

Regulating the Future of Finance and Money:  
An Integrated Regulatory Approach to Maximizing the Value of  
Cryptocurrencies and Blockchain Systems

K. Braeden Anderson

## I. Introduction

The world of finance and money is transforming before our eyes. Ground-breaking digital assets like Bitcoin, Ethereum, and Ripple are creating “new paradigms for financial transaction[s,] and forging alternative conduits of capital.”<sup>1</sup> A new financial ecosystem has emerged, causing “massive disruptions” to the payment services and banking industry.<sup>2</sup> The emerging cryptocurrency (“CC”) market is flush with cash and is “composed of a diverse set of actors, [building] interfaces between public blockchains,” and challenging the very existence of traditional finance.<sup>3</sup> CCs utilize a distributed ledger technology or a “blockchain” to record transactions securely and permanently.<sup>4</sup> CC miners, exchanges, virtual wallets, and similar services add significant value to the financial market as a whole, as they “provide the means for public blockchains and their native currencies to be used beyond in the broader economy.”<sup>5</sup>

CCs, or “blockchain payment systems” generally, are private information patterns that facilitate decentralized, peer-to-peer exchange of goods or value between individuals or entities.<sup>6</sup>

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1 Dr. Garrick Hileman and Michael Rauchs, *Global Cryptocurrency Benchmarking Study*, CAMBRIDGE CTR. FOR ALTERNATIVE FINANCE, UNIV. OF CAMBRIDGE, JUDGE BUS. SCH. (2017), available at [https://www.jbs.cam.ac.uk/fileadmin/user\\_upload/research/centres/alternative-finance/downloads/2017-global-cryptocurrency-benchmarking-study.pdf](https://www.jbs.cam.ac.uk/fileadmin/user_upload/research/centres/alternative-finance/downloads/2017-global-cryptocurrency-benchmarking-study.pdf)

2 IMF Urges International Cooperation on Cryptocurrency Regulation, available at:

<https://www.ccn.com/imf-urges-international-cooperation-cryptocurrency-regulation/>

3 Dr. Garrick Hileman and Michael Rauchs, *Global Cryptocurrency Benchmarking Study*, CAMBRIDGE CTR. FOR ALTERNATIVE FINANCE, UNIV. OF CAMBRIDGE, JUDGE BUS. SCH. (2017), available at [https://www.jbs.cam.ac.uk/fileadmin/user\\_upload/research/centres/alternative-finance/downloads/2017-global-cryptocurrency-benchmarking-study.pdf](https://www.jbs.cam.ac.uk/fileadmin/user_upload/research/centres/alternative-finance/downloads/2017-global-cryptocurrency-benchmarking-study.pdf)

4 See Richard B. Levin et al, *Real Regulation of Virtual Currencies*, Handbook of Digital Currency, 328-31 (2015).

5 *Id.*

6 IMF Staff Team, *Virtual Currencies and Beyond: Initial Considerations*, Monetary and Capital Markets, Legal, and Strategy and Policy Review Departments, INTERNATIONAL MONETARY FUND (Jan. 2016), available at: <https://www.imf.org/external/pubs/ft/sdn/2016/sdn1603.pdf>

Thus, CCs often allow their users to “bypass traditional central clearinghouses” through the utilization of a “distributed ledger” powered by blockchain.<sup>7</sup> As stated above, the CC industry as a whole is made up by four main components: miners, exchanges, virtual wallets, and payment companies.<sup>8</sup> CC exchanges operate much like traditional ones, providing liquidity and allowing market participants to buy, sell, or exchange their tokens in accordance to the coin’s current market value.<sup>9</sup> Wallets can take several forms: “virtual wallets” are supported by an internet or cloud-based platform that store the owner’s coins, while “hard wallets” are physical devices that serve the same function.<sup>10</sup> The difference is inherent in the use and function of each type of wallet, as well as the advantages and disadvantages of each respective wallet type. By virtue of being able to physically hold and store your coins on your person or in a safe, hard wallets cannot be accessed by internet hackers on the web. Therefore, hard wallets provide maximum safety and security to their users. On the flip side, hard wallets are often difficult to use to make everyday transactions. While this could change in the future, hard wallets are typically utilized for long-term or “cold” storage. Those actively involved in the market, either trading or otherwise, will likely keep at least some portion of their coins on an exchange wallet or a similarly accessible internet-based wallet. Each of these components present regulators with distinct and delicate challenges. The surprisingly rapid rise of the CC market has left regulators across the globe scrambling to catch up.

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7 IMF Staff Team, *Virtual Currencies and Beyond: Initial Considerations*, Monetary and Capital Markets, Legal, and Strategy and Policy Review Departments, INTERNATIONAL MONETARY FUND (Jan. 2016), available at: <https://www.imf.org/external/pubs/ft/sdn/2016/sdn1603.pdf>

8 Dr. Garrick Hileman and Michael Rauchs, *Global Cryptocurrency Benchmarking Study*, CAMBRIDGE CTR. FOR ALTERNATIVE FINANCE, UNIV. OF CAMBRIDGE, JUDGE BUS. SCH. (2017), available at: [https://www.jbs.cam.ac.uk/fileadmin/user\\_upload/research/centres/alternative-finance/downloads/2017-global-cryptocurrency-benchmarking-study.pdf](https://www.jbs.cam.ac.uk/fileadmin/user_upload/research/centres/alternative-finance/downloads/2017-global-cryptocurrency-benchmarking-study.pdf)

9 *Id.*

10 *Id.*

The primary concerns tormenting lawmakers are: money laundering, terrorist financing, tax evasion, and fraud.<sup>11</sup> Criminals have gravitated towards virtual currencies to launder money due to the inherent difficulty in tracking CC cash flow. To appreciate the process of money laundering its essential understand the money laundering lifecycle:

(1) Placement. The act of introducing illegal funds into a financial system. For example, [making] transactions into bank accounts or acquiring services in a virtual world.

(2) Layering. Transferring and dispersing illegal funds [into] the financial system. In the ordinary financial system this is possible using a maze of complex transactions involving multiple actors such as banks and corporations. [I]n a virtual world the operation is quite simple making a series of unknown transactions to transfer digital currency.

(3) Integration. This is one of the most critical stage[s]. [Whereby, the] “cleaned” funds are introduced again in the economic system, typically [by] reinvesting them in legitimate business.<sup>12</sup>

Here’s how this works. The launderer would first create various virtual accounts using fraudulent information and fake names. This would first require that the criminal hides his or her cyber identity using a virtual private network (“VPN”) or similar dark web navigation tool. A VPN is a system that is built using public internet connections to unite remote users to a private, encrypted network.<sup>13</sup> This type of network provides the hacker or cybercriminal with “a protected, encrypted tunnel in which to transmit the data between the remote user and the company network.”<sup>14</sup> The VPN essentially allows the launderer to remain in an undetectable status throughout the entire laundering process. Once the launderer has safely set up the fake cyber

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11 Francine McKenna, *Here’s How the U.S. and the World Regulate Bitcoin and Other Cryptocurrencies*, Dec 28, 2017 11:19 a.m. ET, available at: <https://www.marketwatch.com/story/heres-how-the-us-and-the-world-are-regulating-bitcoin-and-cryptocurrency-2017-12-18>

12 Pierluigi Paganini, *Bitcoin ... The New Paradise For Money Laundering*, SECURITYAFFAIRS (November 19, 2012), available at: <http://securityaffairs.co/wordpress/10404/security/bitcoin-the-new-paradise-for-money-laundering.html>

13 Vangie Beal, *VPN – virtual private network*, WEBOPEDIA (2018), available at: <https://www.webopedia.com/TERM/V/VPN.html>

14 *Id.*

accounts, the individual would then use these accounts to engage in a high frequency and complex pattern of transactions. Through these phony accounts, the money launderer can convert his or her proceeds into virtual currencies held in anonymous or fake names.<sup>15</sup> Next, the individual would re-direct these funds into a multitude of “collector” accounts.<sup>16</sup> By keeping the transaction amounts low, and diversifying their efforts, they can avoid government surveillance and suspicion. Then finally, the launderer can safely withdraw these funds in small portions over a period of time. Many have even made withdrawals directly to their bank account using anonymizing software like the TOR network, for example (“TOR” is a dark web platform).<sup>17</sup> There are no hard and fast regulatory solutions to this problem. Cyber criminals pride themselves on staying ten steps ahead of law enforcement and regulators. With that being said, there are certainly ways to reduce their access and limit easy opportunities. Namely, all exchanges with the ability to pair USD with cryptocurrency must strictly require identification and background checks.<sup>18</sup> This will not solve the problem entirely, however, because launderers will likely simply redirect their CCs to foreign exchanges without such requirements. Thus, in order to effectively stifle the crypto-related opportunities for fraud and misuse, there must be parody and cooperation between the world’s financial regulators. But the major focus, for now, should be on FIAT currency pairs.<sup>19</sup> While it is highly difficult—and perhaps impossible—to prevent money launderers from illegally acquiring CC from foreign exchanges, by mandating strict identification processes for USD/crypto pairs, regulators can effectively create a “dead-end.”

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15 Pierluigi Paganini, Bitcoin ... The New Paradise For Money Laundering, SECURITYAFFAIRS (November 19, 2012), available at: <http://securityaffairs.co/wordpress/10404/security/bitcoin-the-new-paradise-for-money-laundering.html>

16 *Id.*

17 *Id.*

18 USD/CC pairing means that the user can directly exchange CCs for U.S. dollars in a straight line conversion.

19 “FIAT” currency refers to monies backed by a national government.

However, as more and more businesses begin to accept CC as a method of payment for goods and services, money launderers will have more options. The more options money launderers have in the convertible value space, the greater their advantage. Therefore, law enforcement and financial regulators must make every effort to create dead-ends or traps to thwart prospective launderers.

Terrorist financing simply refers to the cross-border payment of virtual currencies for the purposes of supporting a terrorist organization.<sup>20</sup> This process could involve some of the steps mentioned above as part of a greater laundering scheme, but often the process is quite simple due to the anonymity capabilities of virtual currency holder. Once an individual has acquired Bitcoin or some other CC legally, he or she could move it from exchange to exchange and circulate the coins through various fake or anonymous accounts. After which, the terrorist financier can send the tokens to any wallet address controlled by a terrorist organization or an individual acting in terrorist capacity. The terrorist organization would likely have similar layering and integration schemes in place. Therefore, the odds of tracking these funds to any known terrorist figure are slim to none without having prior intelligence on the individuals involved. Meaning, enforcement and detection likely depends on whether an anti-terrorist government agency has prior knowledge that a certain individual is likely to be involved in terrorist activities. Without such intelligence, success is not probable.

Tax evasion through CCs would again work much like the processes previously described. By layering and integrating funds through various bogus and anonymous holding entities and fraudulent accounts, an individual could make the funds disappear for all intents and

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<sup>20</sup> See Resty Woro Yuniar, *Bitcoin, PayPal Used to Finance Terrorism, Indonesian Agency Says*, WALL STREET JOURNAL (Jan. 10, 2017), available at: <https://www.wsj.com/articles/bitcoin-paypal-used-to-finance-terrorism-indonesian-agency-says-1483964198>

purposes—obviously rendering the IRS incapable of ascertaining whether any taxable income has been unreported, let alone determining to whom the gains should be allocated to. However, due to the fact that the victim is the U.S. government and not an unsuspecting senior citizen, the consequences of tax evasion may be the least harmful to society. This is not to suggest that tax evasion is not a serious issue. Often times, tax evasion is the only criminal behavior law enforcement is able to prove occurred. Therefore, government actors seeking to effectively regulate the CC space must focus on the issue of tax evasion with the same fervor as the others previously described.

But despite the problems surrounding the potential for abuse surrounding virtual currencies, the market remains largely optimistic about its future. For example, Dax Hansen, a leading partner at law firm Perkins Coie within their Blockchain Technology & Digital Currency industry group stated, “Digital currencies, token sales and blockchain initiatives of all types have ignited a global phenomenon unlike anything I have ever seen.” He continued, “As the technology underpinning these developments disrupts products and services in nearly every industry, law makers, regulators and law enforcement are scrambling to keep up.”<sup>21</sup>

Indeed, the arrival of Bitcoin and the supporting CC industry has marked the “emergence of a business ecosystem,” according to Dr. Garrick Hileman and Michael Rauchs from the Cambridge Centre for Alternative Finance.<sup>22</sup> In their comprehensive research project, the “Global Cryptocurrency Benchmarking Study” on alternative payment systems and digital assets, they

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21 Francine McKenna, *Here’s How the U.S. and the World Regulate Bitcoin and Other Cryptocurrencies*, Dec 28, 2017 11:19 a.m. ET, available at: <https://www.marketwatch.com/story/heres-how-the-us-and-the-world-are-regulating-bitcoin-and-cryptocurrency-2017-12-18>

22 Dr. Garrick Hileman and Michael Rauchs, *Global Cryptocurrency Benchmarking Study*, CAMBRIDGE CTR. FOR ALTERNATIVE FINANCE, UNIV. OF CAMBRIDGE, JUDGE BUS. SCH. (2017), available at [https://www.jbs.cam.ac.uk/fileadmin/user\\_upload/research/centres/alternative-finance/downloads/2017-global-cryptocurrency-benchmarking-study.pdf](https://www.jbs.cam.ac.uk/fileadmin/user_upload/research/centres/alternative-finance/downloads/2017-global-cryptocurrency-benchmarking-study.pdf)

explain that “a multitude of projects and companies have emerged to provide products and services that facilitate the use of cryptocurrency for mainstream users and build the infrastructure for applications running on top of public blockchains.”<sup>23</sup>

This article is dedicated to exploring the unique regulatory challenges associated with CCs and other blockchain powered fin-tech. In order to do so, we must first identify the best-uses and likely benefits of utilizing the technology. After all, if the risks and regulatory challenges associated with this technology outweighed the inherent benefits, it would probably be illogical to waste our time trying to formulate a fair and effective regulatory approach. For example, in a circumstance where that were in fact the case, the smart choice for regulators may be to simply respond with an out-right ban. While that conclusion is highly unlikely, and is certainly not mine, part of our analysis will be dedicated to evaluating the true value of blockchain powered fin-tech and CCs in our ever-changing financial industry and global market system. But before we dive straight into a discussion on valuation, we will need to gain a foundational understanding of what CCs are exactly.

## II. Understanding Blockchain Payment Systems

Bitcoin, what? Ripple, who? Ethereum, how? The concept of digital or “decentralized” currencies has left millions of Americans baffled and confused, and for good reason. Blockchain is a relatively new technology with a variety of potential uses. Bitcoin, the most popular CC, is simply a product/currency/commodity that utilizes it. As you may have been able to glean from the last sentence, the precise legal definition/classification of a “cryptocurrency” or “virtual currency” is up for debate. In fact, the “currency” label itself is a bit of a misnomer—as Bitcoin

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23 Dr. Garrick Hileman and Michael Rauchs, *Global Cryptocurrency Benchmarking Study*, CAMBRIDGE CTR. FOR ALTERNATIVE FINANCE, UNIV. OF CAMBRIDGE, JUDGE BUS. SCH. (2017), available at [https://www.jbs.cam.ac.uk/fileadmin/user\\_upload/research/centres/alternative-finance/downloads/2017-global-cryptocurrency-benchmarking-study.pdf](https://www.jbs.cam.ac.uk/fileadmin/user_upload/research/centres/alternative-finance/downloads/2017-global-cryptocurrency-benchmarking-study.pdf)



and other popular blockchain payment systems have not been treated as such to this point. Instead, as we will discuss further in subsequent sections, Bitcoin and other CCs are treated as commodities for most legal purposes.<sup>24</sup>

Amidst the confusion, the global rate of adoption remains astonishing. As of January 2018, the total market capitalization (hereinafter, “market-cap”) of the entire CC market reached an all-time-high of approximately \$796 billion.<sup>25</sup> That is a growth rate of approximately 3000% since 2017.<sup>26</sup> The total market-cap of CC globally is still modest in comparison to other dominant and analogous markets, however. To put that into proper perspective, it’s helpful to have a few points of reference. For example, the global gold market has a market-cap is \$7.7 trillion, the market-cap of the global stock market is around \$73 trillion, and the global real estate market-cap is around \$217 trillion.<sup>27</sup> Thus, while the number of individuals holding CCs is growing at breakneck speed, there is still a quite sizeable gap between CCs and other dominant commodities and assets like government issued legal tender (“FIAT”), precious metals, or securities. But try not to blink, things are changing fast. There are now over 1,500 separate and distinct blockchain payment systems or CCs actively trading on the market.<sup>28</sup> But since we will

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24 U.S. COMMODITY FUTURES TRADING COMMISSION, Bitcoin Index, available at <http://www.cftc.gov/bitcoin/index.htm>; also see U.S. COMMODITY FUTURES TRADING COMMISSION, RELEASE Number 7231-15, *CFTC Orders Bitcoin Options Trading Platform Operator and its CEO to Cease Illegally Offering Bitcoin Options and to Cease Operating a Facility for Trading or Processing of Swaps without Registering* (September 17, 2015) (CFTC in the 2015 order against Coinflip, Inc.), available at:

<https://www.cftc.gov/PressRoom/PressReleases/pr7231-15>

25 COINMARKETCAP (available at <https://coinmarketcap.com/all/views/all/>; accessed: Feb 2018); CRYPTOCHAINCHARTS has indexed thousands of cryptocurrencies (available at <http://www.cryptocoincharts.info/coins/info>; accessed: Feb 2018).

26 Dr. Garrick Hileman and Michael Rauchs, *Global Cryptocurrency Benchmarking Study*, CAMBRIDGE CTR. FOR ALTERNATIVE FINANCE, UNIV. OF CAMBRIDGE, JUDGE BUS. SCH. (2017)  
27 *Id.*

28 Joyce Chang and Jan Loeys, *J.P. Morgan Perspectives, Decrypting Cryptocurrencies: Technology, Applications, and Challenges*, JPM Global Research Unit (February 12, 2018) (this article has also been casually referred to as the JPMorgan “Bitcoin Bible”).

not have the time within this article to adequately evaluate and assess each of them individually, let's begin with the basics.

To conceptualize what CCs are, let's deploy a hypothetical. First, imagine a world where you have "programmable dollars" that cannot be destroyed or replicated. Imagine further, that these "programmable dollars" can be physically stored and irreversibly transferred to virtual "wallets" anywhere in the world. And finally, there is a set and finite amount of dollars (unlike the U.S. Federal Reserve which can simply print more). Now pretend that there were a variety of different "types" of these programmable dollars, each of which with slightly different attributes. For example, some programmable dollars, like Ripple, are lightning quick and enable their user/holder to safely send payments or transfer money globally in seconds or milliseconds. While others, like Bitcoin, may be slower (2-3 hours), but have a much more limited supply and are better suited for storing value (similar to gold). This hypothetical "programmable dollar" is a blockchain payment system, or if using the misnomer, a "cryptocurrency." Here is what is so *valuable* and *beneficial* about engaging in a peer-to-peer transaction:

(1) Avoiding Fraud

Digital currencies cannot be counterfeited or reversed subjectively by the sender (like credit card charge-backs, for example).<sup>29</sup> There are certainly opportunities for criminality (as discussed), but the sequence of events and transactions are immutably stored in a blockchain. Meaning, the technology is not the problem. The problem lies in the outdated method by which we are attempting to enforce and investigate financial crimes committed by individuals utilizing this technology. Eliminating anonymity and enacting stricter regulations is necessary.

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29 Ameer Rosic, *7 Incredible Benefits of Cryptocurrency*, HUFFINGTON POST, THE BLOG (11/23/2016 9:48 AM ET), available at [huffingtonpost.com/ameer-rosic/-7-incredible-benefits-of-\\_1\\_b\\_1360110.html](http://huffingtonpost.com/ameer-rosic/-7-incredible-benefits-of-_1_b_1360110.html)

## (2) Immediate Settlement

Time is money, and the time value of money cannot be overstated. With Bitcoin, any financial transaction can occur almost instantaneously, with limited costs.<sup>30</sup> In a report called “Virtual Currencies and Beyond: Initial Considerations,” Christine Lagarde, Managing Director at IMF writes, “virtual currencies and their underlying technologies can provide faster and cheaper financial services and can become a powerful tool for deepening financial inclusion in the developing world.”<sup>31</sup> An example where this technology would be useful is in the context of buying a house. This process inherently takes a significant period of time, usually weeks or months. With virtual currency, the chain of title and corresponding payment can all be contained and permanently recorded within the token’s blockchain.

While the speed of virtual currency transactions compared with traditional payment methods is undebatable and undeniable, there are risks associated with increased speed and immediate settlement. Take electric cars for example. One of the major advertised benefits of electric cars is that they are relatively silent in comparison to gas-fueled vehicles. But before long, car manufactures realized that silent cars cause potential safety concerns (if you cannot hear the vehicle, you may not be able to get out of the way, avoid a collision, etc.). Therefore, in response, car manufacturers began to build-in sounds that replicate the sound of a gas-fueled vehicle. The same argument can be made here. Perhaps the process of buying a house *should* take a few weeks. During the course

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<sup>30</sup> *Id.*

<sup>31</sup> IMF Staff Team, *Virtual Currencies and Beyond: Initial Considerations*, Monetary and Capital Markets, Legal, and Strategy and Policy Review Departments, INTERNATIONAL MONETARY FUND (Jan. 2016), available at: <https://www.imf.org/external/pubs/ft/sdn/2016/sdn1603.pdf>

of this time, both parties have an opportunity to think the decision over and conduct thorough due diligence process. Whereas, if the transaction takes a few seconds or an hour, perhaps there are concerns that the buyer or seller could fail to raise or identify. Therefore, while technology increases convenience and time efficiency—perhaps some transactions should superficially require a built-in moment of pause.

### (3) Lower Fees

There are typically no transaction fees if a transaction is completely peer-to-peer. That is, a truly decentralized transaction would utilize a global network of computers or “miners,” that use blockchain technology to jointly manage and permanently record the transaction. However, most digital currency exchanges, like Coinbase, charge small transaction fees (exchanges like Coinbase are acting as an intermediary the same way that Paypal does).<sup>32</sup>

But these fees are not substantial in comparison to traditional methods.

### III. Exploring the Future of Cryptocurrency and the Disruption of the U.S. Banking Industry

CCs are an undeniable threat to our current U.S. banking business model. For example, on February 22, 2018, Bank of America (“BAML”) admitted that CCs were “a threat to [its] business model.”<sup>33</sup> The firm’s 10-K report, filed with the U.S. Securities and Exchange Commission (“SEC”) for the 2017 fiscal year “listed a range of economic, geopolitical, and operational risks that the [bank] faces as it heads into [2018,] [and] [f]or the first time, rising cryptocurrency adoption made the list.”<sup>34</sup> In an effort to manage their risks, BAML, among other

<sup>32</sup> *Id.*

<sup>33</sup> *Bank of America Admits Cryptocurrencies Are a Threat to Its Business Model*, CCN (February 23, 2018) (citing BAML’s annual report filed with the SEC), available at: <https://www.ccn.com/bank-of-america-admits-cryptocurrencies-are-a-threat-to-its-business-model/>

<sup>34</sup> *Bank of America Admits Cryptocurrencies Are a Threat to Its Business Model*, CCN (February 23, 2018) (citing BAML’s annual report filed with the SEC), available at: <https://www.ccn.com/bank-of-america-admits-cryptocurrencies-are-a-threat-to-its-business-model/>

credit card companies, recently “barred its customers from using [its] credit cards to purchase cryptocurrencies.”<sup>35</sup> BAML’s 10-K report cites the following risks and concerns under Section 1A (Risk Factors):

[C]lients may choose to conduct business with other market participants who engage in business or offer products in areas we deem speculative or risky, such as cryptocurrencies ... The widespread adoption of new technologies, including internet services, cryptocurrencies and payment systems, could require substantial expenditures to modify or adapt our existing products and services ... Emerging technologies, such as cryptocurrencies, could limit our ability to track the movement of funds. Our ability to comply with these laws is dependent on our ability to improve detection and reporting capabilities and reduce variation in control processes and oversight accountability.<sup>36</sup>

This should come as no surprise, as historically, U.S. banks have been openly skeptical of blockchain payment systems. For example, J.P. Morgan CEO Jamie Dimon stated in 2017 that “it is just a matter of time [before] cryptocurrencies will be wiped out of the financial system.”<sup>37</sup> However, following the continued resilience and overwhelming public support for blockchain payment systems, J.P. Morgan has now substantially altered their stance. On February 12, 2018, J.P. Morgan’s “[Global Research Unit](#)” published a report dedicated to exploring the future and current value of CCs and blockchain within the financial industry.<sup>38</sup> The report, entitled “Decrypting Cryptocurrencies: Technology, Applications and Challenges” (hereinafter, “JPM report”) explains that the “extremely rapid growth” within the CC markets has forced J.P.

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<sup>35</sup> *Id.*

<sup>36</sup> U.S. SECURITIES AND EXCHANGE COMMISSION FORM 10-K ANNUAL REPORT 1-6523, Bank of America Corporation (February 22, 2018), available at:

<https://www.sec.gov/Archives/edgar/data/70858/000007085818000009/bac-1231201710xk.htm#s56FE8F57D1F551E9AF8D375ECF1A891E>

<sup>37</sup> Bhushan Akolkar, *JPMorgan’s ‘Bitcoin Bible’: Cryptocurrencies ‘Unlikely to Disappear’*, COINSPeAKER.COM (February 13, 2018), available at:

<https://www.coinspeaker.com/2018/02/13/jpmorgans-bitcoin-bible-cryptocurrencies-unlikely-disappear/>

<sup>38</sup> *Id.*

Morgan and many other financial institutions to start taking the CC space seriously.<sup>39</sup> The JPM report essentially claims that digital currencies will play an integral role in the “diversification of global bond and equity portfolios.”<sup>40</sup> The JPM report further states that “if [CCs] survive the next few years and remain part of the global market, then they will likely have exited their current speculative phase and would then have more normal returns, volatilities (both much lower) and correlations (more like that of other zero-return assets such as gold and JPY).”<sup>41</sup> The most famous quote pulled from the JPM report—not surprisingly—is the most positive one, in which the Authors state, “[CCs] are unlikely to disappear completely and could easily survive in varying forms and shapes among players who desire greater decentralization, peer-to-peer networks and anonymity, even as the latter is under threat.”<sup>42</sup>

The Authors of the JPM report hedge their *mostly*-bullish opinions by explaining that while Bitcoin’s “underlying blockchain technology will have a wide implication in areas where the current payment system is very slow,” it will be very difficult for CCs to replace FIAT currencies entirely. Notice, however, that even within JPM’s more conservative estimations, there exists the actual possibility of FIAT being replaced entirely by blockchain payment systems. The fact that JPM used the term “very difficult” and not “absolutely insane” to describe the future of blockchain payment systems is highly significant due to the history surrounding JPM’s opinions regarding CCs. In the past (over the last 6-12 months), JPM and the similarly situated powerhouse conglomerate of major U.S. banks have been outspoken critics and

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39 Joyce Chang and Jan Loeys, *J.P. Morgan Perspectives, Decrypting Cryptocurrencies: Technology, Applications, and Challenges*, JPM Global Research Unit (February 12, 2018) (this article has also been casually referred to as the JPMorgan “Bitcoin Bible”).

40 *Id.*

41 *Id.*

42 Joyce Chang and Jan Loeys, *J.P. Morgan Perspectives, Decrypting Cryptocurrencies: Technology, Applications, and Challenges*, JPM Global Research Unit (February 12, 2018) (this article has also been casually referred to as the JPMorgan “Bitcoin Bible”).

naysayers of Bitcoin and the CC market generally.<sup>43</sup> Thus, it is important to consider this within the appropriate context—considering that JPM has backtracked *substantially* from prior statements made in 2017. The JPM report also addresses the current CC market and cautions that this blockchain revolution may not happen right away. For example, the analysts at JPMorgan “issued a wake-up call to investors based on the technical charts while predicting that Bitcoin price can drop to 50% from the current levels to a low of around \$4600 levels.”<sup>44</sup>

In sum, JPM and BAML have basically remained “optimistic critics” of CCs—and for good reason. Other than seemingly posing a threat to their business model and having an enormous presence within the financial industry, CCs also pose a serious danger to their ability to abide by their own regulatory obligations. For example, Enhanced Due Diligence (EDD) and Know Your Customer (KYC) laws require banks to establish “appropriate, specific, and, where necessary, enhanced, due diligence policies, procedures, and controls” that are reasonably designed to detect and report instances of money laundering through those accounts.<sup>45</sup> These laws require that banks make substantial efforts to know who their customers are and implement reasonable surveillance systems to detect and prevent fraud and money laundering. Thus, in consideration of the money laundering schemes described above, this poses potential problems. First, this will likely require that these banks revamp their supervisory systems and update their surveillance methods (which would/will be very costly). Second, in the event that a bank fails to

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43 Lucinda Shen, *Bitcoin Traders Are Relieved at CFTC and SEC Cryptocurrency Senate Hearing Testimony*, FORBES (February 7, 2018) (JPM CEO states that Bitcoin is a “fraud”), available at: <http://fortune.com/2018/02/06/bitcoin-price-cftc-sec-cryptocurrency-hearing/>

44 Aaron Hankin, *JPMorgan’s Bitcoin Bible: Crypto ‘unlikely to disappear,’* MARKETWATCH (Feb 12, 2018 3:31 p.m. ET), available at: <https://www.marketwatch.com/story/jpmorgans-bitcoin-bible-crypto-unlikely-to-disappear-2018-02-12>

45 31 U.S.C. 5318(i); Daniel Mulligan, *Know Your Customer Regulations and the International Banking System: Towards a General Self-Regulatory Regime*, 22 FORDHAM INT’L L.J. 2324 (1998), available at: <https://ir.lawnet.fordham.edu/ilj/vol22/iss5/11>

properly detect criminal behavior occurring within their customers' accounts, they could be subject to liability and substantial penalties. Third, much of these CC transactions may be occurring completely outside of the banks supervision, thus rendering them incapable of abiding by KYC laws. While these are major problems that must be addressed, the potential solutions to these problems are best considered within the context of a much broader regulatory strategy.

#### IV. U.S. Regulatory Approach

The CC market is currently being regulated from a variety of different angles. To this point, the U.S. regulatory strategy has largely consisted of a “regulatory sandbox” approach—meaning that regulators have focused on causing as little harm as possible while they attempt to gain a better working knowledge and understanding of the CC space. There is sound logic behind such an approach, the CC market remains in a “wild wild west” phase unless and until robust regulation and sophisticated compliance technology is implemented. While the CC market is garnering the attention and response of all major U.S. government financial regulatory agencies, the results to this point have not been entirely effective. The U.S. has yet to establish a reliable regulatory approach that would allow market participants to freely engage in the CC space without fear and uncertainty. This is partly due to the fact that the CC market is being regulated by several agencies at once, each with a different focus. The SEC approach has concentrated mainly on cracking-down on initial coin offerings (“ICOs”), while the CFTC has identified already-established blockchain payment systems, like Bitcoin, as a commodity subject to its anti-fraud rules.<sup>46</sup> For example, Republican Senator Mike Rounds of the Senate Banking Committee (“SBC”), believes that “there’s no question about the fact that there is a need for a regulatory

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46 U.S. COMMODITY FUTURES TRADING COMMISSION, RELEASE Number 7231-15, *CFTC Orders Bitcoin Options Trading Platform Operator and its CEO to Cease Illegally Offering Bitcoin Options and to Cease Operating a Facility for Trading or Processing of Swaps without Registering* (September 17, 2015) (CFTC in the 2015 order against Coinflip, Inc.), available at: <https://www.cftc.gov/PressRoom/PressReleases/pr7231-15>



framework,” and presented the idea that there may be an opportunity to regulate CCs as both a security and a commodity.<sup>47</sup> The quandary is that regulators have also highlighted their intention to proceed with cautiousness, as to not stifle growth and ingenuity. Thus, the method by which a robust and efficient regulatory system is to be achieved remains to be seen. But one thing is for certain, the process has only just begun.

The White House communicated in February 2018, that the U.S. will not pursue CC regulation anytime soon.<sup>48</sup> In an interview with CNBC, White House Cybersecurity Coordinator and Special Assistant to the President, Rob Royce, stated, "I think we're still absolutely studying and understanding what the good ideas and bad ideas in that space are. So I don't think it's close."<sup>49</sup> Additionally, following the high-profile congressional committee hearings held in early February 2018, Reuters published a report citing a number of congressional lawmakers that support the implementation of new CC regulation.<sup>50</sup> Specifically, Carolyn Maloney, Democratic member of the House Financial Services Committee (“HFSC”) stated, “A lot of people don’t realize there’s nothing backing these virtual currencies,” moreover, Tom MacArthur, a Republican member of the HFSC stated that “[w]e have to look carefully at all of the cryptocurrencies and make sure individuals don’t get taken advantage of.”<sup>51</sup> To this point, much

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47 [Annaliese Milano](https://www.coindesk.com/crypto-regulation-not-anytime-soon-says-white-house-official/), *Crypto Regulation? Not Anytime Soon, Says White House Official*, COINDESK.COM (February 16, 2018), available at: <https://www.coindesk.com/crypto-regulation-not-anytime-soon-says-white-house-official/>

48 [Annaliese Milano](https://www.coindesk.com/crypto-regulation-not-anytime-soon-says-white-house-official/), *Crypto Regulation? Not Anytime Soon, Says White House Official*, COINDESK.COM (February 16, 2018), available at: <https://www.coindesk.com/crypto-regulation-not-anytime-soon-says-white-house-official/>

49 *Id.*

50 *US Lawmakers Build Appetite for Cryptocurrency Regulation*, Bitcoin Regulation, CCN (February 19, 2018), available at: <https://www.ccn.com/us-lawmakers-build-appetite-cryptocurrency-regulation/>; David Morgan, *Congress Sets Sights on Federal Cryptocurrency Rules*, REUTERS (February 19, 2018), available at: <https://www.reuters.com/article/us-cryptocurrencies-congress/congress-sets-sights-on-federal-cryptocurrency-rules-idUSKCN1G31AG>

51 *US Lawmakers Build Appetite for Cryptocurrency Regulation*, Bitcoin Regulation, CCN (February 19, 2018), available at: <https://www.ccn.com/us-lawmakers-build-appetite-cryptocurrency-regulation/>; David Morgan, *Congress Sets Sights on Federal Cryptocurrency*

of the debate among U.S. regulators has surrounded whether CCs should be considered securities or commodities. As Peter Van Valkenburgh, Director of Research at the Coin Center, correctly put it, “Lawmakers need to distinguish between ICOs that operate like securities and other virtual currencies including bitcoin, which he described as a commodity like gold.”<sup>52</sup>

As the following research and analysis will further emphasize, the U.S. government will likely need to dedicate an entirely new commission or agency to solely regulate virtual currencies. Regulating an entirely new asset class cannot be done effectively or efficiently by working in silos. While there are similarities between commodities and virtual currencies, Bitcoin may not *actually* be a commodity. Similarly, while there are similarities between securities and ICOs, they may not *actually* be securities. For example, the Winklevoss twins, in their proposal for a “Self-Regulatory Organization for the U.S. Virtual Currency Industry,” noted the following:

The purchase and sale of commodities in the spot/cash markets has been historically exempt from the CEA and CFTC jurisdiction because cash market transactions, unlike derivative contracts, are: (i) traded for immediate delivery, (ii) settle “on the spot,” and (iii) are often underpinned by a commercial purpose (i.e., a farmer selling grain). As a result, these transactions are typically found to not be speculative in nature or readily susceptible to manipulation. Cash markets for virtual commodities, however, are unique inasmuch as: (a) the commercial use-cases for virtual commodities are still developing, (b) there is strong speculative interest, (c) these marketplaces involve a large number of individual participants, and (d) technology makes individual transaction costs exceptionally low (on a relative basis) as compared to other physical commodity spot markets.<sup>53</sup>

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*Rules*, REUTERS (February 19, 2018), available at: <https://www.reuters.com/article/us-crypto-currencies-congress/congress-sets-sights-on-federal-cryptocurrency-rules-idUSKCN1G31AG>

<sup>52</sup> David Morgan, *Congress Sets Sights on Federal Cryptocurrency Rules*, REUTERS (February 19, 2018), available at: <https://www.reuters.com/article/us-crypto-currencies-congress/congress-sets-sights-on-federal-cryptocurrency-rules-idUSKCN1G31AG>

<sup>53</sup> Tyler and Cameron Winklevoss, *A Proposal for a Self-Regulatory Organization for the U.S. Virtual Currency Industry*, Introducing the Virtual Commodity Association, GEMINI (March 13, 2018), available at: <https://gemini.com/blog/a-proposal-for-a-self-regulatory-organization-for-the-u-s-virtual-currency-industry/>

Therefore, due to the unique challenges presented by virtual currencies, the CFTC and the SEC have had their hands full. The current regulatory approach lacks a comprehensive understanding of the technology and lacks resources. Revolutionary technologies, like blockchain payment systems, cannot be regulated in the SEC/CFTC's spare time. The only realistic approach would require that the government: (1) create a Cryptocurrency and Blockchain Commission (or similar organization), (2) hire or utilize talented people who understand blockchain technology, and (3) begin the process of building a lasting regulatory framework that addresses the known risks while not hampering the technological benefits.

(1) Securities and Exchange Commission:

As previously stated, the U.S. Securities and Exchange Commission, like the UK and several other nations, has arguably taken a "regulatory sandbox approach" to CC regulation. The SEC has not adopted any specific rules or regulations, nor has the SEC provided substantive interpretative guidance with respect to the regulation of CCs.<sup>54</sup> As an alternative, the SEC has brought a plethora of enforcement actions that offer only a partial degree of regulatory guidance. The SEC's regulatory involvement has been largely limited to ICOs that appear to be unregistered securities. The definition of "security" under the Securities Act of 1933 (the "Securities Act") and Securities Exchange Act of 1934 (the "Exchange Act") is broad enough to cover CCs in some circumstances, but not all. Section 2(a)(1) of the Securities Act defines a "security" as:

any note, stock, treasury stock, security future, security-based swap, bond, debenture, evidence of indebtedness, certificate of interest or participation in any profit-sharing agreement, collateral-trust certificate, preorganization certificate or subscription, transferable share, investment contract, voting-trust

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<sup>54</sup> See Richard B. Levin et al, *Real Regulation of Virtual Currencies*, HANDBOOK OF DIGITAL CURRENCY, 328-31 (2015).

certificate, certificate of deposit for a security, ... or, in general, any interest or instrument commonly known as a "security."<sup>55</sup>

CCs often behave like securities, and often they do not. The definition of a security is broad enough to grant the SEC wide-ranging authority to regulate a variety of products as securities. The definition names several financial products by name, “any note, stock, treasury stock, security future, security-based swap, bond, [and] debenture.”<sup>56</sup> However, as precedent surrounding “investment contracts” generally has shown us, the SEC will not hesitate to get involved in circumstances that, after applying the “Howey test,” inherently invoke the same regulatory concerns.<sup>57</sup> In several cases, the SEC has argued that initial coin offerings were “investment contracts” under the Howey test.<sup>58</sup> In the U.S. Supreme Court case *SEC v. W. J. Howey Co.*, the Court held that an investment contract is a contract, transaction, or scheme involving “(i) an investment of money, (ii) in a common enterprise, (iii) with the expectation that profits will be derived from the efforts of the promoter or a third party.”<sup>59</sup> The Howey test provides for a broad regulatory scope and covers a wide range of offerings, investment schemes, and non-traditional asset classes not specifically foreseen at the time of its decision.<sup>60</sup> The astonishing speed at which blockchain payment systems technology is being adopted and utilized by investors poses a number of regulatory challenges for the industry. This has put increasingly high pressure on regulators to ensure that bad actors cannot find solace, or easy prey, within the CC space. While important, the technical definition of a “security” does not define the SEC’s

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55 Securities and Exchange Act of 1933 § 2(a)(1)

56 *Id.*

57 *See* *SEC v. W.J. Howey Co.*, 328 U.S. 293, 298-99 (1946).

58 *See e.g.*, *SEC v. Shavers*, No. 4:13-CV-416; *see also* *In the Matter of Voorhees*, Securities Act Release No.3-15902 (June 3, 2014), available at:

<https://www.sec.gov/litigation/litreleases/2014/lr23090.html>

59 *SEC v. W.J. Howey Co.*, 328 U.S. 293, 298-99 (1946).

60 *See id.*

role within the financial regulatory industry. More generally, the SEC's duties are to: “(i) protect investors, (ii) maintain fair, orderly, and efficient markets, and (iii) facilitate capital formation.”<sup>61</sup>

The SEC defines CCs broadly as tokens that “purport to be items of inherent value (similar, for instance, to cash or gold) that are designed to enable purchases, sales and other financial transactions.”<sup>62</sup> The SEC explains further that they are “intended to provide many of the same functions as long-established currencies such as the U.S. dollar, euro or Japanese yen but do not have the backing of a government or other body.”<sup>63</sup> There are four factors that regulators have identified as being consistent attributes of CCs, including: “(1) the ability to make transfers without an intermediary and without geographic limitation, (2) finality of settlement, (3) lower transaction costs compared to other forms of payment and (4) the ability to publicly verify transactions.”<sup>64</sup> Similarly, the Financial Action Task Force defines “virtual currency” as:

[A] digital representation of value that can be digitally traded and functions as: (1) a medium of exchange; and/or (2) a unit of account; and/or (3) a store of value, but does not have legal tender status (i.e., when tendered to a creditor, is a valid and legal offer of payment) in any jurisdiction. It is not issued or guaranteed by any jurisdiction and fulfils the above functions only by agreement within the community of users of the virtual currency. Virtual currency is distinguished from fiat currency (a.k.a. “real currency,” “real money,” or “national currency”), which is the coin and paper money of a country that is designated as its legal tender; circulates; and is customarily used and accepted as a medium of exchange in the issuing country. It is distinct from e-money, which is a digital representation of fiat currency used to electronically transfer value denominated in fiat currency.<sup>65</sup>

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61 Michael S. Piwowar, Acting Chairman, SEC, Remarks at the "SEC Speaks" Conference 2017: Remembering the Forgotten Investor (Feb. 24, 2017), available at:

<https://www.sec.gov/news/speech/piwowar-remembering-the-forgotten-investor.html>

62 SEC Chairman Jay Clayton, *Public Statement on Cryptocurrencies and Initial Coin Offerings*, U.S. SECURITIES AND EXCHANGE COMMISSION (Dec. 11, 2017), available at:

<https://www.sec.gov/news/public-statement/statement-clayton-2017-12-11>

63 *Id.*

64 *Id.*

65 FATF Report, *Virtual Currencies, Key Definitions and Potential AML/CFT Risks*, FINANCIAL ACTION TASK FORCE (June 2014), [http://www.fatf-](http://www.fatf-gafi.org/media/fatf/documents/reports/Virtual-currency-keydefinitions-and-potential-aml-cft-)

[gafi.org/media/fatf/documents/reports/Virtual-currency-keydefinitions-and-potential-aml-cft-](http://www.fatf-gafi.org/media/fatf/documents/reports/Virtual-currency-keydefinitions-and-potential-aml-cft-)

The SEC has indicated that, in most cases, CCs do not inherently appear to be securities.<sup>66</sup> However; simply calling a blockchain based product a “cryptocurrency” does not necessarily exempt the product from securities laws.<sup>67</sup> For example, the SEC has clarified that before launching “a cryptocurrency or a product with its value tied to one or more cryptocurrencies, its promoters must either (1) be able to demonstrate that the currency or product is not a security or (2) comply with applicable registration and other requirements under our securities laws.”<sup>68</sup> Furthermore, market participants that allow for payments in CCs or use CCs to enable securities transactions must exercise extreme caution and ensure that their activities are not “undermining their anti-money laundering and know-your-customer obligations.”<sup>69</sup>

Therefore, while the SEC has delegated much of the responsibility for regulating CCs to the CFTC, they have yet to approve any “exchange-traded products (such as ETFs)” that hold CCs or other digital assets for listing or trading.<sup>70</sup> The SEC issued an investor bulletin about initial coin offerings in July 2017, stating that the Commission believes that CCs have the potential to be “fair and lawful investment opportunities” if regulated properly.<sup>71</sup> However, the SEC has aggressively prosecuted entities and individuals that have employed fraudulent or deceptive means to gain investors. For example, the SEC has issued several enforcement actions

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[risks.pdf](#)

66 SEC Chairman Jay Clayton, *Public Statement on Cryptocurrencies and Initial Coin Offerings*, U.S. SECURITIES AND EXCHANGE COMMISSION (Dec. 11, 2017), available at:

<https://www.sec.gov/news/public-statement/statement-clayton-2017-12-11>

67 *Id.*

68 *Id.*

69 *Id.*

70 Francine McKenna, *Here’s How the U.S. and the World Regulate Bitcoin and Other Cryptocurrencies*, Dec 28, 2017 11:19 a.m. ET, available at:

<https://www.marketwatch.com/story/heres-how-the-us-and-the-world-are-regulating-bitcoin-and-cryptocurrency-2017-12-18>

71 *Id.*

against “ICO sponsors,” and the SEC Chairman, Jay Clayton, has clearly “expressed concern about market participants who extend to customers credit in U.S.”<sup>72</sup> The SEC has a clear dislike for ICOs, and this position was made clear by Clayton in February 2018 when he stated, “From what I have seen, initial coin offerings are securities offerings. They are interesting companies, much like stocks and bonds, under a new label.”<sup>73</sup> He continued, “You can call it a coin, but if it functions as a security, it is a security.”<sup>74</sup> Clayton’s major concerns stem from the lack of regulatory oversight in the cryptomarkets and he believes that “many ICOs are being conducted illegally by not following securities laws.”<sup>75</sup> He concluded by cautioning the ICO marketplace that “those who engage in semantic gymnastics or elaborate structuring exercises in an effort to avoid having a coin be a security are squarely within the crosshairs of our enforcement division.”<sup>76</sup> However, Clayton was not negative on the cryptomarkets as a whole, as he also stated that he “think[s] this distributed ledger technology has enormous potential... [and he] hope[s] people pursue it vigorously.”<sup>77</sup>

Rightly so, the SEC is much more concerned with ICOs than traditional CCs like Bitcoin or Ethereum. An Initial Coin Offering (“ICOs”) is an effective tool being used in conjunction with CCs to raise capital. Generally, these offerings involve an investment opportunity to exchange FIAT or CCs for a digital coin or token that will be developed—the expectation typically being that investor funds will be used to develop such digital coin. As made clear by the excerpts above, the major question for ICO investors, developers, and SEC regulators is whether

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72 *Id.*

73 Andrew Nelson, *SEC and CFTC Give Testimonies at Senate Hearing on Virtual Currencies*, BITCOIN MAGAZINE, YAHOO FINANCE (February 6, 2018), available at: <https://finance.yahoo.com/news/sec-cftc-testimonies-senate-hearing-015033442.html>

74 *Id.*

75 *Id.*

76 *Id.*

77 *Id.*

the ICO a security. As I am sure you are expecting, the answer is: “it depends.” The SEC published a public statement on their website entitled “Statement on Cryptocurrencies and Initial Coin Offerings” on December 11, 2017.<sup>78</sup> Within this statement, Chairman J. Clayton provided the following guidance on how to determine whether a particular token should be considered a security for securities law purposes:

[A] token that represents a participation interest in a book-of-the-month club may not implicate our securities laws, and may well be an efficient way for the club’s operators to fund the future acquisition of books and facilitate the distribution of those books to token holders. In contrast, many token offerings appear to have gone beyond this construct and are more analogous to interests in a yet-to-be-built publishing house with the authors, books and distribution networks all to come. It is especially troubling when the promoters of these offerings emphasize the secondary market trading potential of these tokens. Prospective purchasers are being sold on the potential for tokens to increase in value – with the ability to lock in those increases by reselling the tokens on a secondary market – or to otherwise profit from the tokens based on the efforts of others. These are key hallmarks of a security and a securities offering.<sup>79</sup>

Essentially, the main point that the SEC is making is that the fact that the technological structure behind a securities offering may be changing does not change the need to abide by applicable securities laws. Technology is constantly changing the way we do things, and the SEC understands the need to encourage and support technological growth and innovative projects surrounding the capital raising space. However, if that innovative activity involves an offering of a security it must be accompanied by the necessary “disclosures, processes and other investor protections that our securities laws require.”<sup>80</sup> This represents the old regulatory adage that

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<sup>78</sup> SEC Chairman Jay Clayton, *Public Statement on Cryptocurrencies and Initial Coin Offerings*, U.S. SECURITIES AND EXCHANGE COMMISSION (Dec. 11, 2017), available at:

<https://www.sec.gov/news/public-statement/statement-clayton-2017-12-11>

<sup>79</sup> *Id.*

<sup>80</sup> SEC Chairman Jay Clayton, *Public Statement on Cryptocurrencies and Initial Coin Offerings*, U.S. SECURITIES AND EXCHANGE COMMISSION (Dec. 11, 2017), available at:

<https://www.sec.gov/news/public-statement/statement-clayton-2017-12-11>



prioritizes *substance* over form. From the perspective of the SEC, whether a company or individual is using a central ledger or recording securities interests through a distributed ledger using blockchain, the substance of the transaction remains the same. Thus, the SEC and other relevant government actors remain focused on identifying the underlying purposes behind each ICO or blockchain-backed transaction.

The SEC's interest surrounding ICOs and CCs relates most frequently to how the ICO attracts investors, the kind of investors that they attract, and the technical manner in which they facilitate fundraising.<sup>81</sup> The fear is that many ICOs may be enticing young, unsophisticated, and impressionable amateur investors into investing in something that may or may not have any real value. However, there is still some confusion as to the actual scope of the SEC's regulatory participation. When an investor buys Bitcoin on an exchange or through similar means, this would not typically implicate the SEC's involvement or any securities analysis. Instead, the SEC is concerned about the fundraising methods being performed by blockchain developers prior to the actual creation of that CC. For example, let's assume some Seton Hall University students launched a fundraising campaign for a CC called SetonCoin. If the students had not yet developed the SetonCoin blockchain but were instead soliciting investment in future tokens, this would likely be deemed a security by the SEC—it would be a transaction involving “(i) an investment of money, (ii) in a common enterprise, (iii) with the expectation that profits will be derived from the efforts of the promoter or a third party.”<sup>82</sup> This type of transaction typically involves an investment pre-development in exchange for a discounted distribution of tokens or coins in the future. Additionally, there is an expectation that the value of such tokens will increase in the future, hence the application of securities laws. Thus, in the situation above, the

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<sup>81</sup> *See Id.*

<sup>82</sup> *See SEC v. W.J. Howey Co.*, 328 U.S. 293, 298-99 (1946).

students behind SetonCoin would need to register the securities offering with the SEC. However, there are several options available to these students.

#### (1) Registered Public Offering (Initial Public Offering)

The students could register their coin as a public offering by filing a Form S-1 and drafting a prospectus. This is what a company typically does before going public and launching their Initial Public Offering (IPO).<sup>83</sup> The downside to this option are the costs. After calculating the costs associated with writing the prospectus and preparing the registration materials, the students would likely have a panic attack and abandon their project.

#### (2) Non-Public Offering (Reg D Private Placement)

The students may choose to file an exemption from registration with the SEC. This would require that the students make all the necessary disclosures and comply with all relevant Reg D rules. Most importantly, the students could only sell equity to accredited angel investors and venture capital funds. This would significantly reduce the scope of investors available to the students. However, this may be the best option if the students have a few angel investors in mind, or a rich uncle who has offered to help finance the project.<sup>84</sup>

#### (3) Regulation CF (Crowdfunding Exemption)

Spoiler alert. This is probably the best option. Under Reg CF, the students can raise up to \$1 million from both accredited and non-accredited investors.<sup>85</sup> Very recently, the JOBS Act added

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<sup>83</sup> FORM S-1 REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933, available at: <https://www.sec.gov/files/forms-1.pdf>

<sup>84</sup> *Regulation D—Rules Governing the Limited Offer and Sale of Securities Without Registration Under the Securities Act of 1933*, 230.501 - 230.506, 47 FR 11262, (Mar. 16, 1982), available at: [https://www.ecfr.gov/cgi-bin/text-idx?SID=e282de4f5c69b6a69c70dd05d5b92d39&mc=true&node=sg17.3.230\\_1498.sg11&rgn=div7](https://www.ecfr.gov/cgi-bin/text-idx?SID=e282de4f5c69b6a69c70dd05d5b92d39&mc=true&node=sg17.3.230_1498.sg11&rgn=div7)

<sup>85</sup> *Regulation Crowdfunding Rules*, Blog, Crowdfunding, SEEDINVEST, available at: <https://www.seedinvest.com/blog/crowdfunding/regulation-crowdfunding-rules>

a new exemption to the Securities Act, Section 4(a)(6).<sup>86</sup> Reg CF would allow the students to raise funds without registration, but this exemption has a few conditions. Aside from the \$1 million dollar cap and making various disclosures, "[i]f either the annual income or the net worth of the investor is less than \$100,000, the investor is limited to the greater of \$2,000 or 5% of the lesser of his or her annual income or net worth."<sup>87</sup> Furthermore, "[i]f the annual income and net worth of the investor are both greater than \$100,000, the investor is limited to 10% of the lesser of his or her annual income or net worth, to a maximum of \$100,000."<sup>88</sup> These conditions are in place to protect unaccredited investors from massive losses. All things considered, the Reg CF option should provide our students with enough capital to launch their SetonCoin with the least legal fees and registration costs. Additionally, this option allows the students to take advantage of the broad reach of internet platforms like StartEngine or Republic.<sup>89</sup> These platforms have access to an enormous range and variety of investors. Typically the minimum investment can be anywhere from \$5 to \$20, thus allowing for mass participation. With the advent of CC, the market has since realized the power of the small investor. While a single \$10 investment may not get you far, if 2 million people invest \$10 you have now raised \$20 million. Therefore, the Reg CF option may provide the students with the most flexibility and access to capital. However, the students may also want to take a look at some recent SEC precedent to learn what *not* to do. As stated above, the SEC has brought a plethora of enforcement actions that offer only a partial degree of regulatory guidance. However, in lieu of having such guidance, we must attempt to glean as much as possible from the growing number of enforcement actions being brought

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86 *Id.*

87 *Id.*

88 *Id.*

89 See <https://www.startengine.com/>; also see <https://republic.co/>

against CC market participants. Below, I have provided an analytical summary of a collection of recent and highly relevant SEC actions against ICOs.

1. AriseBank

AriseBank purported itself to be the world's first "decentralized bank," supposedly offering an assortment of commercial banking products and services, and supporting "more than 700 different virtual currencies."<sup>90</sup> The sham entity claimed to be "one of the largest cryptocurrency platforms ever built," and was purportedly "focused on bringing cryptocurrency to the average consumer and using it to revolutionize banking."<sup>91</sup> AriseBank raised capital through an ICO of its own CC called "AriseCoin," through which AriseBank claimed to have raised more than \$600 million.<sup>92</sup> AriseBank made several material misrepresentations in connection with their ICO, including announcing that it had "purchased a 100-year-old commercial bank" and claiming that AriseBank could now "offer FDIC-insured accounts and transactions," all of which being entirely fabricated.<sup>93</sup> The SEC charged AriseBank with securities laws violations due to the company's failure to disclose their financial information through securities registration with the SEC.<sup>94</sup> This was the SEC's dream case. Not only was this an unauthorized sale of securities, but company officials lied repeatedly in connection with their ICO. This is an example of an obvious attempt to take advantage of eager CC enthusiasts and inexperienced investors through fraudulent means. However, the lessons learned from this case

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90 SEC v. Arise Bank, Civil Action No. [Filed under seal] (January 25, 2018), available at: <https://www.sec.gov/litigation/complaints/2018/comp-pr2018-8.pdf>

91 SEC v. Arise Bank, Civil Action No. [Filed under seal] (January 25, 2018), available at: <https://www.sec.gov/litigation/complaints/2018/comp-pr2018-8.pdf>

92 *Id.*

93 *Id.*

94 *Id.*

are limited in terms of their application. It is generally known that making fraudulent statements in connection with an unregistered offering of securities is *not allowed*.

## 2. Plexcoin

On December 1, 2017, the SEC filed an emergency action to stop Lacroix and his partner Paradis-Royer from the further misuse of funds raised illegally through an unregistered ICO of securities called "PlexCoin" or "PlexCoin Tokens."<sup>95</sup> Over a 6 month period, the defendants raised \$15 million from thousands of investors through materially false and misleading statements.<sup>96</sup> Lacroix promised investors an ROI (return on investment) of 1,354% in less than a month. The defendants proceeded to “misappropriate investor funds and engage in other deceptive acts relating to investments in the PlexCoin.”<sup>97</sup> For example, Lacroix claimed: “(a) that the PlexCorps' "team" consisted of a growing cadre of experts stationed around the world and with a principal place of business in Singapore; (b) that the identity of PlexCorps' executives had to be kept hidden to avoid poaching by competitors and for privacy concerns; (c) that the proceeds of the PlexCoin ICO would be used to develop other PlexCorps products; and (d) that investors could expect "enormous" and "real" returns on PlexCoin Token investments.”<sup>98</sup> All of the above statements were later proven to be false. Furthermore, the defendants have misappropriated more than \$200,000 of investor funds on “extravagant personal expenditures,” while the rest was used to purchase Bitcoin.<sup>99</sup> Similar to the AriseBank case, these defendants committed fraud in connection with an unregistered sale of securities.

## 3. REcoin

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95 SEC v. PlexCorps, Civil Action No. 17-7007 (December 1, 2017), available at: <https://www.sec.gov/litigation/complaints/2017/comp-pr2017-219.pdf>

96 *Id.*

97 *Id.*

98 *Id.*

99 SEC v. PlexCorps, Civil Action No. 17-7007 (December 1, 2017), available at: <https://www.sec.gov/litigation/complaints/2017/comp-pr2017-219.pdf>

On September 29, 2017, the SEC filed an emergency action against Zaslavskiy and his company, REcoin, for “engaging in illegal unregistered securities offerings and ongoing fraudulent conduct and misstatements designed to deceive investors in connection with the sale of securities in so-called [ICO].”<sup>100</sup> Zaslavskiy fraudulently raised at least \$300,000 from hundreds of investors, through various material misrepresentations. In connection with the ICO, the defendant claimed: “(i) that investors were in fact purchasing digital “tokens” or “coins”; (ii) that Defendants had raised more than \$2 million, and, later, nearly \$4 million, from the REcoin ICO; (iii) that REcoin had a “team of lawyers, professionals, brokers, and accountants” that would invest REcoin’s ICO proceeds into real estate and that Diamond had “experts” to select the best diamonds; (iv) that REcoin had to shut down because the U.S. Government had forced it to do so; and (v) that investors in the REcoin ICO could expect to make returns from REcoin’s investments in real estate and that investors in the Diamond ICO could expect to make 10-15% returns from Diamond’s operations.”<sup>101</sup> All of these assertions were false. Furthermore, in an attempt to further “skirt the registration requirements of the federal securities laws,” Zaslavskiy modified the sale of the supposed “Diamond interests as sales of memberships in a club and the Diamond ICO as an ‘Initial Membership Offering’ or IMO.”<sup>102</sup> These attempts were unsuccessful. The SEC rightly recognized that the funds were still being raised fraudulently and in connection with “tokens” that did not actually exist, and thus, required SEC registration.<sup>103</sup>

The three cases above represent exactly what *not* to do as an ICO developer. Failing to register a sale or offering of securities is an easy way to put yourself on the SEC’s chopping block. The guidance is simple: if you are selling discounted future interests in a product/token

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100 SEC v. REcoin, Civil No. 17 Civ. ECF Case (September 29, 2017), available at: <https://www.sec.gov/litigation/complaints/2017/comp-pr2017-185.pdf>

101 *Id.*

102 *Id.*

103 *See id.*

that you have yet to create, it is probably a security under the Howey test.<sup>104</sup> Whether ICO's *should* be treated as securities is a different question—which we will address later. The second problem that is frequent throughout recent SEC enforcement actions is lying and deceit in connection with their unregistered securities offering. Material misrepresentations are never a good idea and will almost always land your business in hot water. Guaranteeing profits and abnormally high returns is foolish at best, and a flagrant crime at its worst. The SEC wants accurate disclosures and a clear description of the ICO's business activity (aka "use-case"). ICO developers should have a well throughout use and purpose for their CC or smart token. The ICOs that have passed regulatory scrutiny with flying colors will typically have rock solid disclosures and use-cases that are easy to understand. MedChain for example, is a Reg CF registered ICO that seeks to revolutionize the storage and management of medical records.<sup>105</sup> The ICO is listed on StartEngine and has raised over \$430,000.<sup>106</sup> Indeco is another positive example, a company that seeks to facilitate the growth of the solar energy sector within the commercial real estate space.<sup>107</sup> They have raised nearly \$200,000.<sup>108</sup> The point is that there are ways to capitalize on the massive growth occurring in the blockchain space through an ICO without unduly burdensome registration and costly listing fees, but it must be done properly. Even ICOs that require funding in excess of the \$1 million cap can supplement their Reg CF by using some Reg D funding to fill the gaps. Thus, Reg CF remains among the most flexible and cost effective methods to raise funds for most small cap ICOs.

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104 See SEC v. W.J. Howey Co., 328 U.S. 293, 298-99 (1946).

105 JD Alois, *ICO: MedChain Plans MedCoin in Blockchain Push to Fix Medical Record Management*, CROWDFUND INSIDER (Jan. 2, 2018), available at: <https://www.crowdfundinsider.com/2018/01/126546-ico-medchain-plans-medcoin-blockchain-push-fix-medical-record-management/>

106 MedChain, STARTENGINE (2018), available at: <https://www.startengine.com/medchain>

107 Indeco, StartEngine (2018), available at: <https://www.startengine.com/indeco>

108 *Id.*

Fundraising methodology is not the major problem. The problem lies with the limited scope in which the SEC has evaluated potential ICOs. The “is it a security” analysis is both outdated and insufficient. There should be a specific analysis and regulatory process for ICOs due to the complex nature of blockchain technology. Even ICOs with valid registration and allegedly legitimate use-cases could be ripe with technical flaws. Due to the SEC’s lack of industry-specific knowledge, the current regulatory practice is to simply accept exceedingly broad functional descriptions provided by ICO developers as true unless proven otherwise. Regulators must be mindful of “fraud at inception” issues that will undoubtedly arise. For example, the SEC currently has no way of verifying that the blockchain technology being developed by ICO managers will be technically sound and function the way it is being purported to function. Highly sophisticated computer scientists and software engineers are more than capable of designing a “rigged” blockchain that is programmed to wreak havoc without warning. The same issue has arisen with regard to algorithmic trading systems.<sup>109</sup> The “flash crash” of 2010 caused a total market loss of \$1 trillion due to rogue algorithm that was poorly designed.<sup>110</sup> Essentially, recent MIT graduates and ex-software engineers for Google and Facebook, with no prior financial industry knowledge or experience, were being recruited by investment banks and hedge funds to program algorithmic trading machines.<sup>111</sup> As you can imagine, it did not always go well. At the direction of their superiors, many of these software engineers unknowingly programmed

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109 See K. Braeden Anderson, *Regulating Robo-Finance: An Exposé On Recently Ratified SEC Rule Requiring Algorithmic Trading Developers to Register as Securities Traders*, [Unpublished] SETON HALL LEGISLATIVE JOURNAL NOTE (2017) (citing Tom C.W. Lin, *The New Financial Industry*, 65 ALA. L. REV. 567, 580-81 (2014)).

110 Tom C.W. Lin, *The New Financial Industry*, 65 ALA. L. REV. 567, 580-81 (2014).

111 See K. Braeden Anderson, *Regulating Robo-Finance: An Exposé On Recently Ratified SEC Rule Requiring Algorithmic Trading Developers to Register as Securities Traders*, [Unpublished] SETON HALL LEGISLATIVE JOURNAL NOTE (2017) (citing Tom C.W. Lin, *The New Financial Industry*, 65 ALA. L. REV. 567, 580-81 (2014)).



algorithms which committed securities violations.<sup>112</sup> In response, the SEC ratified NASD rule 1032(f), proposed by FINRA, which requires those primarily responsible for the development of algorithmic trading systems to be registered securities traders.<sup>113</sup> The lesson being: industry-specific knowledge is not only useful, but necessary to the proper regulation of complex machines and revolutionary technology. Therefore, the majority of accountability and responsibility should be placed on industry-experts.

Without an in depth knowledge of blockchain fundamentals and the mechanics (coding language and programming) behind it, regulators are again forced to take a “wait and see” approach. If investors get ripped off, then the SEC will likely spring into action. But as we have learned from our earlier discussion regarding money laundering, fraud, and opportunities for misuse, there is very little that can be done after the fact. The SEC, understandably, has devoured the easy prey first—focusing on ICO managers who have told blatant falsehoods in connection with unregistered sales of securities. While this is indeed the expected consequence of a “regulatory sandbox” approach, it is crucial that we begin to lay a foundation for a scalable and intelligent regulatory system. Fearing technology and stifling growth is not the answer, but the potential for harm is too great to “wait and see.”

(2) Commodity Futures Trading Commission:

As we briefly described earlier, the CFTC has officially characterized Bitcoin as a commodity,<sup>114</sup> and announced that “fraud and manipulation involving [B]itcoin traded in

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112 Charles R. Korsmo, High-Frequency Trading: A Regulatory Strategy, 48 U. RICH. L. REV. 523, 532 (2014).

113 Security Exchange Act, Release No. 34-77551 (April 7, 2016) SR-FINRA-2016-007 (“Regulatory Notice”) (defining the NASD Rule 1032 rule change).

114 U.S. COMMODITY FUTURES TRADING COMMISSION, RELEASE Number 7231-15, *CFTC Orders Bitcoin Options Trading Platform Operator and its CEO to Cease Illegally Offering Bitcoin Options and to Cease Operating a Facility for Trading or Processing of Swaps without Registering* (September 17, 2015) (CFTC in the 2015 order against Coinflip, Inc.), available at: <https://www.cftc.gov/PressRoom/PressReleases/pr7231-15>

interstate commerce and the regulation of commodity futures tied directly to [B]itcoin is under its authority.”<sup>115</sup> Generally speaking, the CFTC has taken a cautious and thoughtful approach to the regulation of CCs. In fall 2017, the CFTC allowed the CME and CBOE to launch bitcoin futures, and “approved a platform for the trading and clearing of virtual currency derivatives for LedgerX, LLC, a swap execution facility and derivatives clearing organization.”<sup>116</sup> Allowing the bears and bulls to fight it out in the futures market resulted in increased selling pressure. Short positions, in conjunction with other factors, drove down the price of Bitcoin by over 50%.<sup>117</sup>

The increased societal involvement of U.S. citizens in the CC market has captured the attention of a diverse collection of U.S. government actors. Most notably, on February 6<sup>th</sup> 2018, the Senate Committee on Banking, Housing and Urban Affairs (the “Committee”) heard joint testimony from the heads of both the SEC and the CFTC on the “potential dangers of digital currencies as investments.”<sup>118</sup> This testimony was given “amid a crackdown on Bitcoin exchanges in China and South Korea,” and many CC traders feared the worst.<sup>119</sup> However, these fears were quickly put to rest as U.S. regulators vowed to take a “no harm approach” to CC regulation.<sup>120</sup> For example, Giancarlo of the CFTC stated, “We owe it to this new generation to

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115 Francine McKenna, *Here’s How the U.S. and the World Regulate Bitcoin and Other Cryptocurrencies*, (Dec 28, 2017 11:19 a.m. ET), available at:

<https://www.marketwatch.com/story/heres-how-the-us-and-the-world-are-regulating-bitcoin-and-cryptocurrency-2017-12-18>

116 Francine McKenna, *Here’s How the U.S. and the World Regulate Bitcoin and Other Cryptocurrencies*, Dec 28, 2017 11:19 a.m. ET, available at:

<https://www.marketwatch.com/story/heres-how-the-us-and-the-world-are-regulating-bitcoin-and-cryptocurrency-2017-12-18>

117 See Bitcoin, Historical Data, COINMARKETCAP, available at: <https://coinmarketcap.com/> (data indicating that the price has seen a decline of over 50% since the CME and CBOE provided Bitcoin support on futures trading).

118 Lucinda Shen, *Bitcoin Traders Are Relieved at CFTC and SEC Cryptocurrency Senate Hearing Testimony*, FORBES (February 7, 2018), available at:

<http://fortune.com/2018/02/06/bitcoin-price-cftc-sec-cryptocurrency-hearing/>

119 *Id.*

120 Lucinda Shen, *Bitcoin Traders Are Relieved at CFTC and SEC Cryptocurrency Senate Hearing Testimony*, FORBES (February 7, 2018), available at:

respect their enthusiasm for virtual currencies, with a thoughtful and balanced response, and not a dismissive one.”<sup>121</sup> Giancarlo explained that businesses across the world are already utilizing this technology— and as an example, he cited a recent blockchain transaction that involved a U.S. company sending 76,000,000 tons of soybeans to China.<sup>122</sup> The CFTC Chairman even went on to describe the term “HODL,” which has become a popular word within CC trading culture and is a popular aphorism and hashtag on social media.<sup>123</sup> No, it is not just the word “hold” spelled wrong, although that would have been my first guess. Giancarlo casually explained that his niece is actually a Bitcoin “HODLER,” and described that the term “HODL” means to “hold on for dear life.”<sup>124</sup> CC traders were especially elated by the results of the SBC Hearing, and the markets reacted accordingly. For example, the price of Bitcoin rose from \$6,000 to \$7,650 in the hours following the Hearing.<sup>125</sup> As you can imagine, this caused millions of Americans to react in amusement. One cannot help but wonder whether we would have heard a different message from the CFTC if Giancarlo’s niece was not a CC investor. The perception is that the “crypto revolution” has captured the hearts and minds of the younger generations, but older generations are largely still hesitant about this technology. Whether this trend will continue or soften in the future remains to be seen.

As mentioned previously, there have been some harsh criticizers and non-believers of CCs, one of the loudest skeptics being J.P. Morgan CEO Jamie Dimon, who sees the value in blockchain technology but stated that he believes Bitcoin a “fraud.”<sup>126</sup> But in response to this

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<http://fortune.com/2018/02/06/bitcoin-price-cftc-sec-cryptocurrency-hearing/>

121 *Id.*

122 *Id.*

123 *Id.*

124 *Id.*

125 Lucinda Shen, *Bitcoin Traders Are Relieved at CFTC and SEC Cryptocurrency Senate Hearing Testimony*, FORBES (February 7, 2018), available at:

<http://fortune.com/2018/02/06/bitcoin-price-cftc-sec-cryptocurrency-hearing/>

126 *Id.*

line of criticism, Giancarlo strongly reminded Congress of a very important fact: “if there were no Bitcoin, there would be no distributed ledger technology” or “blockchain.”<sup>127</sup> However, he continued, “We intend to be very aggressive, if nothing else, so that people like my niece can have some security that there aren’t fraudsters and manipulators out there—and there are a lot, too many, far too many of them.”<sup>128</sup> Therefore, while the CFTC has clearly taken a “no harm” approach to CC regulation, CC enthusiasts and HODLERS are not out of the woods yet—as there is still an obvious need to educate the investing public and pay close attention to all market participants.

For example, in January 2018, the CFTC published the following statement on their webpage:

#### CUSTOMER ADVISORY: RISKS OF VIRTUAL CURRENCY TRADING

Virtual currency is a digital representation of value that functions as a medium of exchange, a unit of account, or a store of value, but it does not have legal tender status. Virtual currencies are sometimes exchanged for U.S. dollars or other currencies around the world, but they are not currently backed nor supported by any government or central bank. Their value is completely derived by market forces of supply and demand, and they are more volatile than traditional fiat currencies. Profits and losses related to this volatility are amplified in margined futures contracts. This customer advisory is designed to inform the public of possible risks associated with investing or speculating in virtual currencies or recently launched Bitcoin futures and options.<sup>129</sup>

This advisory statement represents the common argument that CC has no inherent value; the idea being that FIAT currencies have value due to being backed by a national government. However, there is no inherent value in ink on special paper either. The blockchain technology provides the value associated with CC. The question is how much value the particular blockchain behind each

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127 Lucinda Shen, *Bitcoin Traders Are Relieved at CFTC and SEC Cryptocurrency Senate Hearing Testimony*, FORBES (February 7, 2018), available at:

<http://fortune.com/2018/02/06/bitcoin-price-cftc-sec-cryptocurrency-hearing/>

128 *Id.*

129 U.S. COMMODITY FUTURES TRADING COMMISSION, Bitcoin Index, available at <http://www.cftc.gov/bitcoin/index.htm>

CC is worth. This question requires that we evaluate each blockchain token individually and assess the value that its technology represents. In order to emphasize this, the CFTC issued a warning advising investors to conduct their own research before investing in CCs, “particularly ones that have small market caps and illiquid markets pump-and-dump schemes.”<sup>130</sup> In part, the Customer Protection Advisory states the following:

Customers should not purchase virtual currencies, digital coins, or tokens based on social media tips or sudden price spikes. Thoroughly research virtual currencies, digital coins, tokens, and the companies or entities behind them in order to separate hype from facts ... As with many online frauds, this type of scam is not new – it simply deploys an emerging technology to capitalize on public interest in digital assets ... Pump-and-dump schemes long pre-date the invention of virtual currencies, and typically conjure the image of penny stock boiler rooms, but customers should know that these frauds have evolved and are prevalent online.<sup>131</sup>

The CC market is unusually susceptible to manipulation through the use of various schemes, including the classic “pump-and-dump.”<sup>132</sup> This is achieved by creating a constant “buzz” about an asset through voluminous advertising and promotional materials, and then selling against this buy pressure in large quantities at opportune moments.<sup>133</sup> There are various Instagram and Facebook groups that conspicuously even label their page as a “pump group” or “pump and dump group.” The prevalence and vulnerability of the highly speculative and volatile CC market has indeed caused some companies, including Facebook, to completely ban such advertising

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130 Josiah Wilmoth, *CFTC Issues Investor Warning on Cryptocurrency Pump-and-Dump Scams*, CCN (February 15, 2018), available at: <https://www.ccn.com/cftc-issues-investor-warning-cryptocurrency-pump-dump-scams/>

131 Customer Advisory: *Beware Virtual Currency Pump-and-Dump Schemes*, CFTC (February 15, 2018), available at: [http://www.cftc.gov/idc/groups/public/@customerprotection/documents/file/customeradvisory\\_pumpdump0218.pdf](http://www.cftc.gov/idc/groups/public/@customerprotection/documents/file/customeradvisory_pumpdump0218.pdf)

132 See Josiah Wilmoth, *CFTC Issues Investor Warning on Cryptocurrency Pump-and-Dump Scams*, CCN (February 15, 2018), available at: <https://www.ccn.com/cftc-issues-investor-warning-cryptocurrency-pump-dump-scams/>

133 *Id.*

across all of its platforms.<sup>134</sup> As such, the CFTC also offered a cash reward in exchange for “original information that leads to a successful enforcement action that leads to monetary sanctions of \$1 million or more.”<sup>135</sup> The reward could potentially be over \$100,000, as the CFTC stated that an individual who reports such information may be eligible for a “monetary award of between 10 percent and 30 percent.”<sup>136</sup> This market has attracted many unsophisticated and impressionable investors, which has understandably grabbed the attention of regulators. The problem is that there are not clearly defines lines surrounding what type of promotion or “pumping” is prohibited. If the page creator is a genuine fan of the Coin or Token (for whatever reason), he or she may post favorable news about the coin and publish updates regarding positive developments in the CC space. There are undoubtedly thousands of such pages. But are these pages really engaging in a pump and dump scheme? It is a difficult question with no clear answers. If a coin promoter is also an investor in the coin is it automatically a pump and dump scheme simply because he or she has chosen to take an active role in marketing the coin. Yes, the activity may be self-serving, but is this behavior misleading? Is this behavior really fraud? And if it is, does it matter if that the page’s creator is a 12 year old who lives with his grandparents in Wyoming and only made \$100? The CC industry is not like other areas of the financial industry. Therefore, the Customer Protection Advisory note above is somewhat misleading. The CC market has attracted much different players than the penny stocks in the 80s or even the stock market generally, thus, it cannot be evaluated in the same manner. Individuals who have invested

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134 See Josiah Wilmoth, *CFTC Issues Investor Warning on Cryptocurrency Pump-and-Dump Scams*, CCN (February 15, 2018), available at: <https://www.ccn.com/cftc-issues-investor-warning-cryptocurrency-pump-dump-scams/>

135 Edward Kelso, *CFTC Offers \$100,000 Bounty to Crypto Pump-and-Dump Whistleblowers*, BITCOIN.COM (February 19, 2018), available at: <https://news.bitcoin.com/cftc-offers-100000-bounty-to-crypto-pump-and-dump-whistleblowers/>

136 *Id.*

their money in a coin are most likely going to promote their coin. Period. Attempting to single out certain individuals and YouTubers who have made more money than others is arbitrary and subjective. The only individuals who should be harshly prosecuted are those who misled the public by endorsing or promoting a coin in a misleading or fraudulent manner. Simply exercising your first amendment rights by voicing your support for a coin and then selling it when you've made profits should not amount to fraud. Instead, however, if a sophisticated individual preys on the uneducated and makes material misrepresentations in connection with their promotion, that—and that only—should rise to the requisite level of culpability. Therefore, my proposition is that there can certainly be *both* fraudulent and legally valid pumping and promotion of a coin. These criticisms aside, government regulators have correctly focused on encouraging market participants to do their own research and evaluation of a coin.<sup>137</sup> Consumer education is likely the most effective method by which to stop pump and dump schemes from succeeding.

(3) Internal Revenue Service:

The IRS says bitcoin must be treated as property for tax purposes.<sup>138</sup> That means a capital gain or loss should be recorded as if it were an exchange involving property.<sup>139</sup> It should be treated like inventory if it is held for resale, and therefore an ordinary gain or loss recorded. If it is used as payment, it should be treated like currency, but must be converted, and its fair market value checked on an exchange.<sup>140</sup> Therefore, if you use Bitcoin to buy groceries you would only be taxed on any increase in value that has accumulated prior to its use for payment. This process

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137 *See id.*

138 Francine McKenna, *Here's How the U.S. and the World Regulate Bitcoin and Other Cryptocurrencies*, Dec 28, 2017 11:19 a.m. ET (information compiled by global law firm, Perkins Coi), available at: <https://www.marketwatch.com/story/heres-how-the-us-and-the-world-are-regulating-bitcoin-and-cryptocurrency-2017-12-18>

139 *Id.*

140 *Id.*

can be complex, especially for those who are not accustomed to calculating capital gains tax and tracking their adjusted basis. Some exchanges, like Coinbase, provide a summary of your taxable gains/losses for that taxable year.<sup>141</sup> However, there are certainly loopholes. For example, if you use USD to purchase Bitcoin on Coinbase and then transfer it to a foreign exchange, any trading you perform outside the scope of Coinbase surveillance will not be included in your Coinbase taxable gains report. Therefore, by transferring digital assets out of Coinbase prior to realizing gains, you could theoretically avoid IRS detection of any failure to report any gains/losses you might have incurred. The solution to this problem is the same: limit opportunities for anonymity.

#### V. Enacting the Financial Regulatory Body of the Future

The U.S. government will likely need to dedicate an entirely new commission or agency to solely regulate virtual currencies. Regulating an entirely new asset class cannot be done effectively or efficiently by working in six different silos. Similarly, digital assets should not be forced to fall within preexisting categories of regulatory interest. Bitcoin is not a stock. Bitcoin is not a commodity. Bitcoin is a CC. A brand new asset class that deserves its own separate regulatory consideration. The blockchain industry deserves not only the attention of regulators, but their respect. Innovators behind this emerging technology and blockchain payment systems deserve to be regulated by a jury of their peers. By this I mean, the blockchain industry should be regulated by those with education and experience that is relevant to blockchain and CC. Teaching old dogs new tricks, if not impossible, is really hard to do. If CC regulation is to be taken seriously by its market participants, the government will need to gain the assistance of those who market participants take seriously. There is already extreme cultural resentment that exists between CC enthusiasts and government. In fact, many market participants see CC as their only hope of being freed from government shackles. We need to hire the right people. The

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<sup>141</sup> COINBASE, available at: <https://www.coinbase.com/>



ideologies of stock brokers from the 80s are not going to be effective leaders in this space. Therefore, to be effective and avoid backlash, our government needs to adapt and keep pace with the changing ideologies of younger generations.

Blockchain enthusiasts Cameron and Tyler Winklevoss, the Co-Founders of Gemini, recently proposed that the virtual currency industry should be governed by a “self-regulatory organization.”<sup>142</sup> The Winklevoss twins specifically advocate for the enactment of the Virtual Commodity Association (VCA), which would operate as an industry sponsored self-regulatory organization for the U.S. virtual currency industry.<sup>143</sup> Their proposal outlines a membership-based structural framework that would be available for all U.S. based “virtual commodity platforms, over-the-counter (OTC) trading firms, and other trading facilities acting as counterparties that: Provide an all-to-all platform or venue, available to U.S. participants, for transacting in the spot virtual commodity markets; or Provide OTC or off-exchange services, for transacting in the spot virtual commodity markets.”<sup>144</sup> The VCA structural framework would consist of: “(i) a non-profit, independent regulatory organization that does not operate any markets, (ii) will not be a trade association, (iii) will not provide regulatory programs for security tokens or security token platforms, and (iv) will be in compliance with global standards and best practices for SROs.”<sup>145</sup> The VCA very much embodies the virtues emphasized throughout this article: current regulators are too far behind the 8-ball to be effective. However, there are several

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142 Tyler and Cameron Winklevoss, *A Proposal for a Self-Regulatory Organization for the U.S. Virtual Currency Industry*, Introducing the Virtual Commodity Association, GEMINI (March 13, 2018), available at: <https://gemini.com/blog/a-proposal-for-a-self-regulatory-organization-for-the-u-s-virtual-currency-industry/>

143 *Id.*

144 Tyler and Cameron Winklevoss, *A Proposal for a Self-Regulatory Organization for the U.S. Virtual Currency Industry*, Introducing the Virtual Commodity Association, GEMINI (March 13, 2018), available at: <https://gemini.com/blog/a-proposal-for-a-self-regulatory-organization-for-the-u-s-virtual-currency-industry/>

145 *Id.*

counter arguments that cut against the VCA proposal, one of which being that due to the Winklevoss twins' direct participation in the market, they are an interested party—and thus prone to bias and a conflict of interests. There is some logic to that argument. The Winklevoss twins have certainly attained substantial riches as a direct result of their CC investments and market participation. Cameron and Tyler Winklevoss have amassed a CC fortune “worth about \$1.3 billion,” according to estimates from the New York Times.<sup>146</sup> However, the fact that Winklevoss twins are financially interested should not disqualify their proposal. As stated repeatedly throughout this article, in order to be more successful, regulators in this industry desperately need the assistance of “interested” parties like the Winklevoss twins. Such “interested” parties have a superior understanding of the blockchain industry’s inner-workings and underpinnings. Thus, it would be absurd to frown upon the mere existence of financial interest. This would offend basic principles of efficient capital markets. Their interest in the space adds value to their perspectives. They are highly motivated to assure the blockchain and CC markets’ overall success.

It is clear that market regulators intend not to stifle the industry, but to help it flourish safely. As cited above, regulators vowed to take a no harm approach since day *one*, and the Winklevoss twins have done everything the right way since day *one*. Gemini and the Winklevoss twins worked with the New York State Department of Financial Services (NYDFS) to obtain a trust company license for Gemini’s exchange and custody business in 2014.<sup>147</sup> Then later, in 2017, Cameron and Tyler Winklevoss were heavily involved in the development of the [CBOE](#)

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146 [Nathaniel Popper](#), *How the Winklevoss Twins Found Vindication in a Bitcoin Fortune, Technology*, THE NEW YORK TIMES, (Dec. 19, 2017) available at:

[https://www.nytimes.com/2017/12/19/technology/bitcoin-winklevoss-twins.html?\\_r=0](https://www.nytimes.com/2017/12/19/technology/bitcoin-winklevoss-twins.html?_r=0)

147 Tyler and Cameron Winklevoss, *A Proposal for a Self-Regulatory Organization for the U.S. Virtual Currency Industry*, Introducing the Virtual Commodity Association, GEMINI (March 13, 2018), available at: <https://gemini.com/blog/a-proposal-for-a-self-regulatory-organization-for-the-u-s-virtual-currency-industry/>

[Bitcoin \(USD\) Futures Contract](#).<sup>148</sup> They worked side by side with regulators and entered into an Information Sharing Agreement with the CBOE Futures Exchange (CFE).<sup>149</sup> Their wisdom and guidance enabled CC Futures Contracts to become registered with the Commodity Futures Trading Commission (CFTC), “to allow CFE to perform cross-market surveillance of Gemini’s marketplace.”<sup>150</sup> And finally, Gemini has enacted their own substantial regulatory policies within their own governing structure. Specifically, Cameron and Tyler have adopted an “internal Trading Policy with respect to material nonpublic information, as well as [Marketplace Conduct Rules for](#) all trading on [the Gemini] marketplace, in an effort to foster a rules-based marketplace.”<sup>151</sup> Their assistance should be welcomed with open arms. Cameron and Tyler have meaningful credibility within the blockchain and CC space both as market participants and as regulatory collaborators.

The adoption of the VCA, or a Self-Regulatory Agency (“SRO”) generally, would also cost less and be more efficient — similar to how the SEC leverages organizations like the Financial Industry Regulatory Authority (“FINRA”) to effectively regulate broker-dealers, an SRO could perform the same function for CC exchanges, platforms, wallets, and ICOs. Many of the rules and regulatory frameworks are already in place. The enacting of the VCA would only add to the existing SEC and CFTC regulatory structure. Yes; the SEC would still have their enforcement powers regarding fraudulent ICOs. Yes; the CFTC would still otherwise regulate CCs to the extent that a particular CC is functioning as a commodity. There are still a *whole* lot of regulatory concerns that have yet to be adequately addressed (wholly outside the existing

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148 *Id.*

149 *Id.*

150 *Id.*

151 Tyler and Cameron Winklevoss, *A Proposal for a Self-Regulatory Organization for the U.S. Virtual Currency Industry*, Introducing the Virtual Commodity Association, GEMINI (March 13, 2018), available at: <https://gemini.com/blog/a-proposal-for-a-self-regulatory-organization-for-the-u-s-virtual-currency-industry/>

SEC/CFTC scope). While the regulatory concerns may be similar to other financial products already under government jurisdiction, the differences are substantial. Regulating “commodities” and “securities” that involve multifaceted amalgamations of code requires a heightened understanding of the technology. For example, there are several gaping holes: (1) due diligence procedures, (2) financial management standards, (3) conflict of interest rules, (4) surveillance protocols, (5) cyber security requirements, and (6) enforcement.

#### Due Diligence Procedures

Consumers deserve a commercially adequate due diligence process whereby individuals with industry-relevant knowledge perform proper diligence and legal analysis with respect to ICOs, exchanges, wallets, and existing virtual currencies. No such process currently exists. Meaning, there is no way for investors (or regulators) to verify that a particular blockchain, CC, or ICO, will perform in the manner it is purported to. Instead, investors are forced to “wait and see,” and in the event of fraud, hope that the SEC or CFTC can recover their funds after the fact. This is not an ideal regulatory framework. To encourage a transparent and honest industry, we need to have a proper due diligence process for emerging ICOs and blockchains.

#### Financial Management Standards

Any industry that involves finance requires transparent financial management standards. The blockchain and virtual currency industry is no different. We do not “wait and see” whether BAML or JP Morgan are engaging in fraudulent financial practices. We have mandatory continuous reporting and best practices that must be adhered to. The prevention of fraud and misappropriation of investor funds is just as important as the prosecution of such behavior. Therefore, any new regulatory organization should incorporate some form of universal fiscal management standards.

### Conflicts of Interest

This is another common problem that must be addressed in any financial regulatory system. A competent regulatory organization must be tasked with assuring that the proper transparency protocols exist to avoid material conflicts of interest. The issues and concerns that conflicts of interest represent are widely known. Thus, an expansive definition is not necessary.

### Cyber Security Requirements

The financial world is becoming more and more virtual—and it is becoming increasingly necessary to assure that market participants entrusted with sensitive information are taking the proper steps to prevent security breaches. Therefore, this would be additional area of importance with respect to blockchain and virtual currency regulation. The regulatory organization would be tasked with both implementing and maintaining adequate cyber security prevention systems and threat mediation.

### Surveillance Protocols

Active virtual currencies, ICOs, and market participants need to be continuously surveilled to avoid negligent, reckless, or intentional wrongdoing or manipulation. This regulatory organization would have the responsibility to detect, deter, and discipline problematic behavior. This process would require enhanced supervisory guidelines and administrative requirements to be upheld by those primarily responsible for quality assurance and regulatory compliance.

### Enforcement

While the SEC and CFTC have made capable efforts in this area, it must be further augmented by an additional layer of regulatory enforcement. These major U.S. regulatory bodies have wide ranging responsibilities with regard to the financial industry as a whole. Much in the

same way that FINRA (Financial Industry Regulatory Authority) focuses its attention on continuous reporting, member regulation, and enforcement with regards to broker-dealers, the blockchain and virtual currency market also requires their own regulatory enforcement body and related procedures. This would enable the market to begin to self-regulate itself through the imposition of sanctions, fines, suspensions, and expulsions for violative conduct committed by market participants.

There are certainly a number of ways by which to address the above missing areas of regulatory focus. The VCA or a similar entity is certainly an option to consider, but it is not the only one. Other options may include: (1) the SEC or the CFTC could create an additional sub-commission or sub-agency solely dedicated to CCs; (2) the SEC could delegate the continuous reporting and regulatory oversight to FINRA; (3) U.S. legislators could enact a wholly separate government entity; or finally (4) the CFTC and SEC can continue to work in silos. There is arguably not a meaningful difference between options 1 through 3, but option 4 should be strongly disfavored for obvious reasons. Generally, all of these options (with exception of tapping FINRA), will require additional resources and government spending. Therefore, to the extent that government leaders favor less costly approaches, perhaps it would make the most sense to support the adoption of the VCA. In the alternative, expanding FINRA's scope of authority may also be an effective option. FINRA has both the physical infrastructure and requisite quasi-governmental structure in place to hit the ground running in this space. In the broker-dealer space, FINRA has already proven itself as a highly effective regulatory presence in the financial industry. In fact, the SEC has already delegated some investigatory and consumer education tasks to FINRA regarding ICOs.<sup>152</sup> Additionally, FINRA's 2018 Regulatory and

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152 Investor Alerts, *Initial Coin Offerings: Know Before You Invest*, FINANCIAL INDUSTRY REGULATORY AUTHORITY ("FINRA") (August 31, 2017), available at: <http://www.finra.org/investors/alerts/initial-coin-offerings-know-before-you-invest>

Examination Priorities Letter states the following regarding their role and approach to ICOs and CCs:

#### Initial Coin Offerings and Cryptocurrencies

Digital assets (such as cryptocurrencies) and initial coin offerings (ICOs) have received significant media, public and regulatory attention in the past year. FINRA will closely monitor developments in this area, including the role firms and registered representatives may play in effecting transactions in such assets and ICOs. Where such assets are securities or where an ICO involves the offer and sale of securities, FINRA may review the mechanisms—for example, supervisory, compliance and operational infrastructure— firms have put in place to ensure compliance with relevant federal securities laws and regulations and FINRA rules.<sup>153</sup>

Perhaps FINRA’s role should be expanded to not only continuously monitor broker-dealers within the financial industry, but “broker-dealers” and exchanges within the CC industry as well. By requiring CC market participants to be FINRA members, the U.S. government could easily address the aforementioned gaping holes. As a reminder: (1) due diligence procedures, (2) financial management standards, (3) conflict of interest rules, (4) surveillance protocols, (5) cyber security requirements, and (6) enforcement. FINRA is well suited for addressing these issues, as the organization already performs market regulation functions in all of the above areas. The subject matter is different, but the behavior is the same.

#### VI. Conclusion

The “wild wild west” or “regulatory sandbox” approach is simply not sustainable. While our current approach has enabled us to bridge the gap from the early stages of blockchain to today’s environment, steps must be taken to assure a safe and efficient marketplace. As previously mentioned, the Winklevoss twins have proposed that a “self-regulatory” organization

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<sup>153</sup> 2018 *Regulatory and Examination Priorities Letter*, FINANCIAL INDUSTRY REGULATORY AUTHORITY (“FINRA”) (Jan. 8, 2018), available at: <http://www.finra.org/industry/2018-regulatory-and-examination-priorities-letter>

which may be well suited approach for the job.<sup>154</sup> However, there are various options available to decision makers and government leaders. Therefore, for the aforementioned reasons, U.S. government actors should feel compelled to either: (1) support the Winklevoss proposal; (2) expand FINRA's scope of authority to include CCs and its market participants; or (3) enact a government agency with a similar function using the regulatory framework outlined in the above section.

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154 Tyler and Cameron Winklevoss, *A Proposal for a Self-Regulatory Organization for the U.S. Virtual Currency Industry*, Introducing the Virtual Commodity Association, GEMINI (March 13, 2018), available at: <https://gemini.com/blog/a-proposal-for-a-self-regulatory-organization-for-the-u-s-virtual-currency-industry/>