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Kickstarter My Heart: Extraordinary Popular Delusions and the Madness of Crowdfunding Constraints and Bitcoin Bubbles

David Groshoff

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KICKSTARTER MY HEART: EXTRAORDINARY POPULAR DELUSIONS AND THE MADNESS OF CROWDFUNDING CONSTRAINTS AND BITCOIN BUBBLES

DAVID GROSHOFF*

ABSTRACT

This Article builds on my existing research program that (a) broadly seeks to analyze laws, regulations, instruments, and policy levers that inhibit a market’s ability to recognize an asset’s intrinsic value, whether in terms of financial, social, or human capital, and (b) explores and advances interdisciplinary corporate governance theories by employing a heterodox economic analytic to derive its proposal to the paradox of an unregulated virtual currency market (Bitcoins) and an overly regulated crowdfunding market (Kickstarter).

The Article functions not only as an homage to Charles MacKay’s legendary 1841 book, Extraordinary Popular Delusions and the Madness of Crowds, which described the human, social, and economic psychology of financial bubbles—particularly the Dutch tulip bulb bubble—but also as an offering of problems and proposals that crowdfunded and Kickstartered entrepreneurial businesses, including those funded by Bitcoin currencies, present for a wide swath of societal stakeholders.

To describe the problem, this Article (i) describes behavioral finance, (ii) details the new entrepreneurial business possibilities that virtual currencies and crowdfunded entities can explore, (iii) describes how current rules and regulations represent unnecessary constraints to traditional

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equity-based funding models and concerning governance models of entrepreneurial enterprises, and (iv) questions why one form of capital deployment (currencies) may provide equity-like returns and unique governance, while the other form of investing (crowdfunding), provides only soft-dollar-like returns and no governance for middle-class investors. While both virtual currencies and crowdfunding represent risks, including economic bubble risk, this Article believes that a heterodox economic analysis demonstrates unnecessary constraints on entrepreneurial businesses imposed by extant regulation, regulators, law, and policymakers. To assuage these paradoxic problems for emerging business enterprises, this Article proposes a minarchist heterodox solution of modest statutory language that requires market-based solutions that employ needed risk reduction strategies while redeploying necessary capital to private startup business enterprises. This proposal thus benefits the middle class entrepreneurs, suppliers of capital, and job seekers harmed by the current regulatory regime, while permitting for an expansion of the U.S. and global economies.
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INTRODUCTION

Money ... has often been a cause of the delusion of multitudes. Sober nations have all at once become desperate gamblers, and risked almost their existence upon the turn of a piece of paper.¹

—Charles Mackay

_Time_ magazine published an article in April 2013 indicating that many reasons explain why an online virtual currency “is a classic bubble” and that “[m]any compare it to tulip mania in 17th century Holland, where prices of rare tulip bulbs soared to absurd heights and then crashed,” destroying the lives of those who purchased tulip bulbs.² “But the Bitcoin phenomenon is more than a bubble[,]” the piece continued.³ “It says something important about the current and future state of the global economy.”⁴

Famously detailing both Holland’s tulip bubble, as well as the bubble’s underpinnings in human economic and socio-psychological behavior, eighteenth century author Charles Mackay penned the legendary book, _Extraordinary Popular Delusions and the Madness of Crowds_.⁵ The tome not only discussed hundreds of government-authorized economic bubbles that involved massive fraud, but also described the delusional behavior of human economic actors in the midst of economic bubbles.⁶ While financial instruments, markets, business structures, and regulatory regimes have changed materially since Mackay’s work in the 1840s, sadly, the irrational

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³ Id.
⁴ Id.
⁶ See generally MACKAY, supra note 1.
behavior of economic actors transacting on imperfect information has seemingly remained static.

Of Western economies’ myriad government-involved economic bubbles, perhaps no other work besides Extraordinary Popular Delusions and the Madness of Crowds could serve as both the foundation and overlay to advance the analysis for this Article’s thesis. That analysis lies at the nexus of two competing tensions relative to U.S. government regulation concerning economic bubbles. Specifically, this Article addresses the U.S. federal government’s apparent contradictory—and perhaps even delusional—behavior when comparing the over-regulation (only partly assuaged in the 2012 JOBS Act)\(^7\) in nascent capital formation platforms—popularly known as crowdfunding—with a near-stunning regulatory absence over decentralized convertible virtual crypto-currencies, the most common of which is presently Bitcoin.\(^8\)

The government should maintain consistency when regulating, right-regulating, deregulating—or not regulating—alleged statutory goals relating to investment and capital deployment. In 2013 many painful demonstrations of these inconsistencies occurred as illustrated by popular culture’s increased focus on crowdfunding’s largest current platform, Kickstarter, and e-currencies’ largest player, Bitcoin.\(^9\)


\(^8\) See infra, Part I.


global economies attempted to ascend from the Great Recession, despite
the popular media and cultural coverage, U.S. federal agencies appeared
oblivious about how to act in the face of the swiftly moving practical reali-
ties impacting global economic redevelopment.10

First, the Securities and Exchange Commission (SEC) seemingly
moved at a snail’s pace to provide particular delayed-yet-statutorily-
required (and material) regulatory changes mandated under the JOBS Act,

10 This Article blends various analytics of development economics to support its
thesis. Amplifying traditional economists (Adam Smith, David Ricardo, Piero Sraffa,
Gunnar Myrdal, John Maynard Keynes, Friedrich Hayek, and Milton Friedman) to
analyze how current laws, regulations, and policies may function in the context of a
fragile global economy’s (re)development, I included, among others, Duncan Kennedy,
David Kennedy, Joseph Stiglitz, and Deepak Lal. Lal’s influential work has been called a
socio-economic blend of market failure policy analysis that Joseph Stiglitz later
employed in Stiglitz’s market failure policy analysis criticizing market signals in favor of
political socio-cultural signals in economic development. See Deepak Lal, The Dirigiste
Dogma, in THE POVERTY OF ‘DEVELOPMENT ECONOMICS’ 39 (1985); Joseph E. Stiglitz,
Participation and Development: Perspectives from The Comprehensive Development
Paradigm, 6 REV. OF DEV. ECON. 163 (2002); Joseph E. Stiglitz, Senior Vice President &
Chief Economist, Keynote Address at the World Bank Annual Bank Conf. on Dev.
Econ.: Whither Reform? Ten Years of the Transition 63–64 (Apr. 28–30, 1999),
great deal of law was required to translate the leading economic theories of development
into policy[,] ... [which] demanded the creation of numerous public law institutions,
established by statute and implemented by public law bureaucracies: exchange controls,
credit licensing schemes, ... tax incentives ... national commodity monopolies,” that
legislation needed to occur to achieve these ends, and “[a] vastly expanded administrative
apparatus, with rule making, licensing, and other legal authority would need to be set up,”
whether among Keynesian liberals, dirigiste leftists, centrists, or the neoliberal “Chicago
School” devotees, and argued that all sides advocated legal intervention in an economic
system to implement their respective political goals. David Kennedy, “The Rule of Law,”
Political Choices, and Development Common Sense, in THE NEW LAW AND ECONOMIC
DEVELOPMENT, A CRITICAL APPRAISAL 95, 102 (David M. Trubek & Alvaro Santos eds.,
2006). See also id. at 151, 153 (synthesizing Lal and Stiglitz). Duncan Kennedy’s critical
legal studies view led to his assertion that social law coordinated classical legal thought
stakeholders via “public agencies that were to make rules to instantiate relatively abstract
and vague legislative pronouncements (for example, in the U.S. context, a federal statute
banning ... ‘deceptive practices’ in securities law)” and left civil libertarians to “attack[]
the institutions as denying individual rights and the administrators as arbitrary and
implicitly authoritarian manipulators of vacuous general standards and empty expertise.”
Duncan Kennedy, Three Globalizations of Law and Legal Thought: 1850–2000, in THE
NEW LAW AND ECONOMIC DEVELOPMENT, A CRITICAL APPRAISAL 19, 84–85 (David M.
Trubek & Alvaro Santos eds., 2006).
relative to how businesses may solicit investor capital. In the Obama Administration’s second term, beginning in 2009, President Obama appointed and received Senate confirmation for the first SEC director in U.S. history with experience as a former federal prosecutor. Perhaps as an unsurprising result, rather than imbue a focus on implementing the rules and regulations required of the SEC within the timeline stated in the JOBS Act, which became law in 2012, during 2013, the SEC instead appeared to focus its admittedly limited resources on high-profile prosecutions of alleged perpetrators of insider trading, a victimless crime in an efficient market. The JOBS Act’s hailed panacea appears to represent a net detriment to, rather than protection of, middle-class U.S. investors, entrepreneurs, and job-seekers, thereby harming national economic redevelopment under a statute unmistakably called the JOBS Act.

Second, in March 2013, the Financial Crimes Enforcement Network (FinCEN), applied the authority granted to it under the Bank Secrecy Act (BSA) and issued new interpretive guidelines under longstanding provisions

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of the BSA\(^\text{16}\) and—only two months later, in May 2013—indicted and seized the assets of a decentralized convertible virtual currency exchange (yet again, in a high-profile manner for the mainstream media).\(^\text{17}\) The world of crypto-currencies serves as a sharp departure from a single federal government that logically ought to be striving to accomplish one related policy objective. The extant regulatory world represents a puzzlingly complex, divided, and therefore futile, administrative regime, inconsequential in its attempts to affect meaningful disincentives from any crowd madness that may fuel speculative economic bubbles in a still fragile economy.\(^\text{18}\) Perhaps some, or all, of these events led to a bipartisan Senate demand of the Obama administration on August 13, 2013, for “a holistic and whole-government approach to understand and provide a sensible regulatory framework,” which included, among other agencies, the Federal Reserve, the SEC, and the Commodities Futures Trading Commission (CFTC).\(^\text{19}\)

Part I of this Article articulates the history and context of behavioral economics and finance that has underpinned human economic behavior from tulipmania through today. Part II analyzes new virtual currencies and payment systems unimagined by nearly any law or regulation currently existing. Part III describes the concept of crowdfunding and identifies many legal provisions that have hindered equity-based crowdfunding of legitimate
businesses, thereby harming middle-class entrepreneurs, investors, job seekers, workers, and constraining economic production possibilities frontiers. Part IV synthesizes the ostensible cognitive dissonance between the government’s crowdfunding restrictions and its refusal to regulate virtual currencies, such as Bitcoins. This Part presents a heterodox-inspired solution that borrows from what I believe to be the best of both regulated and unregulated policy in the U.S. to achieve maximum freedom with corresponding protection for the U.S. middle-class and broader economy. The Article concludes that specific re-regulatory schemes may provide workable solutions not only to stem the excessive volatility of Bitcoin bubbles but also to kickstart the heart of crowdfunding, thus advancing economic development via entrepreneurship, job creation, new internal governance ideas, and investment opportunities with traditional equity-like returns.

I. OVERVIEW OF BEHAVIORAL FINANCE AND ECONOMICS

A. Descriptive and Comparative Analysis of Behavioral Finance

Behavioral Finance and Economics (BFE) broadly refers to interdisciplinary academic discussion and model development of human psychology and financial markets. BFE was developed after certain academic researchers, perhaps when climbing down the ladders from their ivory towers, noticed that economic actors do not necessarily act as neoclassical economics predicts. For instance, they act neither with perfect information nor in a perfectly rational manner. These anomalies did not exist in earlier modern economic and financial theories, including the efficient market theory, the utility theory, or homo economicus.

21 Id. at 96–97.
22 See, e.g., Eugene F. Fama, Market Efficiency, Long-Term Returns, and Behavioral Finance, 49 J. FIN. ECON. 283, 284 (1998) (stating that the efficient market theory’s premise that prices fully reflect available information and noting errors including not considering information-processing biases that may cause an investor to overreact or underreact to an asset’s market price in comparison to other investors’ reactions to the same asset’s market price).
23 See, e.g., Behavioral Finance vs. Traditional Finance Theory, MARKET REALIST, http://marketrealist.com/behavioral-finance-micro-bfmi-behavioral-finance-macro-bfma/ (last visited Feb. 24, 2014) (describing the utility theory’s assumption that investors make economic decisions in a consistent and independent manner relative to other potentially useful choices, resulting in the investor exercising the same decisions, even when combining or weighing unfavorable outcomes with other, more favorable decisions).
In contrast, BFE advocates assert that theory must include not only economics and finance but also the psychological theories accounting for social norms, emotions, and myriad extraneous factors influencing individual economic decision-making.\textsuperscript{25} Scholars including Daniel Kahneman, Terrance Odean, and Brad Barber, indicate that BFE theory “closely combines individual behavior and market phenomena and uses knowledge taken from both the psychological field and financial theory.”\textsuperscript{26} As opposed to employing the neoclassical economic assumption that economic actors’ choices always result from rational decision-making, BFE scholars leverage novel data that help explain investor judgment to encourage behavioral modifications among investors to achieve a more rational and profit maximizing outcome.\textsuperscript{25} Neoclassical theory asserts that irrational decisions represent judgments inexplicable under a “normative rationality” of profit maximization.\textsuperscript{28} 

BFE contends, however, that investors cannot make decisions or process information without interjecting individual human biases or emotions.\textsuperscript{29} Macro-level BFE research involves investors’ psychological biases that may cloud an economic decision,\textsuperscript{30} while micro-level BFE metadata posit

\begin{flushleft}


\textsuperscript{27} See Why Behavioral Finance is Relevant to the Investor, supra note 25.

\textsuperscript{28} Roy Sembel & Irwan Trinugroho, Overconfidence and Excessive Trading Behavior: An Experimental Study, 6 INT’L J. BUS. & MGMT. 147, 147 (2011). Having said that, as controversial economist Amartya Sen indicated:

\begin{quote}
[It is simply not adequate to take as our basic objective just the maximization of income or wealth, which is, as Aristotle noted, ‘merely useful and for the sake of something else.’ For the same reason, economic growth cannot sensibly be treated as an end in itself ... [It must] be more concerned with enhancing the lives we lead and the freedoms we enjoy. Expanding the freedoms that we have reason to value not only makes our lives richer and more unfettered, but also allows us to be fuller social persons, exercising our own volitions and interacting with—and influencing—the world in which we live.

\end{quote}

\textsuperscript{29} See Why Behavioral Finance is Relevant to the Investor, supra note 25.

\textsuperscript{30} See Sembel, supra note 28.
\end{flushleft}
several reasons to explain why investors make irrational economic decisions.\textsuperscript{31} Erik Gerding argued that these types of irrational investors are “unsophisticated investors [who] trade on ‘noise’—information not related to assessing the fundamental value of assets.”\textsuperscript{32} Gerding referred to irrational investors as “noise traders” who “evaluate whether to buy or sell assets based on price trends, emotions, or estimations about what other investors in the market will do.”\textsuperscript{33}

The existing research base relative to investors who make irrational decisions under neoclassical economic theory suggests the cause is a panoply of psychological biases: anchoring,\textsuperscript{34} overconfidence,\textsuperscript{35} hindsight,\textsuperscript{36}

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{33} Id. Having worked on an institutional investor trading floor for over a decade, I occasionally witnessed hugely successful professional investors make economic decisions based on emotional factors, price trends, and ideas of what competitors could be doing. Yet I would never refer to my former colleagues as anything remotely approaching “irrational” investors, “noise traders,” or unsophisticated economic actors because of making such decisions from time to time, and their track record evidences superior asset management. \textit{See Mutual Fund Quote: JPMorgan High Yield Select}, MORNING STAR, http://quotes.morningstar.com/fund/OHYFX/?t=O HYFX (last visited Feb. 24, 2014).
\item \textsuperscript{34} See, e.g., Justin D. Levinson, \textit{SuperBias: The Collision of Behavioral Economics and Implicit Social Cognition}, 45 AKRON L. REV. 591, 602 (2012) (indicating that anchoring occurs when uninformative numbers influence economic actors, and “[a]nchoring effects are caused by the increased accessibility of information related to an anchor. When people see an anchor, they first quickly evaluate whether it might be the correct response. As part of this process, people rely on their memories to recall instances that might confirm the truth (or prove the untruth) of the anchor. Thus, investors anchor on the latest information or events as to what a particular [asset] may be worth.” The rationale is that investors are uninformed, not because of insufficient information, but rather because of too much information, which irrationally affects their economic decision making). \textit{See also David John Marotta, Behavioral Finance: Anchoring}, MAROTTA WEALTH MGMT. (July 21, 2008), http://www.emarotta.com/behavioral-finance-anchoring-2/.
\item \textsuperscript{35} In BFE, “overconfidence” refers to “the tendency of decision makers to unwittingly give excessive weight to the assessment of knowledge and accuracy of information possessed and ignore the public information available.” Roy Sembel & Irwan Trinugroho, \textit{Overconfidence and Excessive Trading Behavior: An Experimental Study}, 6 INT’L J. BUS. & MGMT. 147, 148 (July 2011). Thus, an investor’s overconfidence may lead that investor to mistakenly believe the investor can control a particular situation when doing so is impossible. \textit{See Fromlet, supra} note 26, at 63, 66.
\item Simply put, “people think they know more than they do,” which leads to an irrational decision, ignorant of risk analysis. Fromlet, \textit{supra} note 26, at 66 (internal quotation marks omitted). Overconfidence also may explain an investor’s large number of trades, and those large numbers’ correlation with poor investment performance. \textit{See Brad M. Barber &
Terrance Odean, Trading Is Hazardous to Your Wealth: The Common Stock Investment Performance of Individual Investors, 55 J. OF FIN. 773, 773–74, (2000). Barber and Odean reasoned that “[o]verconfident investors will overestimate the value of their private information, causing them to trade too actively and, consequently, to earn below-average returns.” Id. at 800. Yet when investors receive below-average returns, the investors often blame the result on bad luck or other people. The Perils for Investors of Human Nature People Tend to Take the Credit for Success and Blame Failure on Bad Luck. The Resulting Overconfidence Can Be Dangerous, Warn Simon Gervais and Terrance Odean, FIN. TIMES, June 18, 2001, at 2.


Hindsight bias suggests that when investors know how a particular situation may turn out, investors subsequently cannot disregard that information in future decision-making contexts, regardless of the probability or magnitude of the occurrence. To illustrate, researchers asked Washington, D.C. residents, two months after suffering a small earthquake in 2010, their thoughts concerning the likelihood of another earthquake in Washington, D.C. the following year. Even though the probability of another earthquake affecting those residents one year later was quite small, the earthquake’s personal impact resulted in residents over-estimating the likelihood. Levinson, supra note 34, at 595–600.

Representativeness bias refers to “the tendency of individuals to classify things into discrete groups based on similar characteristics,” thereby focusing on similarities, rather than independent characteristic variables. Wesley S. Chan, Richard M. Frankel, & S.P. Kothari, Testing Behavioral Finance Theories Using Trends and Sequences in Financial Performance (Mass. Inst. of Tech. (“M.I.T.”) Sloan School of Mgmt., Working Paper No. 4375-02, June 2003). For example, investors may fail to incorporate matching quantitative or qualitative information in their predictions, and fail to realize extreme observations are unlikely to be repeated. Id. Investors subsequently become disappointed with the below-average returns they received because the investors “mentally misplace[d] firms into various groups based on the past performance,” regardless of the statistical significance of such past performance. Id. at 21.

Perhaps the most frequently apparent BFE observation is “herd behavior.” Fromlet, supra note 26, at 63, 66. Herd behavior is best described as “following the crowd.”
often can represent superior explanations of market price changes compared to the ambiguously phrased “prices fully reflect available information.” These various biases, particularly those that cause growth-based spiraling behaviors demonstrated in BFE research may help to contextualize both the causes and the effects of economic bubbles in which investors may find themselves.

B. Linkage Between Psychological Biases and Financial Bubble Definitions

While psychological biases explain the phenomena of financial bubbles, financial bubbles—sometimes referred to as speculative or market bubbles—occur when “a broad-based, surging euphoria or wave of optimism carries asset prices well beyond supportable value.”

Erik Gerding provided one explanation of how bubbles form by using two actors: noise traders, as referenced above, and so-called “smart money”:

First, a “displacement”—either an external macroeconomic or political event or good news about a specific industry—causes corporate profits to rise. Investors with superior information make conspicuous gains as share prices rise. Noise traders, attracted by rising prices, enter the market and bid prices even higher, adopting positive-feedback investment strategies. Informed investors and arbitrageurs (known as “smart money”) anticipate noise-trader demand and bid-up prices in advance of noise traders, further stimulating demand. When smart money senses

Andreas Park & Hamid Sabourian, Herding and Contrarian Behavior in Financial Markets, 79 ECONOMETRICA 973, 974 (2011). In these situations, investors may have substantial information on a particular event or situation, yet the information is “swamped” when they observe others acting contrary to the information retained by the investor. Id. Herding bias goes against the assumption of a rational investor because the realistic investor will irrationally choose to ignore information that may better predict the result of possible innovations and waste investment capital theorizing that so many others are going to do it. See Gerding, supra note 32, at 996–97. Herding thus creates a vicious cycle, “[i]f prices of an asset rise, investors who pursue these strategies bid prices higher as they base their analysis on the asset-price trend. The resulting rise in prices further increases demand among … [other irrational investors], and a [positive] feedback loop develops.” Gerding, supra note 32, at 997. In the end, the market crashes and everyone is disappointed in their below average return, justifying their failures by the fact that everyone else was negatively affected by the drop in price. Cf. MACKAY, supra note 1 and accompanying text (explaining the Tulip bulb bubble).

40 See supra notes 32–33.
Regardless of precisely how bubbles form, evidence strongly suggests that “[b]ubbles...have an emotional component ....” A bubble’s emotional components can be explained by applying some of the psychological biases described above:

- First, applying anchoring bias, an investor becomes aware of a random number about a new financial innovation and gravitates in that direction when investing in the new fad.
- Second, an investor displays overconfidence when investing in a developing economic bubble by overestimating self-intelligence and relative investing capabilities.
- Third, an investor applies hindsight bias and over-emphasizes a past investing experience to the present or future predictability, even if the investor’s predictions are nearly impossible.
- Fourth, basing investment decisions on representativeness bias, the investor would be unlikely to consider sufficiently the relevant risks because the investor would fail to predict accurately the odds of success in a new investment prior to deploying sufficiently large amounts of capital.
- Fifth, and perhaps most noticeable, the investor likely would mimic the actions of what “everyone else” was doing and would engage in the herd behavior that often results in “self-reinforcing cycles of aggregate behavior,” even when quantitative and qualitative data demonstrates that the new fad about to separate economic actors from their invested capital is likely to fail.

Extraordinary Popular Delusions and the Madness of Crowds contains several chapters describing historical events evidencing the confluence of herd behavior and financial bubbles. One example discussed the famous “Mississippi Scheme,” in which French investors created an economic

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42 Gerding, supra note 32, at 999.
43 Nash, supra note 40.
44 See id.
45 See id.
46 See id.
47 See id.
48 Id.
49 MACKAY, supra note 1.
bubble via buying ownership interests in a trade company engaged in re-
source development from the Mississippi area. The French investors
turned huge profits until the entire market for ownership interests in
the venture collapsed. When the book turned to the most famous financial
bubble, Holland’s “Tulip Mania,” Mackay wrote, “in 1634, the rage
among the Dutch to possess [tulips] was so great that the ordinary industry
of the country was neglected, and the population, even to its lowest dregs,
embar ked on the tulip trade.” Later in the same week that I submitted the
formal summer research grant proposal to fund this Article’s research,
Benjamin Radford briefly compared tulip bulbs to Bitcoins and wrote that
investors who saw the price of tulips exponentially increase. He believed
they could achieve the same results by purchasing more and more tulips,
thus creating a craze that attracted an increasing number of investors to
tulips at increasing prices. By 1637, however, the smart money sold their
tulips, and within weeks the tulip bubble burst. In describing tulip mania,
Radford stated that after the bubble burst, “[m]any [investors] were finan-
cially ruined, and the whole fiasco became an infamous textbook case of
investment speculation gone awry,” leaving readers with the ominous con-
clusion that “the tulip mania craze holds important lessons for economists
and sociologists—and maybe Bitcoin investors as well” as “[u]nlike [a]
Bitcoin[’s virtual existence] ... [tulips] had the potential to actually exist.”

II. CURRENCIES, VIRTUAL CURRENCIES, AND BITCOINS

To understand what constitute “virtual currencies,” and what laws,
rules, regulations, and agency may apply and oversee such currencies, I be-
lieve that the reader would benefit from an explanation of the complex inter-
play among (i) currencies, which throughout history were often made with

50 Id. at B.
51 Id.
52 Benjamin Radford, Bitcoin Currency Inspires Tulip Mania Comparisons, DISCOVERY
ipmania-lessons-investor-madness-130416.html.
53 Id.
54 Id.
55 Id.
56 FinCEN Guidance FIN-2013-G001, supra note 15 (comparing FinCEN’s
description of a “real” currency possessing legal tender status as per 31 C.F.R. §
1010.100(m) with a “virtual” currency serving as an exchange medium lacking legal
tender status in any jurisdiction).
57 A currency has traditionally represented what a specific nationality employed as its
monopolistic legal tender. See, e.g., FRIEDRICH A. HAYEK, DENATIONALISATION OF
MONEY 48, 90, 106 (Inst. of Econ. Affairs 3d ed. 1990); see also Andrew K. Rose, One
Money, One Market: Estimating the Effect of Common Currencies on Trade, Seminar
gold; (ii) commodities, of which gold is one example; and (iii) money, which was backed by gold in the U.S. until the Bretton Woods collapse and removal of the U.S. dollar from the gold standard in the early 1970s.

A recent high profile and temperamental exchange between House Subcommittee on Monetary Policy Chairman Ron Paul and Federal Reserve Chairman Ben Bernanke—both Republicans—contextualizes the

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58 See Commodity Exchange Act, 7 U.S.C.A. § 1a (West 2014) (defining commodities as: “wheat, cotton, rice, corn, oats, barley, rye, flaxseed, grain sorghums, mill feeds, butter, eggs, Solanum tuberosum (Irish potatoes), wool, wool tops, fats and oils (including lard, tallow, cottonseed oil, peanut oil, soybean oil, and all other fats and oils), cottonseed meal, cottonseed, peanuts, soybeans, soybean meal, livestock, livestock products, and frozen concentrated orange juice ... and all services, rights, and interests ... in which contracts for future delivery are presently or in the future dealt in.”).

The film, Trading Places, arguably defined commodities simpler than the statute (“[W]hat are commodities? Commodities are agricultural products ... like coffee, that you had for breakfast ... wheat, which is used to make bread ... pork bellies, which is used to make bacon, which you might find in a ‘bacon, lettuce and tomato’ sandwich. And then there are other commodities like, frozen orange juice ... and GOLD. Though, of course, gold doesn’t grow on trees like oranges.”). TRADING PLACES (Paramount Pictures 1983). In addition, the film served as the basis for the CFTC to change risk-based regulation of commodities. See Hearing to Review Implementation of Changes to the Commodity Exchange Act Contained in the 2008 Farm Bill before the Subcommittee on General Farm Commodities and Risk Management of the Committee of Agriculture, 111th Cong. 2d. Sess. (statement of Hon. Gary Gensler, Chairman, U.S. Commodity Futures Trading Commission), available at http://www.gpo.gov/fdsys/pkg/CHRG-111hhrg55459/html/CHRG-111hhrg55459.htm. Gensler stated that:

[w]e have recommended banning using misappropriated government information to trade in the commodity markets. In the movie “Trading Places,” starring Eddie Murphy, the Duke brothers intended to profit from trades in frozen concentrated orange juice futures contracts using an illicitly obtained and not yet public Department of Agriculture orange crop report. Characters played by Eddie Murphy and Dan Aykroyd intercept the misappropriated report and trade on it to profit and ruin the Duke brothers. In real life, using such misappropriated government information actually is not illegal under our statute. To protect our markets, we have recommended what we call the “Eddie Murphy” rule to ban insider trading using nonpublic information misappropriated from a government source.

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confusion among these terms, even among the highest ranking fiscal and monetary policymakers in the U.S.:

*Paul:* Do you think gold is money?  
*Bernanke:* [long pause] No.

*Paul:* Even if it has been money for 6,000 years, somebody reversed that and eliminated that economic law?  
*Bernanke:* Well, it’s a form of reserves.  
*Paul:* Why don’t they hold diamonds?  
*Bernanke:* Well it’s tradition—long-term tradition.60

With this disorder as a backdrop, this Part attempts to analyze the threats—to economies, markets, governments, regulators, policymakers, investors, and speculators—associated with the advent of new and highly volatile forms of exchange mediums, of which Bitcoin currently represents the most visible.61

A. Background and History

1. Real, Virtual, and Fiat Currencies; Commodities; Money; and Inflation

In the mid-1970s, Friedrich von Hayek, an economics Nobel laureate, stated “[t]here is no reason to doubt that private enterprise would, if permitted, have been capable of providing as good and at least as trustworthy coins,”62 as those imposed by government monopoly63 on money.64 Hayek continued:


63 Governmental regulatory enforcement mechanisms of monopolistic monetary policies have ranged apparently from China and France employing the death penalty to U.S. colonies treating repudiation of Continental notes as an enemy act. See, e.g.,
If the public understood what price in ... inflation and instability it pays for the convenience of having to deal with only one kind of money in ordinary transactions, and not have to ... contemplate the advantage of using money than the familiar kind, it would probably find it very excessive .... [yet] we know that there are all kinds of other possible sorts of money, not least paper, which government is even less competent to handle and even more prone to abuse than paper money.65

First, a currency has traditionally represented a government monopoly’s legal tender.66 When the basis of currency pricing relies on something besides that government’s precious metal reserves, that currency becomes known as a “‘fiat currency’[,] which ha[s] value simply because their backing governments identified the currency as ‘legal tender.’”67 By printing or creating additional fiat currency units over time, the currency supply relative to its demand generally increases, thus “re-
duc[ing] the value of the [previously existing] currency,” which “correspondingly increases [the] prices” of that economy’s goods and services, resulting in the classic definition of inflation. As a result, people who fear inflation—which was a major cause of Hitler’s ascent to power in post–World War I Germany—are prone to distrust fiat currencies and the governmental central banks that can cause inflation by printing additional units of its monopolistic currency, eviscerating the purchasing power of its society.

Second, given that the Director of the CFTC used the film Trading Places to explain commodities to congress, perhaps the best definition of commodities comes from the Trading Places scene.71

Third, as economics Professor L. Randall Wray stated, “[d]efining money,” regardless of its form, “is a continually vexing problem for monetary theorists,” in which two general approaches exist: (1) “defining money by its functions (the textbook approach)” and (2) “choosing [arbitrarily] some empirical definition (as Keynes did) ....”72 Simply put, an arbitrary exchange, such as money, is traditionally associated with three functions: medium of exchange, unit of account, and store of value.73

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69 See, e.g., Henry Ashby Turner, Jr., Hitler’s Thirty Days to Power: January 1933 2–3 (Basic Books 1996) (indicating that following the First World War, Germany suffered “a hyperinflation that destroyed the currency ....”); Melchior Palyi, Economic Foundations of the German Totalitarian State, 46 Am. J. Soc. 469, 469 (1991) (employing an “economic versus ideological interpretation of Nazism” to assert that “[t]he inflation of the early 1920’s delivered a moral [sic] blow at democracy as a form of government which shook the nation’s political loyalty by undermining its reliance upon security based on ‘saving’ .... [i]n their ‘despair’ a large sector of the German people were willing to follow Hitler ....”).


71 See supra note 58.

72 See Professor L. Randall Wray, Workshop Presentation at the Centre of Full Employment and Equity: Understanding Modern Money (Dec. 10 & 11, 2001) (citing John Maynard Keynes, The General Theory 167 (Harcourt-Brace-Jovanovich 1964)). Professor Wray also states that “a system based on a commodity money is not a ‘money economy’ as Keynes defined it. Rather, the commodity money is an (imagined) economy in which money serves as nothing more than a numéraire ....” Id. at 5. See also L. Randall Wray, Understanding Money: The Key to Full Employment and Price Stability (Edward Elgar Publ’g 2006).

Regardless of whether one views the U.S. dollar as currency, a commodity, or a unit of money, it remains a fiat medium of exchange since the separation from the gold standard in the early 1970s, leaving the U.S. dollar open to unlimited issuance by a central bank and inflationary pressures. But “[u]nlike fiat currencies, whose value is derived through regulation or law and underwritten by the state,” virtual currencies are different for various reasons explored in the next section.

2. Crypto Currencies, Virtual Currencies, and Other Appellations

Several authors refer to cryptocurrencies, which represent an idea existing since at least the mid-1980s. One of the first cryptocurrencies, known as “DigiCash,” started in the early 1990s by an individual who “obtained ... digital currency patents in the 1980s related to ensuring anonymity using cryptography.” Although DigiCash failed, the idea of an anonymous and cryptographic currency developed over the course of the 1990s through the cypherpunk e-mail list that allegedly included individuals who “advocated the use of cryptography ... for the protection of private individuals, against each other and against the government.”

While one may scoff at the idea of a cryptocurrency or a cypherpunk e-mail group, the group’s members included currently relevant newsmakers, such as Julian Assange, known for his whistleblowing activities as the founder of WikiLeaks. Some authors describe the cypherpunks as an e-mail list

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76 Grinberg, supra note 63, at 169 n.46; Jeong, supra note 75, at 9.
77 Grinberg, supra note 63, at 169 n.46.
78 Id.
79 Id., supra note 75, at 9.
80 Id. Cf. Rainey Reitman, a Director at the Electronic Frontier Foundation (EFF), an organization co-founded by former Cypherpunk John Gilmore, engaged in Bitcoin transactions but ceased doing so in 2011. She is also a co-founder of the Bradley Manning Support Network (supporting WikiLeaks whistleblower Pfc. Bradley Manning), and additionally supports Bitcoin as a method to provide needed anonymity to financially support patriotic causes such as whistleblowing on one’s government. About-Rainey Reitman, ELECTRONIC FRONTIER FOUNDATION, https://www.eff.org/about/staff/rainey-reitman (last visited Feb. 24, 2014); Rainey Reitman, Bitcoin – a Step Toward Censorship-Resistant
with libertarian streaks, opposing most regulation, advocating for privacy, and seeking to use cryptography.\footnote{Grinberg, supra note 63, at 162.} Toward the end of the decade, in 1998, pseudonymously named Wei Dai, created the idea of b-money.\footnote{Wei Dai, \textit{b-money}, Wei Dai’s Home Page, http://weidai.com/bmoney.txt.} B-money foreshadowed the allegedly pseudonymous Satoshi Nakamoto, author of the paper\footnote{See generally Satoshi Nakamoto, \textit{Bitcoin: A Peer-to-Peer Electronic Cash System} (2009), http://www.bitcoin.org/bitcoin.pdf. On March 6, 2014, Newsweek allegedly revealed the face behind bitcoin. Leah McGrath Goodman, \textit{The Face Behind Bitcoin}, NEWSWEEK (Mar. 6, 2014), available at http://mag.newsweek.com/2014/03/14/bitcoin-satoshi-nakamoto.html.} detailing the creation of the Bitcoin currency\footnote{See Grinberg, supra note 63, at 162; Nakamoto, supra note 83.} that appeared just as the U.S. and global economies and currencies began to plummet in 2008–2009.\footnote{Jeong, supra note 75, at 12–13 (citation omitted) (indicating that while Satoshi never mentioned the cypherpunks or crypto anarchy on any Internet postings, “[i]nstead, Bitcoin was introduced to the world in the context of the 2008 financial crisis” as “an alternative to a system controlled by ‘financial institutions’”).} Nakamoto’s germinal paper set the foundation for the purpose of “cryptographic proof,” which was to purportedly serve as a “solution to...double spending” and described the creation of blocks, chains (or “blockchains”), and Bitcoins that go well beyond this Article’s scope.\footnote{Nakamoto, supra note 83.}

Because cryptography is a key to Bitcoin’s success, many refer to virtual currencies as a cryptocurrency, while others, including government agencies, refer to virtual currencies as an e-currency,\footnote{FinCEN Guidance FIN-2013-G001, supra note 15, at 3.} digital currency,\footnote{Nicholas A. Plassaras, \textit{Regulating Digital Currencies: Bringing Bitcoin Within the Reach of the IMF}, 14 CHI. J. INTL L. 377 (2013); Kaplanov, supra note 74. Both articles refer to Bitcoins as a “private digital currency.”} virtual currency,\footnote{Memorandum from Benjamin M. Lawsky on Notice of Inquiry on Virtual Currencies to N.Y. State Dep’t of Fin. Services (Aug. 12, 2013), http://www.dfs.ny.gov/about/press2013/memo130812.pdf; Kelly Clay, \textit{Amazon Announces New Virtual Currency for Kindle Fire}, FORBES (Feb. 5, 2013), http://www.forbes.com/sites/kellyclay/2013/02/05/amazon-announces-new-virtual-currency-for-kindle-fire/.} or a decentralized convertible virtual currency.\footnote{FinCEN Guidance FIN-2013-G001, supra note 15, at 3.}

At least a dozen virtual currencies exist as of this writing.\footnote{Andrew R. Johnson, \textit{From Bitcoin to Amazon Coins: A Guide to Virtual Currencies}, WALL ST. J. (May 31, 2013, 6:04 PM), http://blogs.wsj.com/moneybeat/2013/05/31/from-bitcoin-to-amazon-coins-a-guide-to-virtual-currencies/.} Those include: (1) Litecoin (LTC) (called a “complementary cryptocurrency— ‘the silver to Bitcoin’s gold,’”), which as of May 11th, 2013, had approximately...
17 million LTC in circulation\textsuperscript{92} with a market price of $3.28 USD per LTC, for an aggregate market price of approximately $55.5 million USD, “making it the most valuable cryptocurrency after Bitcoin;”\textsuperscript{93} (2) PPCoin (PPC), that purportedly has an additional security feature called “proof-of-stake”\textsuperscript{94} but also represents a centralized virtual currency without an alleged cap on the number of PPC that could be created, thus more reflective of mainstream fiat currencies but less attractive to many founders and early adopters of Bitcoins; other competing virtual currencies exist such as (3) Freicoin (FRC), (4) Namecoin, (5) Terracoin, (6) Ripple, and (7) Feathercoin, among others.\textsuperscript{95} Numerous other virtual currencies have failed, including Solidcoin, BBBCoin, Fairbrix, and GeistGold.\textsuperscript{96} Global e-commerce powerhouse Amazon entered the virtual currency arena in May 2013 with Amazon Coins, primarily to buy “apps, games, and in-app items.”\textsuperscript{97} This Article focuses on Bitcoins because Bitcoins currently represent the “world’s most widely used alternative currency,”\textsuperscript{98} and they have been that way since January 9, 2009 when Nakamoto announced via email the “first release of Bitcoin,”\textsuperscript{99} and the creation of the initial Bitcoin “block” (the “Genesis Block”)\textsuperscript{100} occurred.

B. Specifically, What Are Bitcoins, and How Do They Function?

Bitcoin is an electronic payment system “that uses peer-to-peer networking along with digital signatures and cryptographics to generate currency.”\textsuperscript{101} Bitcoins represent “a private digital currency traded online via a


\textsuperscript{93} \textit{Id.}

\textsuperscript{94} \textit{Id.}

\textsuperscript{95} Johnson, \textit{supra} note 91.

\textsuperscript{96} Steadman, \textit{supra} note 92.


\textsuperscript{98} Justin Spittler, \textit{Bitcoin: Money of the Future or Fool’s Gold}, WALL ST. CHEATSHEET (June 2, 2013), \url{http://wallstcheatsheet.com/stocks/bitcoin-money-of-the-future-or-fools-gold.html/?a=viewall}.

\textsuperscript{99} Email from Satoshi Nakamoto (Jan. 9, 2009, 5:05 PM), available at \url{http://www.mailarchive.com/cryptography@metzdowd.com/msg10142.html} [hereinafter Nakamoto email].

\textsuperscript{100} Joel Falconer, \textit{Bitcoin, the Peer-To-Peer Currency that Hopes to Change the World}, TNW (June 5, 2011 8:30 AM), \url{http://thenextweb.com/insider/2011/06/05/bitcoin-the-peer-to-peer-currency-that-hopes-to-change-the-world/}.

\textsuperscript{101} Duncan Elms, \textit{A Brief Background on Bitcoin}, DIGITAL FOR REAL LIFE (Apr. 23, 2013), \url{http://www.digitalforreallife.com/2013/04/bitcoin/}.
Given the minarchist-libertarian milieu painted by many authors of virtual currency supporters, some authors believe that Bitcoins have several endearing features to this constituency. Four key distinctions exist between Bitcoins and fiat currencies.

First, unlike fiat currencies, the Bitcoin system is alleged to have “a cap on the number of coins that will ever be generated” at 21 million Bitcoins, unlike the central bankers who can print money at will. As a result, “[m]any Bitcoin users are motivated by a belief that Bitcoin, unlike the dollar, is inflation-resistant ....” Second, hearkening to the days of precious metal-backed currencies, to distinguish them from fiat currencies, Bitcoins’ creation and distribution to the market occurs via computer “mining,” a model akin to “natural resource extraction, gold mining ....” Specifically, computer users can mine Bitcoins via computer processing, which may force material overhead costs for users to produce Bitcoins.

Therefore, Bitcoins are “likely to be attractive to those who like gold-backed currencies because its value depends on the availability of a limited (albeit virtual) resource rather than discretionary actions by central bankers.” Third, the Bitcoin Foundation has maintained that, instead of the currency’s backing by nothing, which is the case with fiat currencies, or by a precious metal such as gold, which was the case with traditional pre-Bretton Woods collapse currencies: “Bitcoin is backed exclusively by code .... Cryptography is the key to Bitcoin’s success.” Fourth, Bitcoins permit “two willing parties to transact directly with each other without the
need for a trusted third-party” or intermediary (or central issuer or payment system), where the basis of the transaction’s security is “cryptographic proof instead of trust.”

Despite the legitimate concern that these facts may cause for users of more traditional payment systems, currencies, commodities, money, and marketplaces, Bitcoins currently are exchangeable for at least thirty state-sanctioned currencies, including the Euro, Japanese Yen, Hong Kong Dollar, and the U.S. dollar via exchanges such as Mt.Gox.110 From a disruptive business model standpoint, Bitcoins may become a welcomed entrepreneurial innovator in the micropayment (payments under $1 USD) space, by competing with more well-known brands such as PayPal or iTunes112 based on a perception of “low transaction costs” involved with BitCoin-based transactions.113 Even Boston University Distinguished Professor of Economics, Lawrence Kotlikoff,114 recently went so far as to suggest that Bitcoins should replace the dollar as the U.S. currency.115

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110 Steadman, supra note 92; see also Plassaras, supra note 88, at 6.

111 Teigland, Yetis, & Larsson, supra note 62, at 7. Based in Japan, Mt.Gox was the most widely used exchange as of this study period, with approximately 400,000 transactions in U.S. dollars alone on a daily basis. Id. However, Mt. Gox filed for bankruptcy in early 2014 following several scandals. See, e.g., Andrew Peterson, Everything You Need to Know About the Latest Bitcoin Crisis, WASH. POST (Feb. 25, 2014 1:48 PM), http://www.washingtonpost.com/blogs/the-switch/wp/2014/02/25/everything-you-need-to-know-about-the-latest-bitcoin-crisis/. Trading Bitcoins has become increasingly popular, and according to some unsubstantiated websites, has “surpass[ed] almost every financial asset over the past year, beating stock, gold, silver” and more. Forexminute Bitcoin Trading, FOREXMINUTE, http://www.forexminute.com/trade-bitcoins (last visited Feb. 24, 2014). As of December 2012, the busiest Bitcoin exchange was Mt.Gox, handling approximately eighty percent of Bitcoin-dollar trades. Terms of Use, MT.GOX, https://mtgox.com/ (last visited Feb. 24, 2014). To use Mt.Gox purchasers and sellers are charged a commission on every transaction. MT.GOX,https://mtgox.com/terms_of_service (last visited, Feb. 24, 2014). Mt.Gox also charges to convert transactions at a “fixed commission of 2.5%.” Id.

112 Other examples of micropayments include Facebook Credits, which was the currency used for games such as Farmville that generated a thirty percent commission for Facebook for all purchases made with Facebook credits. While Facebook credits became a failed currency experiment, other potentially competitive micocurrencies including gaming-related virtual currencies continue, and in May 2013, Amazon released “Amazon Coins” as a virtual currency to purchase apps and games. See Grinberg, supra note 63, at 171; Kelly Clay, Amazon Announces New Virtual Currency for Kindle Fire, FORBES (Feb. 5, 2013, 2:04 PM), http://www.forbes.com/sites/kellyclay/2013/02/05/amazon-announces-new-virtual-currency-for-kindle-fire/.

113 Grinberg, supra note 63, at 170.


To adherents of the Hayekian–Austrian–minarchist–libertarian view,\footnote{Reuters not so kindly phrased Bitcoins users as “an odd assortment of uber-geeks, anarchists, libertarians, scammers, and forex [foreign exchange] traders.” Naomi O’Leary, *Bitcoin, the City Traders’ Anarchic New Toy*, REUTERS (Apr. 1, 2012, 7:01 PM), http://www.reuters.com/article/2012/04/01/traders-bitcoin-idUSL6E8ET5K620120401.} the government’s real concern and involvement in this matter likely results from governmental realization that increased Bitcoin use should result in decreased “real” currency (legal tender) use, thus hampering central bankers’
attempts to influence short-term interest rates. Such concern becomes particularly heightened during an era of massive government involvement favoring large financial institutions over middle class borrowers’ credit constraints, via three rounds of failed Federal Reserve quantitative easing. As a result, more than just e-businesses and delis want to be involved in virtual currencies; “[i]f the virtual currency seems to be taking off ... the banks want to be part of that.” It has been reported that Goldman Sachs and Morgan Stanley employees have “visit[ed] online Bitcoin exchanges as often as 30 times a day” and rumors exist that large U.S. financial institutions are among the virtual currency investors. If Bitcoin represented a legitimate threat to legal tender, these financial institutions may be less likely to feed from the government trough. Perhaps that explains why, in late

124 ECB Report, supra note 73, at 34. Central bankers can only impact the short term interest rates, that is, the short-end of the yield curve, which caused former Federal Reserve Chairman Alan Greenspan to remark that his influence over short-term rates having no effect on intermediate interest rates was a “conundrum,” or, to many financial journalists a “riddle wrapped in a mystery inside an enigma,” to quote Winston Churchill. Roger Craine & Vance L. Martin, Interest Rate Conundrum, B.E. J. MACROECON., Mar. 2009, available at http://www.degruyter.com/view/j/bejm.2009.9.1/bejm.2009.9.1.1819/bejm.2009.9.1.1819.xml?format=INT; Mark Glibert, Greenspan’s Bond Conundrum Ripens Into an Enigma: Mark Gilbert, BLOOMBERG (June 2, 2005), http://www.bloomberg.com/apps/news?pid=newsarchive&refer=columnist_gilbert&sid=ac6xHdHdneGo; Philip Coggan, Greenspan’s Conundrum: A Riddle in a Mystery in an Enigma, FIN. TIMES, Oct. 6, 2005. Central bankers’ control over interest rates and the money supply are so meaningful, because the interest rates serve in essence as the denominator for determining the present value of every global asset.


127 O’Leary, supra note 123.

128 Id. (indicating that none of Goldman Sachs, JPMorgan, or Morgan Stanley would respond to inquiries of whether they owned Bitcoins); Kamal El-Din, Goldman Sachs Shares Surge on Announcement of Bitcoin Trading Unit, UNCONFIRMED SOURCES, http://unconfirmedsources.com/?itemid=6155 (last visited Feb. 24, 2014) (indicating that Goldman Sachs’ shares rose on unsubstantiated rumors that Goldman was launching a Bitcoin trading desk).
July 2013, the SEC quietly charged an individual with violating federal securities laws with an alleged Bitcoin-related scheme.\textsuperscript{129} Also, many individuals on the other side of the political continuum—or Nolan chart—believe “Bitcoin is not going to fly because there is no central bank or power base. It’s doomed to fail.”\textsuperscript{130} The ECB noted, “[t]he fact that the founder of Bitcoin uses a pseudonym—Satoshi Nakamoto—and is surrounded by mystery does nothing to help promote transparency and credibility in the scheme.”\textsuperscript{131} A 2012 ECB Report indicated the price and volatility of virtual currencies depended on four material factors:

1. Money supply and issuer actions, regarding market intervention to maintain a fixed or semi-fixed exchange rate;
2. Institutional conditions governing the virtual community;
3. The virtual currency issuer’s reputation for meeting commitments; and
4. A currency’s future value speculations and any history of cyber-attacks suffered in the virtual community.\textsuperscript{132}

In addition to being affected by “credit, liquidity, and operational risk without any kind of underlying legal framework, [virtual currencies] are also subject to legal uncertainty and fraud risk....”\textsuperscript{133} Liberal economics

\textsuperscript{130} O’Leary, supra note 123 (quoting Simon Lelieveldt).
\textsuperscript{131} ECB Report, supra note 73, at 27.
\textsuperscript{132} Id. at 38.
Nobel laureate Paul Krugman previously indicated in scholarly writings that currency crises occur as a result of speculative attacks likely resulting from a risk combination of international reserve losses, current account deficits, fiscal and monetary expansions, and decreased price competitiveness.134

C. Bubbles, Bitcoins, the Wild West, or Holland?

1. Is Bitcoin a Fad, a Bubble, or Something Else?

   In late 2012, singer Alicia Keys introduced a song entitled Girl is on Fire, at the MTV Video Music Awards that subsequently hit number 5 on the charts.135 Evidencing Bitcoins’ impact on popular culture, within several months, a YouTube video parodied Ms. Keys’s song to belittle Bitcoin’s status as a bubble,136 as demonstrated in the below chart.

   | Bitcoin’s a fad               | She’s just a girl             |
   | And it’s on fire.            | And she’s on fire.            |
   | Higher than a fantasy        | Hotter than a fantasy.        |
   | Like a singularity.          | Lonely like a highway.        |
   | Bulls living in world full of denial. | She’s living in a world, and it’s on fire. |
   | I’m feeling a catastrophe.   | Filled with catastrophe,      |
   | They’re thinking it can fly away. | But she knows she can fly away. |
   | Ohhh, I keep on riding my bear. | Ohhhh, she got both feet on the ground. |
   | Though I’m falling a tear.   | And she’s burning it down.    |
   | Ohhh, it’s gonna crash to the ground. | Ohhhh, she got her head in the clouds. |
   | And I’m not backing down.    | And she’s not backing down.   |
   | Bitcoin is a Bubble.         | This girl is on fire.         |
   | Bitcoin is a Bubble, ohh.    | This girl is on fire.         |
   | It’s only a Bubble.           | She’s walking on fire.        |
   | Bitcoin is a Bubble, ohh.    | This girl is on fire.         |

137 Compare KEYS, supra note 135, with TheKoziTwo, supra note 136.
Gradually dispensing Bitcoins into the market is alleged to create more stability as opposed to “releas[ing] all 21 million Bitcoins at once,” which would be “more volatile.” In the beginning, to generate Bitcoins it was “ridiculously easy,” and a user could generate Bitcoins by using a “typical PC” that would only take “just a few hours.” As more and more people start generating Bitcoins, the difficulty level to generate the Bitcoins will increase. In addition, “[o]btaining the necessary computational power is easy, if expensive.” Additionally, “[a]n individual would need to spend around $600,000 (plus costs for supporting infrastructure) to control a majority of the processing power on the network.” A legitimate question arises then: if the level is hard and the computing power to mine so expensive, why are hackers at schools such as the Massachusetts Institute of Technology (M.I.T.) not harnessing the vast computing power of that university to enrich themselves or the university?

2. Certain Risks Associated with Bitcoins

“Bitcoin might undergo a deflationary spiral that causes certain individuals or industries to abandon Bitcoin, possibly causing a panic or just a permanent depression in Bitcoin’s value.” The end result of such a spiral is underemployed human capital and other means of production and destruction of wealth. Thus, deflationary pressures may impact Bitcoins more than traditional currencies. Those who favor a regulatory state have asserted that “[b]ecause digital currencies like Bitcoin lack regulation or public oversight, they are subject to credit, liquidity, and operational risks, as well as risk of fraud.” Other risks exist as well.

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138 Niccolai, supra note 106.
139 Nakamoto, supra note 99.
140 Id.
141 Grinberg, supra note 63, at 181.
142 Id. at 181 n.90.
143 Id. at 177–78.
144 Id. at 178.
145 ECB Report, supra note 73, at 25 (“If ... the number of Bitcoin users starts growing exponentially for any reason, and assuming that the velocity of money does not increase proportionally, a long-term appreciation of the currency can be expected... [meaning] a depreciation of the prices of goods and services quoted in Bitcoins. People would have a great incentive to hold Bitcoins and delay their consumption, thereby exacerbating the deflationary spiral.”).
146 Plassaras, supra note 88, at 12.
For example, evidence of computing risk has occurred, as “Bitcoin trojan horses already exist.” In addition, cyber-attacks have doubled from 2010 to 2012. Mt.Gox indicated that hackers have targeted the exchange “to ‘destabilise Bitcoin’ ... [and] abuse the system for profit.” When “Mt.[ ]Gox, the most popular exchange, was hacked .... [t]he glut of bitcoins for sale crashed the price from $17.50 to $0.01 within a half hour.” The company said, “Attackers ... wait for everybody to panic-sell their Bitcoins, wait for the price to drop to a certain amount ... and start buying as much as they can.” In late 2010, the Bitcoin system had to fix a “vulnerability in the system” found when the creation of nearly 185 billion Bitcoins resulted from a verification error and again when an intergovernmental task force wrote that terrorist groups may use digital assets such as Bitcoin.

Such linkage to international criminal activity may represent a material risk for Bitcoins, as well. In 2011, Silkroad, which was an illegal marketplace for crimes with victims, began permitting Bitcoins as a currency medium. In 2012, more controversy arose: a major market, Tradehill, closed; two additional markets—Bitoinica and Bitfloor—were hacked; an FBI report became leaked, reporting that the FBI “fears[ed] ... Bitcoin as a tool to facilitate the sales of drugs and weapons and assist terrorists,” the closing of “Bitcoin savings and trust” creating “$5.6 million in debt,” and clients sued Bitoinica for the alleged loss of deposits. As

147 Grinberg, supra note 63, at 180 n.88.
150 Hopkins, supra note 117 (internal citation omitted).
151 Id.
152 Id.
153 Id.
154 Id.
155 Id.
156 Id.
157 Id.
a result, “users are anxious about Bitcoin’s legal status and the possibility of a government crackdown.”

Bitcoinica’s ultimate folding prompted a $460,000 lawsuit against Bitcoinica, allegedly founded by 17-year-old Singaporian Zhou Tong, whose platform permitted for shorting Bitcoins, and whose platform allegedly suffered from a cyber-attack in which hackers purportedly stole more than 40,000 Bitcoins. One author described this situation as “a story that will sound familiar to anyone who has been following the saga of the fledgling currency and its nascent economy, a digital Wild West where bad actors routinely take advantage of inexperienced buyers and sellers in the absence of a sheriff.”

Volatility risks exist, because “no fixed exchange rate between Bitcoins and regular currencies” exists. In addition, other disruptive risks, besides alternate virtual currencies, exist for Bitcoins, such as competing transaction logs. In March 2013, Mt.Gox had two separate transaction logs for a time and, while the competing logs lasted for only several hours, the Mt.Gox exchange halted activity and Bitcoins’ price plummeted from $48 to $37. Disruptions may also occur to the international FOREX markets.

Another recurring theme arises as to whether virtual currencies, such as Bitcoins, represent a form of a Ponzi scheme. These claims arise because virtual currency holders initiate their holdings by purchasing Bitcoins with traditional currencies; however, virtual currency holders may only leave the scheme and retrieve their funds in traditional currencies if other interested parties want to buy the selling party’s virtual currency holdings (i.e., if other people join the scheme).  

3. Analyzing Arguable Madness of Crowds and Bitcoin Bubbles

One Bitcoin trader indicated that approximately nine of ten traders were purchasing digital assets such as Bitcoin in hopes of capitalizing on

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160 Jeffries, supra note 158.

161 See, e.g., infra note 191 (quoting Douglas J. Whaley); O’Leary, supra note 123. See also Jeffries, supra note 158.

162 Bollen, supra note 61, at 274.

163 Id. at 278 (internal citation omitted).

164 See generally, Plassaras, supra note 88.

165 ECB Report, supra note 73, at 27.
fast and material returns.\textsuperscript{166} Bitcoin has experienced hugely volatile market pricing to date. For example, early on the currency reflected a near-trivial market price.\textsuperscript{167} Specifically, in May 2010, a Bitcoin’s market price was $0.005 until hitting $30 per Bitcoin in June 2011 (a 600,000 percent increase) prior to plummeting to $2 that October.\textsuperscript{168} By early 2013, Bitcoin’s market price continued to demonstrate extreme volatility, causing concerns that the market is creating a “bubble.”\textsuperscript{169} Another author indicated:

The scale of the recent boom-and-bust has been staggering indeed. At the start of the year, a Bitcoin was worth $13.51. Earlier this week, it traded as high as $266. And on Thursday, it plummeted to less than $100, as one of the exchanges where Bitcoins are traded closed temporarily.\textsuperscript{170}

Evidencing this extreme volatility in the Bitcoin currency market is the currency’s recent price movements in 2013. For example, during the five-month period from February 2013 to June 2013, Bitcoins’ market price went from the $20 range to the $220 range, back to the $20 range, to the $120 range as of early June 2013.\textsuperscript{171} Subsequently, the price was near $1,200 on December 5, 2013 (nearly the extant market price of gold), prior to collapsing below $600 during the next 48 hours before rising to approximately $830 by the week ending December 6, 2013.\textsuperscript{172} In May 2013, the \textit{Wall Street Journal} indicated that the market price of Bitcoins “has gone through some wild spikes in value this spring.”\textsuperscript{173} As of April 2013, Bitcoins’ market price totaled approximately 1.6 billion U.S. dollars,

\begin{footnotesize}
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\item[166] O’Leary, \textit{supra} note 123 (quoting Simon Lelieveldt).
\item[168] Grinberg, \textit{supra} note 63, at 164.
\item[169] Hopkins, \textit{supra} note 117.
\end{enumerate}
\end{footnotesize}
which exceeded the FOREX price for “the entire currency stock of over 30 countries, including Niger, Belize, and Rwanda.”174

In a cyber-attack on June 20, 2011, the value of a Bitcoin dropped “from USD 17.50 to USD 0.01 within minutes.”175 An ECB chart demonstrated how an “immature and illiquid currency can almost completely disappear within minutes, causing panic to thousands of users.”176 Bitcoin “daily transactions” have risen “from 1,000 in early 2011 to roughly 50,000 today.”177 As of February 2014 approximately 12,296,825 Bitcoins were in circulation.178 This volatility and increase in trading volume has led several authors to compare the Bitcoin situation to the tulip-bulb situation of the Dutch East India company.179

D. Legal, Regulatory, and Other Enforcement Mechanisms?

U.S. regulators are beginning to focus on Bitcoin, saying it “is for sure something we need to explore,” according to Bart Chilton, one of five commissioners from the Commodity Futures Trading Commission.180 In March 2013, the U.S. Treasury Department stated that all businesses which engage in “the exchange or transfer of [Bitcoin] will be considered ‘money services businesses.’”181 The founder of Bitcoinstore.com, Roger Ver, claimed to know that some entrepreneurs had relocated to Panama in order to escape the reach of the American legal and regulatory system.182 Also, “[e]ven if US regulations make it hard for Bitcoin businesses to operate in the

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175 ECB Report, supra note 73, at 26.
176 Id.
177 Spittler, supra note 98.
179 See, e.g., Blodgett, supra note 167 (stating that Bitcoin might be the “next tulip bulb or dotcom stock bubble.”); Sivy, supra note 170 (comparing Bitcoins to the tulip bulb mania due to the “volatile rise-and-fall of Bitcoin[s]”); Radford, supra note 52 (asserting that the tulip bulb could “hold[] important lessons for economists and sociologists—and maybe bitcoin investors as well”).
181 Id.
182 Id.
US, that doesn’t mean it will make it difficult for people to use Bitcoin as a currency in the US. Bitcoin is a world currency,” he told the Financial Times.\(^{183}\)

A recent Reuters article stated that “Bitcoin poses a puzzle for [European] regulators”\(^{184}\) and “[t]he situation in the United States is even more complex,”\(^{185}\) where a recent law review article indicated that “[m]ost importantly, Bitcoin currently operates in a legal grey area.”\(^{186}\) Some critics have likened Bitcoin to a currency equivalent of PayPal for criminals,\(^{187}\) and others—approximately 217,000 hits’ worth on a Google search in August 2013\(^{188}\)—have called Bitcoin a “Wild West”\(^{189}\) type of finance. Senator Charles Schumer of New York “declared [B]itcoin ‘an online form of money laundering used to disguise the source of money.’”\(^{190}\) Moreover, doctoral candidate and Yale master’s degree holder in religion, Gabriel J. Michael recently wrote, that “most actors in the virtual world operate under conditions of anarchy .... [and] [w]hen we fail to recognize the anarchic nature of the virtual world, we come to fundamentally incorrect conclusions about how best to think about that world.”\(^{191}\) Michael accused “legal scholars [of being] far too sanguine about the ability of states to regulate the virtual world,” because of Michael’s belief in “legal academia’s tendency to over-emphasize legislation and formal rules, while underemphasizing other factors that influence actors’ behavior....”\(^{192}\) Despite Michael’s self-professed expertise despite apparently lacking any educational degree in law or any

\(^{183}\) Id.

\(^{184}\) O’Leary, supra note 123.

\(^{185}\) Id.

\(^{186}\) Grinberg, supra note 63, at 207.

\(^{187}\) Liberty Reserve Online Service a ‘PayPal for Criminals’, TELEGRAM.COM (May 28, 2013), http://www.telegram.com/article/20130528/NEWS/305289616/1052&Template=printart (quoting a senior law enforcement official as calling Liberty Reserve “PayPal for criminals” and “a shadow banking system for criminal conduct” that was “able to facilitate all sorts of criminal conduct that would not otherwise happen”).


\(^{190}\) Kaplanov, supra note 74, at 129.

\(^{191}\) Michael, supra note 189, at 2. Well-known Commercial Law Professor Emeritus Douglas J. Whaley, and author of law school casebooks on payment law (see, e.g., DOUGLAS J. WHALEY, PROBLEMS AND MATERIALS ON PAYMENT LAW (5th ed. 2008)) indicated to me in a conversation in June 2013 that the rules of the “Wild West” would apply to these payment systems, rather than Uniform Commercial Code Article 4A.

\(^{192}\) Michael, supra note 189, at 3.
bar passage in any nation in the world, and while understanding that bubbles can occur with or without government interference, the idea of a lawless Wild West deserves exploration in this Article relative to potential regulatory solutions. This section details some potential regulatory problems in the U.S., and a synthesized proscriptive proposal occurs below in Part IV.

Having said that, Bitcoin is not really run by anyone or anything as it is not organized under a central authority, the absence of a central organizing body may render Bitcoin particularly difficult to shut down. Some scholars have asserted that Bitcoins represent intangible private property and reflect neither a contract nor debt owed among parties. This section attempts to review potential regulatory instruments available in the U.S., relative to Bitcoins, that could attempt to prevent risk and bubbles.

Inquiries as to what statutory and regulatory schemes may apply to Bitcoins appear to demonstrate that Bitcoins and virtual currencies generally escape any material existing regimes. This section analyzes many, but certainly not all, of those potential schemes.

I. Anti-Counterfeiting Measures?

The U.S. Constitution assigns “control over currency to Congress to the exclusion of states.” But, as one author indicated, “[t]he Constitution has nothing to say about private parties creating money.” In the recent Liberty Dollar private currency conviction, the Justice Department asserted that creating private currency systems seemingly violates some vague and non-specific federal law.

Community currencies exist, however, including the more well-known Ithaca Dollars, which “have avoided any legal attack under [counterfeiting laws or the Stamp Payments] Act by creating notes only in values greater than $1.” “[I]n United States v. Gellman, the [district] court warned that early money-related laws providing criminal penalties should be cautiously

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193 Kaplanov, supra note 74, at 130.
194 Grinberg, supra note 63, at 177.
195 See, e.g., Bollen, supra note 61, at 279.
196 Grinberg, supra note 63, at 182. See U.S. CONST. art. I, § 8, cl. 5.
197 Grinberg, supra note 63, at 182; See U.S. CONST. art. I, § 8.
199 Id. at 186. Also, as mentioned in the text accompanying note 217, infra, Ithaca Dollars are denominated in a temporal currency of hours, not a notional currency, such as dollars.
applied to new technologies.” But relative to counterfeiting, material questions exist as to whether “[a]s a threshold matter, the statutes under which NotHaus [Liberty Coin] was convicted, 18 U.S.C. §§ 485 and 486, are inapplicable to Bitcoin because they only deal with metal coins or coins or bars that resemble official U.S. or foreign currency.”

2. Stamp Payments Act of 1862?

One author indicated that “[i]n the nineteenth century, inflation caused the metal in ... coins to become more valuable than the face value of the coins themselves .... Companies used privately issued currencies in the form of notes or tokens in small denominations.” Attempting to prevent private currencies from arguably contributing to inflationary pressures, Congress enacted the Stamp Payments Act of 1862, of which Section 2 prohibits currencies with face values less than $1 to circulate, and whose policy basis is to prohibit competition with the nation’s official currency.

While some people believe that virtual currencies may be subject to the Stamp Payments Act due to transactions occurring in digital assets or altcoins for $1 or under, legitimate questions of enforcement exist. Evidencing the enforcement problem is that the Stamp Payments Act has not been addressed by the courts in a published opinion in over one hundred years.

3. U.C.C. Article 4A and Electronic Funds Transfer Rules?

Unlike in the Uniform Commercial Code’s (U.C.C.’s) universe, no transparent issuer exists for a Bitcoin-based payment system. In addition, most payment systems rely on common law, contractual underpinnings, legislation,

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201 Id. at 192.
202 Id. at 183.
203 Id.
   Whoever makes, issues, circulates, or pays out any note, check, memorandum, token, or other obligation for a less sum than $1, intended to circulate as money or to be received or used in lieu of lawful money of the United States, shall be fined under this title or imprisoned not more than six months, or both.
206 Grinburg, supra note 63, at 190.
and other codes to dictate the parties’ respective rights and obligations. Nonetheless, some researchers have argued that Bitcoin represents a payment system, albeit one without express contracts or centralized rules.

Article 4A of the U.C.C. defines a payment order as “an instruction of a sender to a receiving bank, transmitted orally, electronically, or in writing, to pay, or to cause another bank to pay, a fixed or determinable amount of money....” The U.C.C., however, limits the scope of its payment system through intermediary banks. As a result, it appears unlikely that U.C.C. Article 4A applies to Bitcoins. When I spoke with noted U.C.C. author Douglas J. Whaley—Professor Emeritus at The Ohio State University Moritz College of Law—regarding how Bitcoins might fit into a U.C.C. world, his response was that they do not and that the rules of the so-called “Wild West” apply.

Supporting the ideas that the rules of the “Wild West” apply to Bitcoins, Kaplanov discussed a number of other current laws, rules, and regulations that seemingly fail to encapsulate sufficient authority to permit U.S. government regulation of alt-coins, crypto-currencies, or digital assets. These failures appear to include money transmitter licensing laws, electronic funds transfer (EFT) laws and regulations, common law contract law’s relation to legal tender, local currencies, sellers

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208 Bollen, supra note 61, at 279–80.
209 Id.
212 See supra note 191.
213 Kaplanov, supra note 74.
214 E.g., 31 U.S.C.A. § 5330(d)(1)-(2) (West 2014) (stating in essence that money transmitting services are businesses that accept currencies denominated in a specific country’s currency and then transmit the currency through a financial institution or electronic funds transfer network); 31 C.F.R. § 1010.100(ff) (2012) (evidencing that the accompanying regulations promulgated under the statute involve a similar definition).
217 Perhaps the most well-known example of a local currency is Ithaca Hours, also known as Ithaca Dollars, begun in the early 1990s in hopes of assisting the struggling upstate New York economy during the existing recession. See, e.g., FAQ, ITHACA HOURS, http://www.ithacahours.org/ (last visited Feb. 24, 2014). See also Lewis D.
attempting to use self-created coins similar in appearance to U.S. legal tender, such as the Liberty Dollar,\textsuperscript{218} securities regulation,\textsuperscript{219} and commodities regulation.\textsuperscript{220} Kaplanov acknowledged, however, that some rules governing foreign currency trading may ensnare Bitcoins.\textsuperscript{221}

In addition, Bitcoins avoid many of the problems taught in commercial paper and payment systems courses, because Bitcoins can generally “ensure that the coin hasn’t been stolen, and that it hasn’t already been spent or transferred to someone else.”\textsuperscript{222} In the event of a dispute with proper ownership in Bitcoins, the best and longest record prevails because of the peer-to-peer networked approach; further, Bitcoin’s payment and transaction

\begin{footnotesize}
\begin{itemize}
  \item Solomon, \textit{Reflections on the Future of Business Organizations}, 20 \textit{Cardozo L. Rev.} 1213, 1213–15, 1230 (1999). Solomon describes future trending privatization models for traditionally perceived government-controlled practices such as quasi-currencies, including vouchers, and asserting that “local currency helps promote a decentralized political economy by discouraging the flow of capital to large, more environmentally destructive business organizations,” \textit{id.} at 215, and explains that:

\begin{itemize}
  \item \textit{[l]}ocal currency involves the use of a medium of exchange other than national currency to obtain goods and services. For example, simple barter between individuals is a form of local currency. Other forms of local currency seek to overcome the lack of flexibility inherent in a traditional barter system which requires a direct swap of goods or service between people.
  \item One such system is the Ithaca HOURS system, which utilizes a paper currency in which one HOUR has a value of ten dollars—the average hourly wage in Ithaca, New York. Local businesses and individuals wishing to participate in the Ithaca HOURS system need only agree to accept the HOURS in full or partial exchange for goods and services. Thus, by use of the Ithaca HOURS, participants in the program agree to patronize local businesses which, in turn, reinforces trading among people who live within the community. This program benefits individuals, businesses, and the community.
\end{itemize}

\textit{id.} at 1230 (internal citations omitted).

\item 18 U.S.C.A. § 485 (West 2014) (leading to prosecution and conviction of Liberty Dollar Services, Inc.’s currency creator, Bernard von NotHaus).


\item Discussed in detail \textit{infra} Part II.D.4.

\item Kaplanov, \textit{supra} note 74, at 131–50.

\item Bollen, \textit{supra} note 61, at 277. Cf. “Holder in Due Course” issues under U.C.C. § 3-302 (2004). Bitcoin also avoids note and draft encumbrances such as determining the validity of a financial instrument when an allonge of prior holders is affixed to the original promissory note via a staple versus a paper clip. \textit{See, e.g.}, Douglas J. Whaley, \textit{Mortgage Foreclosure, Promissory Notes, and the Uniform Commercial Code}, 39 W. St. U. L. Rev. 313, 319 (2013).
\end{itemize}
\end{footnotesize}
recording system is primarily maintained using cloud-based technology.\textsuperscript{223} While some people may initially scoff at a decentralized recordkeeping approach, such payment systems in many ways reflect smart cards.\textsuperscript{224}

\textbf{4. Commodities Statutes and Regulations Promulgated by the CFTC?}

The Commodity Futures Trading Commission (CFTC) regulates derivatives contracts. Under the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank),\textsuperscript{225} which was passed in 2010 to “promote the financial stability of the United States by improving accountability and transparency in the financial system”\textsuperscript{226} in response to the subprime mortgage crisis and financial crisis of 2007–2010,\textsuperscript{227} the CFTC has authority to oversee retail foreign exchange dealers. The CFTC’s jurisdiction does not extend to cash markets unless there are derivative contracts based on cash.\textsuperscript{228} Thus, Bitcoins generally should not be subject to CFTC jurisdiction, but leveraged Bitcoin transactions settled in more than two days—generally known as “rolling spot” transactions—appear to be under the CFTC’s jurisdiction.\textsuperscript{229} Bart Chilton, a CFTC regulator, stated, “[i]n essence, we’re talking about a type of shadow currency, and there is more than a colorable argument to be made that derivative products relating to Bitcoin falls squarely within our jurisdiction.”\textsuperscript{230} Assuming that one can take seriously a federal agency whose director pushed to pass the so-called “Eddie Murphy Rule,”\textsuperscript{231} a quick glance at the commodities rules shows regulatory coverage of Bitcoin to be questionable. One author indicated that “[B]itcoin could also be classified as a commodity and its exchange a commodity futures contract. Commodities are goods sold in the

\begin{footnotes}
\item[223] Bollen, supra note 61, at 277.
\item[224] See What is a Smart Card?, HOWSTUFFWORKS, http://www.howstuffworks.com/question332.htm (last visited Feb. 24, 2014) (describing how a smart card contains a microprocessor that uses a “limited instruction set for application such as cryptography” to store data; smart cards are said to avoid the need for “extensive online mainframe-based networks for verification and processing” because all the card’s data is secured by the microprocessor).
\item[226] Id.
\item[228] See Alloway, supra note 180, at 2.
\item[229] Id.
\item[230] Id.
\item[231] See Statement of Hon. Gary Gensler, supra note 58.
\end{footnotes}
market of uniform quality and value throughout the world.” However, the CFTC retains exclusive jurisdiction over “accounts, agreements ..., and transactions involving contracts of sale of a commodity for future delivery ... subject to regulation by the Commission.”

But as discussed above, challenges exist in stating with any reasonable certainty what constitutes a commodity. For example, the Court defined futures contracts as “agreements to buy or sell a specified quantity of a commodity at a particular price for delivery at a set future date.” Thus, a futures contract, which memorializes in the present a transaction to take place in the future, is distinguishable from a forward contract, which has been defined as “a contract for a present transaction with future delivery.” In addition, “the delivery of [B]itcoins between users is nearly instantaneous and well outside of the requirements for future delivery.” So while the CFTC may regulate a certain degree of commodities futures contracts, and foreign currency contracts executed on a leveraged basis, little evidence supports the theory that Bitcoin transactions, even on a leveraged basis, would come under the purview of the CFTC.

5. Securities Laws?

Securities laws are described in greater detail in Part III dealing with crowdfunding and Kickstarter, but the Supreme Court has stated:

[T]he fundamental purpose undergirding the Securities Acts is ‘to eliminate serious abuses in a largely unregulated securities market.’ ... Congress therefore did not attempt to precisely cabin the scope of the Securities Acts. Rather, it enacted a definition of ‘security’ sufficiently broad to encompass virtually any instrument that might be sold as an investment.

Therefore, it is critical that a determination is made as to whether Bitcoins qualify as securities to be regulated under the Securities Acts. Some commentators have “concluded that digital currencies are unlikely to be regulated as

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232 Kaplanov, supra note 74, at 125.
233 Id. at 27 (quoting 7 U.S.C. § 2(a)(1)(A) (2006)) (internal quotation marks omitted).
234 See supra note 58 and accompanying text.
236 Commodity Futures Trading Comm’n v. Erskine, 512 F.3d 309, 322 (6th Cir. 2008).
237 Kaplanov, supra note 74, at 147–48 (citing 7 U.S.C. § 2(c)(2)(C)(i)(II) (2010)) (stating in essence that delivery must be outside a three-day window to come under CFTC regulatory authority).
securities," and that should Bitcoins represent a security, it will be because Bitcoins fall "within the vague and broad phrase ‘investment contract.’" This argument’s basis is that the Court in the famed Howey decision interpreted an investment contract as a security if four prongs were satisfied in which a person “[1] invests his money in [2] a common enterprise and [3] is led to expect profits [4] solely from the efforts of the promoter or a third party ....” Thus, “[t]hose arguing that a [B]itcoin is not a security may also argue that [B]itcoins … are commodities.”

But “securities … have a feature that commodities do not have: they confer a claim on some other entity,” because “[a]ll securities represent claims against an issuer....” Yet,

decisions explaining why commodities are not securities have also noted that commodities are “tangible” and have “inherent value,” unlike securities. Bitcoins are not “tangible,” and one may argue that by design they have no inherent value because there is no government or commodity backing them. Furthermore, just as one generally cannot “use” a security—except by buying, selling, or pledging it—one cannot “use” a [B]itcoin—except by buying, selling, or pledging.

As an author indicated, “although [B]itcoins share many features with commodities, they also share features with securities and are unlikely to evade categorization as an ‘investment contract’ on this ground.” The OCC’s exemptions from the definition of “security” appear to save Bitcoin from regulation, because Bitcoin is not a “note, draft, bill of exchange, or bankers acceptance.” Also, some authors have argued that despite excluding currencies from the definition of securities, some currencies may also be securities, because currencies may be, not a “medium of

240 Id. at 195 (referencing Kerry Lynn Macintosh, How to Encourage Global Electronic Commerce: The Case for Private Currencies On the Internet, 11 HARV. J.L. & TECH. 733, 746 n.49 (1998)).
241 Id. at 196.
242 Id. (citing SEC v. W. J. Howey Co., 328 U.S. 293, 298–99 (1946)).
243 Id. at 199.
244 Id.
246 Grinberg, supra note 63, at 200.
247 Id.
248 See 12 C.F.R. § 344.3(m)(5) (2014).
exchange” but instead “current money.”

According to Teigland, Yetis, and Larsson, the Bitcoin Foundation is an approved 501(c)(3) entity by the Internal Revenue Service, with Nakamoto listed as a founding member, along with a five-person corporate board. Corporate governance concerns are beyond this article’s scope, but the foundation’s five board seats are voted by different voting classes, based on annual membership classes based on costs, which are, of course, denominated in Bitcoins. Corporate members of the Bitcoin Foundation include Mt.Gox, bitcoinstore (U.S.), bitinstant (New York), CoinLab (Seattle), BITHOC (Florida), Cryptex (Kansas), the Newport Beach Company (U.S.), zipbit (New Zealand), and eCardOne (Czech Republic).

6. The Bank Holding Company Act of 1956?

The Bank Holding Company Act of 1956 does not cover Bitcoins or its exchanges as a banking institution. The Federal Reserve Board similarly appears to lack authority. Many state banking laws also are similarly lacking, employing a hodgepodge of definitions regarding what constitutes a bank. As The Economist indicated, “[u]nlike traditional currencies, which are issued by central banks, Bitcoin has no central monetary authority.

In terms of banking regulation, the U.S. regulatory scheme for banks is more fragmented than other G20 nations, thereby leaving a hodgepodge of inconsistent and messy regulations at both state and federal levels. For

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249 Grinberg, supra note 63, at 203 (quoting BLACK’S LAW DICTIONARY (9th ed. 2009) and State v. Quackenbush, 98 Minn. 515, 520–21 (1906), respectively).
251 Id. at 10–11.
252 Id. at 10.
254 Teigland, Yetis, & Larsson, supra note 62, at 11–12.
258 Standage, supra note 104.
example, Singapore’s rapidly developing economy is subject to a single regulatory agency, which includes oversight of both banking and insurance. In the U.S., in addition to the myriad regulators, definitions of banking also differ.

7. U.S. Coinage Act of 1965?

The U.S. Coinage Act of 1965 states that U.S. “coins and currency (including Federal Reserve notes ...) are legal tender for all debts, public charges, taxes, and dues. Foreign gold or silver are not legal tender for debts.” This suggests that the U.S. Coinage Act of 1965 also is inapplicable to altcoins, crypto-currencies, and other digital assets such as Bitcoins.

8. Foreign Exchange (FOREX) Instruments?

Simply put, “foreign currencies are generally not considered to be a security.” As one author asserted, “[b]ecause Bitcoin is not formally backed by a country’s government, it is not bound by the IMF’s guidelines. As a result, Bitcoin poses a serious threat to the economic stability of the foreign currency exchange if it continues to grow in both value and usage.” Seemingly confirming that FOREX is not applicable, a person must exchange the currency of one or more countries to be considered a dealer in foreign exchange. Because Bitcoins are not a foreign currency representing legal tender of any nation, the U.S. foreign exchange laws and regulations do not appear to apply to Bitcoins and virtual currencies.

9. Anti-Money Laundering (AML) Laws?

Several laws aimed at targeting alleged terrorist financing activities may apply to Bitcoins or the exchanges, including the Money Laundering Control Act of 1986 (MLCA). The MLCA subjects persons to criminal sanctions for conducting or attempting to conduct, with knowledge of the unlawful origin of the property in the financial transaction, financial transactions

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260 Id. at 289.
263 Plassaras, supra note 88.
“which in fact involve[] the proceeds of specified unlawful activity.”266 Additionally, the Bank Secrecy Act (BSA) and the related regulations promulgated by FinCEN collectively subject money transmitting or servicing businesses to potential criminal or civil penalties for their failure to register with FinCEN.267 Failing to register may subject international persons to liability so long as affected persons are located in the United States.268 In March 2013, using authority granted under the BSA,269 FinCEN issued interpretive guidance on “virtual currencies,” which seem to cover Bitcoin.270 FinCEN’s guidance expressly acknowledged the flaw articulated in this Section; that is, FinCEN’s comments “should not be interpreted as a statement by FinCEN about the extent to which those activities comport with other federal or state statutes, rules, regulations, or orders.”271 While providing some clarification specific only to FinCEN’s position on virtual currencies, the lack of a consistent or coherent broad scheme of regulatory definitions, norms, and understandings led to FinCEN’s interpretive guidance adding to the confusion surrounding the subject.


269 Treas. Order 180-01, supra note 14.

270 FinCEN Guidance FIN-2013-G001, supra note 15. The Guidance attempted to “clarify the applicability of the regulations implementing the Bank Secrecy Act (‘BSA’) to persons creating, obtaining, distributing, exchanging, accepting, or transmitting virtual currencies. Such persons are referred to … as ‘users,’ ‘administrators,’ and ‘exchangers’ …. A user of a virtual currency is not an MSB under FinCEN’s regulations and therefore is not subject to MSB registration, reporting, and recordkeeping regulations.” Having said that, “an administrator or exchanger is an MSB under FinCEN’s regulations,” and “[a]n administrator or exchanger is not a … dealer in foreign exchange, under FinCEN’s regulations.” Id.

271 Id. at 1 n.1.
For example, FinCEN provides four definitions for currency (referred to by FinCEN as “real currency”), virtual currencies, “centralized convertible virtual currencies,” and “[d]e-centralized convertible virtual currencies,” that seem to encompass Bitcoins. Specifically, FinCEN stated:

In contrast to real currency, “virtual” currency is a medium of exchange that operates like a currency in some environments, but does not have all the attributes of real currency. In particular, virtual currency does not have legal tender status in any jurisdiction. This guidance addresses “convertible” virtual currency. This type of virtual currency either has an equivalent value in real currency, or acts as a substitute for real currency.

Furthermore, FinCEN stated that the rules that apply to brokers and dealers of e-currency and e-precious metals are the same as those that apply to brokers and dealers of real currencies “since the definition of a money transmitter does not differentiate between real currencies and convertible virtual currencies.”

Essentially, what this dictate means is that persons who either broker or conduct an exchange in Bitcoins are subject to FinCEN regulation as an MSB, but typical purchasers and sellers would not be subject to FinCEN regulation.

10. Other Federal Regulators?

In early 2014, just weeks after Federal Reserve Chairwoman Janet Yellen indicated in response to a U.S. senator’s letter to U.S. financial regulators that Bitcoins could not be regulated by the Fed “in any way,”
New York State sought to regulate crypto-currencies via a “BitLicense” to regulate virtual currency exchanges.\footnote{281} The statements by Senator Manchin and by the New York Department of Financial Services appear to be political posturing when the explicitly apolitical Federal Reserve\footnote{282} has taken a different position.

\section*{E. Synthesis}

Rhys Bollen asserted that “[m]ost regulatory regimes are not well designed to cater” to a decentralized peer-to-peer payment system and suggested a regulatory regime that is broad, outcomes-focused, and technology neutral.\footnote{283} The problem, however, is that financial engineers will always be ahead of regulation, and regulation will then attempt to over-regulate to make up for the initial lack of regulation and to cast a broad net to catch as much potentially future conduct as possible.\footnote{284} Such a policy is not wise when dealing with economic activities in which efficiency should be maximized and frictional costs minimized, so long as harmed parties may seek redress.

One potential action would simply be a requirement for exchanges to pay premiums to a third-party insurer of the exchange’s choice (i.e., a privatized and competitive model of the Federal Deposit Insurance Corporation (FDIC) for banks or the Pension Benefit Guaranty Corporation (PBGC) for defined benefit pension plans). Persons wishing to participate in any voluntary transaction can choose the exchange they wish based on a number of factors including best execution, reputation, trading volume, as well as the insurer of the exchange. Requiring mandatory insurance for voluntary financial transactions is far more similar to states requiring automobile drivers to purchase insurance than it is to mandating the purchase between Bitcoin and banks that the Federal Reserve has the ability to supervise and regulate. So the Fed doesn’t have authority to supervise or regulate Bitcoin in anyway.”


\footnote{283} \textit{Id.} at 292.

of insurance for individual health care. Moreover, insurance of this type continues to support a broad array of experimentation and incubation among insurers, exchanges, and parties, in terms of transactions, rather than dictating that all definitions and policies be dictated by a single regulatory body, such as in Singapore.285

The most active Bitcoin Forum member identified by Tiegland, Yetis and Larsson was Phinnaeus Gage, who “founded and ... maintains Bitcoin100, a kickstarter for non-profits that implement a Bitcoin donation option onto their websites.”286 Additionally, no story would be complete without the famed Winklevoss twins, portrayed in the film The Social Network as the co-founders of Facebook duped by Mark Zuckerberg.287 Sure enough, in early 2013, the Winklevoss twins announced the launch of a hedge fund in Bitcoins.288 Thanks to finally enacted and much delayed rules by the SEC, violating the timing of its enabling statute,289 hedge funds like the Winklevoss’s can now advertise any way they would like for financing their venture to any potential investor, including on crowdfunding portals such as Kickstarter.

III. CROWDFUNDING, KICKSTARTER, AND COMMISSION CONSTRAINTS

Crowdfunding provides financial capital to individuals and small business ventures by crowdsourcing individual investors via the world wide web, without traditional financial intermediaries or underwriters.290 Crowdfunding has been defined as “the practice of funding a project or venture by raising many small amounts of money from a large number of people.

285 Id. at 289.
286 Teigland, Yetis, & Larsson, supra note 62, at 12.
289 See Goad, supra note 11.
Another definition stated that crowdfunding “emerged as [a] novel way for entrepreneurial ventures to secure funds without having to seek out venture capital ....”\textsuperscript{292} Having said that, crowdfunding remains a relatively unknown subject to academia, despite the enormity of the practice.\textsuperscript{293} Nonetheless, entrepreneurs may engage in four types of crowd-funding:

1. donation-based, which permits investors, or “donors,” to invest in a project without receiving (or expecting) a return from the project creator;
2. reward-based, which sanctions investors, or “contributors,” to contribute capital to project creators in return for a nominal reward worth less than the investment given;
3. equity-based, which permits certain investors to provide capital in return for a stake in the company or dividend; and
4. debt-based (sometimes referred to as “peer-to-peer (‘P2P’) lending” or, at times, “microlending”), which allows many lenders to loan small monetary amounts to borrowers.\textsuperscript{294}

Congress broadly defined crowdfunding in the Jumpstart Our Business Startups (JOBS) Act of 2012\textsuperscript{295} as “Capital Raising Online,”\textsuperscript{296} a bill that President Obama called “a potential game changer” for small businesses and start-ups.\textsuperscript{297} Crowdfunding has the potential to help entrepreneurs assuage the challenges of obtaining—and the associated friction costs of raising—startup capital. While crowdfunding may represent an approach better suited for today’s technological environment, due to securities laws and regulations, crowdfunding is only partially disruptive to traditional


\textsuperscript{292} Mollick, \textit{supra} note 290, at 2.

\textsuperscript{293} See id. at 1 (“Despite over a billion dollars spent by millions of individual crowdfunding backers, ... even basic academic knowledge of the dynamics of crowdfunding is lacking....”). A fifth method of crowdfunding has recently emerged, which is royalty-based crowdfunding and is the subject of a separate article. See, e.g., MASSOLUTION, 2013CF: THE CROWDFUNDING INDUSTRY REPORT 19 (2013), available at http://research.crowdsourcing.org/2013cf-crowdfunding-industry-report.

\textsuperscript{294} Id. at 3. See also D. Scott Freed, Crowdfunding as a Platform for Raising Small Business Capital, 45 MD. BAR J. 12, 13 (July–Aug. 2012).


\textsuperscript{296} Id. § 301, 126 Stat. at 315. See also \textit{supra} note 175 and accompanying text.

\textsuperscript{297} Mollick, \textit{supra} note 290, at 2.
debt and equity capital campaigns, and funding from the crowd comes in a variety of flavors.

A. Reward and Donation-Based Crowdfunding

1. Reward-Based Crowdfunding

Reward-based crowdfunding generally entails raising capital to fund some sort of creative project from which contributors receive some form of reward, tangible or otherwise, in exchange for contributions that reach a certain monetary benchmark.\(^\text{298}\) Because investors only receive non-monetary perks—such as the goods funded by the capital, a credit in a crowdfunded film or television production, or an opportunity to meet with an actor from that production—reward-based crowdfunding is more of “goodie-bag” crowdfunding.\(^\text{299}\) With no expectation of a financial return, reward-based capital providers essentially pay for whatever the goodie bag entails.\(^\text{300}\) Doing so avoids the scope of current securities laws and SEC rules and regulations, which do not govern reward-based crowdfunding because a goodie bag does not constitute a “security.”\(^\text{301}\) Reward-based crowdfunding platforms include Kickstarter, Indiegogo, and Rockethub. Kickstarter and Indiegogo are the two most popular reward-based crowdfunding platforms, although many other platforms exist throughout the world.\(^\text{302}\)

Kickstarter uses an “all or nothing” funding strategy from which project creators receive contributed funds only if the project creator’s defined funding goal is met, within a set time period.\(^\text{303}\) Indiegogo permits project creators to receive any funds contributed, without having to meet a set monetary funding goal.\(^\text{304}\) In 2012, approximately 2.2 million people from 177 countries pledged approximately $319.8 million to fund a total of 18,109 projects through Kickstarter.\(^\text{305}\) Ten percent of films submitted to

\(^{298}\) Id. at 3.
\(^{299}\) Id.
\(^{301}\) Freed, supra note 294, at 13.
\(^{302}\) Shahrokh Sheik, Fast Forward on Crowdfunding, 36 L.A. LAWYER 34, 39 (May 2013).
\(^{303}\) Bradford, supra note 300, at 19; see also Robert Hoskins, How to Pick the Best Crowdfunding Sites for Successful Fundraising Campaigns, CROWDFUNDING PR, SOC. MEDIA & MKTG. CAMPAIGNS (Feb. 17, 2013), http://crowdfundingpr.wordpress.com/2013/02/17/kickstarter-vs-indiegogo-which-is-the-best-crowdfunding-site-and-why/.
\(^{304}\) Bradford, supra note 300, at 19; see also Hoskins, supra note 303.
\(^{305}\) Best of Kickstarter 2012, Overall Pledged, KICKSTARTER, http://www.kickstarter.com/year/2012?ref=footer#overall_pledged (last visited Feb. 24, 2014); Best of Kickstarter
the 2012 Sundance Film Festival also received funding via Kickstarter. Further, in March 2013 the Veronica Mars Movie Project generated approximately $2 million, reaching the project’s funding goal, within the first 11 hours of the campaign being posted on Kickstarter. Subsequently, more than 91,000 backers contributed amounts totaling approximately $5.7 million within the 30-day time period. Project creators have also enjoyed a significant amount of success crowdfunding through Indiegogo. For instance, an 18-year-old film director raised almost $6,000 on Indiegogo in just a couple days after previewing a trailer of her movie, “My Sucky Teen Romance,” at a comic book convention.

Reward-based crowdfunding platforms, however, suffer from considerable drawbacks. For example, because raising capital via crowdfunding is available to the public, such access can adversely impact project creators in several ways. First, crowdfunding provides information to third parties regarding how much capital an entrepreneur raised. Second, a failure to deliver on a successfully crowdfunded project may result in negative consequences for the project creator, including a loss of reputational capital.

Nonetheless, even though crowdfunding entails many risks for both the contributor and the entrepreneur, crowdfunding continues to surge in popularity. In 2013, crowdfunding is expected to raise $5.1 billion globally—far more than the aggregate market for virtual currencies.

2. Donation-Based Crowdfunding

Donation-based crowdfunding typically involves raising funds for some social cause from which donors receive no tangible return. Donation-based
funding platforms include: (1) Gofundme, (2) Razoo, and (3) Crowdrise. Investors provide capital but do not receive anything in return for their contribution other than feelings of goodwill. The charitable donations, however, may fund for-profit enterprises.\textsuperscript{313} Since donors receive no consideration, donation-based crowdfunding does not fall under the purview of the SEC regulations and rules promulgated thereunder.\textsuperscript{314}

B. Debt-Based Crowdfunding

Peer-to-peer (P2P) lending is a debt-based form of crowdfunding that uses an online platform to connect borrowers with individual lenders. P2P lending has generated billions of dollars in loans during a time when consumers and small businesses “faced reduced access to credit from banks and credit unions.”\textsuperscript{315} P2P lending platforms have revolutionized community lending by providing “searchable electronic marketplaces, standardized loan contracts, borrower creditworthiness data, and loan servicing,” and generating large volumes of small loans between anonymous individuals.\textsuperscript{316}

Microloan concepts are nearly as historical as metal coinage, since microloans have appeared in fourth-century China (lun hui), and at other times and places, such as Ghana (susus), India (chit funds), Mexico (tandas), Bolivia (pansanaku), and Bangladesh (the Grameen Bank in the 1970s).\textsuperscript{317}

The Internet has created an environment for P2P microlending. As Paul Slattery describes, “[f]or borrowers, P2P lending platforms offer debt consolidation, increased access to liquidity, and significantly less racial and sexual discrimination than traditional lenders.”\textsuperscript{318} For lenders, P2P lending platforms offer accessible portfolio diversification and socially conscious investing. Lenders involved in the P2P lending model provide short-term funds and expect repayment.\textsuperscript{319}

Since traditional lenders generally intend to bundle and securitize loans, certain borrowers may be overlooked either because the borrower has an “unusual profile” or because the borrower poses a credit risk. P2P lenders, on the other hand, have an opportunity to lend to these overlooked

\textsuperscript{313} Bradford, \textit{supra} note 300, at 15.
\textsuperscript{314} See SEC v. W. J. Howey Co., 328 U.S. 293 (1946); \textit{see supra} text accompanying note 220.
\textsuperscript{316} \textit{Id.}
\textsuperscript{318} Slattery, \textit{supra} note 315, at 235.
\textsuperscript{319} Bradford, \textit{supra} note 300, at 20.
borrowers based on the intrinsic monetary value of the loan or based on purely social value (i.e., philanthropy).

P2P lending also has drawbacks. For borrowers, these platforms may create privacy risks. P2P platforms collect and store large amounts of personal data, including credit and identification information. P2P platforms can also sell borrower information or hackers can steal borrower information as a result of P2P platforms implementing inadequate information security systems. For lenders, the major risk is the fact that the borrower can default—much like traditional loans. Additionally, the P2P lender runs the risk of losing money if borrowers do not pay back enough of the loan to generate interest.

Some platforms only provide a return of the principal of the loan to the lender. Other platforms provide interest on the funds investors loan to borrowers. Thus, P2P lending platforms are differentiated into two categories, those from which lenders receive no interest and those from which lenders receive interest.

1. Non-Interest Bearing MicroLoans

Kiva is considered the leading “non-interest bearing” platform. Instead of lending to entrepreneurs directly, Kiva partners with “field partners,” which include international microfinancing institutions and non-profit organizations. Kiva posts entrepreneur loan requests on the Kiva website. Individual lenders can loan any amount, from $25 to the full requested amount, through the Kiva website. Kiva collects and distributes the

320 Slattery, supra note 315, at 245.
321 Id.
323 Id.
324 Id.
328 Bradford, supra note 300, at 21.
funds the individual lender agrees to loan back to the field partners, crediting lenders with any repayments the entrepreneur makes.\footnote{How Kiva Works, supra note 327.} Lenders receive payment of the principal and the field partners use any interest to cover operating and transactional costs.\footnote{Id.} Since lenders do not receive any interest and Kiva.org is a non-profit organization, Kiva.org remains free from SEC regulation.\footnote{Jason Beahm, Microloans to Entrepreneurs: Kiva Claims Success in US Despite Controversy, FINDLAW (Apr. 22, 2010, 4:23 PM), http://blogs.findlaw.com/law_and_life/2010/04/microloans-to-entrepreneurs-kiva-claims-success-in-us-despite-controversy.html.}

2. Interest-Bearing Microloans

Both Prosper and Lending Club dominate the market with respect to interest-bearing debt-based crowdfunding.\footnote{See Slattery, supra note 315, at 238; Angus Loten, Peer-to-Peer Loans Grow, WALL ST. J., June 16, 2011, at B10.} These platforms provide an online marketplace that allows potential borrowers to anonymously seek individual loans. Prospective borrowers make the case to receive funding by posting narratives and consent to be subjected to a credit check.\footnote{Slattery, supra note 315, at 238–39, 241.} Potential creditors (lenders) browse the debtors’ applications and fund loans at platform-determined interest rates.\footnote{Id. at 238–41.} Paul Slattery states that “[b]oth platforms contract with an FDIC-insured bank to execute loans, and both issue notes to lenders dependent on borrower payment streams.”\footnote{Id. at 238.} Debtors request loans ranging from $2,000 to $35,000 and lenders can agree to loan a monetary amount as low as $25.\footnote{Company Overview, PROSPER, http://www.prosper.com/about/ (last visited Feb. 24, 2014).} Originally, debtors issued promissory notes directly to creditors on both crowdfunding platforms, while the site maintained “custody of the notes and service[ed] [the debts] for a 1 % fee.”\footnote{Bradford, supra note 300, at 22.} Now, creditors directly buy notes issued by either Prosper or Lending Club, and the funds from those purchases are used by both sites to make loans through WebBank.\footnote{Id. at 22–23.} These platforms reduce the costs of extending credit by eliminating “unnecessary ... services ... associated with traditional intermediaries.”\footnote{Andrew Verstein, The Misregulation of Person-to-Person Lending, 45 U.C. DAVIS L. REV. 445, 457 (2011).}
In lieu of a service fee, Prosper and Lending Club charge debtors an origination fee for each lending transaction. The amount of the origination fee is proportional to the perceived credit risk for each borrower, taking into consideration factors such as credit scores. Lending Club determines the debtor’s “loan grade” and assigns an interest rate for each loan accordingly. Lending Club measures the debtor’s credit risk by evaluating the debtor’s loan application and credit history. Alternatively, Prosper rates each loan to set a minimum rate but an auction-like process determines the actual interest rate assigned to the loan. Generally, P2P lenders provide loans to borrowers having difficulty obtaining credit through traditional channels. Crowdfunded interest-bearing microloans are subject to securities regulation.

C. Equity Crowdfunding and Associated Restrictions

Because only one type of crowdfunding provides an unlimited upside return on an investment as well as internal governance control mechanisms, the most meaningful crowdfunding type is equity crowdfunding. Further, equity-based crowdfunding comprises about 15 percent of the total crowdfunding market and raised the most funds per project, as compared to donation and reward-based crowdfunding.

The JOBS Act aimed to create jobs, in part, by incentivizing investors to finance entrepreneurial small business ventures through allowing capital contributors to receive a financial interest without registering the offering with the SEC. The JOBS Act arguably represented a means of facilitating

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340 Bradford, supra note 300, at 23.
341 Id.; see also Slattery, supra note 315, at 239.
342 Bradford, supra note 300, at 23.
344 Bradford, supra note 300, at 23.
347 See Marco Becht, Corporate Governance and the Credit Crisis, in MACROECONOMIC STABILITY AND FINANCIAL REGULATION: KEY ISSUES FOR THE G20 165, 169 (Mathias Dewatripont, Xavier Freixas & Richard Portes eds., 2011).
349 See Thaya Brook Knight et al., Comment, A Very Quiet Revolution: A Primer on Securities Crowdfunding and Title III of the JOBS Act, 2 MICH. J. PRIVATE EQUITY &
opportunities for middle class investors, entrepreneurs, and workers to benefit from an ease in the exchange of capital among parties.

When an entrepreneur exchanges an equity interest in their start-up for cash investment, a potential problem exists because the entrepreneur seeking capital may have issued “securities.” Congress passed the JOBS Act, at least in part, to facilitate equity crowdfunding. Instead of choosing to employ debt financing, an entrepreneur can seek capital from investors who, in exchange for their investment in the startup, receive an equity interest in the startup. Obtaining outside financing can be a challenging proposition. The frictional costs of raising outside capital can be high, both in terms of financial and governance give-ups, including board seats, to the venture capital investors. Until September 2013, a prohibition existed on businesses engaging in solicitation of securities to the general public (general solicitation). With this prohibition removed, one may initially and intuitively believe that equity crowdfunding might disrupt or even replace traditional equity financing mechanisms. But such a belief is in large part misplaced.

The Crowdfund Provision “authorizes the ‘crowdfunding’ of securities, defined as the sale of unregistered securities over the Internet to large numbers of retail investors, each of whom only invests a small dollar amount.” The Crowdfund Provision provides an exemption allowing the issuance of unregistered securities. Such an exemption lowers the barriers

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350 See, e.g., Bradford, supra note 300, at 33.


352 For purposes of this Article, the term startup refers to a fledgling business enterprise.


to entry for small businesses to obtain equity capital by: (a) lowering agency costs associated with acceding to mandatory SEC registration and disclosure requirements; (b) lowering marketing and promotional costs traditionally correlating with issuing equity to the public; and (c) increasing the ease of obtaining equity capital by small businesses.358

Yet meaningful equity-based crowdfunding remains currently available only to accredited investors.359 Broadly speaking, an accredited individual investor is a natural person whose: (a) net worth exceeds $1 million; or (b) individual annual income exceeds $200,000.360 As Professor Usha Rodrigues wrote, “[s]ecurities law’s dirty little secret is that rich investors have access to special kinds of investments ... that everyone else does not .... [T]he law assumes that the average investor needs the protection of the full panoply of securities regulation and thus should be limited to buying public securities.”361

Unaccredited investors are not permitted to participate in equity-based crowdfunding until the SEC passes appropriate rules and regulations, pursuant to the JOBS Act; when the SEC will do so is anyone’s guess. Section 201 of the JOBS Act required the SEC to “revise its rules” with respect to the ban on Regulation D [Section 506] solicitations “not later than 90 days” after the enactment of the Act.362 That did not occur until July 2013, more than 365 days later than required by the JOBS Act.363 These changes, effective September 2013, permit for so-called general solicitation of securities to anyone.364 Only accredited investors, however, may actually invest in the

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358 See Schwartz, supra note 356, at 1467.
enterprises that advertise using general solicitation. While the SEC released proposed equity crowdfunding rules in October 2013, these proposed rules asked numerous questions, and no one is certain when, or if, the equity crowdfunding rules will become effective, thus permitting small investors and enterprises to exchange equity for financial capital.

Also, section 108 of the Act required the SEC “[n]ot later than 180 days after the date of enactment of this title” to issue such rules as may be necessary to carry out the amendments contained in section 301 of the JOBS Act. While individuals face penalties for violating the securities laws, the SEC faces no penalty for failing to fulfill certain obligations contained in these and various other portions of the JOBS Act. In addition, “[b]y law, the SEC cannot revisit the actual definition of accredited investor status until 2014,” and the JOBS Act limits the amount that entrepreneurs can raise via crowdfunding at $1 million, and this amount fails to include the proposed material legal and accounting compliance costs.

These restrictions are unproductive for entrepreneurs, middle-class investors, workers, and the economy as a whole. First, the restrictions harm entrepreneurs because the constraints limit capital, lowering amounts to numbers far below what traditional equity investments can provide. In addition, should the business raise more than $1 million in crowdfunded equity, it faces potential liability under the Securities Act. Furthermore, the entrepreneurial firm may not crowd fund more than $1 million in any twelve-month period. For example, game console developer Ouya crowdfunded approximately $950,000 in eight hours on Kickstarter. What legitimate policy rationale could exist to prevent that company from crowdfunding additional capital?

365 Id.
366 JOBS Act § 108(a)–(b), 126 Stat. at 313.
370 See id.
Second, these provisions do not help individual middle-class investors, as those investors may only provide $2,000 in crowdfunded capital (if those investors have a financial net worth below $100,000) or ten percent of an investor’s financial net worth, should the investor have a financial net worth between $100,000 and $999,999.99. No meaningful reason exists to cap what an individual saves, spends, gives away, or invests to a particular entity based on an arbitrary appraisal of a concept as slippery as “net worth.” By restricting the equity crowdfunding contributions in these ways, the so-called JOBS Act does not help businesses create many positive net present value projects that would lead to a growth in the jobs base or an expansion of the productions possibilities frontier for the economy as a whole.

A proffered reason for the securities regulations that act as crowdfunding constraints is to avoid potential investor fraud, so as to keep with the

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373 Rodriques, supra note 368, at 41.
375 See, e.g., Harvey Leibenstein, Entrepreneurship and Development, 58 AM. ECON. REV. 72, 72 (1968) (advancing as a Harvard professor a non-neo-classical economic theory (X-efficiency theory) that “entrepreneurship is a significant variable in the development process” and describing the production possibilities frontier to entrepreneurship); see also Sander Wennekers & Roy Thurik, Linking Entrepreneurship and Economic Growth, 13 SMALL BUS. ECON. 27, 32, 35, 38–42, 49 (1999) (synthesizing three important concepts: (i) indicating that while Austrian economic theory permitted for entrepreneurship, neo-classical economic theory left no room for entrepreneurship to exist because of the neo-classical assumption that perfect competition eliminates any profit opportunities potentially remaining for entrepreneurs; (ii) demonstrating the impact of laws, rules, and policy instruments on entrepreneurial development throughout history, and (iii) linking entrepreneurship with economic growth and national advantage) (referencing MICHAEL E. PORTER, THE COMPETITIVE ADVANTAGE OF NATIONS (1990)). Cf. David Kennedy, supra note 10 (regarding law and economic development in new economies).
SEC’s oft-repeated policy to protect the interests of the public investor. Some high-ranking members of the SEC take their nanny-statism quite seriously. For example, SEC Commissioner Luis A. Aguilar wrote that he opposed loosening constraints for individual non-accredited investors. Aguilar asserted that removing those obstacles to middle-class investment in equity crowdfunding startups via general solicitation, such as Kickstarter, would “come at the expense of investors and place investors at greater risk.” Aguilar continued, “without additional protections, general solicitation makes fraud easier and enforcement more difficult .... [and] [experience tells us that this will lead to economic disaster for many investors.”

While Commissioner Aguilar’s experience may tell him hyperbolically of many forthcoming economic disasters as a result of the easier fraud and increased risk that will occur when bureaucrats afford the slightest increase in freedom to middle-class equity crowdfunders, the empirical data related to unregulated crowdfunding—as opposed to Commissioner Aguilar’s experience—tells otherwise. Specifically, Wharton Professor Ethan Mollick examined metadata including approximately 48,500 crowdfunded projects that raised over $237 million. All of these projects were patronage

377 To demonstrate a long history of propaganda hoping to convince people of the acceptability and necessity of government’s institution of coercive laws and policies to protect people from themselves, see generally, Andrew Downey Orrick, Commissioner, SEC, Address Before the San Francisco Bond Club: Current SEC Program to Protect Public Investors (Dec. 5, 1955), http://www.sec.gov/news/speech/1955/120555orrick.pdf (“This Commission is determined to use its vast regulatory powers to protect the public investors. . . .”); The Investor’s Advocate: How the SEC Protects Investors, Maintains Market Integrity, and Facilitates Capital Formation, U.S. SEC. & EXCH. COMM’N, http://www.sec.gov/about/whathedo.shtml (last visited Feb. 24, 2014) (describing “[t]he mission of the U.S. Securities and Exchange Commission is to protect investors, maintain fair, orderly, and efficient markets, and facilitate capital formation . . . [O]ur investor protection mission is more compelling than ever . . . As our nation’s securities exchanges mature into global for-profit competitors, there is even greater need for sound market regulation.”); U.S. SEC. & EXCH. COMM’N, PROTECTING INVESTORS (2005), http://www .sec.gov/about/secpar/secparsumm04.pdf (articulating the SEC’s vision as “[strengthen[ing] the integrity and soundness of U.S. securities markets for the benefit of investors and other market participants, and conduct its work in a manner that is as sophisticated, flexible, and dynamic as the securities markets it regulates”).


379 Id.

380 Id. (emphasis added).

381 Mollick, supra note 290, at 1.
or reward-based crowdfunding, and all projects were funded on Kickstarter, which is “the largest and dominant crowdfunding site.”

Like Bitcoin, Kickstarter started in 2009. As mentioned earlier, Kickstarter has no intermediary besides itself. Additionally, Kickstarter has no enforcement mechanism for funded entities that fail to deliver their promised goods. As a result, a number of similarities exist between Bitcoin and Kickstarter. Mollick acknowledged that “[f]or the dishonest, [crowdfunding] creates an opportunity for fraud.” Yet, of these many Kickstarter projects he studied, Mollick found that fraud was “very rare.” Although a number of projects delivered their goods on a delayed basis, only $21,324 of contributed capital failed to receive a response from the funded entity. Mollick asserted that “[f]or crowdfunding intermediaries and policy makers, there are also clear implications.... [T]he rate of fraud in crowdfunding is currently very low,” though that may not remain so in the future or in all crowdfunding forms.

From the perspective of using policy and legal instruments to hinder entrepreneurial growth, Commissioner Aguilar’s nanny-statism was based on his “experience,” rather than informed by evidence created specifically for policymakers. More broadly, the government’s lingering and numerous restrictions on equity crowdfunding seem particularly poorly chosen for middle-class entrepreneurs, investors, job-seekers, employees, and the economy as a whole.

As a result, middle-class investors are thus relegated to receiving essentially goods with no governance rights, while the wealthy or high-income accredited, so-called “sophisticated,” and institutional investors retain the ability to receive the lion’s share of any equity return and any associated governance rights with funding the venture, pushing the entrepreneur to a less influential role. As a result, the unsubstantiated popular delusions of fraud that led to the madness of crowdfunding constraints continue to favor large businesses and wealthy or high-earning individual investors over entrepreneurs, their enterprises, their potential middle-class investors, their

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382 Id. at 3.
383 Id. at 4.
384 Id. See also Nakamoto, supra note 99.
385 Bradford, supra note 300, at 16–18.
386 Mollick, supra note 290, at 12.
387 Id. at 11.
388 Id.
389 Id.
390 Id. at 14.
potential future employees, and the nation’s potential future economic growth. This ultimately harms the crowd in the name of protecting it.

IV. A HETERODOX PROSCRIPTIVE PROPOSAL FOR A PLURALISTIC PARLEY ON THE PARADOX

Thus far, this Article has demonstrated that both Bitcoins and Kickstarter as respective virtual currencies, and crowdfunding platforms share the following characteristics. First, both virtual currencies and crowdfunding represent Internet-based mediums of consideration exchange. Second, both exchanges involve over $1 billion annually, with crowdfunding exchanges representing approximately $3 billion more per year than virtual currencies. Third, neither platform features any intermediary besides itself. Fourth, a strong potential exists that future crowdfunding platforms will accept Bitcoins or other virtual currencies. Fifth, middle-class investors lack any meaningful governance rights when investing in either Bitcoins or a Kickstarter-backed entity. Yet, despite these operational similarities, a striking paradox exists relative to the government’s ability to insert itself in entrepreneurial development, post–Great-Recession economic redevelopment.

Specifically, despite their volatile boom-to-bust bubbles that have demonstrably harmed those who speculated in Bitcoins, recent attempts to employ weak—and beyond exchange registration under FinCEN—tangential enforcement instruments relative to virtual currencies demonstrate that virtual currencies essentially are above the law and escape regulation in today’s U.S. economy. In contrast, the initial empirical data on unregulated crowdfunded entities suggest that no material fraud or risk to capital providers exists. Yet, the SEC’s response to the JOBS Act’s mandate of

391 See supra Part II.C.
392 Compare Plassaras, supra note 88, at 13, with MASSOLUTION, supra note 293.
393 See Steadman supra note 92; Mollick supra note 290, at 2.
395 See supra Part III.C and accompanying text. These corporate governance rights are lacking for most investors, because most are middle-class, non-accredited, non-sophisticated, and non-institutional investors whose ability to invest in a project’s equity is capped by securities regulation, leaving believers in a project who still want to contribute capital relegated to goodie bag consideration, lacking any governance rights to control the funded enterprise. This reality appears to be a poor use of regulatory instruments from a policy perspective.
396 See supra Part II.C.
397 See Hazen, supra note 376, at 1737.
general solicitation and to thoughts of permitting the average investor to
equity crowdfunding entities (thus securing some control rights) has been de-
layed, paternalistic, and devoid of evidence in the name of “protecting”
the investor from “risk.”$398

A. Why Employ an Acerbic Model of Economic Heterodoxy as the
Article’s Analytic Supporting this Article’s Proposal?

Admittedly, much of this Article’s reliance on a Hayekian-Austrian
economic analytic legitimately could cause the reader to believe that this
Article represents nothing more than the modern manifesto of a radically
capitalistic libertarian. That is not the case, however. Any of the diverse
heterodox economic theories—ranging from Marxian to post-Keynesian to
Austrian to Sraffian to behavioral, among others$399—theoretically could
have served as the lens through which this Article challenges the neo-
classical economic assumptions that have served as the basis on which
U.S. economic and monetary policy have rested for decades.$400

Although heterodox economics may have multiple understandings—
whether methodologically, ontologically, epistemologically, or pedagogi-
cally$401—most heterodox economic branches seek a common pluralism$402
because they are outside of mainstream orthodox, neo-classical economic
thought.$403 To reach a common pluralism, each heterodox economics strand

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$398 See supra note 378 and accompanying text.
$399 I employed some of these in prior research analyses both within and outside this
Article. See, e.g., supra Part II.C.3. (discussing behavioral economics and applying it to
Bitcoins); Dylan P. Grady, Charter School Revocation: A Method for Efficiency,
Accountability, and Success, 41 J.L. & EDUC. 513 (2012) (quoting David Groshoff,
Uncharted Territory: Market Competition’s Constitutional Collision with Entrepreneurial
Sex-Segregated Charter Schools, 2 BYU EDUC. & L.J. 307, 308 (2010)).
$400 See, e.g., Frederic S. Lee, The Emergence of Heterodox Economics, 1990–2006,
out&side=history_of_heterodox_economics (derived from FREDERIC S. LEE, A HISTORY OF
HETERODOX ECONOMICS: CHALLENGING THE MAINSTREAM IN THE TWENTIETH CENTURY
ch. 10 (2009)); Andrew Mearman, Who Do Heterodox Economists Think They Are?, 70
AM. J. ECON. & SOC. 480, 480 (2011) [hereinafter Mearman, Heterodox Economists];
ANDREW MEARMAN, TEACHING HETERODOX ECONOMIC CONCEPTS 3–4 Figure 2 (2007).
$401 Andrew Mearman, Pluralism and Heterodoxy: Introduction to the Special Issue, 1
$402 Id. at 12–13. This Article sprinkled pluralistic views of both heterodox and neo-
classical economists in its early material. See, e.g., supra note 10 and accompanying text.
$403 See, e.g., Barkley Rosser, Jr. et al., How Can Something so Right as Heterodox
Economics Have so Little Influence?, 7–8, 11–13 (Sept. 12, 2012) (unpublished
manuscript), available at http://cob.jmu.edu/rosserjb/Friendly%209%2012%20final
.docx (representing the writings of three orthodox neo-classical economists, stating “[w]e
includes its unique embrace of some, though not all, of the following
descriptive understandings that clash with neo-classical economic theory: (1)
human actors are social and less than perfectly rational; (2) economic sys-
tems are complex, evolving, and unpredictable; (3) individual economic ac-
tor theories are useful generally, and theories of the economic collective are
useful for outcomes particularly; (4) human and economic history provide
important understandings to the contemporary relevance of economic
events; (5) all economic theories are fallible; (6) formal mathematical and
statistical methods do not necessarily represent the supreme method; and (7)
the importance of power relative to determining economic outcomes.

Thus, despite acknowledging other economists and economic theories
throughout, this Article’s primary reliance on the Hayekian-Austrian lens
occurred because I believed this analytic represented the heterodox theory
that is the most directly applicable analytic to this research subject matter.
Specifically, Hayek’s Nobel prize-garnering theory arose from his work
involving the interdependence of: (1) money (e.g., virtual currencies and
arguably securities); (2) social phenomena and economic fluctuations
(e.g., crowds and bubbles); and (3) institutional phenomena (e.g., govern-
ments, laws, policies, instruments, and financial institutions); synthesized
with (4) the general Hayekian view of what may occur in a free
and unregulated market (e.g., Bitcoins’ ex-ante status when this Article’s
research began and, generally speaking, Bitcoins’ current ex-post status).

These reasons explain why this Article applied the often caustic analytic
of the Hayekian-Austrian heterodoxical economic model to the extant eco-
nomic and legal environment. The Article aimed to arrive at a pluralistic
proscriptive framework seeking to engage other heterodox economic, legal,
and financial scholars in a dialogue. Also, the dialogue is an attempt to find
a logical common ground regarding inconsistent government application of
its instruments to emerging entrepreneurial economic (re)development ac-
tivity following the U.S. Great Recession and during global economic crises

identify orthodoxy with a belief in the trinity of assumptions of rationality, greed, and
equilibrium represented by ‘neoclassical economics’ as taught in most textbooks” and
describing their view of heterodox impact on public policy).

Cf. David Kennedy, Speaking Law to Power: International Law and Foreign Policy
“[l]aw in the interstices of power, law as an instrument of government, as a compliance
program and management tool,” and inquiring, “[h]ow can we translate the terms used by
policy managers into the vernaculars of left-center-right, or of social interests, that we
might contest the decisions experts take in political terms...”) (emphasis added).

Mearman, Heterodox Economists, supra note 401, at 489.

See The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel
in the Western nations of Greece, Spain, Cyprus, in addition to other struggling, developing, or redeveloping national economies.

B. Economic Failures Exist Regardless of Regulation

As Professor Christine Hurt asserted this year, relative to the law and economic bubbles and collapses in 2001 (post-Internet bubble) and 2008 (post-housing bubble), “state and federal laws are not good at criminalizing foolishness, even foolishness with other people’s money,”\(^{407}\) in part because “individuals have different appetites for risk.”\(^{408}\) Professor Hurt acknowledged that additional disclosure via SEC or agency rules would “not be necessarily helpful information”\(^{409}\) to investors, given that a disclosure regime already existed during the economic collapse. Further, Hurt explained that investors “were turned away from the courthouse door in cases involving federal securities law claims and claims of breaches of state law fiduciary duties,”\(^{410}\) but that imposing additional risk-management duties relative to legal, currency, business, and other risks is impractical and would result in eliminating the business judgment rule.\(^{411}\) When regulated, political pressures often determine who gets sued or prosecuted and why or why not,\(^{412}\) and Professor Hurt paints a picture of stunning incompetence and potential caving to political pressure by the SEC in the wake of the Great Recession’s multiple regulatory violations.\(^{413}\) Securities violations may be subject to civil, criminal, or administrative penalties.\(^{414}\) Penalties for computer related crimes exist as well,\(^{415}\) beyond those discussed above in Parts II and III. Answers are not always found through additional or amplified statutes and regulatory schemes.

C. A Market-Based Minarchist-Statutory Proposal

Because the Hayekian view does not seek to protect people from themselves, but recognizes the need to add a pragmatic-based theory based


\(^{408}\) Id. at 42.

\(^{409}\) Id. at 44.

\(^{410}\) Id. at 45.

\(^{411}\) Id.

\(^{412}\) Id. at 9–12, 10 n.45.

\(^{413}\) Id.

\(^{414}\) 15 U.S.C.A. § 77k (West 2014); § 77l (civil enforcement); § 78i (same); § 78j (same); § 77x (criminal enforcement); § 78ff (same).

\(^{415}\) 18 U.S.C.A. § 3571 (West 2014); § 1030(c)(2)(B)(i) (including accessing or obtaining information from a financial institution used in interstate or foreign commerce).
on current structural regimes to achieve a pluralistic dialogue, this section acknowledges that risk-reduction for individual investors is economically beneficial. This section proposes a modestly brief statutory requirement that narrowly borrows from unnecessarily broader schemes such as those enabling the Federal Deposit Insurance Corporation (FDIC) and Pension Benefit Guaranty Corporation (PBGC), which serve as mandatory insurers of banks and defined benefit pension plans, respectively, with the banks and pension plans having to make mandatory premia based on government-determined risk premia.

This Article’s proposal, however, is to assuage middle-class persons defrauded by a virtual currency exchange or a crowdfunding platform in a minimally intrusive way relative to the economy’s ability to act in as free of a market as possible.

Therefore, rather than mandate that virtual currency exchanges and crowdfunding platforms pay the cost of potential future risk to a new regulatory agency, this Section proposes something much simpler: a requirement that any exchange or platform show proof of insurance from a private insurance provider—not an agency like FDIC or PBGC—on the entity’s website. Such a requirement would be similar to the requirement of certain states’ enabling legislation, which mandate benefit corporations to post verification on their business’ websites.

1. Perceived Benefits

With this additional yet limited information, the potential capital contributor can then evaluate both the capital project itself, as well as the risk associated with the insurance for its investment. Each exchange or platform could choose an insurer of its choice, rather than pay a bureaucratic agency. Further, one may suspect that similar to traditional insurers, the insurers engaged in this business would also receive third-party ratings that may help capital contributors choose which insured exchange or platform to use. In addition, just as virtual currency exchanges have begun to work together relative to self-regulation, one may envision a mutualized insurer created and owned by the exchanges and crowdfunding platforms themselves. The choice to be mutualized or demutualized would reside with the virtual currency exchange or the crowdfunding platform.

2. Anticipated Costs

Any government interference in the marketplace creates a cost. Here, the cost must be passed to the contributor of capital or to the entrepreneur. As a result, the proposed statute must contain a requirement that the prior one through five years’ of premiums be refunded to the virtual currency
exchange or crowdfunding platform, plus interest at the (arguably) market-based prime rate, at the insurer’s discretion at the start of the coverage when the policy becomes bound. The remedy for a harmed party by an insurer’s failure to return funds would be a civil suit by the exchange or platform, because the protected risk is, of course, that of the individual investor, who would be paid by the insurer for any fraudulent conduct.

3. How to Reduce Anticipated Costs of this Individual Investor Risk Reduction

The insurer would have to return this amount to each investor, but insurers tend to understand how to remain long-term cash-flow positive, typically via a combination of appropriate actuarial premium pricing and duration matching of fixed-income securities. The five-year window described above that provides the insurer with the choice of duration as to when to return interest on the premiums provides the flexibility for the insurer to duration match over a short-to-medium term. In addition, because some capital will leave the economy to pay for this insurance, limiting the insurer to a five-year duration matching window provides sufficiently short timing that it should incentivize insurers to take additional risk to achieve equity returns. As a result, the mandate is that anything beyond the market value of the duration-matched assets must be invested in either virtual currencies or private placements with entrepreneurial companies so that the funds as best approximate private investors making investment in the very entrepreneurial enterprises where evidenced bubbles and risk reduction fears exist, yet which represent the benefit of the experimental Bitcoin exchanges and Kickstarting platforms in the first place.

A justified counterargument to this proposal exists indicating that the proposal encourages additional unnecessary risk-taking by insurers. The point, however, is that the capital involved wants to be deployed to that risk in the first place by natural persons, most of whom either cannot or regulators do not want to engage in such risk taking. Therefore, institutional risk-taking appears to remain generally of less concern to regulators than risk taken by middle-class holders of capital. As a result, this scheme achieves as cost effectively, as briefly, and as economically intrusive as possible an econo-legal heterodox framework that employs skeletal law and incentive maximization to mesh with a policy goal of protecting middle-class investor capital, while still approximating a flow of capital to entrepreneurial private equity investments.

416 See Hurt, supra note 407, passim.
CONCLUSION

Although made in the context of international law and economic development, Harvard Law School’s David Kennedy indicated that he would like to propose a different task for ... law—less a program of action than the conveyor of a new sensibility about law and power. A sensibility of human freedom and responsibility, of clarity about what we do not know, and about the power in our hands, rather than clarity about what we know and denial of our power. Of moral action in an ... irrational world.417

This Article attempted to embrace that heterodox philosophy and apply it to the new technologies of Bitcoin bubbles and crowdfunding constraints to help kick-start an unconventional dialogue regarding an economy bogged down via existing and threatened governmental interference affecting middle-class entrepreneurs, investors, and jobseekers.

This Article acknowledged that economic bubbles and the madness of crowdfunding items such as tulips to dot-coms have occurred throughout history. But this Article also showed the benefit that microfinance has played throughout history as well as the benefits of challenging conventional wisdom via a heterodox analytic to be informed by human reality applied to present situations, rather than purely by theoretical impossibilities taken as the basis for this nation’s economic policies. This Article described the paradox of overregulation of securities in the disruptive crowdfunding space and the lack of meaningful regulation in the virtual currency space to fashion a proposal as close to the heterodox paradigm from which the problem was analyzed.

The proposal involves a minimally invasive statute with no promulgated rules or regulations thereunder. In addition, the proposal gives significant freedom to: (1) risk insurers as to how to structure their enterprises (mutualized or demutualized) and invest (duration matching in fixed-income securities of their choosing combined with a requirement to return the currency risk and private equity to the marketplace by more sophisticated investors); and (2) entrepreneurs, who will receive funding via a more safeguarded public, a return on premium interest at the prime rate, and a requirement that any funds that exceed the duration match on a present value basis must be reinvested in virtual currencies and private entrepreneurial enterprises.

417 Kennedy, supra note 404, at 181.
Additional debate and gathering of empirical data on these issues should occur lest law and policy makers and regulators pass uninformed regulations designed to placate potentially fearful constituents and insulate them the risky and poor decisions all humans are prone to make at times. As Mackay indicated in *Extraordinary Popular Delusions*:

> Let us not, in the pride of our superior knowledge, turn with contempt from the follies of our predecessors. The study of the errors into which great minds have fallen in the pursuit of truth can never be uninstruc-tive. As the man looks back to the days of his childhood and his youth, and recalls to his mind the strange notions and false opinions that swayed his actions at the time, that he may wonder at them; so should society, for its edification, look back to the opinions which governed the ages fled.\(^{418}\)

The U.S. should consider the uses, costs and benefits, of potential laws, regulations, and policy instruments that can lead to over and under-regulation of entrepreneurial activity that may spur economic redevelopment, employment opportunities, and general economic growth, a massive bubble that leaves many penniless, or an unknown place on the future economic spectrum, including at the heterodox barricade.\(^{419}\)

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\(^{418}\) Mackay, *supra* note 1, at 2.

\(^{419}\) The final few words paraphrase Professor David Kennedy, Law and Development Class Lecture at Harvard Law School (Fall Semester, 2008).