haynesboone

September 2024

Financing Bitcoin and Actual Delivery

Matthew Frankle[1]

This article originally appeared January 2018 and has been updated September 2024.

As the price of Bitcoin continues to rise, so too does the demand for financing secured by Bitcoin.[2] This demand for secured financing often comes from holders of Bitcoin seeking to monetize unrealized gains without incurring tax liability.[3] Others seek to magnify investment returns by establishing positions in Bitcoin with borrowed money.

Whatever the motivations, lenders need to take appropriate steps to ensure they can realize on the collateral if their borrower does not repay the loan. Moreover, lenders need to ensure they are complying with existing law – law that did not develop with Bitcoin in mind. This law includes the Commodities Exchange Act (CEA),[4] now that the Commodity Futures Trading Commission (CFTC) has determined that Bitcoin is a commodity.[5]

When the borrower is a "retail customer"[6] and the collateral is Bitcoin, it is exceedingly difficult for nonbank lenders to comply with the CEA. This difficulty was illustrated in the CFTC proceedings against BFXNA Inc. (Bitfinex), an operator of an online cryptocurrency platform.[7] As one of its services, Bitfinex matched lenders, who would provide financing secured by Bitcoin, with borrowers, who desired leverage to purchase Bitcoin.[8] The CFTC found that this service was an offer of financed retail commodity transactions within the meaning of

---

[1] Matthew Frankle is a Partner in Haynes and Boone's Finance Department in New York. In addition to traditional financial markets, Mr. Frankle has extensive experience in financing digital assets.

[2] Shawn Gordon, *Options for Borrowing and Lending with Cryptocurrency Are on the Rise*, BITCOIN MAGAZINE (Dec. 4, 2017), https://bitcoinmagazine.com/articles/options-borrowing-and-lending-cryptocurrency-are-rise/ (describing new platforms for borrowers to borrow loans against their Bitcoins).

[3] Selling or exchanging an asset with unrealized gains for cash or other property generally produces an immediate tax liability. 26 U.S.C. § 1001(c). Although in IRS Notice 2014-21 ("IRS Virtual Currency Guidance") the issue is not addressed, exchanging Bitcoin for another cryptocurrency would also constitute a recognition event. *See* 26 U.S.C. § 1031 limiting "like-kind" exchanges to real property. However, borrowing against that same Bitcoin is not a recognition event for U.S. tax purposes. William D. Popkin, *The Taxation of Borrowing*, 56 IND. L.J. 43, 43 (1980) ("Borrowed funds, as we all know, are not income.").

[4] 7 U.S.C. § 1.

[5] *See In re* Coinflip, Inc., CFTC No. 15-29 (Sept. 17, 2015) ("Section 1a(9) of the Act defines 'commodity' to include, among other things, 'all services, rights, and interests in which contracts for future delivery are presently or in the future dealt in.' . . . Bitcoin and other virtual currencies are encompassed in the definition and properly defined as commodities."). The discussion here is limited to Bitcoin for simplicity, but the analysis would remain the same for any virtual currency defined as a commodity.

[6] We use "retail customers" to mean individuals that would not fall within the definition of "eligible contract participant" (ECP) in Section 1a(18) of the CEA. Generally, individuals require discretionary investments in excess of $10,000,000 in the aggregate to qualify as an ECP. *See* CEA § 1a(18)(xi)(I).

[7] *In re* BFXNA Inc., CFTC No. 16-19 (June 2, 2016) [hereinafter Bitfinex Order].

[8] Bitfinex Order at 2–3 (describing the "Margin Trading" feature and Bitfinex's role as administrator and enforcer of the margin trading contracts between users).

Section 2(c)(2)(D) of the CEA (the "Retail Commodity Provisions").[9] Financed retail commodity transactions need to be conducted on a designated contract market unless an exception applies.[10]

One exception found in Section 2(c)(2)(D)(ii)(III)(aa) (the "Actual Delivery Exception") provides, in relevant part, that the Retail Commodity Provisions shall not apply to a "contract of sale that results in actual delivery [of the commodity] within 28 days."[11] In the CFTC's view, however, Bitfinex did not deliver the Bitcoin to the purchasers within 28 days.[12] As such, finding no applicable exception, the CFTC ruled that Bitfinex violated Section 4(a) of the CEA by offering, executing, and confirming off-exchange retail commodity transactions.[13]

The question we ask here is whether a nonbank lender can offer financing to a retail customer that currently owns Bitcoin without violating the CEA. That is, although Bitfinex was not able to offer financing for the purpose of purchasing Bitcoin – what we might call "purchase financing" – could a platform like Bitfinex, or another lender, have offered what we call "nonpurchase financing," where the loan is secured by Bitcoin but the proceeds are not used to purchase the Bitcoin pledged?

We think there is a substantial risk that the CFTC would view both purchase finance transactions and nonpurchase finance transactions as the same under the Retail Commodity Provisions. Moreover, we believe that due to how Bitcoin is transferred, whether the borrower is using the financing to purchase Bitcoins initially, or whether the borrower presently owns Bitcoin and is borrowing against it, the Actual Delivery Exception is inapplicable. The CFTC has recently issued a proposed interpretation and requested comments on "actual delivery" in the context of virtual currency.[14] Until the CFTC provides further guidance, loans to retail customers secured by Bitcoin should be conducted by "banks" in order to fall under the "identified banking product" exception to the Retail Commodity Provisions.[15]

Bitcoin

Unlike debit and credit ledger systems used by financial intermediaries, Bitcoin uses a shared, transaction-based ledger system – generally referred to as the blockchain – to determine ownership.[16] For example, if Alice

---

[9] This Section, adopted as part of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, expanded the CFTC's authority to regulate certain retail commodity transactions.

[10] A designated contract market is a board of trade or exchange regulated by the CFTC. *Designated Contract Markets (DCMs)*, CFTC, http://www.cftc.gov/IndustryOversight/TradingOrganizations/DCMs/index.htm. The Retail Commodity Provisions provide that financed retail commodity transactions shall be subject to Sections 6(a), 6(b), and 6b of the CEA "as if the agreement, contract, or transaction was a contract of sale of a commodity for future delivery." *See* 7 U.S.C. § 2(c)(2)(D)(iii). Therefore, like futures, financed retail commodity transactions cannot be executed "off exchange."

[11] 7 U.S.C. § 2(c)(2)(D)(ii)(III)(aa).

[12] Bitfinex Order at 6 ("Bitfinex's retail-financed commodity transactions in [B]itcoin did not result in actual delivery to the Financing Recipients who traded on Bitfinex's platform").

[13] *Id.* at 6–7.

[14] *Retail Commodity Transactions Involving Virtual Currency*, 82 Fed. Reg. 60335 (published Dec. 20, 2017). [hereinafter, the "Virtual Currency Proposal"].

[15] 7 U.S.C. § 2(c)(2)(D)(ii)(V).

[16] Bitcoin was created in 2009 to be electronic cash, a digital representation of value, as described in a paper published under the pseudonym of Satoshi Nakamoto. *See* Satoshi Nakamoto, *Bitcoin: A Peer-to-Peer Electronic Cash System*, BITCOIN.ORG (2008), https://bitcoin.org/bitcoin.pdf [hereinafter, "Nakamoto"]. Nakamoto's vision was to create a peer-to-peer electronic payment system; a system that no longer required third-party intermediaries, such as banking institutions, to transfer value from one party to another. *Id.* at 1 ("What is needed is an electronic payment

instructs her bank to send $100 to Bob, her bank debits her account $100 and credits Bob's account $100. In this way, the intermediary tracks asset ownership through pairs of debits and credits. However, if Alice wants to send 1BTC to Bob, she must prove that someone, say Charlie, previously sent her 1BTC by referencing *that* transaction. She does not need an intermediary, only an internet connection. Alice broadcasts a transaction message to the Bitcoin network, a system of nodes that run Bitcoin software and contain an identical copy of the transaction ledger. Assuming Alice has a previously valid transaction from Charlie, the blockchain is updated to reflect that Bob can now transfer that 1BTC and Alice no longer can. In this way, the entire Bitcoin blockchain tracks asset ownership through a chain of transactions.[17]

Bitcoin uses cryptographic digital signatures to verify that transactions are valid and to transfer ownership. The digital signature mechanism requires each user to generate a pair of mathematically related "keys": a "public key" and a "private key". The public key is effectively the user's identity, or address. The private key allows the user to speak for its corresponding public key. Therefore, if there are previous transactions, or inputs, which reference Alice's public key, Alice can "sign" with her private key to transfer those inputs to Bob's public key.

So when Alice sends 1BTC to Bob, what that really means is that Alice has used her private key to sign a message that references previous transactions, as well as Bob's public key, and broadcasts that message to the Bitcoin network.[18] Assuming the signatures are valid, anyone can see that Bob's public address now references those previous transactions. This gives the holder of Bob's private key (hopefully Bob) the ability to make the next transfer of these Bitcoins.

At its most basic level, "having" Bitcoins means you have the private key that enables you to transfer Bitcoins. Legal commentator Peter Van Valkenburgh described this simply: "[h]aving bitcoins means you can send bitcoins; that's about it. With knowledge of the private keys that correspond to an address on the Bitcoin

---

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."). The system utilizes cryptography and economic incentives to ensure that parties could transact securely on the open-source, decentralized Bitcoin network. *Id.* at 4–5 (describing security features and economic incentives for honest usage of the network).

[17] The Bitcoin protocol is much more complex. Bitcoin relies on specialized users, called "miners," to maintain the order of transactions on the blockchain. *See* Nakamoto at 4. These miners compete to decide who gets to include the next "block" of transactions on the chain. *Id.* The block must contain: (x) only valid transactions, (y) an identifier from the previous block, and (z) a random number. *See* Peter Van Valkenburgh, *Framework for Securities Regulation of Cryptocurrencies*, COIN CENTER 54 (Jan. 2016), https://coincenter.org/wpcontent/uploads/2016/01/SECFramework2.5.pdf [hereinafter Van Valkenburgh]. Without the appropriate random number, or "nonce," the network will reject the new block. *Id.* Because the nonce is a random number, which miner gets to decide the next block is also somewhat random. However, miners who expend greater computing power increase their chances of generating the appropriate random number. *See id.* at 55. If a block is accepted by the larger network, the miner who proposed it is rewarded with a certain number of Bitcoins (currently 12.5). Nicolas T. Courtois et al., *The Unreasonable Fundamental Incertitudes Behind Bitcoin Mining* 39 (arXiv:1310.7935, 2014), https://arxiv.org/pdf/1310.7935.pdf (describing the four-year reward cycle that determined the current reward price at 12.5 BTC). After a Bitcoin is mined, it can be sold on an exchange or used as payment for goods and services. For more information on how the Bitcoin protocol works, including the mathematics behind the cryptography and the computer science behind the distributed ledger – or blockchain – that maintains the order of transactions, *see* ARVIND NARAYANAN ET AL., BITCOIN AND CRYPTOCURRENCY TECHNOLOGIES (2016).

[18] *See* Jerry Brito & Andrea Castillo, *Bitcoin: A Primer for Policymakers*, COIN CENTER 7 (2016), https://www.mercatus.org/system/files/GMU_Bitcoin_042516_WEBv2_0.pdf.

blockchain comes the ability to (1) sign statements proving control over any Bitcoins sent . . . to that address, and (2) sign transaction messages that would transfer control over those Bitcoins to someone else. . .” [19]

Financing Bitcoin

Suppose Borrower wanted to borrow money using this “chain of digital signatures” as collateral. Lender might be willing to make such a loan. First, though, Lender will want to ensure that it had a valid lien; that in the event Borrower fails to repay, Lender can sell the Bitcoin to pay back the extension of credit. Additionally, Lender will want to ensure the lien is properly perfected; that in the event a third party asserts a competing claim to the asset (most notably, a bankruptcy trustee), Lender will be given priority.

Article 9 of the Uniform Commercial Code (UCC) governs security interests in personal property.[20] So as an initial matter, Lender should look there for guidance. Although Bitcoin has been classified by the Financial Crimes Enforcement Network as “virtual currency,”[21] by the IRS as “property,”[22] and, importantly for our purposes, as a “commodity”[23] by the CFTC, Bitcoin is most accurately defined as a “general intangible” under the UCC because it is personal property that does not fall within any other category in Article 9.[24] Therefore, to create and perfect a security interest in Bitcoin, Lender would need a security agreement with Borrower to establish the lien and to file a financing statement in Borrower’s jurisdiction.[25]

While such a process may satisfy the UCC’s creation and perfection regime, it will likely not satisfy the credit department of a conscientious Lender.[26] As discussed above, whoever has knowledge of the digital sequence

---

[19] Van Valkenburgh at 26. *See also* Nakamoto at 2 (“We define an electronic coin as a chain of digital signatures.”).

[20] U.C.C. § 9-101 (2010).

[21] FIN. CRIMES ENFORCEMENT NETWORK, DEP’T OF TREASURY, FIN-2013-G001, APPLICATION OF FIN-CEN’S REGULATIONS TO PERSONS ADMINISTERING, EXCHANGING, OR USING VIRTUAL CURRENCIES (2013).

[22] IRS Virtual Currency Guidance.

[23] *In re* Coinflip, Inc., CFTC No. 15-29 (Sept. 17, 2015).

[24] Bitcoin has not been “authorized or adopted” by a government and therefore is not “money.” U.C.C. § 1-201(b)(24) (2001). It is not a “deposit account” because it can be held and transferred without an intermediary. U.C.C. § 9- 102(a)(29) (2010). For lack of other categorization, Bitcoin is a general intangible. U.C.C. § 9-102(a)(42) (2010). *See also* Jeanne L. Schroeder, *Bitcoin and the Uniform Commercial Code*, 24 U. MIAMI BUS. L. REV. 1, 22 (2016) [hereinafter Schroeder] (arguing that whether or not a government adopts Bitcoin as currency, the UCC limits classification of “money” to physical currency).

[25] *See* Schroeder at 45 (identifying the requirements to attach and perfect a security interest in Bitcoin).

[26] Perfecting by filing a UCC financing statement is always available to lenders. This raises additional risks for the Bitcoin market as a whole, since in certain scenarios, Bitcoin, subject to a valid UCC financing statement, would remain encumbered in the hands of future purchasers or transferees. *See* Schroeder at 42 (“Although the secured party may have difficulty identifying many owners of an encumbered bitcoin, it will always be able to identify the encumbered bitcoin itself. Consequently, if the original debtor defaults on the secured transaction, and the [encumbered] bitcoin ever comes into the hands of an identifiable transferee, then the secured party would have the right to ‘repossess’ it.”). *See also* George K. Fogg, *The UCC and Bitcoins: Solution to Existing Fatal Flaw* COINDESK (Jan. 29, 2015), https://www.coindesk.com/perkins-coie-bitcoin-can-learn-real-estate-law/ (“[E]ach time a bitcoin passes through the hands of an owner whose property is subject to a security interest in general intangibles that bitcoin becomes burdened with that security interest.”). We have seen no evidence that purchasers (or Bitcoin exchanges, acting on behalf of purchasers) currently conduct lien searches before accepting transfers of Bitcoin, or have the practical ability to do so. So as of now, market participants appear to be willing to accept the risk that their Bitcoin may be subject to unknown security interests.

that comprises the private key associated with a Bitcoin has the ability to transfer the Bitcoin. Notwithstanding the security agreement, Borrower could transfer the Bitcoin to another public address controlled by another private key. Indeed, this "new" private key could simply be created by Borrower. At that point, Lender, in effect, becomes unsecured – a risk it did not bargain for when pricing the loan.[27]

In fact, this risk persists even if there is no bad faith on Borrower's part. For example, Borrower could misplace the private key, thereby leaving the Bitcoin abandoned forever, never to be replaced.[28] Or a third party, such as a hacker, could copy the private key and send the Bitcoin to itself or others. Again, Lenders will not want to take such a risk.[29]

Similarly, merely providing the private key to Lender does not remove the risk. It is not enough that Lender knows the private key. To alleviate the risk of destruction or theft of the collateral, no untrusted third party must know or have access to the private key. Unless Borrower sends the Bitcoin to a third party trusted by Lender, Lender will require the Bitcoin to be sent to a public address controlled by a private key only it retains. Indeed, this is what Bitfinex required of its borrowers, and it is the reason why the transactions involved in Bitfinex could not fall under the Actual Delivery Exception.

Bitfinex/Purchase Financing

Bitfinex operates an online cryptocurrency platform. Among other activities, the platform allows some users – the "Borrowing Users" – to borrow dollars from other users – the "Lending Users" – to purchase Bitcoin.[30] The purchased Bitcoin, together with an additional cash amount deposited by the Borrowing User as margin, serves as collateral to protect the Lending Users in case of default. For example, if a Borrowing User wanted to purchase $100 worth of Bitcoin, the user might put up $30 of her own money to serve as margin, or equity, and borrow the remaining $70 from a Lending User.[31] The Borrowing User would pay interest to the Lending User for the $70 loan. And if the Borrowing User defaulted or – more likely – if the value of the Bitcoin collateral fell below a certain trigger level,[32] the Lending User could sell the Bitcoin and recoup its principal.

---

[27] Lender will retain its rights to pursue Borrower for breach of contract. Suppose, however, that Borrower's sole asset was the Bitcoin securing the loan. At that point, collection becomes impossible and Lender will need to write off its loan.

[28] One man reportedly threw away private keys stored on a laptop now worth over $100 million. Kelly Phillips Erb, *From Treasure to Trash: Man Tosses out Bitcoin Wallet on Hard Drive Worth $9 Million*, FORBES (Nov. 30, 2013), https://www.forbes.com/sites/kellyphillipserb/2013/11/30/from-treasure-to-trash-man-tosses-out-bitcoin-wallet- on-hard-drive-worth-9-million/#748ac3b0245c (reporting that 7,500 Bitcoins were discarded). Reportedly, he is still searching for it. Amy Coles, *A Man Is Offering a Welsh Council £7.4 Million to Dig in Its Tip for His Lost Bitcoin*, WALES ONLINE (Dec. 4, 2017), http://www.walesonline.co.uk/news/wales-news/man-offering-welsh-council-74-13993161 (reporting that, due to environmental concerns, the city government declined to issue a permit to search a landfill for the discarded Bitcoins).

[29] Since the blockchain contains an immutable record of all transactions, one might be inclined to assume that Lender can follow the transferred collateral. However, due to the global reach of Bitcoin and the ability for users to remain anonymous, Lender cannot simply rely on a proceeds tracing strategy to recoup losses. The lending market appears to recognize this and has therefore required the secured party or its agent to maintain the private key.

[30] *How It Works*, BITFINEX, https://www.bitfinex.com/howitworks.

[31] Bitfinex accepted a maximum leverage of 3.33-to-1 (i.e., a 30 percent initial margin requirement) on its platform. *See* Bitfinex Order at 3.

[32] The trigger level is designed to protect a lender against depleting equity in a borrower's account. Often, this will be represented by a loan-to-value or "LTV" ratio. In our example of a $70 loan against $100 worth of Bitcoin, the

For its part, Bitfinex coordinates and facilitates the entire process.[33] Instead of borrowing or lending as principal, Bitfinex acts as an agent, by matching Borrowing Users with Lending Users. Additionally, Bitfinex monitors the terms of the lending agreement. In particular, Bitfinex would monitor the price of Bitcoin and the appropriate trigger levels. Upon a trigger event, Bitfinex would liquidate – or close out – the Bitcoin for the Lending User.[34]

The CFTC reviewed this arrangement to determine whether the transactions fell within the Retail Commodity Provisions. In relevant part, those include:

"any agreement, contract, or transaction in any commodity that is–

(I) entered into with, or offered to (even if not entered into with), a person that is not an eligible contract participant or eligible commercial entity; and

(II) entered into, or offered (even if not entered into), on a leveraged or margined basis, or financed by the offeror, the counterparty, or a person acting in concert with the offeror or counterparty on a similar basis."[35]

Many Bitfinex users were not eligible contract participants or eligible commercial entities[36] and the lending transactions were on a leveraged basis. Moreover, these transactions were arranged through Bitfinex's platform. Therefore the argument that Bitfinex did not act as principal was rightly rejected, since transactions under the Retail Commodity Provisions include not only those financed by the offeror, but also those financed by a "person acting in concert with the offeror…"[37] On this basis, the CFTC found the transactions to squarely fall within Section 2(c)(2)(D).[38]

The argument analyzed in the most depth by the CFTC was whether Bitfinex actually delivered the Bitcoin to the Borrowing User within 28 days. If the Bitfinex transactions could fall under the Actual Delivery Exception, then the Retail Commodity Provisions would not apply. As discussed above, having Bitcoins essentially means having the private key that allows the next transfer of the Bitcoins. In order for Bitfinex to "actually deliver" the BitCoin, then, Bitfinex needed to deliver the private key to the Borrowing User.

In fact, this is the view of actual delivery that the CFTC took: "actual delivery" requires the transfer of "possession and control." [39] When a Borrowing User purchased Bitcoin with leverage, Bitfinex retained control of

---

initial LTV level would be 70 percent and a trigger might be established at a maximum LTV level of 80 percent. Thus, if the value of Bitcoin fell from $100 to $87.5, the trigger level of 80 percent ($70 loan principal divided by $87.5 fair market value of assets) would be hit.

[33] Note that after the CFTC issued the Bitfinex Order, U.S. persons are restricted from receiving financing through Bitfinex's platform. *See Terms of Service*, BITFINEX, https://www.bitfinex.com/legal/terms.

[34] *Id.* ("Although Bitfinex is not a party to these financing contracts, Bitfinex enforces the contracts established between Financing Providers and Financing Recipients on the Financing Order Book.").

[35] 7 U.S.C. § 2(c)(2)(D)(i).

[36] *See* CEA § 1a(18) and Bitfinex Order.

[37] 7 U.S.C. § 2(c)(2)(D)(i)(II).

[38] Bitfinex Order at 4.

[39] *See Commodity Futures Trading Comm'n v. Hunter Wise Commodities, LLC*, 749 F.3d 967 (11th Cir. 2014) ("Actual" is that which is distinct from constructive, and "Delivery" is "a transfer of possession and control.").

the private key.[40] This makes sense for the Lending User. Until the financing was repaid, Bitfinex needed to ensure that the Borrowing Users could not further sell or transfer the Bitcoin they just purchased. For the CFTC, it was not enough that Bitfinex's database accounted for the purchaser as the owner. Such "book-entries" are constructive, not actual, delivery.[41] Therefore, the CFTC found the Actual Delivery Exception inapplicable.[42]

The CFTC's view is faithful to the history behind the Retail Commodity Provisions. The Retail Commodity Provisions are designed to address the Seventh Circuit's decision in *CFTC v. Zelener*.[43] In that case, the court was faced with determining whether or not two-day foreign exchange contracts were "contracts of sale of a commodity for future delivery."[44] The contracts at issue promised delivery of the underlying currency.[45] But in practice, delivery did not take place. Instead, the maturity date of the contract was repeatedly "rolled forward" so that the customer maintained the risk of underlying asset (in this case, foreign currency) without accepting or intending to accept delivery.[46]

The court ruled: "These transactions were, in form, spot sales for delivery within 48 hours. Rollover, and the magnification of gain or loss over a longer period, does not turn sales into futures contracts . . ."[47] Thus, even though delivery was neither made nor intended, the court relied on the form of the contract to rule that the contracts were not futures, but spot sales, not subject to the CEA.[48]

---

[40] Bitfinex actually used three different methods to control the purchased Bitcoin. The first was to hold all private keys in an omnibus settlement wallet owned by Bitfinex. Bitfinex Order at 3. The other two relied on "multi-sig wallets." *Id.* Such wallets require two or more private key signatures to transfer the Bitcoin. In all cases, though, the Borrowing User could not gain control of the Bitcoin it purchased until after the loan was repaid.

[41] Retail Commodity Transactions Under Commodity Exchange Act, 78 Fed. Reg. 52,426, 52,428 (Aug. 23, 2013) ("Actual delivery will *not* have occurred if, within 28 days, a book entry is made by the seller purporting to show that delivery of the commodity has been made to the buyer . . . but the seller has not . . . physically delivered the entire quantity of the commodity purchased by the buyer…"). This view was reiterated in the Virtual Currency Proposal. *See* Virtual Currency Proposal at 15 (requiring "physical settlement").

[42] Bitfinex needed to retain control over the private keys so it could enforce the contract by liquidating the Bitcoin for the associated Lending User. The CFTC stressed that since Bitfinex had the ability to "force liquidate" the Bitcoin, it was Bitfinex – and not the Borrowing User – that maintained "possession and control." *See* Bitfinex Order at 6. Subsequently, Bitfinex broadly exercised its possession and control over private keys in the aftermath of a hack in August 2016. *See Security Breach – Update 3*, BITFINEX (Aug. 6, 2016), https://www.bitfinex.com/posts/129. Regardless of which individual accounts were hacked, Bitfinex generalized the losses to all accounts by 36.067 percent. *Id*.

[43] *See Commodity Futures Trading Comm'n v. Zelener*, 373 F.3d 861 (7th Cir. 2004) [hereinafter *Zelener*]. The initial response to *Zelener* was limited to retail foreign exchange contracts. *See* Jerry Markham, *Regulating the Moneychangers*, 18 U. PA. J. BUS. L. 789, 844 (2016) (citing the CFTC Reauthorization Act of 2008 as legislation that reversed the effects of *Zelener* by conferring regulatory authority to the CFTC over leveraged retail foreign exchange contracts regardless of their classification as options or futures). But by 2010, Congress had decided similar risks existed in retail commodity transactions and therefore drafted the substantially similar Retail Commodity Provisions.

[44] *Zelener*, 373 F.3d at 862–63.

[45] *Id.* at 863.

[46] *Id.*

[47] *Id.* at 869.

[48] Both futures contracts, which are subject to CFTC regulation, and forward contracts, which are not, (*see* Section 1a(19) of the CEA) call for delivery of the underlying commodity. The court distinguished the two types of contracts primarily on the basis that futures contracts are fungible and forward contracts lack standard terms. *See Zelener*, 373

Congress responded not by rejecting the reasoning of *Zelener*, but by carving out a class of transactions that would be regulated as futures under the CEA, even if, in form, they were not.[49] Thus, when a leveraged transaction involves a retail customer, the form of the contract is not controlling. If the commodity is not actually delivered within 28 days – whether the contract requires it, or the parties intend it – the transaction will be subject to regulation as a contract for future delivery.[50]

So although Bitfinex treated the transactions as a loan and a pledge, the substance is considerably similar to a contract for future delivery. To go back to the simple example above, one could view the transaction as follows: the Lending User provides Bitfinex with $70, the Borrowing User provides Bitfinex with $30 and Bitfinex purchases $100 worth of Bitcoin from the market. Bitfinex further agrees to deliver the Bitcoin to the Borrowing User once it repays the $70 (with interest) to the Lending User. Alternatively, the Borrowing User could direct Bitfinex to sell the Bitcoin in the market and provide the Borrowing User with any remaining funds after repaying the Lending User. If the price of Bitcoin had appreciated, the Borrowing User would receive that appreciation plus its $30 initial margin; if the price of Bitcoin had depreciated, the Borrowing User would receive its $30 initial margin minus such depreciation. In this alternative, delivery is never made; the Borrowing User is "long"[51] the Bitcoin via a contract that, in substance, operates very much like a cash-settled forward contract. The structure of this purchase financing, then, is substantively similar to the contracts at issue in *Zelener* and thus is subject to CFTC regulation.

Nonpurchase Financing

Consider, however, the following scenario: suppose a Borrowing User currently owns Bitcoin – that is, the Borrowing User has the private key that is associated with a public key that controls unspent Bitcoin transaction outputs. Could such a Borrowing User pledge his Bitcoin and receive financing in return? Would the CFTC reach a different conclusion from the purchase finance transactions at issue in Bitfinex?

As discussed above, a prudent lender would require the pledged Bitcoin to be under its control. That is, the Borrowing User must transfer the Bitcoin to a public key controlled by a private key known only to the Lending

---

F.3d at 865–66. This formulation views futures as a market where one trades "in the contract" and forwards as a market where one trades in the underlying commodity. *See id.* at 867.

[49] *See* Virtual Currency Proposal at 3 n.6 ("The authority provided to the Commission by CEA [S]ection 2(c)(2)(D) is in addition to, and independent from, the jurisdiction over contracts of sale of a commodity for future delivery . . . that the CEA has historically granted to the Commission.").

[50] *See generally*, *Hearing to Review Implications of the CFTC v. Zelener Case Before the Subcomm. on Gen. Farm Commodities and Risk Mgmt. of the H. Comm. on Agric.*, 111th Cong. (2009) [hereinafter, *Zelener* Hearing].

[51] In contrast, a Borrowing User who enters into a "short" position would deposit money as collateral and receive full control over Bitcoin. For simplicity, these short contracts are not discussed herein. Another cryptocurrency exchange, Poloniex, stressed in a Request for No-Action Letter that borrowers of digital currency gain complete rights of ownership and control, and the lender no longer has rights in that currency. *See* Poloniex, Request for No-Action Relief from Commodity Exchange Act Section 2(c)(2)(D), at 3 (Oct. 18, 2016), https://poloniex.com/press-releases/2016.10.18-Our-request-for-no-action-relief/Poloniex-No-Action-Relief-Request-(10-18-2016).pdf. We agree that that since the Bitcoin borrowed by the Borrowing User will be "actually delivered," the CFTC would not have authority to regulate such short transactions. However, Poloniex did not address who has control over the digital currency when a borrower receives cash and pledges digital currency. They indicate that any sales *from* such 'margin accounts' result in the buyer receiving the entire quantity sold. *Id.* at 4. "Actual delivery", though, relates to whether the owner of the margin account has received the digital currency, not whether it is actually delivered once it is sold from the account.

User or its agent.[52] This remains true whether the Borrowing User comes to the Lending User with Bitcoin or wishes to purchase Bitcoin initially.

For example, assume the Borrowing User has $100 worth of Bitcoin and desires to borrow $70 from a Lending User. The Lending User would require the $100 worth of Bitcoin to be transferred to it simultaneously with, or prior to, providing the loan. That is, the Lending User would have the private key associated with the Bitcoin and the Borrowing User would not. Thus, the Borrowing User would not have possession or control over the leveraged asset. At this point, the Borrowing User is in the identical position as it would be in if it had used the financing to purchase the Bitcoin initially.[53] Just like the purchase financing transactions, the Lending User could sell the Bitcoin into the market – either pursuant to a trigger level or default, or at the direction of the Borrowing User – repay itself the $70 with interest and return any remaining amount to the Borrowing User. As in the Bitfinex transactions, if Bitcoin had gone up in value, the Borrowing User will receive $30 plus the appreciation, and if Bitcoin had gone down in value, the Borrowing User will receive $30 minus the depreciation.

Whether the Borrowing User has Bitcoins or purchases Bitcoins, the leveraged transactions are substantively identical. The sole difference is whether the Lending User receives the Bitcoin from the market or from the Borrowing User at inception. It is hard to see why Congress would regulate one activity but not the other.[54] Otherwise, a lending platform could simply change the order of cash flows in order to fall outside the scope of

---

[52] For security, a multi-sig wallet can be used as a form of escrow. That is, neither the lender nor the borrower has complete control over the private keys. This appears to be the approach that several platforms have taken. *See Who Holds Keys to Each SALT Collateral Wallet? How Many Keys Per Loan?*, SALT LENDING, https://saltlending.zendesk.com/hc/en-us/articles/115009443788-Who-holds-keys-to-each-SALT-collateral-wallet-How-many-keys-per-loan - (utilizing a structure requiring 3 of 4 signatures). *See also* UNCHAINED CAPITAL, https://www.unchained-capital.com/ (utilizing a multisignature structure). In essence, a signature is required from a combination of parties, e.g., two out of three of some combination of lender, borrower, and third party. The CFTC directly addressed whether this constituted "actual delivery" to the borrower and determined it did not. *See* Bitfinex Order at 3. Moreover, in the Virtual Currency Proposal, the CFTC requires a counterparty not to retain any interest in, or control over, the commodity purchased on margin after 28 days in order to constitute actual delivery. Virtual Currency Proposal at 15.

[53] In part, the Retail Commodity Provisions were adopted as anti "bucket shop" legislation. *See Zelener* Hearing (statement of Daniel Roth, President and Chief Executive Officer, National Futures Association) ("I think from 1974 until the *Zelener* decision the commission seldom lost on jurisdictional grounds when fighting retail bucket shops."). The concern with so-called bucket shops is they sell commodities to a number of customers but do not have the actual commodity to back up the sales. *See, e.g.*, *Zelener* Hearing (statement of Philip A. Feigin, Attorney, Rothgerber Johnson & Lyons, on behalf of Monex Deposit Company) ("[The bucket shop] could own something for a while, sell it, but [the customer] never owned it."). When a borrower does not have possession of the private key, they are potentially subject to the seller or secured party having fewer Bitcoins than required to make delivery. As mentioned above, Bitfinex itself was subject to a hack. Losses were shared amongst users whether or not their particular private key was hacked or stolen. *Security Breach – Update 3*, BITFINEX (Aug. 6, 2016), https://www.bitfinex.com/posts/129 (announcing that losses would be generalized to all accounts). This risk exists whether the borrower delivers Bitcoin to the lender or the lender refrains from delivering Bitcoin to the purchaser.

[54] The CFTC has recognized that use of leverage to allow participants to speculate on price movements of a commodity are "hallmarks of a regulated futures market place." *See* Virtual Currency Proposal at 11. In addition, the CFTC cites other harm to retail customers that require regulation. For example, "flash crashes and other market disruptions, delayed settlements, alleged spoofing, hacks, alleged internal theft, alleged manipulation, smart contract coding vulnerabilities, bucket shop arrangements and other conflicts of interest." *Id*. at 12. All such concerns apply equally to a purchase finance transaction and a nonpurchase finance transaction.

the CEA. That is, it could require Borrowing Users to first provide unencumbered Bitcoin before taking the financing, as opposed to taking the financing to purchase the Bitcoin.[55]

By adopting the Retail Commodity Provisions, Congress clearly sought to apply a substantive approach, at least insofar as retail customers are the counterparties, as opposed to allowing the form of the contract to govern as the court did in *Zelener*.[56] The CFTC has indicated that relevant factors on whether actual delivery has occurred include: "[o]wnership, possession, title, and physical location of the commodity purchased or sold, both *before and after* execution of the agreement, contract or transaction."[57] Thus, whether one views the nonpurchase financing transactions as loans and pledges, or purchase contracts with delayed delivery, the substance is the same.[58] Elevating substance over form was a primary focus of Congress.

In addition, there is also a statutory argument that nonpurchase financing transactions cannot fall within the Actual Delivery Exception. This is because Congress sought to capture a broad range of leveraged "agreement[s], contract[s], or transaction[s] in any commodity" with the Retail Commodity Provisions.[59] The exception, however, only applies to "*contract[s] of sale* that results in actual delivery within 28 days."[60] A loan and a pledge of commodity possessed and controlled by the borrower is clearly a transaction entered into on a leveraged basis. So it falls within the language of the Retail Commodity Provisions. Just as clearly, the commodity is not being sold. Therefore, it is not a "contract of sale." So it does not fall within the language of the Actual Delivery Exception.

The question, then, is whether the Retail Commodity Provisions are intended to regulate all leveraged transactions or merely those leveraged transactions that, in substance, look like futures. At the time of adoption,

---

[55] The two scenarios could also exist simultaneously with the same lender and borrower. Imagine a lender that accepts Bitcoin as initial margin. In that case, and using our example, there would still be $70 loan secured by $100 worth of Bitcoin. But $30 of the Bitcoin would come unencumbered (initially) from the Borrower and $70 would come as a result of purchase financing. Lender would still have control over the private keys to all $100 worth of Bitcoin and Borrower would not. Would the CFTC regulate one part of the transaction and not the other?

[56] *See Zelener* Hearing (statement of Hon. Jim Marshall, United States Representative) ("If in substance it is a futures contract, it is going to be regulated. It doesn't matter how clever your draftsmanship is.").

[57] Virtual Currency Proposal at 6 n.28 (emphasis added).

[58] Of course, all similar products need not be regulated the same. For example, the Federal Reserve's Regulation U limits the leverage allowed when purchasing margin stock, but does not limit leverage when the financing is used for another purpose. *See* Regulation U, 12 C.F.R. § 221 (1976). But the purpose behind Regulation U is to prevent excessive use of credit for the purchase of certain securities. *See* Comment, *Credit Regulation in the Securities Market: An Analysis of Regulation T*, 62 NW. U. L. REV. 587, 590–92 (1967) (explaining that preventing excessive use of credit was a purpose of Section 7 of the Securities Exchange Act and the regulations promulgated under it, including Regulation U). So such differentiation makes sense. Financial institutions often seek to provide leverage via swap contracts in order to avoid Regulation U's limitations. Sophisticated policies are put in place, however, to ensure that those swap contracts are sufficiently different from a secured loan financing. Here, however, the purpose behind the Retail Commodity Provisions is to protect retail customers. We believe Congress expressly sought to apply a substantive approach and specifically rejected looking solely at the four corners of a contract.

[59] 7 U.S.C. § 2(c)(2)(D)(i).

[60] Actual Delivery Exception (emphasis added). *See* CEA § 1a(13) ("The term 'contract of sale' includes sales, agreements of sale, and agreements to sell.").

it is likely that industry participants believed the use of leverage would not be prohibited by the Retail Commodity Provisions.[61] But there is no evidence that Congress sought to limit the scope of its application.

Indeed, discussing the exception, the Virtual Currency Proposal provides that actual delivery will have occurred if, among other things, "no liens (or other interests of the offeror, counterparty seller, or persons acting in concert with the offeror or counterparty seller on a similar basis) resulting from the use of margin, leverage, or financing used to obtain the entire quantity of the commodity purchased will continue forward at the expiration of 28 days from the date of the transaction."[62] This indicates the CFTC is concerned not merely with whether the commodity exists at an appropriate depository or with the purchaser within a particular time frame, but that the leverage itself cannot extend past 28 days.[63]

Due to both the substantive similarity between purchase finance transactions and nonpurchase finance transactions and the statutory language itself, there is a significant risk that the CFTC will regulate both types of transactions similarly. Interested parties should seek further guidance on these issues from the CFTC.[64]

* * *

Although the Actual Delivery Exception may be unavailable for financings secured by Bitcoin, it should be noted that Section 2(c)(2)(D)(ii)(V) specifically excepts "identified banking products" from the Retail Commodity Provisions.[64] Identified banking products are defined by reference to the Gramm-Leach-Bliley Act[65] and include loans made by a bank.[66] As such, if a bank is the lender, the transactions should fall outside the scope of the Retail Commodity Provisions.

Author

This Article was prepared by Matthew Frankle. Questions about this information can be directed to:

Matthew Frankle | +1 212.918.8950 | matthew.frankle@haynesboone.com

---

[61] *See Zelener* Hearing (statement of Philip A. Feigin, Attorney, Rothgerber Johnson & Lyons, on behalf of Monex Deposit Company) ("Concerns have also been raised about the use of leverage, but the mere fact that a seller extends credit to a buyer does not automatically mean that the transaction should be regulated under the CEA.").

[62] Virtual Currency Proposal at 17.

[63] At least one lending platform, Kraken Bitcoin Exchange, has limited the duration of leverage to U.S. customers. *US Margin Financing Term Limit*, KRAKEN, https://support.kraken.com/hc/en-us/articles/115001266568-US-Margin- Financing-Term-Limit ("Customers with accounts registered in the United States are limited to a 28-day maximum financing term for maintaining open margin positions."). However, Kraken does not require that the purchaser make full payment and take delivery of the virtual currency. Instead, the currency may be liquidated or cash settled. This, then, looks a lot like a *Zelener* contract. In fact, the Virtual Currency Proposal expressly states that "[a]ctual delivery will *not* have occurred if . . . [the] transaction for the purchase or sale of virtual currency is . . . settled in cash". Virtual Currency Proposal at 18. Therefore, although it appears Kraken has attempted to take a prudent approach, they may need to apply still further limitations to comply with current CFTC guidance.

[64] One avenue of guidance may be found through the comment process on the Virtual Currency Proposal.