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The Case for the Regulation of Bitcoin Mining as a Security

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ABSTRACT

Bitcoin is rapidly increasing in use throughout the world. The process for introducing new bitcoin into the system is known as “mining.” Mining, which is instrumental to the bitcoin system, involves the use of powerful computer systems and complex, computational algorithms to verify or validate prior bitcoin transactions. The reward for successfully undertaking this process is the creation and award of new bitcoin to the miner. Bitcoin mining has become a tedious and difficult process. The race to verify transactions, and thereby earn bitcoin, necessitates more sophisticated processes for verification and greater computational power.

Many bitcoin miners band together in groups called “pools” to create a powerful mining platform. Some miners invest time and effort to build or maintain a suitable computer system, while others passively provide money or other resources toward the creation of the mining system. Many such mining pools have grown to allow individuals to collectively contribute effort to the transaction verification process in exchange for an interest in the proceeds from the mining activity. The bitcoin mining pool has largely escaped regulation. This paper argues that the mining pool should be regulated under the existing federal securities regulation regime.

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I. INTRODUCTION

Bitcoin is a form of digital currency, known as cryptocurrency,¹ that has steadily risen in popularity since its origin. The current market capitalization is nearly \$3 billion worldwide.² The cryptocurrency's appeal lies, at least in part, in the anonymity of bitcoin users and the low transaction costs of dealing in bitcoin.³ The bitcoin system depends upon a process known as mining, by which individuals or groups of individuals use sophisticated computer systems to validate bitcoin transactions.⁴ Successfully completing the validation process results in an award to the anonymous miner of newly generated bitcoin.⁵ Mining is the sole method of introducing new bitcoin into the bitcoin network.⁶

A popular practice among bitcoin miners is to organize into groups known as "mining pools" to collectively mine for

¹ Satoshi Nakamoto, *Bitcoin: A Peer-to-Peer Electronic Cash System* 8 (2008) (unpublished white paper), available at <http://bitcoin.org/bitcoin.pdf>, 2 (stating that "What is needed is an electronic payment system based on cryptographic proof instead of trust, allowing any two willing parties to transact directly with each other without the need for a trusted third party" when explaining the bitcoin system.).

² See <http://coinmarketcap.com> (last visited Jan. 19, 2015) (showing current cryptocurrency market capitalizations).

³ Joshua J. Doguet, Comment: *The Nature of the Form: Legal and Regulatory Issues Surrounding the Bitcoin Digital Currency System*, 73 LA. L. REV. 1119, 1119 (2013).

⁴ *Introduction*, BITCOIN WIKI, <https://en.bitcoin.it/wiki/Introduction> (last visited Jan. 23, 2015) (explaining the bitcoin mining process).

⁵ *Id.*

⁶ *FAQ*, BITCOIN WIKI, https://en.bitcoin.it/wiki/FAQ#How_are_new_bitcoins_created.3F (last visited Jan. 19, 2015) ("New bitcoins are generated by the network through the process of 'mining.'").

bitcoin.⁷ While some individuals actively take part in assembling resources and employing a computer system to mine bitcoin (i.e., computationally verify prior transactions), others invest funds or the work product from their individual mining efforts into the mining pool in hopes of gaining a profit from the collective mining efforts.⁸ These mining pools and the activities of their participants are largely unregulated.⁹

In this article, we propose that bitcoin mining pools are properly subject to regulation under existing federal securities laws. In particular, the mining pools meet the definition of an investment contract, and the resulting business relationship should qualify the mining pool for regulation as a security. In Part II, we begin by reviewing the process for mining bitcoin and survey existing bitcoin mining pool arrangements. In Part III, we explain the existing regulatory framework for the offering or sale of securities, and evaluate whether the bitcoin mining pool relationship constitutes a “security” under existing securities laws. We conclude that applying existing securities regulations to bitcoin mining pools is proper in light of the

⁷ See *Pooled Mining*, BITCOIN WIKI, https://en.bitcoin.it/wiki/Pooled_mining (lasted visited Jan. 23, 2015) (“Pooled mining is a mining approach where multiple generating clients contribute to the generation of a block, and then split the block reward according [to] the contributed processing power.”).

⁸ *Id.*

⁹ To date, the IRS has issued a Notice addressing the income tax treatment of bitcoin transactions, but no other explicit federal regulatory action has been adopted regarding the cryptocurrency. Notice 2014-21, 2014-16 I.R.B. 938-40. See also Benjamin Akins, Jennifer L. Chapman, & Jason M. Gordon, *A Whole New World: Income Tax Considerations of the Bitcoin Economy*, 12 PITT. TAX REV. (2015) (discussing need for federal regulatory guidance on income taxation of bitcoin and the unofficial guidance contained in Notice 2014-21).

economic realities of bitcoin mining pools and would serve the stated purpose of securities law in protecting consumers.

II. BITCOINS AND THE MINING PROCESS

A. What is Bitcoin and How Does the System Function?

As stated above, bitcoin is a form of digital currency created, managed, and traded within an intricate network of interconnected computers.¹⁰ The members must connect their computers to the peer-to-peer network to be a part of the bitcoin system.¹¹ Industry developments have attempted to develop physical representations to facilitate the trading of bitcoin,¹² but the actual bitcoin exists only as a digital file within the bitcoin system.¹³ Bitcoin is not maintained as individual units; rather, a single digital file may represent (or contain) any number of bitcoin.¹⁴ Individuals trade in bitcoin directly with other members of the system by authorizing the

¹⁰ Tom Simonite, *What Bitcoin Is, and Why It Matters*, MIT TECH. REV. (May 25, 2011), available at <http://www.technologyreview.com/computing/37619> (providing an overview of the development of the bitcoin system); Omri Marian, *Are Cryptocurrencies Super Tax Havens?* 112 MICH. L. REV. 38, 41. (2013) (“The most known, and currently the most successful example of cryptocurrency, is the Bitcoin, first introduced in 2008.”).

¹¹ See Nakamoto, *supra* note 1, at 3.

¹² See, e.g., *Physical Bitcoins by Casascius*, available at <https://www.casascius.com> (last visited Jan. 25, 2015), for an example of a company producing a physical bitcoin for exchange.

¹³ See Nakamoto, *supra* note 1, at 2.

¹⁴ See Bitcoin Developer Guide, BITCOIN, available at <https://bitcoin.org/en/developer-guide#block-chain> (“A single transaction can create multiple outputs, as would be the case when sending to multiple addresses, but each output of a particular transaction can only be used as an input once in the block chain.”).

transfer of a bitcoin file, or some fraction thereof, to the other member's electronic wallet.¹⁵ Bitcoin wallets, like physical wallets, house the digital bitcoin files.¹⁶ The wallet can either be located in the cloud or on a member's computer hard drive.¹⁷ While the transfer of bitcoin takes place from wallet to wallet,¹⁸ the location of the wallet is identified by what is known as public and private keys.¹⁹ The public key is similar to the address of the wallet and known by other members of the bitcoin system.²⁰ The private key is kept private and is used in conjunction with the public key to authorize or accept a transfer of bitcoin to the wallet.²¹ The intended transaction,

¹⁵ See Nakamoto, *supra* note 1, at 2 (explaining that members of the bitcoin system transfer the bitcoin through electronic transmission of information).

¹⁶ See Some Bitcoin Words You Might Hear, available at <http://bitcoin.org/en/vocabulary/bitcoin> (lasted visited Jan. 23, 2015) (“A Bitcoin wallet is loosely the equivalent of a physical wallet on the Bitcoin network.”).

¹⁷ See J.P., Virtual Currency, THE ECONOMIST (Jun. 25, 2015), available at <http://www.economist.com/blogs/babbage/2011/06/virtual-currency> (noting the storage of bitcoin in digital wallets located on a computer hard drive and the use of online digital wallets).

¹⁸ See Bitcoin Developer Guide, BITCOIN, *supra* note 14 (“Permitting receiving and spending of satoshis [an amount of bitcoin] is the only essential feature of wallet software...”).

¹⁹ See Some Bitcoin Words You Might Hear, *supra* note 16 (“Your private key(s) are stored in your computer if you use a software wallet; they are stored on some remote servers if you use a web wallet. Private keys must never be revealed as they allow you to spend bitcoins for their respective Bitcoin wallet.”).

²⁰ Nikolei M. Kaplano, *Nerdy Money: Bitcoin, the Private Digital Currency, and the Case Against Its Regulation*, 25 LOY. CONSUMER L. REV. 111, 116 (2012) (“Essentially, the public key is like an email address—public and available to everyone—while the private key is like the password needed to authorize messages (in this case bitcoins) to go in and out.”).

²¹ *Id.*

absent identifying information, is broadcast to the bitcoin system for verification.²²

Bitcoin files exist as a blockchain containing the history of all transactions of that particular bitcoin file.²³ With each transaction the blockchain grows and makes it increasingly difficult to trace the origins of the file.²⁴ Members of the bitcoin system (individually or collectively) work to identify and verify the veracity of exchanges of existing bitcoin between other members.²⁵ As previously discussed, this verification process is known as mining, and it is the sole manner by which new bitcoins enter the system.²⁶ Successful verification of the previous transaction creates new bitcoin in the system, which is then awarded and deposited into the designated wallet of the verifying member.²⁷ As such, the number of bitcoins in the system rises as the number of bitcoin transactions and successful verifications increase. In this manner, the specific value is derived from the amount of

²² Nakamoto, *supra* note 1, at 3.

²³ *How Bitcoin Works*, BITCOIN WIKI, https://en.bitcoin.it/wiki/How_bitcoin_works (lasted visited Jan. 23, 2015) (“This complete record of transactions is kept in the block chain, which is a sequence of records called blocks.”).

²⁴ Reuben Grinberg, *Bitcoin: An Innovative Alternative Digital Currency*, 4 HASTINGS SCI. & TECH. L.J. 160, 167 (2011) (“the problem difficulty has increased so much that most computers would now take on average a year or more to mine just 50 BTC [now 25 BTC].”).

²⁵ See Kaplano, *Nerdy Money*, *supra* note 20, at 119–21 (describing the mining process and the introduction of new bitcoin into the system).

²⁶ See *Introduction*, BITCOIN WIKI, *supra* note 4 (explaining the mining process).

²⁷ Grinberg, *supra* note 24, at 163 (“New bitcoins are issued to competing “miners” who use their computers to generate solutions to problems that help ensure the integrity and security of the system.”).

demand for the bitcoin and the supply available in the bitcoin system.²⁸

As stated above, bitcoin miners perform the dual role of verifying bitcoin transactions and, through their verification efforts, introducing new bitcoin into the system. The bitcoin system contains information about every bitcoin transaction that has ever taken place.²⁹ To successfully mine bitcoin, an individual must employ an algorithm to trace the transaction history of a given block chain.³⁰ Specifically, the miner must work backwards from the present transaction and piece together the prior transactions that make up the blockchain of the bitcoin involved in the present transaction.³¹ The verification process is extremely onerous and is prohibitively slow and difficult to calculate without the assistance of computer processors.³² Once the system verifies the transfer, the new transaction details become part of the bitcoin blockchain.³³ The member or members of the system to first

²⁸ *Frequently Asked Questions*, BITCOIN, <http://bitcoin.org/about.html> (lasted visited Jan. 23, 2015).

²⁹ Danielle Drainville, *An Analysis of the Bitcoin Electronic Cash System*, Uwaterloo.com 11 (2012), available at <https://math.uwaterloo.ca/combinatorics-and-optimization/sites/ca.combinatorics-and-optimization/files/uploads/files/Drainville,%20Danielle.pdf> (lasted visited Jan. 23, 2015) (“This is the first block in the chain and was generated on January 3, 2009 by Satoshi Nakamoto.”).

³⁰ *How Does Bitcoin Work?*, <http://bitcoin.org/en/how-it-works>, (lasted visited Jan. 23, 2015) (describing the use of complex algorithms to verify bitcoin transactions).

³¹ *See id.*, (“In order to preserve the integrity of the block chain, each block in the chain confirms the integrity of the previous one, all the way back to the first one, the genesis block.”).

³² Grinberg, *supra* note 24, at 167.

³³ Nakamoto, *supra* note 1, at 3.

accurately verify the transaction are awarded 25 bitcoin by the system.³⁴

B. Bitcoin Mining Pools as Investment Activity

The difficulty and expense associated with mining bitcoin has given rise to groups or collectives, known as “mining pools,” who work together to mine bitcoin.³⁵ Members of a mining pool perform small portions of the transaction verification process. They then provide these pieces of work to the mining pool operator, who assembles the pieces of work in an attempt at verifying a given blockchain.³⁶ Members of the mining pool receive a benefit for their contribution to the effort of verifying a transaction. The individual miner’s compensation is based upon a percentage or share of the bitcoin mined in a given transaction or over a series of transactions.³⁷ The miner’s share is in turn measured by her contribution (her “proof of work”) that demonstrates a portion of a blockchain that the miner has successfully mapped.³⁸

As discussed above, mining pools involve the investment of individual effort to be combined with the efforts of others to produce or generate bitcoin as a reward. As with any investment, the decision of whether to invest effort in a

³⁴ See generally, Bitcoin CZ Mining, <http://mining.bitcoin.cz/> (explaining the manner in which bitcoin is awarded and divided after successful mining).

³⁵ See *Pooled Mining*, BITCOIN WIKI, https://en.bitcoin.it/wiki/Pooled_mining (lasted visited Jan. 23, 2015) (“Pooled mining is a mining approach where multiple generating clients contribute to the generation of a block, and then split the block reward according [to] the contributed processing power.”).

³⁶ *Id.*

³⁷ *Id.*

³⁸ *Id.*

mining pool turns upon the expected return for that effort. Each miner's expected return varies depending upon numerous factors, including the miner's individual share of the pool and the total value of the mined bitcoin.³⁹

Existing bitcoin mining pools employ numerous methods of compensating the miners.⁴⁰ For example, an early method known as the "proportional approach" rewards individual miners based on the proportion of work provided once an entire blockchain is verified.⁴¹ Another common method, known as "pay-per-share," compensates individual miners for a specific amount of work (proof of work completed) contributed to the pool.⁴² This relationship ensures the individual miner of compensation, regardless of whether the collective mining effort produces bitcoin. The downside of this arrangement is that it requires a significant reserve of bitcoin to maintain sufficient liquidity to compensate the miners in the event a mining effort is fruitless.⁴³ Numerous other methods now exist in an effort to shift the risk and redistribute compensation rates among individual miners and the pool operator.⁴⁴ A miner's compensation will, therefore,

³⁹ See *Mining Pool Reward FAQ - Bitcoin*, BITCOIN WIKI, https://en.bitcoin.it/wiki/Mining_pool_reward_FAQ (last visited Jan. 23, 2015) (explaining the method of allocating shares to contributors to a successful mining pool.)

⁴⁰ See *Bitcoin Mining Pools*, BITCOINMINING.COM, <http://www.bitcoinmining.com/bitcoin-mining-pools/> (last visited Jan. 19, 2015) (explaining various pooled payment methods presently in use).

⁴¹ *Id.*

⁴² *Id.*

⁴³ *Id.*

⁴⁴ *Bitcoin Mining Pools*, BITCOINMINING.COM, *supra* note 40. Examples of compensation schemes include: Pay Per Last N Shares (PPLN), Double Geometric Method (DGM), Shared Maximum Pay Per Share (SMPPS), Equalized Shared Maximum Pay Per Share (ESMPPS), Recent Shared Maximum Pay Per Share (RSMPPS), Capped Pay Per Share with Recent

vary depending upon which scheme is used by a given mining pool.⁴⁵

Despite the various compensation regimes, the core principle of the mining pool is that individuals produce work product that has a greater value when combined with the work product of others. Unlike in organizations where individuals work in concert, mining pools involve the assembly of independent work product created by potentially unknown or unrelated individuals. The fact that individual miners input or invest their work product into a mining pool with the purpose of receiving a share of the proceeds from the present or ongoing mining activity calls into question the applicability of security laws to the mining pool operations.

III. BITCOIN MINING POOLS AS SECURITIES

A. What is a Security?

1. The Statutory Definition of a Security

The answer to the question, “what constitutes the sale of securities?” is far less obvious than the phrase implies. The Securities Act of 1933 (“1933 Act”) provides that “[t]he term ‘sale’ or ‘sell’ shall include every contract of sale or disposition of a security or interest in a security, for value.”⁴⁶ The courts

Backpay uses a Maximum Pay Per Share (MPPS), Bitcoin Pooled mining (BPM), Pay on Target (POT), SCORE, ELIGIUS, and Triplemining methods. The exact contours of each approach are beyond the scope of this article.

⁴⁵ *Id.*

⁴⁶ Securities Act of 1933 § 2(a)(3); 15 U.S.C. § 77b(a)(3) (2014). The 1934 Securities Exchange Act § 3(a)(10), 15 U.S.C. § 78c(a)(10) (2014), which

have construed the term “sale” to include any transfer or subsequent retention of interest in a security as part of a transaction.⁴⁷ In contrast, the term “security” is defined in far broader terms. Section 2(a)(1) of the 1933 Act provides a very long list of what constitutes a security, determining whether an item is a security begins with a two-part approach.⁴⁸ First, any “note,” “stock,” “bond,” or “debenture” is essentially a transferable share or interest in a business and is a security.⁴⁹ The second category includes “any evidence of indebtedness,” “certificate of interest or participation in any profit-sharing agreement,” “any investment contract,” and any “instrument commonly known as a ‘security.’”⁵⁰ Both definitions apply “unless context otherwise requires.”⁵¹

These categories leave open for interpretation whether a type of interest or instrument is a security under each category. The courts, using standard principles of statutory construction, often begin their analysis by looking at Congress’ intent.⁵²

regulates the sale of such items on public exchanges, contains a definition nearly identical to the one under the 1933 Act.

⁴⁷ See, e.g., *Pinter v. Dahl*, 486 U.S. 622, 643–44 (1988) (noting the Courts’ broad interpretation of sales); *Rubin v. United States*, 449 U.S. 424, 430 (1981) (“It is not essential under the terms of the Act [section 2(3)] that full title pass to a transferee for the transaction to be an ‘offer’ or a ‘sale.’”); *SEC v. Datronics Engineers, Inc.*, 490 F.2d 250, 253–54 (4th Cir. 1973), cert. denied, 416 U.S. 937 (1974) (finding the disposition of new stock among existing shareholders constituted a sale).

⁴⁸ Securities Act of 1933 § 2(a)(1), 15 U.S.C. § 77b(a)(1) (2014).

⁴⁹ *Id.*

⁵⁰ *Id.*

⁵¹ *Id.*

⁵² See generally *Reves v. Ernst & Young*, 494 U.S. 56, 60–62 (1990) (noting Congress’ intent to regulate the market sufficiently broad to include nearly any security instrument); *United Housing Foundation, Inc. v. Forman*, 421 U.S. 837, 847–48 (1975) (noting that Congress intended the definition of securities to be broad and encompass numerous types of

Congress' purpose in enacting securities regulation was to prevent fraud on the public.⁵³ Succinctly stated, the history of the development of securities regulation began at the state level with so-called "blue sky laws" and were followed by a comprehensive federal scheme to add uniformity across states.⁵⁴ Within the categories of security described in the federal securities laws, courts have developed multiple tests to determine whether a particular type of investment constitutes a security.⁵⁵ Perhaps most notably, the investment contract category is essentially a "catch-all" provision whereby lots of unique instruments or interests constitute a security. It is this category which seems most applicable to bitcoin mining.

2. Development of a Common Law Approach

The first iteration of the modern test for determining what constitutes an investment contract was laid out in *SEC v.*

arrangements); *SEC v. W.J. Howey Co.*, 328 U.S. 293, 298–99 (1946) (discussing the origin of the term "investment contract" as it relates to Congress' intention in regulating these arrangements); see also Kyle M. Globerman, *The Elusive and Changing Definition of a Security: One Test Fits All*, 51 FLA. L. REV. 271, 292 (1999) (noting that the broad definition of a security meets the intent of Congress in passing the securities acts as preventing fraud).

⁵³ Globerman, *supra* note 52, at 288 ("[T]he reach of the Securities and Exchange Acts should cover all transactions that attempt to defraud public investors.").

⁵⁴ See generally Darlene S. Wood, Case Note: *Lease-back Arrangements are Investment Contracts and Therefore Securities Under the Securities Acts: SEC v. Edwards*, 7 DUQ. B.L.J. 135, 140–44 (2005) (outlining the history and need behind the creation of the Securities Acts from state blue sky laws to the adoption of *Howey*).

⁵⁵ Seed McGinty, *What is a Security*, 1993 WIS. L. REV. 1033, 1036 (1993) (supporting the common law history of multiple tests for determining whether an instrument is an investment contract and, therefore, a security).

*W.J. Howey Co.*⁵⁶ In this case, Howey sold parcels of citrus groves to investors.⁵⁷ Investors took no part in cultivation of the groves, but entered into an attached 10-year service contract with Howey for cultivation.⁵⁸ Howey would harvest the oranges from all of the groves and then pay investors a percentage of the total yield based upon the number of parcels owned.⁵⁹ The Securities and Exchange Commission (SEC) challenged this practice, indicating that the arrangement constituted the sale of “investment contracts” to which the registration requirements apply.⁶⁰ The Supreme Court agreed with the SEC that the investors’ interests in the citrus groves were securities and, for the first time, explicitly enumerated the elements of an “investment contract” as: 1) an investment of money, 2) into a common enterprise, 3) with the expectation of profits, and 4) derived solely from the efforts of others (the “*Howey Test*”).⁶¹ In applying the above elements of an investment contract, the *Howey* Court examined the economic reality of the situation.⁶² That is, the Court adopted an approach that reviews function over form. In doing so, the court expressly recognized that the 1933 Act’s “investment contract” provisions should be construed broadly to cover “a variety of situations where individuals were led to invest money in a common enterprise with the expectation that they would earn a profit solely from the efforts of the promoter or of someone other than themselves.”⁶³

⁵⁶ SEC v. W. J. Howey Co., 328 U.S. 293 (1946).

⁵⁷ *Id.* at 294–95.

⁵⁸ *Id.* at 295–96.

⁵⁹ *Id.*

⁶⁰ *Id.* at 297–98.

⁶¹ *Id.* at 300–01.

⁶² *Id.* at 298.

⁶³ *Id.*

Following the *Howey* decision, in *United Housing Foundation, Inc. v. Forman*, the Supreme Court employed the *Howey* Test to determine if a cooperative housing corporation that required its residents to buy “shares” of the co-op constituted a security.⁶⁴ Money from the sale of these shares was used to defray initial costs of establishing and managing the cooperative.⁶⁵ After the costs of these shares generally rose as the rent costs in the cooperative went up, the tenants/shareholders sued saying they were deceived in the purchase of these securities, as they were not informed that the stock’s price would rise.⁶⁶ As in *Howey*, the Court emphasized the “economic realities” of the transaction.⁶⁷ The cooperative’s use of the word “stock” to refer to the fees associated with membership in the cooperative was not determinative of whether such payments or fees constitute a security.⁶⁸ In examining the economic reality of the transaction, the Court found no typical indicia of a security.⁶⁹ Applying the *Howey* Test, the Court determined the purported “stock” was not purchased in expectation of profits, but rather “solely by the prospect of acquiring a place to live.”⁷⁰ The effect of this decision was to reinforce the use of the economic realities of the situation when applying the *Howey* Test to a purported investment contract.

⁶⁴ *United Housing Foundation, Inc. v. Forman*, 421 U.S. 837, 840 (1975).

⁶⁵ *Id.* at 841.

⁶⁶ *Id.* at 844–45.

⁶⁷ *Id.* at 850–52.

⁶⁸ *Id.* at 848.

⁶⁹ *Id.* at 851.

⁷⁰ *Id.* at 853.

3. Refining What Constitutes an Investment Contract

Building upon the precedent established in *Howey*, courts have continued to apply and modify specific elements of the *Howey* Test in determining whether a transaction constitutes the sale of a security. These refinements shed further light not only on the breadth of the investment contract category of securities but also on the extent to which the determination that a given transaction falls within this category depends upon the economic reality of that transaction. Thus, a review of the status of each element of the *Howey* Test proves helpful.

a. Investment of Money

The initial *Howey* Test element requires an investment of money.⁷¹ For example, in *Useton v. Commercial Lovelace Motor Freight, Inc.*, four hundred former employees of a motor freight company sued alleging, *inter alia*, violations of the federal securities laws.⁷² Following the sale of the company to the defendant, the company invited the employees to participate in a wage reduction program in return for an interest in a stock ownership plan and a profit sharing plan.⁷³ The district court found that the scheme violated the first prong of the *Howey* Test, as no investment of money occurred.⁷⁴ The Tenth Circuit disagreed, stating, “it is well established that cash is not the only form of contribution or investment that will create an investment contract. Instead, the ‘investment’ may

⁷¹ *W.J. Howey Co.*, 328 U.S. at 301.

⁷² *Useton v. Commercial Lovelace Motor Freight, Inc.*, 940 F.2d 564, 570 (10th Cir. 1991).

⁷³ *Id.*

⁷⁴ *Id.* at 573.

take the form of ‘goods and services’ or ‘some other exchange of value.’”⁷⁵ The court went on to clarify the proper legal standard—whether the economic realities demonstrated that the plaintiff made an investment in the transaction or that the transaction as a whole involved “an exchange of value.”⁷⁶

In contrast, in *International Brotherhood of Teamsters v. Daniel*,⁷⁷ the Supreme Court held that investments made by the manager of an employee’s compulsory pension plan did not constitute an investment contract.⁷⁸ The employees did not make contributions to the plan; rather, they vested in benefits through years of service. The contribution of work to the company by the employees, as opposed to direct funds into the pension plan, resulted in the arrangement failing the *Howey* Test.⁷⁹ In other words, unlike the arrangement in *Uselton*, the economic reality of a transaction whereby a company invests money in a retirement plan on behalf of an employee fails to equate to an investment of money by the employee. As such, the transaction failed the first prong of the *Howey* Test.⁸⁰

⁷⁵ *Id.* at 574 (internal citations omitted).

⁷⁶ *Id.* at 575; *see also* *Dubin v. E.F. Hutton Group, Inc.*, 695 F. Supp. 138, 145–46 (S.D.N.Y. 1988) (finding the formation of an equity ownership plan as part of an employment agreement is a security); *Yoder v. Orthomolecular Nutrition Inst., Inc.*, 751 F.2d 555, 560–61 (2d Cir. 1985) (supporting the proposition that equity ownership as part of employment constitutes “investment of money” under the *Howey* Test).

⁷⁷ 439 U.S. 551 (1979).

⁷⁸ *Id.* at 560–61.

⁷⁹ *Id.*

⁸⁰ *Id.*

b. Common Enterprise

The “common enterprise” element⁸¹ of the *Howey* Test continues to be the subject of extensive common law interpretation. Courts applying the *Howey* Test have generally adopted one of three main approaches to this element: horizontal commonality, strict vertical commonality, and broad vertical commonality.⁸²

Horizontal commonality requires that contributions of funds from investors be pooled together as a common investment.⁸³ While this test requires that an investment contract involve more than a single investor,⁸⁴ it is possible that multiple investors can constitute a single investment unit that fails the multiple investor requirement. For example, in *Milnarik v. M-S Commodities, Inc.*,⁸⁵ a small group invested funds in a commodity trading account controlled by a money manager.⁸⁶ The Seventh Circuit held that there was no unified investment decision by the investors, and the use of an investment manager as a common agent to manage funds did not establish an investment contract.⁸⁷ The court reinforced this strict pooling requirement in subsequent cases.⁸⁸ The horizontal

⁸¹ SEC v. W.J. Howey Co., 328 U.S. 293, 298–99 (1946).

⁸² See generally Maura K. Monaghan, Note, *Financial Services Regulation: A Mid-Decade Review: An Uncommon State of Confusion: The Enterprise Element of Investment Contract Analysis*, 63 *FORDHAM L. REV.* 2135 (1995) (discussing the various judicial applications of the *Howey* “common enterprise” element).

⁸³ *Steinhardt Group, Inc. v. Citicorp*, 126 F.3d 144, 151 (3d Cir. 1997).

⁸⁴ *Curran v. Merrill Lynch, Peirce, Fenner & Smith, Inc.*, 622 F.2d 216, 222–23 (6th Cir. 1980).

⁸⁵ 457 F.2d 274 (7th Cir.), *cert. denied*, 409 U.S. 887 (1972).

⁸⁶ *Milnarik*, 457 F.2d at 275.

⁸⁷ *Id.* at 275–79.

⁸⁸ *Hirk v. Agri-Research Council, Inc.*, 561 F.2d 96 (7th Cir. 1977).

commonality element also requires that investors have a common interest in the success of the venture.⁸⁹ This provision has been interpreted to mean that any profits or losses derived from the common investment must be distributed to investors pro-rata based upon their contributions.⁹⁰

Strict vertical commonality looks beyond the common situation of investors and requires that the investor and investment manager or promoter have similar economic interests.⁹¹ That is, the investment manager's success must depend upon the success of the investor. As such, the type of risk shared in the venture is the same.⁹² Strict vertical commonality first appeared in the Ninth Circuit's analysis in *SEC v. Glenn W. Turner Enterprises*.⁹³ The court stated that, "[a] common enterprise is one in which the fortunes of the investor are interwoven with and dependent upon the efforts and success of those seeking the investment or third parties."⁹⁴ The strict vertical commonality approach was later applied in *SEC v. R.G. Reynolds Enterprises, Inc.*⁹⁵ The court paid little regard to the pooling of funds or the investor's reliance on the investment manager's skill; rather, it focused upon the sharing

⁸⁹ *Curran*, 622 F.2d at 224.

⁹⁰ *Id.* at 222–23.

⁹¹ *See* *Mordaunt v. Incomco*, 686 F.2d 815, 817 (9th Cir. 1982), *cert. denied*, 469 U.S. 1115 (1985).

⁹² *See* *Brodt v. Bache & Co., Inc.*, 595 F.2d 459, 462 (9th Cir. 1978) (“Appellant's enterprise was a “solitary” one. His profits were shared neither with other investors nor the appellee; whether his investment flourished or perished was unrelated directly to either the general financial health of the appellee or the ability of the appellee to perform a duty, the purpose of which would be “to secure” to some extent the appellant's investment.”).

⁹³ 474 F.2d 476, 482 (9th Cir.), *cert. denied*, 414 U.S. 82 (1973).

⁹⁴ *Id.* at 482 n7.

⁹⁵ 952 F.2d 1125 (9th Cir. 1991).

of risk.⁹⁶ The court held that allocating a management fee for the account manager resulted in a sufficient alignment of risk between investor and manager.⁹⁷ The key to this relationship was that the management fee was not a secured percentage of assets held; rather, it was based somewhat on the performance of those assets.⁹⁸

The broad approach to vertical commonality focuses on the investor's dependence on the promoter,⁹⁹ rather than the nature of the risk shared by the parties.¹⁰⁰ More specifically, the courts applying this approach require that the investor depend heavily upon the level of skill or knowledge of the investor and her dependence upon the promoter in making the investment.¹⁰¹ The broad-based approach to vertical commonality first appeared in *SEC v. Koscot Interplanetary, Inc.*¹⁰² In *Koscot*, promoters sold shares in a pyramid type promotion, where managers would control and maintain the enterprise, while investors would be rewarded based on their ability to convince others to attend high-pressure sales meetings run by the promoters.¹⁰³ The court held that "the requisite commonality is evidenced by the fact that the fortunes of all investors are inextricably tied to the efficacy of the

⁹⁶ *Id.* at 1129.

⁹⁷ *Id.* at 1130–31.

⁹⁸ See e.g., *Meyer v. Thomas & McKinnon Auchincloss Kohlmeyer, Inc.*, 686 F.2d 818 (9th Cir. 1982) (holding that an arrangement where a promoter is compensated with a percentage of the assets under his management does not amount to an investment contract).

⁹⁹ See e.g., *SEC v. Koscot Interplanetary, Inc.*, 497 F.2d 473, 478 (5th Cir. 1974).

¹⁰⁰ *Brodt v. Bache & Co., Inc.*, 595 F.2d 459, 461 (9th Cir. 1979); *SEC v. Continental Commodities Corp.*, 497 F.2d 516, 522 (5th Cir. 1974).

¹⁰¹ *Id.*

¹⁰² 497 F.2d 473 (5th Cir. 1974).

¹⁰³ *Id.* at 475–76.

[promoters'] meetings.”¹⁰⁴ The broad vertical commonality approach, therefore, centers upon the investor’s reliance upon the promoter’s skill in the area of investment.¹⁰⁵

c. Expectation of Profit Derived Solely from the Efforts of Others

Following the passage of the Securities Act of 1933, the definition of investment contract has been subject to debate among the court.¹⁰⁶ The Supreme Court clarified the “expectation of profits” language from the first element of the *Howey* Test in *United Housing Foundation, Inc. v. Forman*.¹⁰⁷ In *Forman*, the Court said that the primary motivation for investing must be to achieve a return on the value invested.¹⁰⁸ Conversely, if investors are primarily driven by a motive other than profits—as they were in *Forman*—then the endeavor will fail this element of the *Howey* Test.¹⁰⁹

The court in *SEC v. Glenn W. Turner Enterprises* addressed the next part of the *Howey* Test, “derived solely from the efforts of others,” by focusing on the balance of effort between the investors and promoters.¹¹⁰ Notably, the court held that the “solely” language in the *Howey* Test should not be

¹⁰⁴ *Id.* at 479.

¹⁰⁵ *See, e.g.*, *SEC v. Continental Commodities Corp*, 497 F.2d 516, 522 (5th Cir. 1974) (“[T]he critical inquiry is confined to whether the fortuity of the investments collectively is essentially dependent upon promoter expertise.”).

¹⁰⁶ William H. Newton, III, *What Is A Security: A Critical Analysis*. 48 *MISS. L.J.* 167, 167 (1977).

¹⁰⁷ 421 U.S. 837 (1975).

¹⁰⁸ *Id.* at 856–57.

¹⁰⁹ *Id.* at 851 (“In short, the inducement to purchase was solely to acquire subsidized low-cost living space; it was not to invest for profit.”).

¹¹⁰ 474 F.2d 476 (9th Cir. 1973), *cert. denied*, 414 U.S. 821 (1973).

strictly construed.¹¹¹ If it is, the court reasoned, the purpose of the securities regime would be defeated.¹¹² The court chose to focus on “whether the efforts made by those other than the investor are the undeniably significant ones, those essential managerial efforts which affect the failure or success of the enterprise.”¹¹³

Later, the Supreme Court in *SEC v. Edwards* applied *Howey* and reiterated that its standard was a flexible, not static, principle, under which Congress sought to “regulate investments, in whatever form they are made and by whatever name they are called.”¹¹⁴ The court found no reason to distinguish fixed from variable returns under *Howey* and saw no conflict with *United Housing* or any other precedent.¹¹⁵ Specifically, the Court interpreted *United Housing*’s statements that profits meant either capital appreciation or participation in earnings as merely examples or passing dictum rather than

¹¹¹ *Id.* at 482.

¹¹² *Id.* (“Adherence to such an interpretation could result in a mechanical, unduly restrictive view of what is and what is not an investment contract. It would be easy to evade by adding a requirement that the buyer contribute a modicum of effort. . . . To do so would not serve the purpose of the legislation.”).

¹¹³ *Id.* See also *Hocking v. Dubois*, 885 F.2d 1449, 1455 (9th Cir. 1989) (holding that the focus should be on whose efforts are “significant” and “essential” in affecting the success of the endeavor).

¹¹⁴ 540 U.S. 389, 391 (2004) (quoting *Reves v. Ernst & Young*, 494 U.S. 56, 61 (1990)). Within the text, the authors have used *Edwards* to refer to the line of cases which came to the Supreme Court on appeal from the Eleventh Circuit. At the Court of Appeals level, the case was originally cited as *SEC v. ETS Payphones, Inc.* SEC v. ETS Payphones, Inc. 408 F.3d 727 (11th Cir. 2005) (*on remand*); SEC v. ETS Payphones, Inc., 300 F.3d 1281 (11th Cir. 2002).

¹¹⁵ *Id.* at 395.

constituting the only definition of profits.¹¹⁶ Consequently, the Court reaffirmed its elemental test adopted in *Howey* as the appropriate standard under which to examine an investment contract and held that “an investment scheme promising a fixed rate of return can be an ‘investment contract’ and thus a ‘security’ subject to the federal securities laws.”¹¹⁷

The Court remanded the *Edwards* case to the Eleventh Circuit,¹¹⁸ which, in turn, addressed the issue of vertical and horizontal commonality.¹¹⁹ The court in *Edwards* stated that “[b]road vertical commonality . . . only requires a movant to show that the investors are dependent upon the expertise or efforts of the investment promoter for their returns.”¹²⁰ In a concurring opinion, Judge Lay went further, writing that vertical commonality amounted to nothing more than *Howey*’s third element—an expectation of profits to be derived solely from the efforts of others—and thus made *Howey* intrinsically

¹¹⁶ *Id.* at 395–96 (noting that in *United Housing*, the Court “laid out two examples of investor interests that [it] had found to be ‘profits’ and that the Court will not be bound “unnecessarily to passing dictum that would frustrate Congress’ intent to regulate [investment schemes].”) (*emphasis added*) (*quotations in original*).

¹¹⁷ *Id.* at 397 (*quotations in original*).

¹¹⁸ *United States v. Edwards*, 540 U.S. 389 (2004), *rev’d and rem’d*, 526 F.3d 747 (11th Cir. 2008).

¹¹⁹ 300 F.3d at 1285 (Lay, J., concurring).

¹²⁰ *Id.* at 1284. *See also* *Curran v. Merrill Lynch, Peirce, Fenner & Smith, Inc.*, 622 F.2d 216 (6th Cir. 1980) (“[T]he finding of a vertical common enterprise based solely on the relationship between promoter and investor is inconsistent with *Howey*.”); *Milnark v. M-S Commodities, Inc.*, 457 F.2d 274, 275–77 (7th Cir. 1972); *Berman v. Bache, Halsey, Stuart, Shields, Inc.*, 467 F. Supp. 311, 319 (S.D. Ohio 1979).

redundant and its third element superfluous.¹²¹ Indeed, the SEC conceded that broad vertical commonality was an inappropriate test for the same reason—it collapses the second and third elements.¹²² Horizontal commonality, which requires a pooling of funds under which “individual investors share all the risks and benefits of the business enterprise,” is thus the appropriate standard to examine the common enterprise element of *Howey*.¹²³

B. Entity Relationships and the Sale of Securities

The definition of a security and the elements of an investment contract established in the *Howey* Test begs the question, what transactions concerning business entity relationships constitute the sale of a security interest? While the sale of an interest in a business entity to a third-party investor generally constitutes the sale of a security,¹²⁴ the formation of a new business entity by its founders is generally exempt from securities regulation under state and federal law.¹²⁵

The formation of certain business relationships do not require the formal filing of a state-recognized business entity. For instance, a default partnership entity results from the collective effort of more than one individual with the intention

¹²¹ 300 F.3d 1281, 1285 (Lay, J., concurring).

¹²² *Id.* at 1286 (citing Brief for Appellant, SEC at 28 n.11, SEC v. SG Ltd., 265 F.3d 42 (1st Cir. 2001)).

¹²³ *Id.* at 1283–84.

¹²⁴ Securities Act of 1933 § 2(a)(1), 15 U.S.C. § 77b(a)(1) (2014) (An security includes any “stock” or “certificate of interest or participation in any profit-sharing agreement”).

¹²⁵ *Id.* at § 77d(a)(2) (“The provisions of section 77e of this title shall not apply to... (2) transactions by an issuer not involving any public offering.”).

of sharing in any profits derived from the activity.¹²⁶ The formation of general partnerships has generally been held to not constitute the sale of a security.¹²⁷ In a general partnership, all of the partners have the right to be co-contributors and to share in any potential losses or liabilities of the business operations.¹²⁸ Several circuits, however, follow the approach established in *Williamson v. Tucker* when evaluating general partnership ownership interests for purposes of the securities laws.¹²⁹

In *Williamson*, the Fifth Circuit provided a bright-line rule: a general partnership or joint venture can fall under the

¹²⁶ UNIF. P'SHIP ACT of 1997 § 202, Cmt. 1. [hereinafter "UPA"]. ("[A] partnership is created by the association of persons whose intent is to carry on as co-owners a business for profit, regardless of their subjective intention to be "partners." Indeed, they may inadvertently create a partnership despite their expressed subjective intention not to do so.").

¹²⁷ See *Williamson v. Tucker*, 645 F.2d 404, 421 (5th Cir. 1981), *cert. denied*, 454 U.S. 897 (1981) ("a general partnership or joint venture interest generally cannot be an investment contract under the federal securities acts"); see also *Youmans v. Simon*, 791 F.2d 341, 346 (5th Cir. 1976) ("federal securities laws are usually held not generally to apply to general partners." (citing *Odom v. Slavik*, 703 F.2d 212, 215 (6th Cir. 1983); *Frazier v. Manson*, 651 F.2d 1078, 1080 (5th Cir. 1981)); Douglas M. Fried, Note, *General Partnership Interests as Securities Under The Federal Securities Laws: Substance Over Form*, 54 *FORDHAM L. REV.* 303 (1985) (discussing how courts view general partnership interest under the securities framework in the wake of *Williamson*).

¹²⁸ *Williamson*, 645 F.2d at 421 (A general partner has a "legal right to a voice in partnership matters . . ." (quoting *New York Stock Exchange, Inc. v. Sloan*, 394 F. Supp. 1303, 1314 (S.D.N.Y. 1975)); see also *Youmans*, 791 F.2d at 346 ("The reason general partners are usually held not covered . . . is that they are entrepreneurs, not investors, and have the ability to take care of their own interests because of the inherent powers available to them. General partners may act on behalf of the partnership . . . and they are personally liable for all liabilities of the partnership.").

¹²⁹ *Williamson*, 645 F.2d at 421.

federal securities regime if plaintiffs can establish one of three elements.¹³⁰ First, the agreement must leave “so little power in the hands of the partner or venturer that the arrangement distributes powers as a limited partnership.”¹³¹ Alternatively, the partner must be so “inexperienced and unknowledgeable” that he is not intellectually able to assert the powers given to him in the agreement.¹³² Finally, the endeavor will be treated as a security if the partner “is so dependent on some unique entrepreneurial or managerial ability” of the promoter that it would be impossible to replace them.¹³³

Limited partnerships, in contrast, are unique in that only the general partner is personally responsible for losses or other liabilities of the venture.¹³⁴ As such, limited partnership interests may generally be considered securities.¹³⁵ In *Steinhardt Group, Inc. v. Citicorp*, however, the Third Circuit cautioned that the *Howey* Test must still be applied to limited partnership interests to determine if the limited partner is truly a passive investor.¹³⁶ The court concluded that, where limited partners can exert managerial efforts and hold certain voting

¹³⁰ *Id.* at 424.

¹³¹ *Id.*

¹³² *Id.*

¹³³ *Id.*

¹³⁴ See *Youmans*, 791 F.2d at 346 (“Limited partners, on the other hand, do not share the kind of authority wielded by general partners. Their liability for the partnership is limited to the amount of their investment.”).

¹³⁵ See *id.* (“Limited partnership interests may be considered a security within the statutory definition” (citing *Siebel v. Scott*, 725 F.2d 995, 998 (5th Cir. 1984), 467 U.S. 1242 (1984))).

¹³⁶ 126 F.3d 144, 150 (3rd Cir. 1997) In *Steinhardt*, the plaintiffs believed they had been defrauded after they had purchased securitized pools of delinquent mortgage loans and properties belonging to defendant, Citicorp. *Id.* at 145. Finding that the first two prongs of the *Howey* Test had been met, the crux of the court’s analysis focused on the third prong. *Id.* at 151-52.

powers, the third-prong of the *Howey* Test is not met and no investment contract exists.¹³⁷

In summary, the determination of whether a business entity status constitutes a security rests with the level of control the investor has over the enterprise and the dependence of the investor upon the expertise or effort of the organizer or promoter. This analysis relates closely with the “solely from the efforts of others” element of the *Howey* Test. It provides a separate level of analysis of the relationship between parties to the activity to determine if that activity is subject to regulation as a security.

C. Mining Pools as Securities

The *Howey* Test, as refined by later court decisions, has been applied to a wide variety of property and transactions. By categorizing bitcoin mining as a security for purposes of the federal securities law, the United States could introduce a layer of regulation, without the need for novel or specialized laws, to address the new realities of the growing bitcoin economy. As described in the paragraphs that follow, the test can and should be applied to the bitcoin mining process. The structure of bitcoin mining pools fits comfortably within the four corners of the definition of “investment contract” as defined by *Howey* and its progeny—(1) an investment of money in a (2) common enterprise with (3) the expectation of profits (4) derived solely from the efforts of others.¹³⁸

¹³⁷ *Id.* at 155.

¹³⁸ SEC v. W. J. Howey Co., 328 U.S. 293 (1946).

1. An Investment of Money

The first issue focuses on whether a share or interest in a mining pool constitutes an investment of money for the purposes of the first element of the *Howey* Test. To the extent individuals may purely invest money in a mining pool, this element is easily met. However, this requirement should not be read in an overly narrow manner so as to limit it only to an investment of legal tender. Some courts have interpreted the requirement of an investment of money broadly, focusing on the economic realities of the situation.¹³⁹

In the context of mining pools, the value transferred to the pool is an element of completed work. The work, on its own, has little value; however, the investment has value when combined with the work product of others. Whether this transfer is deemed a transfer of services or as an “exchange of value,” the investor would have made an investment under the *Howey* line of cases. Simply put, the economic realities of bitcoin mining are that all participants have invested in some way in the outcome of the mining—be it through a direct investment of money, the provision of goods or services to a bitcoin mining enterprise or a bitcoin mining pool, or through other exchanges of value. As such, the first element of the *Howey* Test is appears to be met for purposes of participants in a bitcoin mining pool.

2. Common Enterprise

As previously discussed, some courts break down the determination of whether a common enterprise exists into a determination of vertical and horizontal commonality.¹⁴⁰ In the

¹³⁹ See *supra* text accompanying notes 62–63.

¹⁴⁰ See *supra* text accompanying notes 82–105.

context of mining pools, horizontal commonality is easily established. The members meet the requirement that each individual investor share all the risks and benefits of the enterprise such that “fortunes of individual investors are inextricably intertwined by contractual and financial arrangements to that of any other investors.”¹⁴¹ The relationship among common stockholders in a corporation provides a prime example of the requirements of horizontal commonality. A common shareholder is a member of a common enterprise in which the profits are derived predominantly from the efforts of others, every investor has similar rights, preferences, and privileges, and, in their role as owners, shareholders play no part in the production of profits. Compared with the role of participants in a bitcoin mining pool arrangement, both groups collectively share profits and losses together, do not play an active part in the actual mining process, and, to the extent they receive a profit, those profits are based upon the successful efforts of those individuals actively involved in mining the bitcoin.

Vertical commonality requires “that the investors are dependent upon the expertise or efforts of the investment promoter for their returns.”¹⁴² Consistent with the explanation of broad vertical commonality in *Edwards*, the mining pool arrangement makes individual miners dependent upon the expertise and efforts of the mining pool operator in employing the contributed work.¹⁴³ Specifically, the promoter of the

¹⁴¹ *Cooper v. King*, 1997 WL 243424 at *2 (6th Cir. 1997).

¹⁴² *SEC v. ETS Payphones, Inc.*, 300 F.3d 1281, 1284 (11th Cir. 2005) (*per curiam*), *rev'd and rem'd sub nom.*, *SEC v. Edwards*, 540 U.S. 389 (2004).

¹⁴³ *Id.*; see also *Curran v. Merrill Lynch, Pierce, Fenner & Smith, Inc.*, 622 F.2d 216, 224 (6th Cir. 1980) (“[T]he finding of a vertical common enterprise based solely on the relationship between promoter and investor is

mining pool is tasked with assembling the work product of individual miners and employing that product in the transaction verification process.

When considering the broad and strict approaches to vertical commonality, it is important to note that the Fifth Circuit in *Edwards* simplified the original *Howey* analysis by providing that vertical commonality amounts to nothing more than *Howey*'s third element—an expectation of profits to be derived solely from the efforts of others—thus making the third element of the *Howey* Test superfluous.¹⁴⁴ Horizontal commonality, which requires a pooling of funds under which “individual investors share all the risks and benefits of the business enterprise,” is thus the appropriate standard to examine the common enterprise element of *Howey*.¹⁴⁵

Investors in a bitcoin mining pool, regardless of whether they actively participate in the mining process, share both the potential profits and losses from the pool. In essence, by spreading the costs and efforts among those involved in the pool, the pool's participants are able to make bitcoin mining economically more efficient. In return, they agree to share in the results of their collective efforts. As outlined above,¹⁴⁶ the various mining pools use a variety of approaches to divide their profits among the participants in the pool. Regardless of the

inconsistent with *Howey*.”), *aff'd sub nom.* Merrill Lynch, Pierce, Fenner & Smith, Inc. v. Curran, 456 U.S. 353 (1982); Milnarik v. M-S Commodities, Inc., 457 F.2d 274, 275–77 (7th Cir. 1972); Berman v. Bache, Halsey, Stuart, Shields, Inc., 467 F. Supp. 311, 319 (S.D. Ohio 1979).

¹⁴⁴ *ETS Payphones*, 300 F.3d at 1285 (Lay, J., concurring).

¹⁴⁵ *Id.* at 1283–84.

¹⁴⁶ See *Bitcoin Mining Pools*, BITCOINMINING.COM, <http://www.bitcoinmining.com/bitcoin-mining-pools/> (last visited Jan. 19, 2015) (explaining various pooled payment methods presently in use).

allocation method chosen, the core principle underlying a bitcoin mining pool is that a participant's individual efforts produce greater value when combined with the work product of other miners in the same pool. Such an arrangement reflects the very essence of a common enterprise.

3. Expectation of Profits Derived Predominantly From the Efforts of Others

In addition to a common enterprise, the *Howey* Test requires an expectation of profits from the investment. As previously discussed, bitcoin mining pools offer various methods of compensating the individual miner. Some of these methods involve fixed compensation to miners for work contributed. Other schemes make the receipt of profits contingent upon the success of the mining pool. Profits, for purposes of the *Howey* Test, may come in the form of fixed returns or contingent benefits. Per the Supreme Court's reasoning in *Edwards*, there is "no reason to distinguish between promises of fixed returns and promises of variable returns" when employing the *Howey* Test, as both produce a form of investment return.¹⁴⁷ The primary objective of Congress is not to separate methods of return; rather, it is to protect all investors in schemes dependent upon the efforts of others.¹⁴⁸ This element is meant to distinguish situations where the investor's motivation in making the purchase is to use or consume the item from situations where there is an expectation

¹⁴⁷ *Edwards*, 540 U.S. 389, 394 (2004).

¹⁴⁸ *Id.* at 394–95.

of profits¹⁴⁹ and requires that profits be derived “predominantly from the efforts of others.”¹⁵⁰

Thus, under *Howey*, if an investor controls the profitability of an investment, that investment is not a security.¹⁵¹ As previously mentioned, the derived-from-the-efforts-of-others element generally requires an examination into the level of control retained by the investor. In the context of bitcoin mining, the individual miner loses all control of the process upon submitting his work product to the pool operator. “If the investor retains the ability to control the profitability of his investment, the agreement is not a security”¹⁵² because the spirit of a security for investment purposes is the separation of influence between promoter and investor.¹⁵³ Typically, “[t]he investors provide the capital and share in the earnings and profits; the promoters manage, control, and operate the

¹⁴⁹ *United Housing Foundation, Inc. v. Forman*, 421 U.S. 837, 852–53 (1975).

¹⁵⁰ As originally worded, the *Howey* Test required that profits be derived solely from the efforts of others. *See SEC v. Glenn W. Turner Enterprises*, 474 F.2d 476, 482 (9th Cir.), *cert. denied*, 414 U.S. 821 (1973) (“Strict interpretation of the requirement that profits to be earned must come “solely” from the efforts of others has been subject to criticism. . . . Adherence to such an interpretation could result in a mechanical, unduly restrictive view of what is and what is not an investment contract.” (internal citations and footnotes omitted)).

¹⁵¹ *Albanese v. Florida Nat’l Bank of Orlando*, 823 F.2d 408, 410 (11th Cir. 1987).

¹⁵² *SEC v. ETS Payphones*, 300 F.3d 1281, 1285 (11th Cir. 2005) (*per curium*), *rev’d and remanded on other grounds sub nom.*, *SEC v. Edwards*, 540 U.S. 389 (2004) (quoting *Albanese v. Florida Nat’l Bank of Orlando*, 823 F.2d 408, 410 (11th Cir. 1987)).

¹⁵³ *See SEC v. Koscot Interplanetary, Inc.*, 497 F.2d 473, 478 (5th Cir. 1974) (“[T] he proper standard . . . is ‘whether the efforts made by those other than the investor are the undeniably significant ones, those essential managerial efforts which affect the failure or success of the enterprise.’” (quoting *Glen W. Turner Enterprises, Inc.*, 474 F.2d at 482)).

enterprise.”¹⁵⁴ The Fifth Circuit in *Edwards* reasoned that by bargaining for a fixed return, investors may not have relied solely on the efforts of others because their contractually guaranteed returns “were derived as a benefit of [their] bargain under the contract.”¹⁵⁵

A primary draw of a bitcoin mining pool is that the arrangement allows persons who would not otherwise be able to mine bitcoin in an economically efficient manner to participate in the bitcoin economy. The individual participants may invest services and, in some cases other goods or resources, into the mining pool, while other participants in the same mining pool make similar or complimentary investments. Those investments combine to produce work product that ultimately produces value to be distributed among the members of the pool. However, for most participants in a mining pool, the return they receive from the mining pool, while dependent on their investment, is unrelated to their individual efforts. Rather, the efforts of the promoter in combining the work product of various pool participants into a useable fashion drives the generation of profits. In other words, for the vast majority of investors in a given bitcoin mining pool, any profit received is derived predominantly from the efforts of others. Thus, the final element of the *Howey* Test is met.

¹⁵⁴ *SEC v. W.J. Howey*, 328 U.S. 293, 300 (1946) (concluding that “arrangements whereby the investors’ interests are made manifest involve investment contracts, regardless of the legal terminology in which such contracts are clothed.”).

¹⁵⁵ *ETS Payphones*, 300 F.3d at 1285.

4. Bitcoin Mining Pools as a Business Entity or Organization

As previously discussed, forming either a general or limited partnership may constitute the sale or exchange of a security.¹⁵⁶ Within a general partnership, an interest in the business entity may constitute a security in situations in which the parties leave so little power in the hands of the partner that the internal distribution of power is effectively similar to that of a limited partnership.¹⁵⁷ That is, the partner must be completely dependent upon the ability of the promoter or manager in carrying out operations, or the partner cannot meaningfully exercise the powers of a general partner in a partnership.¹⁵⁸

The mining pool arrangement may default to a general partnership entity status. The IRS has taken the view that bitcoin mining is a form of self-employment.¹⁵⁹ Pursuant to partnership law, two or more individuals working together with the intent to share the proceeds of that effort constitutes a partnership.¹⁶⁰ As such, when individual miners work in concert to create value that will be shared among the various members, the default relationship is a general partnership. The question then becomes, does the arrangement between individual participants and the mining pool constitute a security under law?

¹⁵⁶ *Williamson*, 645 F.2d at 421.

¹⁵⁷ *Id.*

¹⁵⁸ See *supra* text accompanying notes 130–33.

¹⁵⁹ Notice 2014-21, 2014-16 I.R.B. 938–40 (“If a taxpayer’s ‘mining’ of virtual currency constitutes a trade or business, and . . . is not undertaken . . . as an employee, the net earnings from self-employment . . . resulting from those activities constitute self-employment income and are subject to the self-employment tax.”).

¹⁶⁰ UPA at § 202, Cmt. 1.

As discussed, an individual miner involved in a bitcoin mining pool depends heavily upon the pool manager to aggregate work product from all of the miners and convert that work product into value via the bitcoin network.¹⁶¹ The arrangement is such that it leaves the pool participant with no ability to exercise any power or authority.¹⁶² In some cases, the partner may also be completely dependent upon the actions of the pool promoter in the verification process that she could not otherwise undertake a successful mining activity.¹⁶³ Either this level of dependence upon the pool manager or the lack of available control to the pool participant, individually, is likely sufficient to qualify under the *Williamson Test*.¹⁶⁴

D. Legal Effect of Securities Regulation on Bitcoin Mining

If bitcoin mining pools are deemed to be securities, a full range of regulatory considerations would be triggered, beginning with the registration and disclosure requirements of the 1933 Act.¹⁶⁵ Because the primary purpose of the 1933 Act is to provide potential investors with material information of securities offerings and to prevent unfair practices by those involved in selling securities, the primary burden on those organizing and selling interests in bitcoin mining pools would be to register the offering. To avoid this imposition, the issuers

¹⁶¹ See *supra* text accompanying notes 35–45.

¹⁶² See *supra* text accompanying notes 35–45.

¹⁶³ See *supra* text accompanying notes 35–45.

¹⁶⁴ See *supra* text accompanying notes 132–35.

¹⁶⁵ Securities Act of 1933, 15 U.S.C. § 77b(a)(3) (2014) (outlining the method of registering securities with the SEC).

would need to qualify for one of the many exemptions under the act.

1. Registration

The essence of the registration process is disclosure.¹⁶⁶ That is, the 1933 Act does not require securities arrangements to be profitable, and the SEC is not tasked with evaluating the worth of the offerings.¹⁶⁷ As long as investors have enough information to make informed decisions, they are free to do with their money what they will. In order to achieve adequate disclosure, those involved in selling interests in bitcoin mining pools would be required to file a Form S-1¹⁶⁸ with the SEC. The form requires the disclosure of a wide range of information, including, *inter alia*, the nature of the business, the management and compensation structure, the pool's assets, and the pool's competitors.¹⁶⁹ The form would also require that

¹⁶⁶ See The Laws that Govern the Securities Industry, U.S. Sec. & Exch. Comm'n, <http://www.sec.gov/about/laws.shtml> (last visited Jan. 19, 2015) (noting that the primary purpose of the Securities Act was to "require that investors receive financial and other significant information concerning securities being offered for public sale; and [to] prohibit deceit, misrepresentations, and other fraud in the sale of securities").

¹⁶⁷ *Id.* ("This information enables investors, not the government, to make informed judgments about whether to purchase a company's securities. While the SEC requires that the information provided be accurate, it does not guarantee it.").

¹⁶⁸ 17 C.F.R. § 239.11 (2014).

¹⁶⁹ S.E.C. FORM S-1, REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933, available at <http://www.sec.gov/about/forms/forms-1.pdf> (last visited Jan. 19, 2015). The requirement that registrants release information about executive and director compensation was a result of amendments the SEC made regarding their disclosure rules in 1992 and again in 2006. See Jennifer S. Martin, *The House of Mouse and Beyond: Assessing the SEC's Efforts to Regulate Executive Compensation*, 32 DEL. J. CORP. L. 481, 490–92 (2007) (outlining the SEC's efforts to regulate executive and director compensation from 1933 through 2006).

the mining pool disclose substantive information about the investment opportunity being offered and how it relates to any other capital securities of the mining pool.¹⁷⁰ Finally, the mining pool would be obligated to publish audited financial statements as part of the registration process.¹⁷¹

In addition to making the required filings with the SEC, the mining pool would also be tasked with issuing a prospectus—a document made available to potential investors—containing much of the information required on the Form S-1.¹⁷² The Form S-1 and the prospectus would be available for public inspection almost simultaneously with their arrival at the SEC.¹⁷³ Without qualifying for a special exception, the mining pool would still be legally required to wait a full 20 days before being allowed to formally sell interests to investors.¹⁷⁴

Adding a layer of complexity, the 1934 Securities Exchange Act (“1934 Act”) contains its own set of registration rules that may be imposed upon issuers.¹⁷⁵ Until 1982, obligations imposed by these two acts were treated as unrelated and required seemingly duplicative work for registrants. It was in that year, however, that the SEC adopted an approach that allows certain issuers to combine many or all of the disclosures

¹⁷⁰ FORM S-1, *supra* note 169.

¹⁷¹ Regulation S-X, 17 C.F.R. Part 210; *see also* FORM S-1 *supra* note 169, at Item 11(e), (requiring inclusion of financial statements that comply with Regulation S-X).

¹⁷² 15 U.S.C. § 77b(a)(10) (2014).

¹⁷³ *See* U.S. Sec. & Exch. Comm’n, *supra* note 166.

¹⁷⁴ 15 U.S.C. § 77h(a). The SEC has the discretion to shorten the 20-day waiting period. *Id.* It also may extend the period if it requires additional information from the issuers. *Id.* § 77h(b).

¹⁷⁵ 15 U.S.C. § 781 (2014).

into the same filing.¹⁷⁶ The test for which issuers may combine parts or all of their filings generally hinges on how seasoned they are—*i.e.*, how experienced the issuer is with the filing process.¹⁷⁷

While the 1982 amendments may not be overly helpful to mining pools, who often have not been organized long enough to be eligible for “seasoned” status with the SEC, the agency amended its rules again in 1992. These revisions were designed to aid small businesses that intend to offer their investment products for trade in the public markets.¹⁷⁸ While it is unknown the propensity of mining pools to seek access to the public markets, many would meet the definition of a “smaller reporting company” or a “small business issuer” under the rules, which would trigger less stringent reporting requirements.¹⁷⁹

¹⁷⁶ See Securities Act Release No. 6385, [1981-1982 Transfer Binder] FED. SEC. L. REP. (CCH) P83,111, at 84,947 (Mar. 3, 1982); Securities Act Release No. 6383, [Accounting Series Releases Transfer Binder] FED. SEC. L. REP. (CCH) P72,328, at 62,990 (Mar. 3, 1982); Securities Act Release No. 6331, [1981-1982 Transfer Binder] FED. SEC. L. REP. (CCH) P83,016, at 84,477 (Aug. 6, 1981); Securities Act Release No. 6235, [1980 Transfer Binder] FED. SEC. L. REP. (CCH) P82,649, at 83,482 (Sept. 2, 1980). See also Manning Gilbert Warren III, *A Review of Regulation D: The Present Exemption for Limited Offerings Under the Securities Act of 1933*, 33 Am. U.L. Rev. 355, n. 53 (Winter 1984) (outlining integration of 1933 and 1394 Act disclosures as a result of 1982 amendments).

¹⁷⁷ See Joel Seligman, *The Obsolescence of Wall Street: A Contextual Approach to the Evolving Structure of Federal Securities Regulation*, 93 MICH. L. REV. 649, 687-96 (1995) (providing an overview of the “integrated disclosure system” available to “seasoned investors”).

¹⁷⁸ Securities Act Release No. 6949, 7 Fed. Sec. L. Rep. (CCH) P 72,439, at 62,166 (July 30, 1992)

¹⁷⁹ An initial public offering of a “small business” or, after February 4, 2008, of a “smaller reporting company,” is subject to less stringent disclosure requirements than other issuers. See *Changeover to the SEC's*

Perhaps even more helpful to a mining pool would be revisions to the registration process that came from the Jumpstart Our Business Startup Act of 2012 (JOBS Act).¹⁸⁰ This act offers an easier registration process for “emerging growth companies.”¹⁸¹ In addition, this act authorizes covered businesses to begin communicating with certain investors prior to filing Form S-1.¹⁸² This would allow qualifying mining pools to communicate with sophisticated investors before initiating the cumbersome registration process in order to gauge whether or not there is a market for their anticipated offering.

2. Exemptions

As the previous section explains, the registration process for securities issuers involves time and expense. For mining pools, which are currently relatively small operations in

New Smaller Reporting Company System by Small Business Issuers and Non-Accelerated Filer Companies: A Small Entity Compliance Guide, available at <http://www.sec.gov/info/smallbus/-secg/smrepcosysguid.pdf>. A “smaller reporting company” if the firm (1) has “a common equity public float of less than \$75 million or (2) [is] unable to calculate their public float and have annual revenue of \$50 million or less, upon entering the [SEC] system.” *Id.* at 2. In contrast, under pre-2008 standards, an issuer qualified as a “small business issuer” if it had “(1) less than \$25 million in public float and (2) less than \$25 million in annual revenue.” *Id.*

¹⁸⁰ Jumpstart Our Business Startups Act (“JOBS Act”), Pub. L. No. 112-106, 126 Stat. 315 (2012) (codified in scattered sections of 15 U.S.C.).

¹⁸¹ See JOBS Act § 101 (outlining the requirements for qualification as an “emerging growth company”). For an in-depth treatment of the registration process for emerging growth companies under the changes brought about as a result of the JOBS Act, see James E. Bitter and Todd B. Skelton, *Reforms for Hire: The JOBS Act Legislation*, 14 TRANSACTIONS: TENN. J. BUS. L. 13, 27-33 (2012).

¹⁸² JOBS Act § 105(c). The investor must be a qualified institutional buyer or an accredited investor. *Id.* See also Bitter and Skelton, *supra* note 181, at 29.

terms of capital and revenue, such an expense might prove crippling. This is so even with the aid of the SEC's revised integrated disclosure rules and the JOBS Act.¹⁸³ While these provisions lessen the burdens of registration and disclosure, they do not eliminate them. Congress, however, recognized the need to allow small and emerging businesses some means of escaping the registration process; thus, the 1933 Act allows for certain transactions to be completely exempt from the statutory requirements.¹⁸⁴

The first series of exemptions are housed under Regulation D and include three different types of offerings that are excused from the registration process.¹⁸⁵ Regulation D exempts transactions that are limited in terms of the amount of money involved or in the types of investors being solicited. First, any mining pool that purports to sell no more than \$1M worth of interests in any 12 month period will be excused from the registration process under Rule 504.¹⁸⁶ All that is required

¹⁸³ See Bitter and Skelton, *supra* note 181, at 15 ("In small-dollar-value offerings of securities, 'accounting, legal, and other expenses can easily exceed \$50,000' Such amounts are burdensome, especially as 'relative to the total yield from a small offering,' especially when 'relative, not absolute, offering expenses . . . are [most] important.'") (citing Rutherford B. Campbell, Jr., *Regulation A: Small Businesses' Search For "A Moderate Capital,"* 31 DEL. J. CORP. L. 77, 90 (2006).)

¹⁸⁴ 15 U.S.C. § 77d (2014). The 1933 Act also prescribes certain securities as exempt from the registration requirements, see 15 U.S.C. § 77c (2014), but interests in mining pools do not fit any of the enumerated securities listed by the act as being exempt.

¹⁸⁵ See 17 C.F.R. §§ 230.501-08 (2014). Regulation D now consists of Rules 501 through 508. *Id.* Rules 501 through 503 and Rules 507 through 508 are general rules of support for the exemptions found in Rules 504 through 506.

¹⁸⁶ 17 C.F.R. § 230.504 (2014). This rule applies to private, noninvestment firms. Further, if the offering is registered under state law (or exempted therefrom) the rule permits general solicitations and allows unrestricted re-sales of the interests.

is that the mining pool notify the SEC of its sales.¹⁸⁷ In other words, no Form S-1 must be filed, no prospectus needs to be given to investors, and no independently audited financial statements must be on display. Second, mining pools may raise a significantly greater amount—up to \$5M—and still qualify for exemption under Regulation D’s Rule 505 with a few additional restrictions.¹⁸⁸ The third exemption under Regulation D, Rule 506, has nothing to do with the dollar amount that is being raised by the issuer but rather deals with who is purchasing the security interest.¹⁸⁹ Under this safe-harbor rule, a mining pool would be allowed to sell interests to an unlimited number of accredited investors¹⁹⁰ and up to 35 non-accredited investors.¹⁹¹

Section 4(a)(6) of the 1933 Act offers a relatively new exemption that may be of intrigue to mining pools due to the technological nature of the bitcoin mining process.¹⁹² Known as the “crowdfunding” exemption, it allows issuers to raise funds over the internet from a broad base of investors.¹⁹³ Under Section 4(a)(6), a mining pool would be able to raise \$1M per

¹⁸⁷ *Id.*

¹⁸⁸ 17 C.F.R. § 230.505 (2014). Unlike Rule 504, Rule 505 prohibits advertising and most solicitation. It also disallows more than 35 non-accredited investors from buying an interest.

¹⁸⁹ 17 C.F.R. § 230.506 (2014).

¹⁹⁰ *Id.* The term “accredited investor” is defined in 17 C.F.R. § 230.501 (2014).

¹⁹¹ 17 C.F.R. § 230.506.

¹⁹² 15 U.S.C. § 77d(a)(6) (2014).

¹⁹³ *Id.* The Section 4(a)(6) exemption was added to the 1933 Act as a result of the 2012 JOBS Act. JOBS Act § 302(b). For more information on crowdfunding, see <http://www.nlcfa.org/crowdfund-101.html>.

year¹⁹⁴ with minimal disclosures to the SEC and potential investors.¹⁹⁵

The final two options for mining pools wishing to avoid the involvement and expense of registration offer an additional advantage over the Regulation D and Section 4(a)(6) exemptions. Sales made pursuant to Regulation A¹⁹⁶ or Section 3(a)(11)¹⁹⁷ are made without restriction—*i.e.*, the original purchasers are largely free to transfer their interests to third parties. A mining pool may avail itself to the protections of Regulation A if they cap their issuance at \$5M annually.¹⁹⁸ The regulation still requires the submission of an “offering statement” with the SEC and an “offering circular” with potential investors, but these documents are significantly less burdensome to complete than the registration statements and prospectuses required to be completed for non-exempt transactions.¹⁹⁹ Further, audited financial statements are not required to be created under Regulation A.²⁰⁰

¹⁹⁴ 15 U.S.C. § 77d(a)(6). This amount is adjusted for inflation under the terms of the statute.

¹⁹⁵ *Id.*

¹⁹⁶ 17 C.F.R. §§ 230.251–.263 (2014).

¹⁹⁷ 15 U.S.C. § 77c(a)(11) (2014) (exempting “[a]ny security which is a part of an issue offered and sold only to persons resident within a single State or Territory, where the issuer of such security is a person resident and doing business within or, if a corporation, incorporated by and doing business within, such State or Territory”).

¹⁹⁸ 17 C.F.R. § 230.251(b) (2014).

¹⁹⁹ 17 C.F.R. §§ 230.251–.252 (2014).

²⁰⁰ See Harold S. Bloomenthal & Samuel Wolff, *SECURITIES AND FEDERAL CORPORATE LAW* § 6:43 (2d ed. 2013) (explaining that audited financial statements are not required to be prepared and submitted for issuances not exceeding \$5M) (citing *SECURITIES AND EXCHANGE COMMISSION, FORM 1-A, REGULATION A OFFERING STATEMENT UNDER THE SECURITIES*

The intrastate transaction exemption under Section 3(a)(11), on the other hand, is available regardless of dollar amount or of investor type. It depends solely on all offerrees being located within the same state as the issuer.²⁰¹ Thus, a mining pool located in San Francisco would be free to sell interests to an unlimited number of passive investors from San Deigo to Berkeley for any amount. There is room for caution, however, in that the SEC interprets this rule in the strictest sense.²⁰² To provide assurance to issuers relying on this exemption, the agency published Rule 147, which provides a safe-harbor.²⁰³ In essence, our San Francisco mining pool would need to assure that at least 80% of its assets and revenues came from California, and it would further need to assure that no resales of its interests took place to nonresidents for a nine month period after the initial sale.²⁰⁴

3. Liability

To underscore the importance of seeking an exemption, the 1933 Act provides for austere sanctions for failure to comply with the strict requirements of the registration process. First, Section 12(a)(1) of the 1933 Act creates civil liability for selling a security without the required registration.²⁰⁵ It also

ACT OF 1933, available at <https://www.sec.gov/about/forms/form1-a.pdf>. (last visited Jan. 25, 2015)).

²⁰¹ 15 U.S.C. § 77c(a)(11) (2014).

²⁰² See, e.g., Bryan Vaaler, *Financing a Small Business in Mississippi: A Practitioner's Guide to Federal and State Securities Exemptions Part II*, 63 MISS. L.J. 267, 306-11 (1994) (outlining intrastate exemption and the SEC and the courts' historical tendencies to read the exemption narrowly).

²⁰³ 17 CFR § 230.147 (2014).

²⁰⁴ *Id.* To assure that no re-sales occur to non-residents, the rule states that issuers take precautions such as placing a notation on the certificate of interest or securing an official proof of residence from each investor.

²⁰⁵ 15 U.S.C. § 77l(a)(1) (2014).

covers sales made without the issuance of a prospectus or with the issuance of an inaccurate or non-current prospectus.²⁰⁶ Next, Section 11 of the 1933 Act penalizes false or misleading statements (or material omissions) contained in any registration statement.²⁰⁷ This provision covers far more than just the seller, extending liability to directors, owners, any professional who certified any part of the registration statement, any signatory on the statement, and all underwriters.²⁰⁸ While Section 12(a)(1) does not offer the seller any defense for an unregistered sale, Section 11 contains a due diligence defense that hinges on the party's belief in the truth of the registration statements as well as the reasonableness of that belief.²⁰⁹ Similar to Section 11 is Section 12(a)(2), which imposes liability on sellers who make material misstatements in a prospectus or in any oral communication to a purchaser of a security.²¹⁰ Finally, Section 17(a) is an anti-fraud provision that empowers the SEC to pursue an enforcement action for interstate offers or sales that include certain types of fraud that are enumerated in the section.²¹¹ In addition to the civil penalties provided for in the 1933 Act, there are also criminal sanctions provided for in the act, which allow for imprisonment and monetary fines.²¹²

²⁰⁶ *Id.*

²⁰⁷ 15 U.S.C. § 77k (2014). Rule 405 explains that the word "material" is intended to limit "the information required to those matters to which there is a substantial likelihood that a reasonable investor would attach importance in determining whether to purchase the security registered." 17 C.F.R. § 230.405 (2014).

²⁰⁸ *Id.* As a general rule, those liable under Section 11 are jointly and severally liable. § 77k(f).

²⁰⁹ 15 U.S.C. § 77k(b)(3), (c).

²¹⁰ 15 U.S.C. § 77l(a)(2) (2014). The seller will avoid liability to the extent it is shown that part of the purchaser's damages resulted from something different than the untrue communication.

²¹¹ 15 U.S.C. § 77q (2014).

²¹² 15 U.S.C. § 77x (2014).

IV. CONCLUSION

The use and acceptance of bitcoin has grown exponentially over the past several years, with the bitcoin economy now representing a multi-billion dollar enterprise. To date, there has been little regulation of bitcoin. As more individuals begin to invest in bitcoin mining pools, the risk of these individuals being taken advantage of or falling victim to fraud increases. Rather than developing a separate regulatory scheme for bitcoin and similar virtual currencies, the United States can and should apply federal securities laws to regulate investors' interests in bitcoin mining pools. Specifically, those who invest in bitcoin mining pools should benefit from the disclosure requirements under the 1933 Act, as these investments fall squarely within the *Howey* Test for investment contracts. These investors (1) make an investment of money (2) into a common enterprise (3) with the expectation of profits (4) that are derived predominantly from the efforts of others, namely those actively involved in the bitcoin mining process. As such, the investments should be regulated under the federal securities laws.