

When Blockchain Meets Article 9 And Bankruptcy

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Cryptocurrencies like bitcoin have been touted as everything from a tool that will revolutionize commerce to “the very worst of speculative capitalism.”[1] Less attention has been given to their practical application vis-à-vis commercial and insolvency law.

Even so, cryptocurrencies are steadily working their way into the traditional economy as payment systems and investment vehicles. For example, as 2017 drew to a close, 11 percent of Americans surveyed said they currently or previously owned virtual currencies,[2] major financial institutions began offering cryptocurrency trading and investment products,[3] and more than 100,000 businesses accepted cryptocurrency for payment.[4] Additionally, several emerging businesses have announced plans to make or facilitate cryptocurrency-backed loans.[5]

But should they? Digital assets as a medium of exchange offer tremendous flexibility and convenience, yet there is uncertainty in the way commercial law will treat this form of property, both in and out of bankruptcy. For example, cryptocurrency could plausibly be classified as a “general intangible” under Article 9 of the Uniform Commercial Code, a form of property as to which a security interest is perfected by filing a financing statement.[6] While this means vendors accepting cryptocurrency as payment could unwittingly end up holding another party’s collateral due to the fact that a security interest will continue in many assets following disposition, the public nature of cryptocurrency transactions also may make it easier for lenders and bankruptcy trustees to trace specific bitcoins in order to recover them or their value.

Bitcoin Basics

Broadly speaking, cryptocurrency is a generic term for a wholly digital asset that can be used as an investment vehicle or medium of exchange and payment. It is not supported by any physical asset, the full faith and credit of any government, or the creditworthiness of any business. Instead, cryptocurrency derives its value from the perception of its worth in the market.



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Cryptocurrency is based on an application of “blockchain,” a computer technology that creates a public, tamper-proof and anonymous digital ledger of transactions with a variety of different uses.[7] Ownership of a cryptocurrency unit — one bitcoin, for example — represents access to a specific digital address on a blockchain ledger. To access the address on the blockchain, you need its “key” — a unique string of numbers typically held by the cryptocurrency’s owner.[8] This system provides anonymity and transparency — anonymity to the owner of the asset but transparency with respect to the ledger itself. Thus “anyone can see the bitcoin addresses involved, but nobody necessarily knows to whom they belong.”[9] Not all cryptocurrencies are strictly anonymous, however — some use “permissioned” networks limited to known participants.[10]

Cryptocurrency has proved volatile. Although cryptocurrency values have generally increased year over year, they have fluctuated significantly. For example, following a tremendous spike in value at the end of 2017,[11] January 2018 was bitcoin’s worst month on record.[12] It is unclear whether and to what extent cryptocurrency valuation will stabilize. While cryptocurrency’s rapid price fluctuations are not necessarily inherent to the asset, until the role of cryptocurrency in the broader economy becomes clear, it is likely cryptocurrency will remain considerably more volatile than other assets.

Cryptocurrency and Article 9

As use of cryptocurrency increases, disputes will inevitably arise about the way this new form of digital property should be treated under commercial law, such as Article 9 of the UCC. As commercial and insolvency lawyers know, there are many types of tangible and intangible personal property that are recognized forms of collateral under Article 9, and they are subject to different rules for perfection of security interests.

On one end of the spectrum are specifically enumerated classes of collateral including, for example, everything from accounts receivable, to inventory, goods, instruments, investment property and money. UCC §§ 9-102(a)(2), (44), (47), (48), (49), (c); 1-201(24). On the other end is the catch-all “general intangible,” which, subject to a few exceptions, includes “any personal property” of a debtor that does not fall within a specifically enumerated class of collateral. UCC § 9-102(42).

Cryptocurrency will likely be classified as a “general intangible” because it does not fall within any of the other specifically enumerated classes of collateral. There are several reasons for this.

To begin with, as several early writers on cryptocurrency and the UCC have noted, cryptocurrency almost certainly is not “money” within the meaning of the UCC.[13] The UCC defines “money” as a “medium of exchange currently authorized or adopted by a domestic or foreign government[.]” UCC § 1-201(b)(24). It does not appear that the federal government has authorized or adopted cryptocurrency as a medium of exchange domestically or with any other government.[14]

Moreover, cryptocurrency also does not fit neatly within many of the other categories of collateral recognized under Article 9. As one writer noted:

Bitcoins are not “instruments” under Article 9 because by definition instruments only exist in written form and involve the payment of money. Bitcoins are not “inventory” under Article 9, because inventory (a sub-type of goods) is limited to items that have a tangible, physical existence. Accounts in which bitcoins are held are not “deposit accounts,” because only accounts maintained by a bank are included within that defined term.[15]

Similarly, cryptocurrency is not “investment property” because it is not a “security.” See UCC §§ 8-102(15), 9-102(49).

There are three reasons why classifying cryptocurrency as a general intangible, as opposed to money, for example, is significant.

First, a security interest in a general intangible can be perfected by filing a financing statement in the jurisdiction where the debtor is located rather than by obtaining possession (e.g., money) or control (e.g., deposit account) over the property. UCC § 9-301(a), 9-310(a), 9-312(b). (Generally speaking, an individual is located at his or her principal residence, a single-site business is located at its place of business, and a multisite business is located at its chief executive office. UCC § 9-307.)

Second, once perfected, “[a] security interest ... continues in collateral notwithstanding sale, lease, license, exchange or other disposition thereof unless the secured party authorized the disposition free of the security interest[.]” UCC § 9-315(a)(1). In other words, a security interest will remain attached to and perfected in cryptocurrency even after a vendor accepts it as payment, as long as the secured party did not consent to a transfer of its collateral free of the security interest.

Third, a security interest in one form of collateral will ordinarily attach to and be perfected in “proceeds” of the collateral — virtually anything received for a disposition of the collateral — for at least 20 days, and perhaps longer, depending on certain criteria. UCC §§ 9-102(64), 9-315(e). So, for example, a lender with a blanket security interest in all accounts receivable of a debtor will ordinarily be perfected in any cryptocurrency obtained with proceeds of accounts receivable, even if general intangibles were not expressly considered as part of the lender’s collateral package at the time of the loan origination.

An example or two makes the point: Suppose a company has pledged its general intangibles to secure a loan and then uses bitcoin to buy tickets to an NBA game from a team accepting cryptocurrency as a perk for management or for business entertainment.[16] Or suppose a corporate traveler pays for dinner and a glass of wine with cryptocurrency owned by the traveler’s employer while traveling through the Australian airport that has announced it will accept cryptocurrency as payment.[17]

What happens to the cryptocurrency in the hands of the vendor? Because of the fact that a security interest continues in general intangibles following a disposition (unless otherwise authorized by the secured party), the vendors will likely be holding the lenders’ collateral, while the debtor will have no recognizable “proceeds” from these types of “experiential” purchases. This sets the stage for a dispute between the secured party and the vendor. Unlike tracing commingled proceeds of cash, however, the secured party may benefit from the publicly verifiable nature of cryptocurrency transactions when trying to locate specific cryptocurrency subject to its security interest, like a certain bitcoin unit. This may avoid the need for cumbersome state-law-tracing analysis that could be required with commingled funds in a deposit account.

Cryptocurrency and Bankruptcy

Similarly, commercial and insolvency professionals may see an uptick in cryptocurrency-related issues in bankruptcy cases in the near term, but they present familiar questions about disclosure and valuation of assets that bankruptcy courts are equipped to handle.

First, cryptocurrency owned by a debtor on the date a bankruptcy petition is filed falls within the broad

ambit of estate property that must be identified on a debtor's schedules of assets and liabilities with the debtor's estimation of value as of the commencement of the case.[18] While creditors and trustees may be wary of a debtor who tries to rely on cryptocurrency's anonymity to hide assets or otherwise abuse the bankruptcy process, any such uptick in bankruptcy fraud is unlikely. There is nothing inherently nefarious in cryptocurrency and no reason to believe the greater privacy that cryptocurrency affords will lead to an increase in dishonest debtors seeking relief from the court. Undisclosed bitcoin holdings are just the virtual equivalent of a diamond ring or bar of gold that a debtor hides from the trustee. Moreover, bankruptcy affords parties-in-interest a number of tools to uncover bankruptcy fraud, including the Section 341 meeting of creditors and examinations under Bankruptcy Rule 2004.[19] In most cases, a trustee will be able to uncover evidence of cryptocurrency ownership in the debtor's credit card statements, bank records or other readily identifiable documentation. Debtors who fail to report their assets and liabilities face harsh consequences, including denial of a discharge[20] or criminal prosecution.[21] It seems unlikely that a greater number of debtors would risk these consequences because of any greater anonymity afforded by cryptocurrency.

Second, the volatility of cryptocurrency may force a number of individual investors to seek bankruptcy protection while also complicating parts of the bankruptcy process that rely on valuation. Bitcoin's value has fallen nearly two-thirds since its peak in late 2017. Thus, a Chapter 11 debtor whose primary asset is bitcoin may have sufficient value to satisfy all creditors in full one day and be administratively insolvent the next.

Finally, the traceability of cryptocurrency transactions may significantly improve the efficiency and accuracy of bankruptcy administration. Section 550(a)(2) of the Bankruptcy Code provides that a transfer avoided under Sections 544, 545, 547, 548, 549, 553(b), or 724(a) can be recovered from the initial transferee or any subsequent transferee,[22] but it is the trustee's burden to establish that the asset at issue is property of the estate.[23] This often entails lengthy, expensive and complicated litigation. Because cryptocurrency transactions are publicly recorded on the blockchain ledger, the trustee can rely on the ledger to identify the debtor's cryptocurrency transfers. In addition, each unit of cryptocurrency has a unique identifier, so while one unit of cryptocurrency has the same value as any other unit, it is not fungible like typical fiat currency. The process of validating transactions and ownership of cryptocurrency could theoretically be accomplished simply by looking at the blockchain ledger, and with far less cost, expense and risk than tracing fiat currency.

Conclusion

Whether cryptocurrency will truly revolutionize commerce or simply serve as a niche financial tool remains to be seen. However, its increased integration into the broader economy ensures that commercial law and bankruptcy practitioners should be prepared to address a host of novel issues cryptocurrency presents.

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[1] Steven Johnson, *Beyond the Bitcoin Bubble*, N.Y. Times (Jan. 16, 2018), <https://www.nytimes.com/2018/01/16/magazine/beyond-the-bitcoin-bubble.html>.

[2] Hailey Jo, *In a country known for its “bitcoin zombies,” one-third of workers are crypto investors*, Quartz (Dec. 28, 2017), <https://qz.com/1166103/a-third-of-south-korean-workers-have-invested-in-cryptocurrencies-like-bitcoin>.

[3] Hugh Son, Dakin Campbell and Sonali Basak, *Goldman Is Setting Up a Cryptocurrency Trading Desk*, Bloomberg (Dec. 21, 2017), <https://www.bloomberg.com/news/articles/2017-12-21/goldman-is-said-to-be-building-a-cryptocurrency-trading-desk>; Evelyn Cheng, *Bitcoin debuts on the world's largest futures exchange, and prices fall slightly*, CNBC (Dec. 17, 2017), <https://www.cnbc.com/2017/12/17/worlds-largest-futures-exchange-set-to-launch-bitcoin-futures-sunday-night.html>.

[4] Jonathan Blumberg, *Here’s how you can — and can’t — spend bitcoin*, CNBC (Dec. 7, 2017), <https://www.cnbc.com/2017/12/07/heres-how-you-can-and-cant-spend-bitcoin.html>. Some businesses have exercised caution or scaled back their acceptance of cryptocurrency. See, e.g., Timothy B. Lee, *Major payment company: “Fewer and fewer use cases” for bitcoin payments*, Ars Technica (Jan. 24, 2018) (discussing Stripe’s discontinued support of bitcoin payments), <https://arstechnica.com/tech-policy/2018/01/major-credit-card-processor-stripe-drops-bitcoin-support/>. See also AnnaMaria Andriotis and Paul Vigna, *Credit Card Companies Don’t Want You to Buy Bitcoin With Plastic*, Wall St. J. (Jan. 25, 2018), <https://www.wsj.com/articles/should-you-buy-bitcoin-with-your-credit-card-1516897097> (discussing new credit card company restrictions on customers’ purchase of cryptocurrency).

[5] Olga Kharif, *These Guys Want to Lend You Money Against Your Bitcoin*, Bloomberg (Dec. 14, 2017), <https://www.bloomberg.com/news/articles/2017-12-14/bitcoin-s-new-barons-no-longer-have-to-sell-to-live-in-luxury>.

[6] See, e.g., George K. Fogg, *The UCC and Bitcoins: Solution to Existing Fatal Flaw*, Electronic Commerce & Law Report, BNA/Bloomberg Law (Apr. 1, 2015), <https://www.bna.com/ucc-bitcoins-solution-n17179924871/> (hereinafter, “Fogg, The UCC and Bitcoins”); Bob Lawless, *Is UCC Article 9 the Achilles Heel of Bitcoin? Credit Slips* (Mar. 10, 2014), <http://www.creditslips.org/creditslips/2014/03/is-ucc-article-9-the-achilles-heel-of-bitcoin.html> (hereinafter, “Credit Slips”).

[7] While the ledger is apparently secure, cryptocurrency and trading exchanges are vulnerable to computer hacking and theft. In an instant, millions of dollars of value can evaporate, as occurred with multiple hackings of a South Korean cryptocurrency exchange, which subsequently filed for bankruptcy in December 2017. Daniel Shane, *Bitcoin exchange goes bust after hack*, CNN (Dec. 20, 2017), <http://money.cnn.com/2017/12/20/technology/south-korea-bitcoin-exchange-closes/index.html>.

[8] See John Lanchester, *When Bitcoin Grows Up*, London Rev. Books (Apr 21, 2016), <https://www.lrb.co.uk/v38/n08/john-lanchester/when-bitcoin-grows-up>.

[9] *Id.* Government regulation may affect whether such anonymity survives. South Korea recently enacted a number of measures, including a requirement that cryptocurrency trade through “real-name” accounts, to “reduce room for cryptocurrency transactions to be exploited for illegal activities, such as crimes, money laundering and tax evasion.” Cheang Ming, *New cryptocurrency rules just came into effect in South Korea* CNBC (Jan. 29, 2018), <https://www.cnbc.com/2018/01/29/south-korea-cryptocurrency-regulations-come-into-effect.html>.

[10] Brian Schuster, The Ripple Currency Problem: Why Permissioned Blockchains Will Devalue XRP, Hackernoon (Dec. 8, 2017), <https://hackernoon.com/the-ripple-currency-problem-why-permissioned-blockchains-will-devalue-xrp-d79aef84c074>.

[11] See Frank Chapparo, Bitcoin went bonkers in 2017 — here's what happened as the cryptocurrency surged more than 1000%, Business Insider (Dec. 30, 2017), <http://www.businessinsider.com/bitcoin-price-in-2017-review-2017-12>.

[12] Annie Nova, Bitcoin is having a nightmare year so far. Here's how to deal, CNBC (Feb. 1, 2018), <https://www.cnbc.com/2018/02/01/january-was-bitcoins-worst-month-on-record-heres-how-to-stay-calm.html>.

[13] See Fogg, The UCC and Bitcoins and Credit Slips, *supra*, n.6.

[14] There are, however, two recent decisions from the Southern District of New York in which the federal courts have held that cryptocurrency transactions can give rise to money laundering or unlicensed money transfer claims under federal law, though a state court reached the opposite conclusion. See Alan Rosenberg, The Cryptocurrency Craze, Vol. XXXVII Am. Bankr. Inst. J.No. 2 (Feb. 2018) (discussing U.S. v. Ulbricht, 31 F.Supp. 2d 540 (S.D.N.Y. 2014); U.S. v. Murgio, 209 F.Supp. 3d 698 (S.D.N.Y. 2016); State of Fla. v. Michell Abner Espinoza, Case No. F14-2923, in the Eleventh Judicial Circuit in Miami-Dade County, Fla.).

[15] See Fogg, The UCC and Bitcoins, *supra*, n.6 (citing, *inter alia*, UCC §§ 1-201(a)(24) (money), 9-102(a)(47) (instruments), 9-102(a)(48) (investment property), 9-102(a)(44) (deposit accounts)).

[16] Catherine Clifford, Billionaire Mark Cuban says the Dallas Mavericks will accept bitcoin next season, CNBC (Jan. 17, 2018), <https://www.cnbc.com/2018/01/17/mark-cuban-nbas-dallas-mavericks-will-accept-bitcoin-next-season.html> (NBA team announcing plans to accept bitcoin).

[17] Chris Leadbeater, Australian airport becomes the first to accept Bitcoin, The Telegraph (Feb. 1, 2018), <http://www.telegraph.co.uk/travel/news/brisbane-becomes-worlds-first-airport-to-accept-bitcoin>.

[18] 11 U.S.C. §§ 521, 541.

[19] 11 U.S.C. § 341; Fed. R. Bankr. P. 2004.

[20] 11 U.S.C. § 727(a).

[21] 18 U.S.C. §§ 152–157.

[22] 11 U.S.C. § 550(a)(2).

[23] See, e.g., *In re Allou Distribs. Inc.*, 379 B.R. 5, 30 (Bankr. E.D.N.Y. 2007).