendly approach to virtual currency regulation that encourages companies to return to the state and use virtual currency and blockchain technology.<sup>147</sup>

### 3. Texas

Texas falls on the lenient end of the regulatory spectrum. Texas has not enacted any virtual currency legislation or regulation. Instead, the Texas Department of Banking has released guidance explicitly excluding virtual currency activities from money transmission licensing requirements.<sup>148</sup> The Department has stated that virtual currency is not “money” under the Texas Money Services Act, and therefore virtual currency activities are not “money transmission.”<sup>149</sup> The state has been touted as “an ideal state for Bitcoin mining and Blockchain marketing” and “great for any future and existing bitcoin enterprise.”<sup>150</sup> However, the Texas Securities Board has begun to issue cease and desist orders on coin offerings where virtual currency is being offered as a security,<sup>151</sup> signaling

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144. Section 53-208.45(a)(8).

145. Section 53-208.54.

146. Section 53-208.56(2)(f).

147. See Coleman, *supra* note 130 (“North Carolina anticipated key issues, and developed a reasonable solution to address each concern.”).

148. TEX. DEP’T OF BANKING, SUPERVISORY MEMORANDUM – 1037, REGULATORY TREATMENT OF VIRTUAL CURRENCIES UNDER THE TEXAS MONEY SERVICES ACT, 3 (2014) (stating that virtual currency is not money under the Texas Money Services Act, and therefore virtual currency activities are not money transmission).

149. *Id.*

150. Iyke Aru, *Texas is the Ideal State to Work with Bitcoin and Blockchain*, COIN TELEGRAPH (Dec. 17, 2015), <https://cointelegraph.com/news/texas-is-the-ideal-state-to-work-with-bitcoin-and-blockchain>.

151. See, e.g., *\$4 Billion Crypto-Promoter Ordered to Halt Fraudulent Sales*, TEX. STATE SEC. BD. (Jan. 4, 2018), <https://www.ssb.texas.gov/news-publications/4-billion-crypto-promoter-ordered-halt-fraudulent-sales> (explaining that the investments offered by the promoter were securities, but were not registered as such as required in Texas); see also Dan Zehr, *After Bitcoin Surges, Texas Regulators Start to Scrutinize Virtual Currency Offers*, AUSTIN AMERICAN-STATESMAN: 512 TECH

a potential change in the state's outlook on virtual currency regulation at the agency level.

### V. ALASKA MONEY SERVICES ACT - HB 180

In March 2017, Alaska House Representatives Zach Fansler and Sam Kito introduced the Alaska Money Services Act to regulate virtual currency activities within the state.<sup>152</sup> Under Alaska's current Uniform Money Services Act, a person cannot engage in the business of money transmission or currency exchange unless the person has a money transmission license<sup>153</sup> or currency exchange license.<sup>154</sup> HB 180 would modernize and amend Alaska's existing Uniform Money Services Act by defining virtual currency and requiring a money transmission license for businesses engaged in virtual currency activities.<sup>155</sup> In proposing the bill, legislators recognized that the advent of different forms of virtual currency have changed the money services business industry.<sup>156</sup> Legislators also recognized the need to hold money services businesses accountable and protect consumers.<sup>157</sup>

HB 180 would amend the definition of "money transmission" to include conduct such as transmitting, securing and storing, buying and selling, exchanging, controlling, and issuing virtual currency.<sup>158</sup> This broad definition mimics New York's "virtual currency business activity" definition. As with New York's BitLicense, it is unclear which businesses would be required to obtain a license in Alaska. It is also unclear whether Alaska will follow New York's lead and exclude bitcoin miners from the legislation's scope.

HB 180's application process has a mixture of strict and lenient elements. Application fees for a license would only be \$1000.<sup>159</sup> This fee is

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(Jan. 10, 2018), <https://www.512tech.com/technology/after-bitcoin-surges-texas-regulators-start-scrutinize-virtual-currency-offers/hNPRUhrAQgQQCHJyXxfPM/> (explaining that securities regulators are "keeping an eye out for offerings that go beyond the mere introduction of a new currency and begin to look like traditional securities like stocks or bonds").

152. H.B. 180, 30th Leg., 1st Sess. (Alaska 2017). On January 31, 2018, HB 180 was referred to the Alaska House Judiciary Committee. As of this writing, no further action has been taken and the future of HB 180 is uncertain.

153. ALASKA STAT. § 06.55.101(a)(1) (2016).

154. Section 06.55.201(a)(1)-(2).

155. Alaska H.B. 180.

156. Rep. Zach Fansler, *Sponsor Statement: House Bill 180 Alaska Money Services Act*, ALASKA STATE LEGISLATURE, <http://www.akleg.gov/basis/getDocuments.asp?session=30&docid=38532> (last visited Mar. 31, 2018).

157. *Id.*

158. Alaska H.B. 180 § 58.

159. *Alaska Money Transmission/Currency Exchange Application*, ALASKA DEP'T OF COMMERCE, CMTY, AND ECON. DEV. - DIV. OF BANKING AND SECURITIES (Sept.

modest compared to New York's \$5000 non-refundable fee and even lower than North Carolina's \$1500 fee. As in North Carolina, licensure in Alaska would also require an annual assessment fee, the amount to be determined by the Alaska Department of Commerce through regulation.<sup>160</sup> When determining the business's qualifications, the Department would be able to conduct an investigation of the business with the applicant paying for reasonable costs.<sup>161</sup> The application would also require that each "control person" provide fingerprints.<sup>162</sup> HB 180 would expand the definition of "control" to include "the power to exercise, directly or indirectly, an influence over the management or policies of" the licensee.<sup>163</sup> The current definition specifies only "a controlling influence over the management or policies" of the licensee. Removing the word "controlling" from the definition of control would expand the scope of individuals considered "control persons."<sup>164</sup>

HB 180 would amend the current statute's licensure requirements to be more stringent. The bill would repeal the state's current net worth requirement of \$25,000<sup>165</sup> and impose a surety bond requirement of at least \$25,000 and as high as \$1 million, up from a maximum of \$125,000.<sup>166</sup> The Department would have discretion over the surety bond amount required<sup>167</sup> based on "the risk presented by the licensee's business model and focus."<sup>168</sup> The purpose of the surety bond would be to allow both private litigants and the Department to file an action against the bond.<sup>169</sup> The licensee would be required to pay the premiums to cover claims while providing money services in Alaska and for at least 5 years after the applicant has stopped providing such services.<sup>170</sup>

As in North Carolina and New York, HB 180 would require that all changes in control be approved by the Department and would require a thirty-day notice prior to the proposed change of control.<sup>171</sup> The bill

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2016), <https://www.commerce.alaska.gov/web/Portals/3/pub/MSBApplicationandChecklist.pdf?ver=2016-11-01-134909-957>.

160. Alaska H.B. 180 § 13.

161. Alaska H.B. 180 § 8.

162. Alaska H.B. 180 § 3(3).

163. Alaska H.B. 180 § 56(3).

164. ALASKA STAT. § 06.55.990(3)(C) (2016) (emphasis added).

165. Alaska H.B. 180 § 69 (repealing ALASKA STAT. § 06.55.107 (2016)).

166. Alaska H.B. 180 § 4(a).

167. *Id.*

168. House Labor and Commerce Comm., *Alaska Money Services Act HB 180* (May 2017), [http://www.akleg.gov/basis/get\\_documents.asp?session=30&docid=38534](http://www.akleg.gov/basis/get_documents.asp?session=30&docid=38534).

169. Rep. Zach Fansler, *House Bill 180-A Alaska Money Services Act Brief Sectional Analysis*, [http://www.akleg.gov/basis/get\\_documents.asp?session=30&docid=38535](http://www.akleg.gov/basis/get_documents.asp?session=30&docid=38535).

170. Alaska H.B. 180 § 6.

171. Alaska H.B. 180 § 31.

would also implement a new requirement of an “annual report” and the Department would have discretion over the report’s requirements.<sup>172</sup> If the annual report requires audited financial statements, like those required in New York and North Carolina, the burden of generating this report would increase dramatically.<sup>173</sup>

Finally, HB 180 would grant the Department very broad discretion to revoke a business’s license. The Department would be able to revoke a license if the licensee engages in an “unsafe or unsound practice.”<sup>174</sup> HB 180 defines an “unsafe or unsound practice” as conduct that “creates the likelihood of material loss, insolvency, or dissipation of the . . . licensee’s assets, or otherwise materially prejudices the interests of the . . . licensee’s customers.”<sup>175</sup> However, in determining whether the licensee is engaged in an “unsafe or unsound practice,” HB 180 would allow the Department to consider both the “magnitude of loss or *potential loss*.”<sup>176</sup> Such broad discretion that allows the Department to take into consideration “potential loss” might allow regulators to revoke licenses if a virtual currency’s value drops quickly, which is a common event among virtual currencies. This discretion could lead to a great deal of uncertainty among licensees who are unsure whether their conduct could potentially cause loss.<sup>177</sup>

HB 180 reflects the proposing legislators’ perception that virtual currency is extremely risky. The bill’s passage would place the state clearly on the strict side of the regulatory spectrum, very close to New York. Its vague scope, increased surety bond amount, annual assessment fees, and annual report requirement may impose large costs on many start-ups, thus stifling innovation. Furthermore, the Department’s broad discretion to revoke licenses would add uncertainty to an already uncertain business. Even well-established virtual currency businesses may feel that the regulatory costs of serving Alaska’s residents are unjustified based on Alaska’s small population, causing them to deny

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172. Alaska H.B. 180 § 13.

173. 2017 *Audit Fee Survey Report*, FIN. EXECUTIVES RESEARCH FOUND., <https://www.workiva.com/sites/workiva/files/pdfs/thought-leadership/fei-audit-fee-2017-report-final.pdf> (last visited Mar. 18, 2018) (explaining that audited financial statements can be extremely expensive, averaging around \$163,000 for private companies in 2016).

174. ALASKA STAT. § 06.55.601(6) (2016).

175. Section 06.55.990(24).

176. Alaska H.B. 180 § 40 (emphasis added).

177. See PETER VAN VALKENBURGH & JERRY BRITO, STATE DIGITAL CURRENCY PRINCIPLES AND FRAMEWORK, 25 (2017), <https://coincenter.org/files/2017-03/statevirtualcurrencyprinciplesandframeworkv2.0.pdf> (“Discretion also generates regulatory uncertainty: a person never knows whether conduct she has freely engaged in before will suddenly become punishable simply because a government official changed her mind.”).

Alaska residents access to its services. Thus, Alaska's position on the strict side of the regulatory spectrum could preclude its residents from enjoying many of the benefits offered by virtual currencies.

## VI. RECOMMENDATIONS FOR FUTURE LEGISLATION

With virtual currency technology advancing so quickly, legislators have the difficult task of evaluating the risks of evolving technology while considering the benefits that such technology provides to constituents and businesses. Ideally, these benefits and risks should be balanced to ensure that emerging businesses are able to thrive and consumers are adequately protected. Regulation should be well-reasoned and not hastily enacted. This is a tall order. The remainder of this Note will posit recommendations to the Alaska Legislature for all future virtual currency legislation to ensure that these competing interests are accounted for and adequately balanced.

### A. Enact Virtual Currency Specific Legislation

As previously mentioned, various states, including Alaska, have chosen to regulate virtual currency by amending their existing money transmission laws.<sup>178</sup> However, many of these laws are outdated and their frameworks were drafted to regulate traditional money remitter businesses such as Western Union.<sup>179</sup> Shoehorning virtual currency businesses into existing regulatory frameworks designed to regulate traditional payment systems is unwise.

Virtual currencies have several unique features that make them fundamentally different from traditional payment methods, such as their decentralized nature, price volatility, pseudonymity, and immutability.<sup>180</sup> Additionally, the entities engaging in virtual currency transmission are very different than traditional money remitters. Instead of amending existing laws, legislators should draft and enact legislation that is specific to virtual currency and considers all of these distinct features. This

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178. Tu & Meredith, *supra* note 41, at 311.

179. Benjamin Lo, Note, *Fatal Fragments: The Effect of Money Transmission Regulation on Payments Innovation*, 18 YALE J.L. & TECH. 111, 120 (2016); see also Marco Santori, *What is Money Transmission and Why Does it Matter?*, COINCENTER (Apr. 7, 2015), <https://coincenter.org/entry/what-is-money-transmission-and-why-does-it-matter> ("The statutes are archaic. Many were conceived and drafted prior to the invention of the floppy disk, and were never intended to address anything more exotic than a wire transfer. The men who crafted these laws never considered that a computer could slip into a backpack, let alone store millions of dollars in convertible value.").

180. See *supra* Section III.

approach would ensure that the enacted regulatory framework specifically targets the benefits and dangers inherent in these emerging technologies without unduly stifling innovation.

### **B. Clearly Define the Legislation's Scope**

Legislation regulating virtual currency businesses should either clearly define the specific regulated activity or specify the entities that are required to obtain licenses. Legislators should avoid vague and undefined terms like “virtual currency business” and “virtual currency activity” that make a statute’s scope ambiguous. An overbroad and ambiguous scope could lead to unintended businesses being included in license regime, unnecessarily burdening startups with regulatory costs. Only businesses that have the potential to harm consumers because they manage consumer funds, such as exchanges or wallet services businesses, should be subject to licensure requirements. Entities such as cryptocurrency miners, mining pools without wallets, and software companies that develop blockchain-related software as a service pose no risk to consumers because they do not take possession of consumer funds and transmit them to others. These types of businesses should be explicitly exempt from obtaining a license.

### **C. Collaborate with Stakeholders**

Too often, regulators have hastily rushed to regulate virtual currency without fully understanding its unique characteristics or taking affected stakeholders into consideration. Instead of racing to regulation, regulators should collaborate with stakeholders in drafting and enacting virtual currency regulation. Compare how North Carolina and New York enacted their laws. North Carolina legislators worked directly with over twenty companies and six law firms before enacting its bill.<sup>181</sup> As a result, the law was touted as being “business-friendly” and a “thoughtful approach to virtual currency regulation.”<sup>182</sup>

New York’s BitLicense regime, on the other hand, was unilaterally drafted by New York’s Department of Financial Services (NYDFS), an administrative agency, in only seven months, as opposed to going through the legislature.<sup>183</sup> Although NYDFS Superintendent Benjamin

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181. Coleman, *supra* note 130.

182. Lester Coleman, *Bitcoin Advocates Weigh in on North Carolina Regulatory Bill*, CCN (June 17, 2016), <https://www.ccn.com/virtual-currency-advocates-weigh-in-on-proposed-north-carolina-regulation/>.

183. Carlo C, *NY State Releases “BitLicense” Regulations Draft for Businesses*, COINTELEGRAPH (July 18, 2014), <https://cointelegraph.com/news/ny-state->

Lawsy intended to “strike an appropriate balance that helps protect consumers . . . without stifling beneficial innovation,”<sup>184</sup> the BitLicense regime’s harsh requirements left the bitcoin community frustrated and resulted in a mass exodus of bitcoin businesses to more bitcoin-friendly states.<sup>185</sup> To ensure a well-reasoned and balanced regulatory regime that attracts business and innovation, legislators must work alongside cryptocurrency experts and the business community.

#### D. Include an On-Ramp

Because the entities engaged in virtual currency-related business are often emerging startups with minimal funding, burdensome regulatory requirements could create barriers to entry to the virtual currency industry. Regulatory compliance costs have been estimated to equal approximately \$176,000 upfront plus approximately \$137,000 in annual fees.<sup>186</sup> These figures do not include costs for determining whether regulations apply to the entity at all. Such extensive financial burdens are untenable for startups.

Instead of imposing regulatory burdens upfront, startups should be exempt from regulation and licensing requirements until their transmission volumes reach a level at which significant consumer or systemic risk arises. Alternatively, the amount could be based on the total amount of consumer funds the entity controls at a certain point in time. Regardless, the amount should be high enough to exempt startups who pose little to no risk to the system or consumers in the event of their failure. This amount should also be specified by statute and not left to the discretion of an administrative agency. At most, start-ups can be required to disclose their transmission volumes to the licensing agency.

The Uniform Regulation of Virtual Currency Businesses Act, a model statute drafted by the National Conference of Commissioners on Uniform State Laws, allows for an exemption if a business is transacting less than \$5000 annually<sup>187</sup> and subjects a business with transaction

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releases-bitlicense-regulations-draft-for-businesses.

184. *Id.*

185. See Ogwu Osaemezu Emmanuel, *New York Bitcoiners Move to Abolish Draconian BitLicense Regulation*, BTC MANAGER (Feb. 26, 2018, 2:00 PM), <https://btcmanager.com/new-york-bitcoiners-move-abolish-draconian-bitlicense-regulation/> (“most . . . cryptocurrency-related firms are no longer active in New York City.”); Brennan, *supra* note 107.

186. Grimes, *supra* note 142.

187. UNIF. REGULATION OF VIRTUAL CURRENCY BUS. ACT § 103(b)(8) (NAT’L CONFERENCE OF COMM’RS. ON UNIF. STATE LAWS 2017), [http://www.uniformlaws.org/shared/docs/regulation%20of%20virtual%20currencies/2017AM\\_URVCB\\_A\\_AsApproved.pdf](http://www.uniformlaws.org/shared/docs/regulation%20of%20virtual%20currencies/2017AM_URVCB_A_AsApproved.pdf).

volumes less than \$35,000 to light regulatory requirements that would be less than a full license.<sup>188</sup> Conversely, Coin Center, a non-profit research and advocacy center that focuses on public policy issues facing virtual currencies,<sup>189</sup> recommends that the amount be approximately \$1,000,000.<sup>190</sup>

By explicitly exempting startups until their transmission volume or total amount under control reach levels that impose significant risks, emerging startups are incentivized to enter the market and are able to develop their technology without having to worry about complying with regulations. The on-ramp would protect consumers from high-volume virtual currency businesses while allowing promising lower-volume startups to innovate.

### **E. Use Tiered Regulation to Tailor Regulation to Risk**

Once an entity's transmission volume is high enough to enter the on-ramp, regulatory requirements should be further tiered based on the entity's transmission volume in order to tailor the level of regulation to the level of risk the entity imposes. Tailoring regulation to risk allows for startups with a lower ability to cause harm to be more leniently regulated while larger institutions with a propensity for greater harm to be more strictly regulated. For example, North Carolina tailors its annual fee amount and surety bond amount to transmission volumes.<sup>191</sup> Tiered regulation balances consumer protection with innovation by tailoring regulatory burdens to the amount of risk an entity poses.

### **F. Require Only Relevant Information in the License Application**

License applications should only require information that is necessary to evaluate the applicants' competency and ability to manage consumer funds. Requiring data such as the fingerprints and photographs of every employee who has access to consumer funds is both over-intrusive and unnecessary. The philosophy underlying virtual currency is privacy and freedom from government control.<sup>192</sup> Requiring such

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188. *Id.* § 210(a).

189. *About Us*, COINCENTER, <https://coincenter.org/about/> (last visited Oct. 21, 2018).

190. Valkenburgh & Brito, *supra* note 177, at 26-27.

191. *See supra* notes 136-40 and accompanying text.

192. *See* Eric Hughes, *A Cypherpunk's Manifesto*, ACTIVISM.NET (Mar. 9, 1993), <https://www.activism.net/cypherpunk/manifesto.html> ("We cannot expect governments, corporations or other large, faceless organizations to grant us privacy out of their beneficence . . . . We are defending our privacy with cryptography . . . and with electronic money."); *see also* Wei Dai, *B-Money*, WEI

obtrusive information may incentivize entrepreneurs and innovators to avoid providing its services within the state in order to maintain privacy.<sup>193</sup> In fact, Satoshi Nakamoto himself, Bitcoin's anonymous and mysterious creator, likely would never have sacrificed his privacy and anonymity for a bitcoin license.<sup>194</sup>

### G. Reduce Agency Discretion to Revoke Licenses

Various statutes permit the agencies administering the statutes to revoke licenses if the agency head finds that certain conditions are met. However, many of the conditions specified in statutory language are broad and ambiguous, providing agencies overly broad discretion to revoke licenses and injecting uncertainty into the regulatory scheme. For example, New York's BitLicense regime allows the superintendent to revoke a BitLicense "for good cause," which is broadly defined as a showing that the licensee "has defaulted or is likely to default in performing its obligations. . . ."<sup>195</sup> Likewise, Alaska's proposed bill would allow the department to revoke a license if the licensee engages in an "unsafe or unsound practice,"<sup>196</sup> which is defined as conduct that "creates the likelihood of material loss, insolvency, or dissipation of the . . . licensee's assets, or otherwise materially prejudices the interests of the . . . licensee's customers."<sup>197</sup> The Department is also allowed to consider the "magnitude of loss or potential loss."<sup>198</sup>

Such broad discretion creates uncertainty for regulated parties because almost any conduct can be said to create a likelihood of material loss or prejudice customers in some way. Agencies could revoke licenses from exchanges just because they list a virtual currency that is particularly volatile or because a listed cryptocurrency drops sharply in value on a

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DAI.COM (1998), <http://www.weidai.com/bmoney.txt> ("[I]n a crypto-anarchy the government is not temporarily destroyed but permanently forbidden and permanently unnecessary.").

193. See, e.g., Everett Rosenfeld, *Company Leaves New York, Protesting 'BitLicense'*, CNBC (June 11, 2015 8:03 AM), <https://www.cnbc.com/2015/06/10/company-leaves-new-york-protesting-bitlicense.html> (showing that the cryptocurrency exchange ShapeShift left New York after the BitLicense because its CEO wanted to take a "moral and ethical stand" for privacy reasons).

194. See Martin O'Leary, *The Mysterious Disappearance of Satoshi Nakamoto, Founder & Creator of Bitcoin*, LINKEDIN (Nov. 29, 2017), <https://www.linkedin.com/pulse/mysterious-disappearance-satoshi-nakamoto-founder-creator-o-leary/> (stating that Satoshi Nakamoto was secretive and made sure not to reveal any personal details about himself to "retain[] his cloak of invisibility").

195. N.Y. COMP. CODES R. & REGS. tit. 23, § 200.6(c) (2015).

196. ALASKA STAT. § 06.55.601(6) (2016).

197. Section 06.55.990(24).

198. H.B. 180, 30th Leg., 1st Sess. § 40 (Alaska 2017).

given day. Such ambiguous language creates vast uncertainty throughout the virtual currency industry within the state and leaves regulated entities with little guidance as to what conduct could lead to license revocation.

Instead, statutes should confine agency discretion as much as possible. Legislators should include specific criteria for agencies to consider in determining whether to revoke a license and should include definitions of ambiguous words. Specificity would reduce industry uncertainty and lead to greater compliance with regulation as businesses would more clearly understand and avoid conduct that endangers their license.

## VII. CONCLUSION

Overall, the proposed amendments to Alaska's Money Services Act would put the state on the strict end of the regulatory spectrum. HB 180's vague scope, large surety bond amount, high annual assessment fees, and stringent annual report requirement could stifle innovation and deter cash-strapped tech startups from providing services or locating their businesses in Alaska. Alaska residents would miss out on the benefits that virtual currency technology provides. To avoid this undesirable outcome, Alaska legislators should follow the more flexible and lenient regulatory approach this Note recommends to balance consumer protection and the benefits of virtual currency innovation.