

**NOT YOUR KEYS, NOT YOUR COINS**  
**UNPRICED CREDIT RISK IN CRYPTOCURRENCY**

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*Cryptocurrency exchanges play a key role in the cryptocurrency ecosystem, serving not only as central marketplaces for buyers and sellers to trade, but also as custodians for their customers' cryptocurrency holdings. Exchanges, however, are thinly regulated for safety-and-soundness and face major insolvency risks from their own proprietary investments and backing. This Article considers what would happen to customers' custodial holdings if a cryptocurrency exchange in the United States were to fail.*

*Any custodial relationships can potentially be characterized as a debtor-creditor relationship between the custodian and customer, rather than an entrustment or bailment of property. U.S. law gives substantial protection to the custodial holdings of securities, commodities, or cash deposits by securities or commodities brokers or banks. No such regime exist, however, for custodial holdings of cryptocurrencies. Instead, bankruptcy courts are likely to deem the custodial holdings to be property of the bankrupt exchange, rather than of its customers. The customers would merely be general unsecured creditors of the exchange, entitled only to a pro rata distribution of the exchange's residual assets after any secured or priority creditors had been repaid.*

*Cryptocurrencies are designed to address a problem of transactional credit risk—the possibility of “double spending.” The lesson here is the credit risk can arise not just from active transacting in cryptocurrency, but also from passive holding of cryptocurrency. Because this passive holding risk turns on technical details of bankruptcy and commercial law, it is unlikely to be understood, much less priced, by most market participants. The result is a moral hazard in which exchanges are incentivized to engage in even riskier behavior because they capture all of the rewards, while the costs are externalized on their customers.*

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## INTRODUCTION

It was hard to miss cryptocurrency exchanges at Superbowl LVI. The game was played in February 2022 at Sofi Stadium, named after cryptocurrency exchange Sofi Technologies, and the broadcast of the game featured ads from cryptocurrency exchanges Coinbase, eToro, FTX Ltd., and Crypto.com.<sup>1</sup> Exchanges like these serve as the central marketplaces for cryptocurrencies transactions, enabling buyers and sellers to trade with minimal search costs.

Exchanges generally hold massive amounts of custodial funds—cryptocurrencies that customers have deposited with them. What would happen if the exchange were to fail?

Suppose, for example, that the exchange is victim of a massive hacking and finds itself short hundreds of millions of dollars of custodial funds. Or alternatively, suppose that the exchange has made large proprietary bets on cryptocurrency prices that have fared badly. In either scenario, the exchange, rendered insolvent, might decide to cover its own losses by improperly dipping into custodially held funds, planning on restoring those funds from its future retained earnings. As news of the problems leaks out, however, customers start getting antsy and withdrawing funds. Faced with a customer run, the exchange ends up filing for Chapter 11 bankruptcy. What would happen to its customers then? Where would they stand in a bankruptcy?

While no cryptocurrency exchange has filed for bankruptcy in the United States to date, this is hardly an idle question. There are hundreds of cryptocurrency exchanges in existence<sup>2</sup> and numerous exchanges outside the US have failed previously, with some filing for bankruptcy protection in other countries.<sup>3</sup> Exchanges are major targets for hacking and many of them engage in their own proprietary investments in volatile crypto assets, which could easily leave them

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<sup>1</sup> Jason Notte, *Crypto Believers Try to Recruit You in eToro's Super Bowl Ad*, ADWEEK, Feb. 13, 2022, <https://www.adweek.com/brand-marketing/etoro-crypto-super-bowl-ad/>.

<sup>2</sup> CoinMarketCap listed 313 cryptocurrency exchanges as of Feb. 8, 2022. <https://coinmarketcap.com/rankings/exchanges/>.

<sup>3</sup> Martin Young, *75 crypto exchanges have closed down so far in 2020*, COINTELEGRAPH.COM, Oct 7, 2020, at <https://coingecko.com/news/75-crypto-exchanges-have-closed-down-so-far-in-2020>; Luke Parker & Aditya Das, *Crypto exchanges continue to fail as hacks and exit scams bite*, BRAVENEWCOIN.COM, July 17, 2021, <https://bravenewcoin.com/insights/36-bitcoin-exchanges-that-are-no-longer-with-us>. Mt. Gox Co., Ltd. filed for bankruptcy in Japan and also commenced an ancillary Chapter 15 case in the United States.

insolvent. It is only a matter of time before a US cryptocurrency exchange fails.

This Article argues that the risks exchanges pose for their customers are both substantial and poorly appreciated by many cryptocurrency investors. Cryptocurrency exchanges generally require that their customers keep their cryptocurrency in a crypto wallet provided by the exchange. In these arrangements, the exchange, rather than the customer frequently is the only party with access to the cryptocurrency, and the exchange may in fact commingle the customer's holdings with those of other customers in a single crypto wallet controlled solely by the exchange.

While this sort of arrangement may facilitate transactions on the exchange (as well as the exchange's own use of the cryptocurrency deposited with it), it poses credit risk for the exchange's customers. If the cryptocurrency exchange were to fail, the cryptocurrency that it holds custodially would likely not be treated as property of the customers, but as property of the exchange.<sup>4</sup> The customers would not "own" the cryptocurrency, but would be mere unsecured creditors of the exchange. In bankruptcy, that would put them almost last in line for repayment from the failed exchange's limited pool of assets.

One of the major design features of cryptocurrencies is that they are designed to be free of credit risk and therefore informationally insensitive. A payment from a bank, for example, such as a check, is not credit risk for the recipient because the recipient cannot tell if the check will be honored. It might be that the payor lacks the funds to pay the check or it might be that the payor's bank fails and does not honor the check.

The traditional financial system mitigates the risk of the bank failure through regulation and deposit insurance, but any non-real-time payment system poses the risk of insufficient funds and, in particular, of a double spending problems. For example, suppose that Moe has \$1,000 in the bank and writes a check to Curly for \$1,000 in exchange for a computer. Curly faces the risk that Moe has also written a \$1,000 check to Larry, and that the check to Larry is paid first. If so, Curly, has parted with the computer, but won't be able to collect payment.

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<sup>4</sup> See *infra* part II.B.

The same problem arises with cryptocurrencies. To wit, let's say Moe has 50 Satoshi (that's the subunit of a bitcoin) associated with an address in a bitcoin wallet. If Moe pays 50 Satoshi to purchase a computer from Curly, what prevents Moe from then paying Larry for a whoopie cushion with the same 50 Satoshi? How does anyone know who actually has the right to those 50 Satoshi?

Cryptocurrency solves the double spend problem with a distributed ledger called a blockchain to establish ownership of the cryptocurrency through a consensus mechanism of one sort or another. For example, because Bitcoin lacks a central authority through which all transactions are run, a more complex solution is necessary to verify which transaction was the original spend (and hence which would be the later and unsuccessful spend): the mining process.

When Moe wants to send bitcoins to Curly, he needs to get Curly's bitcoin address, which includes a public key. Moe then creates a message signed with his private key that attaches Curly's public key to that amount of bitcoins. When Moe sends the message to Curly is also broadcast to the entire Bitcoin network; a transfer of bitcoins is not simply a private affair between the parties to the transfer. The broadcasting of the transfer is done to enable anyone in the network to verify this transaction by solving the associated algorithms. Only if a transaction is successfully verified will it be added to the blockchain, thus indicating a transfer of ownership of bitcoin between the bitcoin addresses. Solving the algorithm is known as mining and is incentivized with by rewarding the first successful miner with a reward of newly issued cryptocurrency.

The verification done through the mining should show that Moe sent the bitcoins to Curly before he sent the same coins to Larry, so that only Curly's ownership of that 50 Satoshi is verified. The public nature of the block chain ledger makes it difficult for Moe to double-spend.

The original blockchain design for Bitcoin, the first cryptocurrency, envisioned a peer-to-peer system without centralized, custodial holding.<sup>5</sup> Exchanges are not something that were contemplated in the cryptocurrency universe. Yet without exchanges,

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<sup>5</sup> See Satoshi Nakamoto, *Bitcoin: A Peer-to-Peer Electronic Cash System* (2008), at <https://bitcoin.org/bitcoin.pdf>.

cryptocurrency miners cannot readily convert their mining rewards, which are paid in cryptocurrency, into fiat currency, which they must do in order to cover their capital and operating expenditures. Moreover, without exchanges, there would be limited interest in cryptocurrencies as a speculative medium—perhaps the greatest source of interest in them—because high search costs for finding transaction partners would impose substantial market inefficiencies.

Because the blockchain system was envisioned as operating in a peer-to-peer environment, it addresses only the credit risk involved in *transacting* in cryptocurrencies. It does not address the credit risk involved in *holding* cryptocurrencies. Cryptocurrency investors, however, are unlikely to appreciate that they take on the credit risk of the exchange if they use the exchange’s crypto wallet services. Few crypto investors know the technical details of bankruptcy law, and because they cannot readily gauge the likelihood of a bankruptcy—a black swan type event—or estimate its consequences, they are likely to simply ignore the risk.

Moreover, the exchanges lull their customers regarding their credit risk. Many exchanges emphasize that they only hold the cryptocurrency in a custodial capacity and that the customers continue to “own” the cryptocurrency, suggesting that there would be no risk in the event of an exchange failure.<sup>6</sup> This is misleading and self-serving. The lay concept of “ownership” does not neatly track onto a likely legal treatment of custodial holdings of cryptocurrency in bankruptcy, which is that it would be treated as property of the exchange, rather than property of the customers.

Indeed, one major exchange, despite such using the lulling language of ownership in its user agreement, has even begun to disclose in its quarterly report (which is not provided to its customers) that its customers face the significant risk in the event of its bankruptcy that their custodially held cryptocurrency could be treated as its property in the event of bankruptcy, rendering the customers as mere general unsecured creditors who stand last in line for repayment.<sup>7</sup>

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<sup>6</sup> See *infra* part I.C..

<sup>7</sup> Coinbase Global, Inc., Form 10-Q, May 10, 2022 at 83 (“because custodially held crypto assets may be considered to be the property of a bankruptcy estate, in the event of a bankruptcy, the crypto assets we hold in custody on behalf of our customers could be subject

To be sure, some awareness of these risks exists within the cryptocurrency investor community. The mantra “not your keys, not your coins,” appears frequently in online cryptocurrency forums.<sup>8</sup> Yet this mantra is generally recited without analysis or understanding of particular nature of the underlying legal risks.

Because cryptocurrency is untested in bankruptcy, it is impossible to say with certainty how any particular bankruptcy court would treat custodial holdings of cryptocurrency. What is certain is that the treatment will be contested. Even if cryptocurrency investors prevail in litigation, it will be only after cost and delay. Put another way, cryptocurrency investors will lose either way in an exchange’s bankruptcy. The only issue is how much they lose.

The custodial credit risk is a problem that has previously arisen in other financial markets, in particular with bank deposits and securities accounts at broker-dealers. While the custodial credit risk problem has been successfully addressed in those markets through federal regulation, cryptocurrency remains in practice outside of the regulatory regimes for securities and commodities. Indeed, the risk to cryptocurrency exchange customers is particularly pronounced because of the lack of regulation of exchanges.

Unlike commodities futures or securities exchanges or banks, there is no federal regulation of cryptocurrency exchanges other than for anti-money laundering purposes.<sup>9</sup> No federal law requires expressly segregation of cryptocurrency customer assets or minimum levels of operational resiliency. While particular cryptocurrencies may be securities or commodities, cryptocurrency exchanges do not operate—and regulators have not generally treated them as securities or commodities exchanges. Cryptocurrency exchanges do register as money transmitters with the states, but money transmitter regulation is inadequate for addressing the risks exchanges pose to their

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to bankruptcy proceedings and such customers could be treated as our general unsecured creditors.”). For Coinbase’s lulling language, see *infra* Part I.C.

<sup>8</sup> Binance, Where to Safely Keep Bicoïn? Blog ng Binance, Mar. 28, 2021, at <https://www.binance.com/ph/blog/all/where-to-safely-keep-bicoïn-421499824684901861> (this blog post originally appeared on the US version of the Binance website, but is no longer available there. It is still available on the Philippines version of the website).

<sup>9</sup> Arguably, cryptocurrency exchanges are unregistered securities and commodities futures exchanges, which would subject them to the regulatory regimes for these exchanges.

customers: the bonding requirements are massively too small and the requirement of maintaining safe investments equal to the amount of customers' funds likely does not apply to most cryptocurrency deposits. New York and Wyoming have special cryptocurrency specific regulatory regimes,<sup>10</sup> but only Wyoming's little-used regime offers any real protection for exchange customers. Nor is there any sort of Federal Deposit Insurance Corporation or Securities Investor Protection Corporation insurance to protect cryptocurrency exchange customers.

To date, there has only been very limited scholarly engagement about the intersection of cryptocurrencies and bankruptcy. Much of the extant literature focuses on the issue of how to classify cryptocurrencies under bankruptcy law—are they currencies, commodities, securities, or something else?<sup>11</sup> While this issue has important ramifications regarding the ability of the bankruptcy trustee to claw back cryptocurrency transferred by the debtor shortly before bankruptcy, none of these analyses engaged in more than a passing way with the broader issue of custodial holdings of cryptocurrency exchanges and what that means for exchanges' customers. In particular, there has been no prior analysis of whether the assets in custodial accounts held by exchanges are property of the exchanges (making customers merely unsecured creditors of the exchanges) or property of the customers themselves.

This Article examines the likely legal treatment of cryptocurrency exchange customers in the event a U.S.-based exchange were to fail. A failed exchange would likely end up in Chapter 11 bankruptcy, whether voluntarily or involuntarily. Part I of the

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<sup>10</sup> See *infra* parts IV.F and IV.G.

<sup>11</sup> Brad M. Kahn, Rachel Biblo Block, & Joseph E. Szydlo, *The Need for Clarity Regarding the Classification and Valuation of Cryptocurrency in Bankruptcy Case*, 17 PRATT'S J. OF BANKR. L. 17-5-II (2022); Josephine Shawver, Note: *Commodity or Currency: Cryptocurrency Valuation in Bankruptcy and the Trustee's Recovery Powers*, 62 B.C. L. REV. 2013 (2021); Amanda Wiese, *Cryptocurrency Is Currency*, 40-8 AM. BANKR. INST. J. 17 (Aug. 2021); Megan McDermott, *The Crypto Quandary: Is Bankruptcy Ready?*, 115 NW. U. L. REV. ONLINE 1921 (2021); Joanne Molinaro & Susan Poll Klaessy, *Bitcoin as a "Commodity" and the Resulting Impact on Bankruptcy Proceedings*, Am. Bar Ass'n, Mar. 5, 2019, at <https://www.americanbar.org/groups/litigation/committees/woman-advocate/articles/2019/winter2019-bitcoin-as-a-commodity-and-the-resulting-impact-on-bankruptcy-proceedings/> [<https://perma.cc/KW9E-9MAW>]; Dennis Chu, Note, *Broker-Dealers for Virtual Currency: Regulating Cryptocurrency Wallets and Exchanges*, 118 COLUM. L. REV. 2323 (2018).

Article reviews the role of cryptocurrency wallets and exchanges and the provisions in exchanges' user agreements regarding how customer funds are held. Part II examines the key issues confronting cryptocurrency customers in an exchange's bankruptcy. In particular, it considers, whether the automatic stay would apply, whether custodial holdings would be considered property of the bankruptcy estate, whether pre-bankruptcy transfers could be avoided as preferences, and the status of customers' claim in a bankruptcy. Part III considers the additional credit risk that investors face when dealing with a staged cryptocurrency wallet, where there is no direct investor privity with the wallet provider. Part IV addresses the lack of cryptocurrency exchange regulation and the inadequacy of money transmitter regulation and private insurance. A conclusion summarizes the nature of credit risk borne and not priced by cryptocurrency exchange customers and the moral hazard this unpriced risk creates for exchanges.

## **I. CRYPTOCURRENCY WALLETS AND EXCHANGES**

### **A. Crypto Wallets**

Cryptocurrencies, such as Bitcoin and Ethereum, are purely digital assets.<sup>12</sup> There is no physical "coin" for these cryptocurrencies, despite meme images depicting physical coins. The cryptocurrency exists only as an entry on a distributed ledger called a blockchain that associates a cryptocurrency balance with a network address on the blockchain. The blockchain tracks the association of cryptocurrency with cryptographic keys—an alphanumeric strings—rather than who "owns" the keys.

Undertaking a transaction in the cryptocurrency—that is to change the network address associated with some amount of cryptocurrency on the blockchain—requires a paired public key and a private key (password). These keys are each associated with an address on the blockchain. The public key is a large numerical value used for encrypting the transaction, while the private key is a password that is

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<sup>12</sup> This Article assumes that once cryptocurrency exchanges are running Superbowl advertisements that readers will be familiar with the basic concept of cryptocurrencies, which have been amply described in numerous academic articles, and provides only a discussion of how cryptocurrencies operate that is limited solely to what is germane to the issue of custodial holdings by exchanges.

used to verify the authorization of the transaction. To transfer cryptocurrency into to a blockchain address, a transferor must digitally sign the transaction with the private key of the address from which the cryptocurrency is being sent and the public key of the recipient address and broadcast the transaction to the blockchain network.<sup>13</sup> The transaction is verified through a cryptographic hashing process called mining. Cryptocurrencies vary in how they incentivize network participants to engage in mining, but the key detail here is that without the private key, it is impossible to access cryptocurrency associated with a blockchain address. Thus, if a key is lost, so too is access to the cryptocurrency.

Critically, the private key can be used by anyone who has access to it, not just by its “owner.” While the key is the authorization device for transactions on the blockchain, the mining system only checks the validity of the key, not the authorization for the key’s use in the transaction. Each cryptocurrency blockchain address has its own public and private key. Thus, if an individual owns both bitcoin and Ethereum, the individual will have two separate sets of keys because there are two separate blockchains involved, one for each cryptocurrency.

Investors need to keep their private keys somewhere when they are not using them. Investors store their private keys in crypto wallets. While a private key can be written down on paper and stored physically until it needs to be used, cryptocurrency investors generally store their keys in crypto wallets. Crypto wallets are encrypted software programs. Typically the investor would enter a password in order to unencrypt the private key, which would then be used to authorize a transaction on the blockchain.

There are two types of crypto wallets: unhosted and hosted.<sup>14</sup> An unhosted wallet involves storage of the customer’s private keys in some format in the customer’s possession. This might be in the form of a non-custodial software wallet, such as a wallet app on the investor’s phone or computer, a thumb drive, or even a scrap of paper.

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<sup>13</sup> See Coinbase Global, Inc., Form S-1/A, Mar. 17, 2021, at 44-45.

<sup>14</sup> Both unhosted and hosted wallets can be “cold” or “hot”. A “cold” wallet, also called an “hardware wallet,” or “offline wallet”, is it is not connected to the Internet, so it cannot be hacked. In contrast, a “hot” wallet is an online wallet. The particular technological form of a wallet does not affect the analysis in this Article.

While an unhosted wallet lets the investor retain possession of the private key, it also poses a risk of loss. If the investor loses the scrap of paper, the thumb drive, or the digital device, the key and thus the access to the cryptocurrency is lost forever.

In contrast, a hosted or custodial wallet puts the customer's private keys in the custody of a third-party, generally an cryptocurrency exchange. With a hosted wallet, the exchange has possession of the private keys and the customer accesses them using a password or other security protocol provided by the exchange. These security protocols might let a customer who forgot a password still access his private keys. Additionally, if the hosted wallet provider were to lose the keys, it would be liable to the customer.

Cryptocurrency investors use hosted wallets for several reasons: concerns about losing their own unhosted wallets; avoiding fees for transferring funds between wallets; the transactional ease offered through hosted wallets that are integrated with an exchange; access to additional income-generating services, such as lending and staking ventures, that exchanges offer customers with hosted wallets; and greater ease at converting cryptocurrency to fiat currency or vice-versa, which requires a service that can route fiat payments from a bank account or settle them into a bank account, something that is not possible on an unhosted wallet alone.<sup>15</sup>

## **B. Cryptocurrency Exchanges**

It is possible for any two people with crypto wallets to transact bilaterally with each other. Suppose that Moe wishes to pay Curly back for a cup of coffee using Bitcoin: Moe would use the private key in his digital wallet to direct the Bitcoins associated with his key to Curly's key, and once the transaction is processed (mined), then the blockchain will be amended to reflect this transaction.

This sort of bilateral transaction works fine when Moe and Curly know each other and have some reason to transact with each

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<sup>15</sup> If an investor with an unhosted wallet wishes to convert cryptocurrency to fiat currency, the investor will either need to use a peer-to-peer system (involving fees) or move its cryptocurrency keys from the unhosted wallet to a hosted wallet (for which there will be a fee) and then sell the cryptocurrency on the exchange using exchange-hosted wallet. The exchange will then settle the fiat currency (minus its fees) into the bank account the consumer directs. Using the exchange hosted wallet eliminates the fees incurred by moving the cryptocurrency keys from the unhosted to hosted wallet.

other. But suppose that Moe simply wants to sell his Bitcoin for the highest available price, and Curly wishes to buy Bitcoin for the lowest available price. In that situation bilateral contracting makes little sense—neither Moe nor Curly have any reason to think that the other is offering the best available price.

Indeed, neither Moe nor Curly necessarily even knows that the other is looking to transact. Learning who might want to transact and on what terms creates substantial search costs that might prevent some transactions from happening.

The solution to this problem is a cryptocurrency exchange. The exchange matches buyers and sellers with each other based on their bids and asks without the buyers ever having to know the sellers or vice-versa. The exchange functions as a centralized marketplace that enables numerous buyers and sellers to transact without them having to identify each other. Moe and Curly can go to the exchange without having to know each other, transact with each other through the exchange, and have an assurance that they will get the best price being offered among exchange customers.

Moreover, they will benefit from network effects that enhances the value of a central exchange. The more users there are in a network, the more valuable the network is to all of its users. If Larry also goes to trade on the exchange, there is a better chance that Moe and Curly will get a better price than if Moe and Curly were the only ones making offers to buy and sell because each additional participant adds additional possibility of the best price offer. Thus, the benefit further grows for Moe, Larry, and Curly if Shemp also trades on the exchange. And so forth.

Narrowly, an exchange merely enables buyers and sellers to contract; it does not actually execute the contract. That function is performed by the clearinghouse that accepts and processes the actual payments for the transactions agreed to on the exchange. While the exchange and clearinghouse functions are technically separate, they are typically performed together by affiliated entities or even the same entity. For purposes of this Article, the term “exchange” will be used to refer to both the exchange and clearinghouse functions.

Cryptocurrency exchanges will generally offer custodial services for hosted wallets for their customers. This means that the

customer is giving the private keys—and hence access to the associated cryptocurrency—to the exchange for safe-keeping. While the exchange might be contractually limited in what, if anything, it can do with the private keys, the private keys are in the control of the exchange and can only be accessed by the customer using the exchange's security protocols.

Rather than leave each customer's account segregated, exchanges will often transfer the customers' cryptocurrency to a single master private key. The customer's interest is then tracked solely on the exchange's books and records, rather than on the blockchain.

Using a single account has a number of operational benefits for the exchange. Among other things, it lets the exchange keep down mining fees for transactions through bundling and netting. Mining fees are based on the number, rather than the size of transactions. If the exchange were to process 1,000 transactions totaling 100 bitcoins for different customers separately, it would pay 1,000 mining fees. But if the exchange can bundle the transactions together, it would pay only a single mining fee for one transaction for 100 bitcoins. The exchange could either keep the savings itself or pass it along to customers in order to attract more business by offering lower costs.

Likewise, the use of master accounts enables the exchange to capture savings from netting of on-us transactions. If Moe and Curly are both customers of the same exchange (an on-us transaction), and Moe wishes to sell Curly his Bitcoin for payment in Ethereum, there would be a mining fee for Moe and one for Curly. But because they are both customers of the same exchange, the exchange can avoid the mining entirely and simply reallocate the ownership of the Bitcoin and Ethereum on its own books and records. The exchange can then capture the savings because it will charge both Moe and Curly a fee for the transaction based on the prevailing mining costs, even though no mining took place.

Because exchanges are able to achieve transaction account savings through bundling and netting, they are able to offer customers even better execution prices than bilateral trades, further encouraging use of exchanges by investors.

Additionally, exchanges offer various add-on services for customers using their custodial wallets. Some exchanges offer products

that enable customers to lend their cryptocurrencies out in exchange for a return.<sup>16</sup> Relatedly, some exchanges offer staking services that enable customers to lend out their stake (essentially a voting right) in exchange for a return.<sup>17</sup> Parties looking to borrow cryptocurrencies or stakes do not want to have to identify and negotiate bilaterally with every Tom, Dick, and Harry investor, nor do they want to pay transaction fees for multiple funders if a single funder is not capable of funding their loan or stake itself. Bundling separate investors' holdings in a single master account enables an exchange to offer one-stop funding to borrowers of various types. The same is true if the exchange has the right to rehypothecate the customers' holdings for its own benefit.

Thus, various cryptocurrency exchanges are incentivized to transfer customers' custodial funds into a single, commingled master account for which the exchange alone holds the private key. Accordingly, some exchanges will offer customers the possibility of non-commingled holdings, but will charge an extra fee for segregating funds.<sup>18</sup> The customers' interests in the cryptocurrency are merely tracked on the exchange's own ledger, not the blockchain. If the customer were to look at his account statement on the exchange, however, the account statement would indicate what is in the exchange's own ledger, not the blockchain, such that without doing an

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<sup>16</sup> See, e.g. Order Instituting Cease-and-Desist Proceedings Pursuant to Section 8A of the Securities Act of 1933 and Section 9(f) of the Investment Company Act of 1940, Making Findings, and Imposing a Cease-and-Desist Order, *In the Matter of BlockFi Lending, LLC*, Securities Act of 1933 Release No. 11029, Feb. 14, 2022, Investment Co. Act of 1940 Release No. 34503, Feb. 14, 2022 (crypto lending product was an unregistered securities offering).

<sup>17</sup> See, e.g., Kraken, Stake with Kraken, at <https://www.kraken.com/en-us/features/staking-coins> (last viewed May 11, 2022 at 10:44am ET). Cryptocurrencies are variously proof of work systems (such as Bitcoin or Ethereum 1.0) or proof of stake systems (such as Ethereum 2.0) proof of stake systems, rather than proof of work systems. In a proof of work system, multiple parties might attempt to mine a block, but the mining rewards are given only to the first party to successfully mine. Mining involves trying to solve a cryptographic puzzle and is largely a brute computing force exercise—computer bingo. This makes mining an exercise in amassing the most computing power and incredibly inefficient, as rewards are not given to any party other than the successful miner. In contrast, in a proof of stake system, the right to mine a block and get the mining rewards is awarded to the party with the largest stake in the system. A party's stake corresponds to its holding of the cryptocurrency, but stakes can be pledged to others as part of staking pools, generally in exchange for part of the mining rewards if the right to mine is awarded. A proof of stake system is much more efficient in use of computing power, but it shifts the nature of the race from being the first to solve the puzzle into one to assemble the largest staking pool.

<sup>18</sup> See *infra* text accompanying notes 26-28.

audit of the blockchain, the transfer of the cryptocurrency from the customer's own private key to a master account controlled by the exchange's own private key would not be visible to the customer.

While this sort of arrangement may facilitate transactions on the exchange (as well as the exchange's own use of the cryptocurrency deposited with it), it poses enormous risk for investors. As the following section addresses, if the cryptocurrency exchange were to fail, the cryptocurrency that it holds custodially—including when users of unhosted wallets temporarily use a hosted (custodial) wallet—would likely not be treated as property of the customers, but as property of the exchange. The customers would not “own” the cryptocurrency, but would be mere unsecured creditors of the exchange. That would put them almost last in line for repayment from the failed exchange's limited pool of assets.

### C. Cryptocurrency Exchange User Agreements

Cryptocurrency exchanges' user agreements vary in terms of what they disclose to customers about their rights and risks. Some exchanges' user agreements are silent about how they hold customers' assets, leaving unclear what their actual practices are likely to be, but raising the strong likelihood that these exchanges do not segregate customers' holdings.

Other exchanges expressly indicate that they hold the assets in a merely custodial capacity. For example, Coinbase's user agreement provides that “All Digital Assets held in your Digital Asset Wallet are custodial assets held by Coinbase for your benefit”.<sup>19</sup> The Coinbase User Agreement further provides that:

**2.6.1. Ownership.** Title to Digital Assets shall at all times remain with you and shall not transfer to Coinbase. As the owner of Digital Assets in your Digital Asset Wallet, you shall bear all risk of loss of such Digital Assets. Coinbase shall have no liability for Digital Asset fluctuations or loss. None of the Digital Assets in your Digital Asset Wallet are the property of, or shall or may be loaned to, Coinbase; Coinbase does not represent or treat assets in User's Digital Asset Wallets as belonging to Coinbase. Coinbase may not grant a security interest in the Digital Assets held in your Digital Asset Wallet.

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<sup>19</sup> Coinbase, User Agreement as of May 6, 2022, § 2.6.

Except as required by law, or except as provided herein, Coinbase will not sell, transfer, loan, hypothecate, or otherwise alienate Digital Assets in your Digital Asset Wallet unless instructed by you.<sup>20</sup>

The Coinbase User Agreement also provides:

**2.6.2. Control.** You control the Digital Assets held in your Digital Asset Wallet. At any time, subject to outages, downtime, and other applicable policies, you may withdraw your Digital Assets by sending it to a different blockchain address.<sup>21</sup>

These two sections tell the user that the user has “title” to the cryptocurrency and is the “owner” of the cryptocurrency. Yet another section of the Coinbase User Agreement also provides that:

As long as you continue to custody your Digital Assets with Coinbase, Coinbase shall retain control over electronic private keys associated with blockchain addresses operated by Coinbase, including the blockchain addresses that hold your Digital Assets.<sup>22</sup>

In other words, Coinbase, not the user, will have access to the private keys that are used to access the cryptocurrency. Moreover, the Coinbase User Agreement provides that Coinbase is allowed to store its customers’ cryptocurrency in shared blockchain address—unsegregated accounts for all purposes—controlled solely by Coinbase, with the individual customers’ holdings tracked only on Coinbase’s ledger, and not reflected in the blockchain for the particular cryptocurrency:

**2.6.3. Digital Assets Not Segregated.** In order to more securely custody assets, Coinbase may use shared blockchain addresses, controlled by Coinbase, to hold Digital Assets held on behalf of customers and/or held on behalf of Coinbase. Although we maintain separate ledgers for User accounts and Coinbase accounts held by Coinbase for its own benefit, Coinbase shall have no obligation to segregate by blockchain address Digital Assets owned by you from Digital Assets owned by other customers or by Coinbase.<sup>23</sup>

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<sup>20</sup> Coinbase, User Agreement as of May 6, 2022, § 2.6.1.

<sup>21</sup> Coinbase, User Agreement as of May 6, 2022, § 2.6.2.

<sup>22</sup> Coinbase, User Agreement as of May 6, 2022, § 2.6.2.

<sup>23</sup> Coinbase, User Agreement as of May 6, 2022, § 2.6.3.

The user agreement for cryptocurrency exchange Robinhood has a similar provisions. On the one hand, Robinhood refers to the customer acquiring “title” to the cryptocurrency:

**4.d. Title and Ownership.** I understand that any order for Cryptocurrency that I place on the Robinhood Platform that is subsequently filled will result immediately in my RHC Account being credited the amount of such Cryptocurrency and me obtaining title to such Cryptocurrency. The amount of Cryptocurrency that I purchase will be reflected on the Robinhood Platform. After I obtain title to such Cryptocurrency, I may sell all or a portion of the Cryptocurrency using the Robinhood Platform. Except at my direction or instruction, or as may be required by applicable law or regulation or legal order, RHC will not loan, hypothecate, pledge, or encumber Cryptocurrency stored and held by RHC in one or more omnibus Cryptocurrency wallets for the benefit of RHC customers.

On the other hand, Robinhood explains that it will commingle customers’ cryptocurrency holdings in its own master accounts:

**9. Custody.** Cryptocurrencies that I purchase shall be stored and held by RHC in one or more omnibus cryptocurrency wallets for the benefit of RHC customers. RHC shall track the balance and ownership of Cryptocurrencies purchased as part of the RHC Services, and I understand that I can view the balance of Cryptocurrencies in my RHC Account on the Robinhood Platform. RHC shall use commercially reasonable efforts to securely store the private keys associated with my Cryptocurrencies.<sup>24</sup>

Similar disclosures can be found in the user agreements of many other cryptocurrency exchanges.<sup>25</sup>

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<sup>24</sup> Robinhood, Crypto User Agreement, Dec. 13, 2021, at <https://cdn.robinhood.com/assets/robinhood/legal/Robinhood%20Crypto%20User%20Agreement.pdf>.

<sup>25</sup> See, e.g., Bitfinex, Terms of Service, <https://www.bitfinex.com/legal/exchange/terms> § 17.16, last viewed, Feb. 9, 2022 (“that you acknowledge and agree that Fiat, Digital Tokens or other property reflected in your Account, subaccount or Digital Tokens Wallet are not segregated assets held in your name or for your benefit but reflected only in the books and records of Bitfinex.”)

Cryptocurrency exchange Gemini takes a different approach that underscores the commingling issue. Gemini offers users two different ways of holding assets: a Depository Account or a Custody Account. In a Depository Account, Gemini will pool customers' cryptocurrency holdings, which will be tracked solely on Gemini's own ledger.<sup>26</sup> In contrast, in a Custody Account, Gemini will segregate the customer's holdings with unique blockchain addresses that will be indicated in Gemini's books and records as "belonging" to the customer.<sup>27</sup> Using a Custody Account is more expensive however—Gemini charges a 0.4% annual fee and a \$125 fee per withdrawal.<sup>28</sup> No such fees exist for Depository Accounts. In either case, however, Gemini claims that "Digital Assets custodied on your behalf and reflected in the Digital Asset Account of your Gemini Account are not treated as general assets of Gemini."<sup>29</sup>

Cryptocurrency user agreements do sometimes disclose the possibility of asset commingling, but as shown above, they simultaneously assure the customers about "ownership" and "title," which suggests that customers do not need to be concerned about commingling. Likewise, Gemini mentions that it is "a fiduciary under § 100 of the New York Banking Law (the "NYBL") and a custodian that is licensed to custody your Digital Assets in trust on your behalf."<sup>30</sup> Yet it is not at all clear what this means—Gemini interacts with customers in a range of fashions. While it has fiduciary *powers* as a trust company under New York law, that does not mean that it is acting as a fiduciary for its customers in any particular capacity. Similarly, being "licensed to custody your Digital Assets in trust on your behalf" does not itself actually tell a customer anything about what is expected from Gemini, but it sounds very reassuring.

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<sup>26</sup> Gemini User Agreement as of Jan. 14, 2022, <https://www.gemini.com/legal/user-agreement> ("Digital Assets custodied in a Depository Account are pooled together in one or more of our Digital Asset wallets.").

<sup>27</sup> Gemini Custody Agreement, as of Mar. 10, 2020, <https://www.gemini.com/legal/custody-agreement> ("Your Custody Account will have one or more associated unique Blockchain Addresses in which your Assets will be (i) segregated from any and all other assets held by us and (ii) directly verifiable via the applicable blockchain.").

<sup>28</sup> Gemini, What are the fees for Custody accounts?, <https://support.gemini.com/hc/en-us/articles/360032825231-What-are-the-fees-for-Custody-accounts->, last viewed Feb. 9, 2022.

<sup>29</sup> Gemini User Agreement as of Jan. 14, 2022, <https://www.gemini.com/legal/user-agreement>.

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

This sort of language in user agreement is potentially lulling to customers who do not understand the intricacies of bankruptcy law. Cryptocurrency exchange user agreements are merely private law that can determine the relationship between the exchange and its customer. They cannot override public law such as bankruptcy law. Thus, even if an exchange tells its customers in a passive construction that the custodied assets “are not treated as general assets” of the exchange, it can only definitively make such a statement regarding how *it* will treat the assets, not how the assets would be treated by a bankruptcy court. As the next section addresses, in bankruptcy the custodial holdings are likely not treated as property of the customers, but as property of the exchange, with the customers as mere creditors of the exchange.

## **II. CRYPTOCURRENCY EXCHANGES IN BANKRUPTCY**

Let’s imagine that a cryptocurrency exchange has failed and ends up in Chapter 11 bankruptcy, either voluntarily or involuntarily. What would happen to its customers? This section reviews the key questions regarding customer accounts that would arise in a cryptocurrency exchange’s bankruptcy and how they would likely be resolved.

### **A. The Automatic Stay**

When a company files for bankruptcy two things immediately happen by function of law. First, a new legal entity springs into existence.<sup>31</sup> This is called the “bankruptcy estate,” and it consists of “all legal or equitable interests of the debtor in property as of the commencement of the case.”<sup>32</sup> Whatever the extent of the debtor’s interest in the property becomes the extent of the estate’s interest in the property.

Second, most attempts to collect from the estate are stayed automatically, without need for an injunction.<sup>33</sup> The stay has the effect

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<sup>31</sup> 11 U.S.C. § 541(a).

<sup>32</sup> 11 U.S.C. § 541(a)(1).

<sup>33</sup> 11 U.S.C. § 362(a). The stay exceptions for securities contracts, forward contracts, swaps, and repos are inapplicable. Even if a cryptocurrency is a security or a commodity, the stay exceptions do not cover custody, only financial transactions themselves, and even then the exceptions permit only the termination, acceleration, and liquidation of margin posted to cover the transactions. None of that applies to custody of cryptocurrency, where there is no margin.

of channeling attempts to collect from the estate into a single forum—the bankruptcy court. The automatic stay normally remains in effect until the end of the bankruptcy,<sup>34</sup> yet it can be lifted earlier upon motion “for cause”<sup>35</sup> or if the debtor does not have any equity in the property and it is not necessary for an effective reorganization,<sup>36</sup> but that requires parties actually going to court and litigating the issue.

The automatic stay, however, only restricts attempts to collect from the property of the estate. If an asset was not property of the debtor, then it would not become property of the estate and would not be subject to the automatic stay. Violations of the stay are subject to sanctions, so if there is doubt about whether the stay applies parties usually seek court permission before attempting to exercise remedies that could affect the estate. Accordingly, even if the automatic stay does not actually apply, there can still be frictions for parties obtaining access to their own property if it is held by the debtor.

## **B. Property of the Estate**

Thus, the first issue for customers of a cryptocurrency exchange in a bankruptcy is whether the exchange’s custodial holdings are property of the estate and therefore subject to the automatic stay. If the assets are not property of the estate, then the customers should be able to get access to their assets—to the extent they still exist—either through the exchange’s voluntary cooperation or through court order, such as through a replevin action.

The issue here is whether the nature of the custodial holdings are a constructive trust, a bailment, or a sale. If the custodial holdings are a bailment or a constructive trust, then the exchange’s interest is limited to its possessory interest,<sup>37</sup> while if holdings are a sale, then the holdings are property of the estate outright, with the customers being merely creditors of the estate.

### *1. Constructive Trust*

One possibility is that custodial accounts at an exchange are held in constructive trust for the exchange’s customers. A constructive trust exists when a party is unjustly enriched by the acquisition of title

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<sup>34</sup> 11 U.S.C. § 362(c).

<sup>35</sup> 11 U.S.C. § 362(d)(1).

<sup>36</sup> 11 U.S.C. § 362(d)(2).

<sup>37</sup> 11 U.S.C. §§ 541(a)(1), (d).

to identifiable property at the expense of another or in violation of the other's rights.<sup>38</sup> If property is found to be in constructive trust for creditors it will generally not be found to be property of the estate,<sup>39</sup> so the bankruptcy estate will be required to return it to the trust beneficiaries.<sup>40</sup>

Whether a constructive trust exists is a matter of state law, and state law on constructive trusts varies substantially, with some states not even recognizing constructive trusts,<sup>41</sup> and other states not permitting their creation when parties' relationship is governed by contract because unjust enrichment will not lie when there is a breach of contract cause of action.<sup>42</sup> In yet other states, a constructive trust only arises upon a court order creating it,<sup>43</sup> so if there is no court order prior to the bankruptcy, there is no constructive trust. The creation of a constructive trust is an equitable remedy, and bankruptcy courts are permitted to consider different equities than a state court.<sup>44</sup>

Because constructive trusts benefit one group of claimants at the expense of others by precluding other claimants from benefitting from the trust corpus, bankruptcy courts have historically been hostile to the remedy, which runs contrary to the fundamental bankruptcy principle that equity is equality.<sup>45</sup> As the 6<sup>th</sup> Circuit has noted, "Constructive trusts are anathema to the equities of bankruptcy since they take from the estate, and thus directly from competing creditors, not from the offending debtor."<sup>46</sup>

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<sup>38</sup> Restatement (Third) of Restitution and Unjust Enrichment, § 55.

<sup>39</sup> 5 Collier on Bankruptcy ¶ 541.28 (16<sup>th</sup> ed. 2021).

<sup>40</sup> 11 U.S.C. § 725.

<sup>41</sup> *E.g.*, *Tow v. Exxon Mobil Corp. (In re ATP Oil & Gas Corp.)*, 553 B.R. 577 (Bankr. S.D. Tex. 2016) (Louisiana does not recognize constructive trusts).

<sup>42</sup> *See, e.g.*, *In re Miami Metals I, Inc.*, 603 B.R. 727, **pin** (Bankr. S.D.N.Y. 2019).

<sup>43</sup> *See, e.g.*, *CHoPP Computer Corp. v. United States*, F.3d 1344, 1348-49 (9<sup>th</sup> Cir. 1993) (applying California law).

<sup>44</sup> *Ades and Berg Group Investors v. Breeden (In re Ades and Berg Group Investors)*, 550 F.3d 240, 245 (2<sup>d</sup> Cir.2008).

<sup>45</sup> *See, e.g.*, *CRS Steam, Inc. v. Engineering Resources (In re CRS Steam, Inc.)*, 25 B.R. 833 (Bankr. D. Mass. 1998).

<sup>46</sup> *XL/Datacomp, Inc. v. Wilson (In re Omegas Group, Inc.)*, 6 F.3d 1443 (6<sup>th</sup> Cir. 1994). Professor David Gray Carlson has rightly noted that the 6<sup>th</sup> Circuit's ruling presumes that beneficiaries of constructive trusts are creditors, while the whole point of a constructive trust is that the beneficiaries are *not* creditors. David G. Carlson, *Constructive Trusts and Fraudulent Transfers: When Worlds Collide*, 103 MARQUETTE L. REV. 365, 396 (2019).

The doctrinal state of constructive trusts in bankruptcy is “in great disarray,”<sup>47</sup> depending both on the particulars of state law and federal courts view of its interaction with bankruptcy. It is possible that a court would rule that custodial holdings of cryptocurrency are held to be in constructive trust for the exchange’s customers, but there is no guaranty about that, and the possibility should provide limited comfort for cryptocurrency exchange customers.

Critically, the doctrine of constructive trust would only protect exchange customers to the extent that the exchange still has its cryptocurrency or the traceable proceeds thereof, so commingling would potentially destroy or limit the trust depending on how tracing rules would apply. To the extent that the cryptocurrency is missing, the customers are merely creditors of the exchange.

## 2. *Bailment vs. Sale*

### i. Bailments

A bailment is a delivery of property from one person to another for a specific purpose under a contract providing that the property will be returned when that purpose has been accomplished or the bailor reclaims the property.<sup>48</sup> Bailment bifurcates ownership from possession; general ownership remains with the bailor while the bailee has lawful possession.<sup>49</sup> Thus, when possession is not bifurcated from ownership, such as in the case of an individual renting a locker from another, the owner of the locker does not hold the contents of the locker as a bailment because the renter maintains a possessory interest in everything within the locker by virtue of control of the lock.<sup>50</sup> A bailment is not a fiduciary relationship nor is it actually an entrustment, even though courts will sometimes refer to the bailed

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<sup>47</sup> *Id.* at 422.

<sup>48</sup> *United Truck Rental Equip. Leasing, Inc. v. Kleenco Corp.*, 84 Haw. 86, 91 (1996). *See also* *Sirpal v. Univ. of Miami*, 684 F.Supp.2d 1349, 1364 (S.D. Fla. 2010) (quoting *S&W Air Vac Sys., Inc. v. Dep’t of Rev.*, 697 So. 2d 1313, 1315 (Fla. 5<sup>th</sup> DCA 1997) (“generally a contractual relationship among parties in which the subject matter of the relationship is delivered temporarily to and accepted by one rather than the owner.”). “Found” property is also considered a bailment, even though there is no voluntary act of delivery.

<sup>49</sup> *See Cornelius v. Berinstein*, 50 N.Y.S.2d 186, 188 (N.Y. Sup. Ct. 1944) (“It is a generally recognized feature of bailments that possession of the thing bailed is severed from ownership; the bailor retains the general ownership, while the bailee has the lawful possession or custody for the specific purpose of the bailment.”).

<sup>50</sup> *Id.* at 189.

property being held “in trust.”<sup>51</sup> Entrustment gives the trustee legal title to the asset, regardless of physical possession, whereas a bailment requires possession, but does not transfer title.<sup>52</sup>

Common examples of bailments are parking valets and coat checks and safe deposit boxes. The parking valet does not acquire title to your car when you hand over the keys. Instead, the valet’s interest is merely possessory, and the valet is obligated to return the car to you on demand. If the valet fails to do so, the valet will be liable to you for breach of contract, which should mean for the value of the car (assuming no stipulated damages). Likewise, if the car is damaged due to the valet’s negligence or purposeful behavior, then the valet is also liable for the diminution in the value of the car.

A bailment is distinct from an agency relationship. The bailee is free from control by the bailor, whereas the agency is subject to the control of the principal.<sup>53</sup> Moreover, the agent is precluded from conflicts of interest with the principal, whereas no such duty lies on the bailee.<sup>54</sup> It should be clear from this that any sort of custodial holding of cryptocurrency by an exchange could not be an agency relationship as the exchange is acting on behalf of multiple, potentially adverse principals and may also trade on its own account in ways that are adverse to customers. Despite this distinction, at least one cryptocurrency exchange proclaims in its securities filings that:

We act as an agent in the cryptocurrency transactions of our users. We have determined we are an agent because we do not control the cryptocurrency before delivery to the user, we are not primarily responsible for the delivery of cryptocurrency to our users, we are not exposed to risks arising from fluctuations of the market price of cryptocurrency before delivery to the customer and we do not set the prices charged to users.<sup>55</sup>

Whatever the customer-exchange custodial relationship is, it cannot be properly characterized as a principal-agent relationship.

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<sup>51</sup> 8A Am. Jur. 2d Bailments § 19.

<sup>52</sup> *Id.*

<sup>53</sup> 8A Am. Jur. 2d Bailments § 17.

<sup>54</sup> *Id.*

<sup>55</sup> Robinhood Markets, Inc., Form S-1, July 18, 2021, at F-18, *at* <https://www.sec.gov/Archives/edgar/data/1783879/000162828021013318/robinhoods-1.htm>.

ii. Sales

In contrast, a sale involves transfer of ownership from the buyer to the seller for a price.<sup>56</sup> Ownership is a tricky concept at law, however, as it is not a binary matter. Property ownership is thought of a package of various rights—a bundle of sticks in the usual formulation—that can be divvied up among different parties. For example, I might “own” an estate called Blackacre, but I can rent the back 40 to you, lease the westfold to your cousin, give you brother fishing rights in the stream, your sister an easement to cross the forest and pick the mushrooms that grow there (but not those that grow in the meadow), your aunt the right to the apples from the trees in the orchard (but not to the wood from the trees themselves), and the bank a mortgage (that’s a contingent property interest). Moreover, let’s imagine that like Downtown Abbey or Mr. Bennet’s property in *Pride and Prejudice*, that Blackacre is entailed, meaning that I have no power to transfer fee simple absolute title to anyone. I can give out a life estate, but upon my death it will go to my oldest male heir.<sup>57</sup>

In all of these situations, I still “own” Blackacre, but lots of other folks have property interests in it. What really matters in terms of “ownership” are rights to possess, consume, and alienate property interests,<sup>58</sup> including whether one’s creditors can force the sale of the property in a foreclosure.

iii. Bailment or Sale?

While the question of whether a transaction is a bailment or a sale is a question of state law,<sup>59</sup> the United States Supreme Court has addressed the bailment vs. sale issue as a matter of general federal common law in a pair of 19<sup>th</sup> century cases. While these United States Supreme Court cases are not binding in light of the Court’s declaration

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<sup>56</sup> See UCC § 2-106(1) (“A ‘sale’ consists in the passing of title from the seller to the buyer for a price.”).

<sup>57</sup> This, of course, assumes that the property is not disentailed through common recovery. See Jeffery Evans Stake, *Evolution of Rules in a Common Law System: Differential Litigation of the Fee Tail and Other Perpetuities*, 32 FLA. ST. U. L. REV. 401, 416 (2005) (explaining common recovery).

<sup>58</sup> See UCC § 2-403 (providing for situations in which a person can transfer better title than they themselves have).

<sup>59</sup> *Butner v. United States*, 440 U.S. 48, 55 (1979).

in *Erie Railroad v. Tompkins* that there is no general federal common law,<sup>60</sup> they are nevertheless instructive.

In the first, *Powder Co. v. Burkhardt*, a plaintiff provided materials and money to the defendant, an inventor, to manufacture an explosive compound. The court held the contract was a sale because there was nothing in the contract that required the identical materials to be returned to the plaintiff—the inventor was free to exchange the materials for others as he saw fit.<sup>61</sup> The Court explained that:

where logs are delivered to be sawed into boards, or leather to be made into shoes, rags into paper, olives into oil, grapes into wine, wheat into flour, if the product of the identical articles delivered is to be returned to the original owner in a new form, it is said to be a bailment, and the title never vests in the manufacturer. If, on the other hand, the manufacturer is not bound to return the same wheat or flour or paper, but may deliver any other of equal value, it is said to be a sale or a loan, and the title to the thing delivered vests in the manufacturer.<sup>62</sup>

In the second case, *Sturm v. Baker*, the Court addressed which party—the shipper or the shipping company—bore the risk of loss when a ship transporting a consignment of arms and munitions to Mexico sank in a storm. The Court reiterated that the distinction between a bailment and a sale hinges on the obligation to return the specific property entrusted or merely another thing of value:

the recognized distinction between bailment and sale is that when the identical article is to be returned in the same or in some altered form, the contract is one of bailment, and the title to the property is not changed. On the other hand, when there is no obligation to return the specific article and the receiver is at liberty to return another thing of value, he becomes a debtor to make the return, and the title to the property is changed. The transaction is a sale.<sup>63</sup>

The bailment vs. sale difference matters in general because of the question of which party bears the risk of loss of the goods and whether

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<sup>60</sup> 304 U.S. 64 (1938) (holding that there is no general federal common law).

<sup>61</sup> *Powder Co. v. Burkhardt*, 97 U.S. 110, 116 (1878).

<sup>62</sup> *Id.*

<sup>63</sup> *Sturm v. Boker*, 150 U.S. 312, 329-30 (1893).

the goods are subject to the claims of the creditors of the party holding them.<sup>64</sup>

#### iv. Commingled Property

When the assets involved in a contract are commingled with other assets, then the sale vs. bailment question becomes more complicated. This complication of the legal question should itself be concerning to cryptocurrency investors because there is no guaranty about how any particular will analyze the issue given the facts presented to it.

The problem is that commingling of fungible assets can in some circumstances destroy a bailment and constitute conversion by the bailee.<sup>65</sup> When the commingled assets are fungible, the treatment as a bailment has generally depended upon whether the transfer is made for the purpose of processing, rather than mere storage or transport. If the transfer is made for processing, then unless the processed asset is to be made solely from the transferred good and not possibly from another like kind good, there is no bailment.<sup>66</sup> For example, if a farmer gives wheat to a miller to mill into flour, unless the agreement is that the miller will give the farm flour made solely from his wheat, then there is no bailment.<sup>67</sup> The examples that the Supreme Court gave in *Powder Co. v. Burkhardt*—processing of logs into board or leather into shoes—fit into this situation.<sup>68</sup>

Yet, if the contract is for storage or transport, however, some courts have held that commingling does not destroy the bailment, at least when the bailor specifically intended to retain ownership of a known share of the commingled goods.<sup>69</sup> The storage and

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<sup>64</sup> See UCC 2-326(2) (goods in the buyer's possession held on "sale or return" are subject to claims of the buyer's creditors).

<sup>65</sup> 8 Am. Jur. 2d Bailments §§ 71-72.

<sup>66</sup> See e.g., *In re Miami Metals I, Inc.*, 603 B.R. 727, 741 (Bankr. S.D.N.Y. 2019) (commingling of non-fungible precious metals); *A. Ballou & Co. v. Citytrust*, 218 Conn. 749, 755-756 (1991) (commingling of scrap metals).

<sup>67</sup> *Slaughter v. Green*, 22 Va. 3, 9 (1821).

<sup>68</sup> 97 U.S. at 116.

<sup>69</sup> *Pub. Serv. Elect. & Gas Co. v. Fed. Power Comm.*, 371 F.2d 1 (3d Cir. 1967) (commingling of natural gas in a pipeline is not inconsistent with a bailment); *Nat'l Corp. Housing P'ship v. Liberty State Bank*, 836 F.2d 433, 436 (8th Cir. 1988) (rejecting argument that unless a landlord was required to return to the tenant the identical check or money the tenant deposited, the relation cannot be a bailment); *Gulf Oil Corp. v. Fuel Oil Supply & Terminaling, Inc.*, 837 F.2d 224, 227 (5th Cir. 1988) (commingling of gasoline storage did not

transportation cases, however, have arisen in the context of oil and gas, where there are particular industry customs and practices and additional statutory frameworks. In contrast, when courts have dealt with money—the most fungible of goods—they have held that a commingling of customer funds defeats a bailment.<sup>70</sup>

Indeed, in the context of deposit accounts, courts have distinguished “specific deposits” (such as items placed in safe deposit boxes) from “general deposits” based on the commingling.<sup>71</sup> A general deposit of money into a bank account does not entitle the depositor to the return of a specific bill, only to the return of currency of the same value. A general depositor is merely an unsecured creditor of a bank. In contrast, if the depositor put property into a safe deposit box or under a contract that required its segregation, it would have made a special deposit, which entitles the depositor to the return of the same item deposited. Thus, if you put a dollar with a particular serial number in the safe deposit box, you are entitled to the return of that very same dollar, not any old dollar.

A general deposit is a sale to the bank of the currency—you give the bank currency now in exchange for a return of currency (perhaps with interest) later. In contrast, a special deposit is a bailment—you give the bank a good for safekeeping and expect the return of that same good later. When courts have analyzed the issue, they look at whether the customer had an expectation of getting back the specific good given (a bailment, even if the good has been improved) or a like-kind good (a sale).

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defeat a bailment); *In re Enron Corp.*, No. 01-16034, 2004 U.S. Dist. LEXIS 2262, at \*10 (Bankr. S.D.N.Y. Jan. 22, 2003) (commingling of natural gas did not default a bailment).

<sup>70</sup> *Picard v. JPMorgan Chase Bank & Co. (In re Bernard L. Madoff Inv. Sec. LLC)*, 721 F.3d 54, 73 (2d Cir. 2013) (commingling of brokerage account funds); *Hossain v. Rauscher Pierce Refsnes, Inc.*, 15 Fed. Appx. 745 (10th Cir. 2001) (delivery of an investor’s funds to a clearing broker does not create a bailment, since the investor has no expectation of a return of the identical property).

<sup>71</sup> *Peoples Westchester Sav. Bank v. FDIC*, 961 F.2d 327, 330 (2d Cir. 1992); *United States v. Khan*, 1997 U.S. App. LEXIS 31870, \*6 (2<sup>nd</sup> Cir. Nov. 10, 1997). *See also* Laura B. Bartell, *The Lease of Money in Bankruptcy: Time for Consistency?*, 16 BANK. DEV. J. 267, 306 (2000) (noting different treatment of specific deposits).

### 3. *Other Factors Affecting Property of Estate Treatment*

#### i. Inaccurate Books and Records

Besides the questions of whether a constructive trust exists or whether a transaction is a bailment or sale, there are additional issues that can affect whether an exchange's custodial holdings of cryptocurrency are treated as property of the bankruptcy estate. Suppose an exchange filed for bankruptcy, and one of its customers moved to lift the stay to recover her custodially held cryptocurrency. If there are any concerns about the accuracy of the estate's books and records or if the estate lacks sufficient cryptocurrency holdings to satisfy all customer obligations, then the stay is unlikely to be lifted, even if the estate's interest is merely possessory. If the books and records are not fully reliable, in terms of identifying the owners, then the bankruptcy court will be unlikely to lift the stay because of the concern that the wrong parties might get paid, leaving the rightful parties with claims on the estate's remaining assets. Similarly, if the debtor's books and records do not accurately reflect the estate's actual cryptocurrency holdings, the court might be chary of releasing any cryptocurrency holdings lest it turn into a first-come, first-serve situation that results in an inequitable distribution among customers who could not prove what they individually were owed.<sup>72</sup>

#### ii. Shortfalls in Custodial Holdings

Property can only be property of the estate if it exists, however. If any part of a customer's holdings of cryptocurrency have been lost—they have been stolen in a hack, the exchange has lost the private key,<sup>73</sup> or the exchange has used and lost the cryptocurrency in its own business dealings—then the customer is merely an unsecured creditor of the exchange for the missing holdings<sup>74</sup> and there would be no cause for lifting the automatic stay.

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<sup>72</sup> See *Stoebner v. Consumers Energy Co. (In re LGI Energy Solutions, Inc.)*, 460 B.R. 720, 732-733 (8<sup>th</sup> Cir. B.A.P. 2011) (citing a concern that the creditors who complain the loudest will get paid to the detriment of the others).

<sup>73</sup> See Coinbase Global, Inc., Form S-1/A, Mar. 23, 2021, at 9, 34 (“The loss or destruction of private keys required to access any crypto assets held in custody for our own account or for our customers may be irreversible. If we are unable to access our private keys or if we experience a hack or other data loss relating to our ability to access any crypto assets, it could cause regulatory scrutiny, reputational harm, and other losses.”).

<sup>74</sup> As discussed in Part II.D, *infra*, the claim should be for whatever it would have been in U.S. dollars under applicable nonbankruptcy law as of the date of the bankruptcy filing.

### iii. Exchange Use of Custodial Holdings

If the exchange has any rights to use the cryptocurrency, such as lending it or associated staking rights out—that would only make the case for it being property of the estate stronger. For example, Coinbase offers a staking arrangement in which it shares the profit with a 25% cut of the staking rewards as a “commission” and agrees to indemnify the customer for any slashing losses if the stake is awarded the mining rights, but fails to successfully mine the block within the allotted time. The shared gains and internalized losses suggest an investment partnership in which the exchange has a property interest beyond the possessory interest in the underlying cryptocurrency.

#### 4. Summary

Given that the constructive trust vs. bailment vs. sale treatment turns on the specifics of state law and contractual provisions, it is impossible to state with certainty whether custodially held cryptocurrency would be treated as a constructive trust or bailment rather than as a sale. There is, however, a substantial possibility that courts would treat it by analogy to money deposits, rather analogizing to natural gas shipment contracts, particularly if the cryptocurrency is not itself in identifiable units.<sup>75</sup> For example, bitcoins do not have serial numbers, but are just balances associated with particular digital keys.<sup>76</sup>

If any additional factors are involved—inaccurate books and records, shortfalls in custodial holdings, or exchange use of custodial holdings, then a court would be likely to rule that the custodially held cryptocurrency was property of the estate, so the automatic stay would prevent attempts to recover it outside of the bankruptcy process. At the very least, the estate accedes to the exchange’s possessory interest in the private keys. That alone should trigger the automatic stay.

If the estate’s interest is limited to the possessory interest, then customers should be able to get the stay lifted for cause or because the estate has no equity interest in the custodial holdings and does not need them for an effective reorganization, but that will require them to go to court and litigate the issue, which will impose some costs on them and, more importantly, take time during which period they would not

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<sup>75</sup> See *supra* part II.B.2.iv.

<sup>76</sup> Cryptoassets are potentially traceable, however.

have access to their cryptocurrencies and not be able to sell if market prices were falling.

The key point about the preceding analysis is that it does not predict a definitive outcome. How any particular bankruptcy court would characterize custodial holdings of cryptocurrency in light of the particular facts before it is uncertain and sure to be contested. That alone should be cause for concern to cryptocurrency investors. Even if the investors were to ultimately prevail, it would not be until after drawn out litigation with all of the attendant delays and costs.

### C. Preference Actions

If the debtor is in Chapter 7 bankruptcy, an independent trustee, appointed by the Department of Justice, will manage the estate.<sup>77</sup> If the debtor is in Chapter 11 bankruptcy, the debtor will manage the estate itself as a “debtor in possession” (DIP).<sup>78</sup> Either way, the trustee or DIP is charged with maximizing the value of the estate. This means, among other things, that the trustee or DIP will exercise the estate’s power to unwind certain pre-bankruptcy transactions.

In particular, certain transfers of interest of the debtor in property to or for the benefit of creditors that are made in the 90 days before the bankruptcy filing may be unwound as voidable preferences.<sup>79</sup> If this happens, the asset transferred prior to the bankruptcy (or potentially its value) must be returned to the estate.<sup>80</sup> In exchange, the transferee will be given a claim against the debtor in the bankruptcy. In practical terms, if a transfer is clawed back, the transferee returns an asset at 100¢ on the dollar, but will get a corresponding claim that will likely be paid only pennies on the dollar.

The policy behind this power is to ensure an equality of distribution among unsecured creditors on the theory that like claims should be treated alike. The ability to avoid a preferential transfer prevents the debtor from favoring certain creditors when it is on the cusp of bankruptcy and also discourages creditor runs on the debtor by making them reversible.

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<sup>77</sup> 11 U.S.C. §§ 323, 701, 702.

<sup>78</sup> 11 U.S.C. § 1107.

<sup>79</sup> 11 U.S.C. § 547(b).

<sup>80</sup> 11 U.S.C. § 550(a).

There are some exceptions and defenses to preference actions. In particular, some transfers might qualify for the *de minimis* exception for transfers to one beneficiary aggregating less than \$7,575 (as of 2022).<sup>81</sup> Additionally, some transfers might qualify for the ordinary course exception.<sup>82</sup> This requires not only that the transfer be made according to ordinary business terms, but also that be made in the ordinary course of both the debtor and the transferee's business. While redemptions are likely to be made according to ordinary business terms and be in the ordinary course of an exchange's business, they might not be in the ordinary course of a transferee's business. Many transferees hold their crypto for long periods of time without redemptions, suggesting that redemptions might not be in the ordinary course of some customers' business.<sup>83</sup>

There also is the possibility that a preference action could face either the settlement payment or the financial institution beneficiary defense.<sup>84</sup> These defenses provide that a transfer cannot be avoided as a preference if it is a settlement payment or margin payment made to or for the benefit of a financial institution, if it is a payment made by or to a financial institution in connection with a securities contract, commodity contract, or forward contract, or if it is a made to or for the benefit of a swap participant.

In order to trigger these defenses there would first have to be a determination that the cryptocurrency is a security, commodity, or currency that is the subject of a swap. While one court has held in a non-bankruptcy context that cryptocurrencies are commodities subject to CFTC regulation,<sup>85</sup> the issue is generally considered unresolved, and cryptocurrency transactions are not commonly documented in the same way as security, commodity, and swap contracts. Moreover, the determination would need to be made on a

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<sup>81</sup> 11 U.S.C. § 547(c)(9).

<sup>82</sup> 11 U.S.C. § 547(c)(2).

<sup>83</sup> Preference actions could also be applied to on-us transactions in which one type of crypto is exchanged for another. The estate could prosecute a preference action against only the side of the exchange that received a currency that subsequently appreciated. By avoiding the transfer, the estate could capture the subsequent gain in market value for itself.

<sup>84</sup> 11 U.S.C. § 546(e)-(g).

<sup>85</sup> CFTC v. My Big Coin Pay, Inc., 334 F. Supp. 3d 492, 495-98 (D. Mass. 2018) (discussing Bitcoin's commodity status); *see also* CFTC v. McDonnell, 287 F. Supp. 3d 213, 217 (E.D.N.Y. 2018) (holding that virtual currencies are subject to CFTC regulation).

cryptocurrency by cryptocurrency basis, as not all cryptocurrencies operate the same way.

If a court were to determine that a cryptocurrency were a security or commodity, the defenses against preference avoidance might hold if the customer was itself a financial institution,<sup>86</sup> but the lack of application of the extensive regulatory regimes for securities and commodities futures might give a court pause.<sup>87</sup> Similarly, it is questionable whether a court would treat a cryptocurrency as currency if it lacks legal tender status.

All of this is to say that if custodial cryptocurrency holdings are property of the estate, rather than mere bailments, there is risk of pre-bankruptcy transfers being unwound as preferences. If so, there is a question about the measure of recovery: is the recovery of the cryptocurrency itself or merely of its value, and if of the value, then as of what date—the transfer date, the bankruptcy date, or the recovery date? Resolution of this issue determines who gets the benefit of any appreciation subsequent to the transfer. Once again, the classification question matters. If cryptocurrencies are classified as currencies, then liability would presumably be in the dollar value of the cryptocurrency as of the transfer date. If, on the other hand, the cryptocurrency were treated as a commodity, then the liability would be for the return of the cryptocurrency itself or its value as of the recovery date.<sup>88</sup>

To the extent that custodial holdings are property of the estate beyond a mere possessory interest, then preference actions would pose a threat to former customers of a cryptocurrency exchange as well as existing customers who made redemptions during the 90 days before the bankruptcy.

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<sup>86</sup> See, e.g., *Enron Creditors Recovery Corp. v. Alfa, S.A.B. de C.V.*, 651 F.3d 329 (2d Cir. 2011) (bond redemption payments were settlement payments).

<sup>87</sup> See *In re Tribune Co. Fraudulent Conveyance Litig.*, 946 F.3d 66, 94 (2d Cir. 2019) (noting that “Securities markets are heavily regulated by state and federal governments. The statutory supplements used in law school securities regulation courses are thick enough to rival Kevlar in stopping bullets.”).

<sup>88</sup> See *Hashfast Techs. LLC v. Lowe (In re Hashfast Techs. LLC)*, No. 14-30725DM, slip op. at 2 (Bankr. N.D. Cal. 2016) (addressing the impact of the currency-versus-commodity classification on which party bears the risk in the shift of the cryptocurrency’s value subsequent to the transfer).

#### D. Status of Exchange Customers' Claims

If custodial holdings are not a constructive trust or bailment, then the cryptocurrency exchange's customers are merely general unsecured creditors of the exchange. Creditors collect through the bankruptcy by filing a proof of claim against the debtor (or the debtor might schedule the claim itself).<sup>89</sup> The claim will be deemed allowed absent an objection,<sup>90</sup> but claim allowance does not mean that a creditor gets paid, only that it is eligible to be paid if there are sufficient assets available. The claim will be for the dollar value of the cryptocurrency as of the date of the bankruptcy filing,<sup>91</sup> so any future appreciation will go to the estate for distribution according to bankruptcy law's priority scheme, rather than to the exchange's customers.

The Bankruptcy Code's priority scheme depends in the first instance on whether a claim is a secured claim or an unsecured claim. If the claim is for an obligation secured by a lien or for which a right of setoff exists, then the claim will be a secured claim to the extent of the lien or the setoff obligation.<sup>92</sup> Otherwise it will be an unsecured claim.<sup>93</sup> Beneficiaries of a constructive trust will be treated similarly to secured claims, with the trust assets treated as equivalent to the collateral.

Secured claims are paid first out of their collateral or its proceeds.<sup>94</sup> The debtor's remaining assets are then distributed to creditors with statutory priority claims until they are paid in full.<sup>95</sup> This includes the administrative expenses of the bankruptcy, including the debtor's and any official creditors' committee's attorneys and financial advisors and the costs of otherwise operating the debtor in bankruptcy.<sup>96</sup> If funds are left over, they are then distributed on a *pro rata* basis to unsecured creditors.<sup>97</sup> The unsecured creditors are

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<sup>89</sup> 11 U.S.C. § 501.

<sup>90</sup> 11 U.S.C. § 502(b).

<sup>91</sup> 11 U.S.C. § 502(b).

<sup>92</sup> 11 U.S.C. § 506.

<sup>93</sup> 11 U.S.C. § 502.

<sup>94</sup> 11 U.S.C. § 725; 1129(a)(7).

<sup>95</sup> 11 U.S.C. § 726(a); 1129(a)(9).

<sup>96</sup> 11 U.S.C. §§ 503(b), 507(a)(2). There is also priority repayment for up to \$3,350 per creditor of funds deposited for goods or services. 11 U.S.C. § 502(a)(7). It is unclear if custodial holdings would qualify for this treatment.

<sup>97</sup> 11 U.S.C. § 726(a)(4); 1129(a)(7).

essentially at the back of the distribution line, ahead of only equity holders and any subordinated creditors. They are likely to get paid little, if anything, and payment might not be for quite a while.

To the extent that there are no funds remaining, a creditor's claim will simply not be paid. If the debtor is liquidating, that is the end of the matter, while if the debtor is reorganizing in Chapter 11, the unpaid debts will be discharged, which means that a permanent federal injunction prohibits attempts to collect them.<sup>98</sup>

A cryptocurrency exchange's customers are likely just general unsecured creditors in regards of their custodial holdings, so they would rank at the bottom for repayment priority. The state law status of customers is likely governed by Article 8 of the Uniform Commercial Code, which addresses indirect systems of investment holdings. A cryptocurrency is likely a "financial asset" under Article 8 of the Uniform Commercial Code as it is

an obligation of a person or a share, participation, or other interest in a person or in property or an enterprise of a person, which is, or is of a type, dealt in or traded on financial markets, or which is recognized in any area in which it is issued or dealt in as a medium for investment.<sup>99</sup>

If cryptocurrencies are "financial assets," then the exchange would be a "securities intermediary" for purposes of Article 8, and the exchange's customer would be an "entitlement holder" that holds a "security entitlement".<sup>100</sup> Article 8 deems an entitlement holder's property interest in a financial asset to be merely "a pro rata property interest in all interests in that financial asset held by the securities intermediary."<sup>101</sup>

In other words, the exchange's customer would not have a property interest in any particular cryptocurrency, but only a pro rata stake in all of the exchange's holdings of that particular cryptocurrency. In other words, there would be a property interest, but not in a specific identifiable asset. Given that for most cryptocurrencies there are not

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<sup>98</sup> 11 U.S.C. § 1141(d).

<sup>99</sup> UCC § 8-102(a)(9)(ii).

<sup>100</sup> UCC §§ 8-102(a)(7), 8-102(a)(17), 8-501(a).

<sup>101</sup> UCC § 8-501(b).

specifically identifiable units with serial numbers, but merely balances assigned to blockchain addresses, this sort of pro rata interest conforms with what would be the natural outcome of any commingling.

Critically, Article 8 would seem to create a property interest in a pool of cryptocurrencies, basically a beneficial tenancy in common in the custodial pool. That would suggest that the exchange's customers would have priority in the custodial cryptocurrency pool, ahead of other creditors of the exchange. In other words, the custodial pool (even if it had deficiencies) would be reserved for the exchange's customers, and would be off limits for the exchange's other creditors, effectuating the equivalent of a constructive trust. Indeed, in a Securities Investor Protection Corporation liquidation, customers of a failed broker-dealer share ratably in the commingled holdings of customer securities and cash.<sup>102</sup>

It is unclear if a bankruptcy would honor such a tenancy in common for cryptocurrencies, because they are not liens or setoff rights that would give the customers secured status. While bankruptcy courts are supposed to respect state law characterization of the scope of property rights, bankruptcy has no category into which to place such a beneficial tenancy in common interest, and lacking a category, the residual, default treatment would be as general unsecured claims. While bankruptcy law does honor such arrangements for securities in the event of a stockbroker and commodity broker liquidations,<sup>103</sup> no parallel provision exists for cryptocurrency exchanges, underscoring that the treatment would likely be as general unsecured claims.<sup>104</sup>

This means that a cryptocurrency exchange's customers could expect to see recoveries of far less than par in an exchange's bankruptcy. The one possible boon for them is that if the estate continues to hold onto the cryptocurrency during the bankruptcy and it appreciates, they will potentially be able to share in the appreciation,

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<sup>102</sup> 15 U.S.C. § 77fff-2(c).

<sup>103</sup> 11 U.S.C. §§ 751, 766. A broker-dealer may liquidate in bankruptcy if the Securities Investor Protection Corporation does not file an application for a protective decree from the district court or if the district court does not grant such a decree. 15 U.S.C. § 77eee.

<sup>104</sup> Perhaps the first \$3,025 of their claims would receive consumer deposit priority, but this seems unlikely given that the priority appears intended for down payment on purchases, rather than safekeeping deposits. In any case, even that limited priority would not guaranty any repayment.

but that will be only after all priority creditors are paid in full.<sup>105</sup> In short, bankruptcy is likely to be an unhappy outcome for the customers of a cryptocurrency exchange.

### **III. THE ADDITIONAL RISKS OF STAGED WALLETS**

The regular risks of bankruptcy are compounded for cryptocurrency investors who use staged wallets. A staged wallet involves two financial institutions: the investor purchase cryptocurrency via one financial institution, which tracks the investor's holdings on its own books and records, but actually holds the cryptocurrency in its own wallet held at a separate institution.<sup>106</sup>

In this situation, the investor has a relationship with the first financial institution, which holds the wallet keys, but none with the second financial institution that provides the actual wallet. The investor's lack of privity with the actual wallet provider matters here because in the event of a problem with the actual wallet provider, the investor's recourse is solely against the first financial institution.

Venmo provides an example of this staged wallet structure. When an investor purchases cryptocurrency through Venmo, the investor has a cryptocurrency balance at Venmo, but that is merely a notation on Venmo's books and records. Venmo does not itself provide the cryptocurrency wallet, meaning the digital address for sending and receiving the cryptocurrency that will be recorded on the cryptocurrency's blockchain. Instead, Venmo holds all of its customers' cryptocurrency investments in commingled wallets hosted by Paxos Trust Company LLC. As Venmo discloses:

Any balance in your Cryptocurrencies Hub represents your ownership of the amount of each type of Crypto Asset shown. We combine your Crypto Asset balance with the Crypto Asset balances of other Venmo accountholders and hold those Crypto Assets in an omnibus account through our custodial Service Provider. We keep a record of your interest in that omnibus account based on the amount of each type of Crypto Asset that is reflected in your balance.

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<sup>105</sup> 11 U.S.C. §§ 726, 1129(a)(7).

<sup>106</sup> See Adam J. Levitin, *Pandora's Digital Box: The Promise and Perils of Digital Wallets*, 166 PENN. L. REV. 305, 318 (2018) (explaining staged wallets).

You do not own any specific, identifiable, Crypto Asset. These Crypto Assets are held apart from our corporate assets and we will neither use these assets for our operating expenses or any other corporate or business purposes, nor will it voluntarily make these Crypto Assets available to its creditors in the event of bankruptcy.<sup>107</sup>

Venmo's customers are thus exposed to *two* levels of credit risk. First is the risk that Paxos Trust Company fails. In that event, Venmo's customers would not have any claim against Paxos Trust, as they have no contractual relationship with it. It is not *their* funds deposited with Paxos, but Venmo's. Instead, Venmo's customers would have only an unsecured claim against Venmo.

If Paxos Trust, Venmo would face all of the problems that cryptocurrency investors generally face in the event of an exchange's bankruptcy, as described in the previous Part. The loss or illiquidity could in turn render Venmo insolvent and unable to pay its customers, who have only general unsecured claims on Venmo, rather than any sort of property-based claim.

Even if Venmo remained solvent, that might be cold comfort to its customers. While it's possible that Venmo would attempt to purchase cryptocurrency on the open market to cover its customers' holdings, there would still inevitably be delay in access to funds for customers, leaving them illiquid and exposed to market swings. And that assumes that Venmo would attempt to fix the problem itself, as opposed to requiring customers to sue it for damages. Damages would be paid in dollars, not cryptocurrency, and raising the question of the valuation date of the damages claim—not an insignificant issue given the price volatility of cryptocurrencies. And even if customers were paid in full, there would be no guaranty as to when they would be compensated.

The second level of credit risk is that even if Paxos Trust were solvent, Venmo could itself fail, which would leave Venmo's customers with mere unsecured claims against Venmo. While Venmo says that it will not use the custodial cryptocurrency for its own operating purposes and will not “voluntarily” make the custodial cryptocurrency available to other creditors in the event of its

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<sup>107</sup> Venmo, Cryptocurrency Terms and Conditions, Feb. 28, 2022, at <https://venmo.com/legal/us-user-agreement/>.

bankruptcy, this is not a specifically enforceable promise. It is a just a covenant, the breach of which does not result in any claim for damages over and above the lost cryptocurrency itself. Moreover, the “voluntarily” language is somewhat misleading because in bankruptcy a trustee might be appointed, obviating any choice for Venmo, and even if not, Venmo would be acting as a “debtor in possession”—a distinct legal identity with fiduciary duties that would override this pre-bankruptcy covenant.<sup>108</sup> Staged wallets present an even greater level of credit risk to cryptocurrency investors than regular hosted wallets.

#### **IV. INADEQUACY OF MOST EXISTING REGULATORY REGIMES**

Cryptocurrency exchanges are subject to a range of private and public law regulatory systems. This section reviews these systems in turn, starting with market self-regulation and insurance before turning to public law systems.

##### **A. Market Self-Regulation**

The cryptocurrency market is unable to engage in self-regulation to protect the custodial holdings of exchange customers. There are three reasons for this. In the first instance, the market is constrained by the public law system of bankruptcy. Bankruptcy honors *property* rights, but not *contract* rights. Contract rights merely result in a claim on the bankruptcy estate, rather than rights to specific property. The ability of parties to cast their relationships as ones of property, rather than contract is constrained by what bankruptcy law will recognize as a property right, as the discussion of constructive trusts, bailments, and sales in the preceding section indicates.

But even if customers had the ability to cast their relationship with exchanges as one of property rights, rather than contract rights, it seems unlikely that they would take care to do so. Cryptocurrency investors are unlikely to understand their legal treatment in the event of an exchange bankruptcy. The technical workings of bankruptcy law are not well understood by most laypersons or even attorneys (it is not a bar exam topic, for example). Investors are also unlikely to give

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<sup>108</sup> The only time Venmo would have agency in bankruptcy as Venmo, rather than as a debtor in possession would be in terms of proposing a Chapter 11 plan. 11 U.S.C. § 1121 (initial exclusive right to propose a plan is held by the “debtor” not the “debtor in possession”).

bankruptcy risk much thought as it is a hard to quantify event in terms of likelihood and magnitude; if investors thought there were material risk of an exchange failing, they would likely avoid that exchange altogether. Instead, because investors cannot quantify the risk, they treat it as non-existent.

On top of this, as noted above, cryptocurrency exchanges are incentivized to lull customers with misleading language about “ownership” and title,” lest the customers start pricing for the credit risk of the exchange. Indeed, Gemini’s extra charges for segregated holdings (which do not alone solve all of the issues) indicate that the costs of the credit risk are real.<sup>109</sup>

## **B. Insurance**

Some cryptocurrency exchanges have third-party insurance for their custodial holdings.<sup>110</sup> It is unclear, however, how much coverage exists under these policies and what the precise exclusions are from coverage. Whatever the extent of coverage, the loss payee is the exchange, not the customer.

While third-party insurance might well be adequate to cover losses on a onesies-twosies basis, it seems unlikely that it would be sufficient to cover a major hacking that drains billions of dollars of custodial holdings from an exchange. More to the point, there is no way for a customer to tell. Third-party cryptocurrency exchange insurance policies are private contracts; the terms of the coverage are not publicly known and advertised, unlike Federal Deposit Insurance Corporation (FDIC) deposit insurance or Securities Investor Protection Corporation (SIPC) brokerage account insurance. The possibility of third-party insurance provides little assurance for cryptocurrency customers regarding the credit risk posed by exchanges.

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<sup>109</sup> See *supra* note 28.

<sup>110</sup> See, e.g., Gemini, User Agreement as of Jan. 14, 2020 (“We maintain commercial crime insurance for Digital Assets we custody in trust on your behalf in our online hot wallet (“Hot Wallet”). Our insurance policy is made available through a combination of third-party insurance underwriters. Our policy insures against the theft of Digital Assets from our Hot Wallet that results from a security breach or hack, a fraudulent transfer, or employee theft.”).

### C. Smart Contracts

In theory cryptocurrency exchange customers could be protected via blockchain-based smart contracts that would automatically transfer their pro rated share of the exchanges' cryptocurrency holdings to them upon the occurrence of a trigger event. For example, the failure of an exchange's auditor to make a periodic certification of the exchange's holdings could be the trigger. This system would effectuate a private liquidation of the exchange's custodial holdings according to its own priority system, outside of the bankruptcy system.

Such a regime suffers from three problems. First, it is not in the interest of the cryptocurrency exchange, because whatever the specified trigger event is would be tantamount to the liquidation of the cryptocurrency exchange. An exchange is unlikely to agree to such an automatic corporate death penalty.

Second, it would be difficult to set properly calibrated triggers that do not rely on the actions of third parties of some sort. Complete automation of such a system might not be possible, meaning that there would be some agency risk, such that investors would risk that the smart contract might not be triggered when it should be.

And third, such a system would not actually be bankruptcy remote. Nothing would prevent the exchange from subsequently filing for bankruptcy (or being put into involuntary bankruptcy). All of the smart contract transfers would be vulnerable to being unwound as voidable preferences, and the ordinary course defense would not be available for such an extraordinary transfer.<sup>111</sup> Given that the exchange would have records of who its customers were, it would be no problem to identify the transferees.

### D. Federal Regulation

Federal regulation protects custodial holdings of other types of assets as a response to historical problems with custodial relationships. Historically, securities were negotiable instruments, meaning that they were transferred by indorsement and physical transfer. As the volume of securities transactions grew in the 1960s, Wall Street experienced a "Paperwork Crisis" because the systems for processing the then-

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<sup>111</sup> See *supra* part II.C.

paper-based transfers were unable to keep up. As a result, there was “a virtual breakdown in many firms of the control over the possession, custody, location, and delivery of securities and the payment of money obligations of customers, all of which exposed customers to the risk of the loss of their cash and securities.”<sup>112</sup> The Paperwork Crisis led to numerous trades failing because securities were not timely delivered to buyers. The liability from these failed executions resulted in the failure of some broker-dealers. When these broker-dealers failed, their books and records did not accurately reflect their customers’ holdings because of problems in processing transactions and remitting payments.

Congress responded in 1970 with the Securities Investor Protection Act. SIPA created a system for liquidating broker-dealers as well as an insurance program to protect investors against loss of securities and cash held in accounts at broker-dealers. The SIPA liquidation process still has some of the uncertainty, delay, and cost of the bankruptcy process. Accordingly, the SEC has adopted both a Net Capital Rule and a Customer Protection Rule under SIPA.

The Net Capital Rule,<sup>113</sup> which requires broker-dealers to have sufficient liquid resources on hand to satisfy customer claims, aims to prevent broker-dealer failures in the first place. If they do fail, however, the Customer Protection Rule is designed to enable a liquidation without a legal proceeding so as to enable the customer to have uninterrupted access to the assets in his investment account.<sup>114</sup>

The Customer Protection Rule requires “registered broker-dealers to maintain adequate liquid assets, to keep current and accurate books and records, and to safeguard investment assets under their control.”<sup>115</sup> Safeguarding of investment assets requires brokers—which play the role of wallet providers in the securities and commodities systems—to segregate customers’ holdings of securities or commodities from their own funds (although the holdings of different customers can be commingled).<sup>116</sup> This is done both to ensure that a broker does not use customer funds for its own proprietary

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<sup>112</sup> Michael P. Jamroz, *the Customer Protection Rule*, 57 BUS. L. 1069, 1074 (2002).

<sup>113</sup> 17 C.F.R. § 240.15c3-1.

<sup>114</sup> Jamroz, *supra* note 112, at 1069.

<sup>115</sup> *Id.*

<sup>116</sup> 17 C.F.R. § 240.15c3-3.

trading and to protect customers in the event of a broker's insolvency. As a backstop, missing assets from segregated securities brokerage funds (but not commodities futures funds) are insured by the Securities Investor Protection Corporation.

A parallel system (but without insurance) exists for forward commission merchants dealing in commodities futures.<sup>117</sup> In contrast, banks are not required to segregate general deposits, but they are subject to a stricter supervisory regime for safety-and-soundness and their deposit liabilities are covered by FDIC insurance, which guaranties that all but the largest deposit accounts will be made whole upon a loss.

Cryptocurrency exchanges, however, are generally not regulated for safety and soundness or investor protection by federal regulators. Neither federal banking regulators, the SEC, nor the CFTC has to date claimed general jurisdiction over cryptocurrency exchanges for exchange activity, as opposed to other types of activity, in part because of questions about precisely what any particular cryptocurrency or cryptocurrency-related product is in terms of legal categories.

The SEC has brought a few enforcement actions crypto platforms for operating as unregistered securities exchanges.<sup>118</sup> It has not, to date, taken the stance that all cryptocurrency exchanges are subject to the requirements of the Securities Exchange Act of 1934.<sup>119</sup>

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<sup>117</sup> 17 C.F.R. § 1.20.

<sup>118</sup> Order Instituting Cases-and-Desist Proceedings Pursuant to Section 21C of the Securities Exchange Act of 1934, Making Findings, and Imposing a Cease-and-Desist Order, *In the Matter of Poloniex LLC*, Securities Exchange Act of 1934 Release No. 92607, Aug. 9, 2021; Complaint, SEC v. Bitqyck, Inc., No. 3:19-cv-02059-N (Aug. 29, 2019, N.D. Tex.); Order Instituting Cases-and-Desist Proceedings Pursuant to Section 21C of the Securities Exchange Act of 1934, Making Findings, and Imposing a Cease-and-Desist Order, *In the Matter of Zachary Coburn*, Securities Exchange Act of 1934 Release No. 84553, Nov. 8, 2018; Complaint, SEC v. Jon E. Montroll and Bitfunder, No. 1:18-cv-01582 (S.D.N.Y. Feb. 21, 2018). The SEC reportedly threatened suit against Coinbase for an unregistered offering of a cryptocurrency lending product, rather than for being an unregistered exchange. Matthew Goldstein & Ephrat Livni, *Coinbase says the S.E.C. has threatened to sue it over a plan to pay interest*, N.Y. TIMES, Sept. 8, 2021.

<sup>119</sup> See Prepared Remarks of Gary Gensler on Crypto Markets, Penn Law Capital Markets Association Annual Conference, Apr. 4, 2022, at <https://www.sec.gov/news/speech/gensler-remarks-crypto-markets-040422> (noting that SEC staff had been asked to work on getting cryptocurrency exchanges registered as securities exchanges because “crypto platforms play roles similar to those of traditional regulated exchanges. Thus, investors should be protected

Likewise, the CFTC has brought enforcement actions against some cryptocurrency exchanges based on their conducting transactions for customers in cryptocurrency options and futures with being registered as futures commission merchants.<sup>120</sup> The CFTC's jurisdiction over spot markets—markets for prompt delivery—is limited, however. While the CFTC did note in one complaint that the exchange “never transferred possession and control of the entire quantity of the assets purchased using margin,” it did not charge the exchange with a violation of its rule requiring segregation of customer assets,<sup>121</sup> but rather with failing to be registered as a futures commission merchant.<sup>122</sup>

While both the SEC and CFTC have claimed jurisdiction over some cryptocurrency exchange activity through enforcement actions, neither has acted more broadly to regulate cryptocurrency exchanges for safety-and-soundness or to ensure the type of investor protections that are required of securities and commodities exchanges. Instead, the major form of regulation of cryptocurrency exchanges is at the state level—state money transmitter statutes, and the special cryptocurrency specific licensing regimes for New York's Bitlicense and Wyoming's Special Purpose Depository Institution (SPDI) charters. Each in turn is reviewed below.

### E. State Money Transmitter Laws

Every state has a money transmitter statute that requires money transmitters to be licensed, and it is a federal felony to engage in money transmission without a state license.<sup>123</sup>

The basic features of money transmitter laws is that they require a licensee to show a certain level of financial capacity and character,<sup>124</sup> the posting of a surety bond of a relatively modest

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in the same way.”)

<sup>120</sup> Order Instituting Proceedings Pursuant to Section 6(C) and (D) of the Commodity Exchange Act, Making Findings, and Imposing Remedial Sanctions, *In the Matter of Payward Ventures, Inc. (d/b/a Kraken)*, CFTC Docket No. 21-20 (Sept. 28, 2021); CFTC, *CFTC Charges 14 Entities of Failing to Register as FCMs or Falsely Claiming to be Registered*, Release No. 8434-21, Sept. 29, 2021.

<sup>121</sup> 17 C.F.R. § 1.20

<sup>122</sup> Order Instituting Proceedings Pursuant to Section 6(C) and (D) of the Commodity Exchange Act, Making Findings, and Imposing Remedial Sanctions, *In the Matter of Payward Ventures, Inc. (d/b/a Kraken)*, CFTC Docket No. 21-20 (Sept. 28, 2021).

<sup>123</sup> 18 U.S.C. § 1960.

<sup>124</sup> *See, e.g.*, Mich. Comp. L. §§ 487.1012-13.

amount,<sup>125</sup> and the maintenance of safe, “permissible investments” or “eligible securities” equal to the aggregate amount of its outstanding money transmission obligations.<sup>126</sup> These requirements are enforced through a supervisory regime, although the frequency of examination is limited, meaning that it is entirely possible for a money transmitter to be out of compliance with its permissible investment requirement most days of any given year.

Only a handful of state money transmitter laws expressly apply to cryptocurrencies,<sup>127</sup> and for those that do not, it is unclear if they apply, and in particular, if the permissible investments requirement applies to custodial holdings of cryptocurrency, which are not clearly payment instruments or money under the definitions used in these statutes. While the major U.S.-based cryptocurrency exchanges have money transmitter licenses from all or nearly all states, it is unclear how they interpret the application of those laws to their custodial holdings. They might hold the licenses out of an abundance of caution or because some of their activities besides custodial holdings require a license.

As a result, it is not clear that cryptocurrency exchanges are generally holding permissible investments equal to their custodial holding obligations. Indeed, given the enormous volatility of cryptocurrencies, it would seem difficult for an exchange to actually stay in compliance with a permissible investment obligation. Whereas a regular money transmitter like Western Union could use cash given to it for transmission to purchase safe assets like permissible investments, that is not possible for a cryptocurrency exchange except at great investment risk. For example, if a cryptocurrency exchange were to take custody of 10 bitcoin (posit a market value \$1 million) and then use that to purchase \$1 million of US Treasury securities, the exchange would face the risk that when the bitcoins were subsequently redeemed that it would need to convert the Treasuries into bitcoin in order to transfer them to whatever wallet its customers had directed. If the price of bitcoin had gone up—for example, suppose that 10 bitcoin would now cost \$3 million to purchase—the exchange might not be able to cover its redemption obligations. In other words, the

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<sup>125</sup> See, e.g., Mich. Comp. L. § 487.1013(5).

<sup>126</sup> See, e.g., Mich. Comp. L. § 487.1031(1); Cal. Fin. Code § 2081.

<sup>127</sup> <https://pro.bloomberglaw.com/brief/cryptocurrency-laws-and-regulations-by-state/#content-bystate>.

permissible investment requirement could actually undermine a money transmitter's safety and soundness.

Money transmitters are eligible to file for bankruptcy, although states may also have special parallel insolvency regimes that a money transmitter may use. The permissible investments are meant to serve as a pool from which customers can be compensated in the event of a money transmitter insolvency. Some states' statutes even specify the permissible investments are held in trust for the benefit of customers "in the event of a bankruptcy" of the money transmitter.<sup>128</sup> This sort of *ipso facto* provision would not be honored in bankruptcy, however.<sup>129</sup>

What this all means is that money transmitter statutes provide relatively little protection to cryptocurrency exchange customers. There is no guaranty that an exchange will actually have maintained the permissible investments required (or that the requirement will even apply to custodially held cryptocurrency), and even if it does, the customers are still going to be just general unsecured creditors in the exchange's bankruptcy.

#### F. New York's Bitlicense

New York is one of two states with a special cryptocurrency institution regulatory regime. New York offers a Bitlicense for companies that store, receive for transmission, broker, exchange, or control or administer virtual currencies involving New York or a New York resident.<sup>130</sup>

The granting of a Bitlicense is discretionary to the New York Banking Superintendent, as are many of the conditions of the license.<sup>131</sup> Only twenty-eight Bitlicenses are outstanding as of February 2022.<sup>132</sup>

The Bitlicense regime imposes individualized capital requirements upon the licensee that are left to the discretion of the

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<sup>128</sup> Cal. Fin. code § 2081(c); Mich. Comp. L. § 487.1031(3).

<sup>129</sup> 11 U.S.C. § 545(a) (avoiding *ipso facto* liens). Arguably a springing trust is the same as a springing lien in that it creates property rights contingent upon the filing of a bankruptcy or other event of insolvency.

<sup>130</sup> 23 N.Y.C.R.R. §§ 200.2(q), 200.3.

<sup>131</sup> 23 N.Y.C.R.R. § 2004(c).

<sup>132</sup> N.Y. Dept of Fin. Servs. Regulated Entities, Jan. 12, 2022, at [https://www.dfs.ny.gov/apps\\_and\\_licensing/virtual\\_currency\\_businesses/regulated\\_entities](https://www.dfs.ny.gov/apps_and_licensing/virtual_currency_businesses/regulated_entities).

New York Banking Superintendent.<sup>133</sup> Nothing requires the particular capital requirements to be publicly disclosed, so the capitalization of a Bitlicensee may vary and will not necessarily be known to customers.

The Bitlicense also requires the licensee to maintain a surety bond or trust account for the benefit of its consumers in an amount again left to the New York Banking Superintendent's discretion,<sup>134</sup> requires the licensee to actually hold any assets it has agreed to hold custodially,<sup>135</sup> and prohibits the licensee from using custodial assets other than at the customer's direction.<sup>136</sup>

While the Bitlicense also subjects licensees to supervisory authority and to various security requirements,<sup>137</sup> nothing guaranties that a licensee will in fact remain solvent and will actually have abided by the terms of its license. Moreover, a Bitlicense is not a banking license and there is no special insolvency regime for Bitlicense holders, which are eligible to file for Chapter 11 bankruptcy.

The Bitlicense is meant to ensure that licensees remain solvent and do not enter Chapter 11. If the regulatory regime fails—for example there is a hacking that results in the theft of substantial amounts of cryptocurrency, rendering the licensee insolvent—then nothing in the Bitlicense regime affects an exchange's customers' treatment in bankruptcy. The customers of exchanges that are Bitlicense holders will be general unsecured creditors in the exchanges bankruptcy.

### **G. Wyoming's Special Purpose Depository Institutions**

The only regulatory regime that seems to successfully address most of the custodial holding risk is Wyoming's regime. In 2019, Wyoming created a new type of banking charter for "Special Purpose Depository Institutions" (SPDIs) in order to attract crypto business to the state. Wyoming SPDIs hold a type of limited banking charter that allows them to act primarily as custodians in cryptocurrencies.<sup>138</sup>

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<sup>133</sup> 23 N.Y.C.R.R. § 200.8.

<sup>134</sup> 23 N.Y.C.R.R. § 200.9(a).

<sup>135</sup> 23 N.Y.C.R.R. § 200.9(b).

<sup>136</sup> 23 N.Y.C.R.R. § 200.9(c).

<sup>137</sup> 23 N.Y.C.R.R. §§ 200.13, 200.16.

<sup>138</sup> Wyoming Div. of Banking, *Special Purpose Depository Institutions*, at <https://wyomingbankingdivision.wyo.gov/banks-and-trust-companies/special-purpose-depository-institutions> (last viewed Feb. 12, 2022).

Wyoming law requires deposit balances to be at least \$5,000.<sup>139</sup> This precludes many smaller retail customers from using Wyoming SPDIs.

Wyoming SPDIs are generally prohibited from making loans using customer deposits of fiat currency.<sup>140</sup> They are prohibited from rehypothecating consumer assets or otherwise using them without customer instructions.<sup>141</sup> They must also constantly maintain unencumbered high-quality, liquid assets worth 100% or more of their custodial liabilities—making them full reserve banks.<sup>142</sup> The eligible assets are basically limited to cash and government and agency securities,<sup>143</sup> meaning that cryptocurrency held in Wyoming SPDIs is basically a monetization of U.S. government debt, an irony given that part of the attraction of cryptocurrencies is that it is supposed to be delinked from government debts.

Wyoming SPDIs are subject to supervision by the Wyoming Division of Banking,<sup>144</sup> which is charged with enforcing the full reserve requirement. As full reserve banks, Wyoming does not require SPDIs to have federal deposit insurance, which means that they are eligible for filing for bankruptcy,<sup>145</sup> even though Wyoming offers an alternative liquidation procedure.<sup>146</sup>

While Wyoming's full reserve requirement does not seem particularly different from state money transmitter statutes' requirement of full backing of money instrument obligations with "permissible investments," Wyoming law includes a critical additional piece that makes it more likely that custodially held cryptocurrency would be treated as a bailment in bankruptcy. Wyoming law departs from UCC Article 8 and specifies a different property law treatment of digital assets held in custody.

Rather than Article 8's beneficial tenancy in common approach, Wyoming law provides that custodially held digital assets are

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<sup>139</sup> Wyo. Stat. § 13-12-104(a).

<sup>140</sup> Wyo. Stat. § 13-12-103(c).

<sup>141</sup> Wyo. Stat. § 34-29-104(k).

<sup>142</sup> Wyo. Stat. § 13-12-105. Wyoming SPDIs must also maintain a contingency account equal to 2% of their assets. Wyo. Stat. §§ 13-12-105, 13-12-106. It is unclear if this 2% is in addition to the 100% reserve requirement.

<sup>143</sup> Wyo. Stat. §§ 13-12-105, 13-3-202.

<sup>144</sup> Wyo. Stat. § 13-12-119(c).

<sup>145</sup> 11 U.S.C. § 109(b)(2).

<sup>146</sup> Wyo. Stat. §§ 13-12-122, 13-12-123.

neither liabilities nor assets of a bank.<sup>147</sup> Instead customers must elect one of two forms of custody: a bailment, which shall be “strictly segregated from other assets,”<sup>148</sup> or a bailment under which the bank may undertake transactions with the digital asset (and possibly coming the assets), but with a specified time for return and for which all risk of loss remains on the customer.<sup>149</sup> While it seems clear that bankruptcy law would respect the former type of a bailment arrangement by virtue of it being deemed a bailment under state law, it is less clear how a bankruptcy court would treat the second arrangement, particularly with commingling.

While Wyoming’s laws seem to offer the greatest assurance to cryptocurrency exchange customers, Wyoming has only issued a handful of SPDI charters, and most cryptocurrency exchanges are not Wyoming SPDIs.<sup>150</sup> This suggests that customers are not placing substantial value on bankruptcy risk or that there are other offsetting disadvantages of a Wyoming SPDI charter that have led most major institutions to prefer the New York Bitlicense.

## H. Summary

The customer-protection regulation of cryptocurrency exchange custodial holdings is entirely on the state level and varies considerably depending on the applicable state regime: money transmitter acts, New York’s Bitlicense, or Wyoming’s SPDI charter. How any of these regimes interact with bankruptcy in the cryptocurrency context is untested, but only Wyoming’s system seems likely to ensure that custodial holdings would be treated as bailments that are not property of the bankruptcy estate. For exchanges governed by the Bitlicense or money transmitter acts, the custodial holdings are more likely to be deemed property of the estate and the exchange’s customers as mere unsecured creditors.

The contrast between this uncertain and likely unfavorable treatment for cryptocurrency investors and the greater protections that exist for bank depositors and securities and commodities brokerage customers is striking. While cryptocurrencies benefit in certain ways

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<sup>147</sup> Wyo. Stat. § 34-29-104(d).

<sup>148</sup> Wyo. Stat. § 34-29-104(d)(i).

<sup>149</sup> Wyo. Stat. § 34-29-104(d)(ii)-(e), (g)(iv).

<sup>150</sup> <https://www.nasdaq.com/articles/commercium-financial-becomes-fourth-wyoming-chartered-crypto-bank-2021-08-11>.

from avoiding federal regulation, the lack of regulation also imposes substantial credit risk on the users of cryptocurrency exchanges when dealing with exchanges, which are the central nodes of the cryptocurrency ecosystem. This credit risk is exacerbated by the lack of regulatory oversight of the exchanges' operations, which can itself be a source of risk.

### **CONCLUSION**

While cryptocurrencies are designed to address the credit risk that exists from transacting, namely the double-spend problem, they are still vulnerable to the credit risk that arises from passive holding in custodial arrangements. Cryptocurrency investors do not generally seem aware of the credit risk involved with custodial holdings and do not appear to price for this risk, meaning that exchanges are benefitting from imposing a substantial unpriced risk on their customers. What's more, because the exchanges' credit risk is completely externalized on its customers, there is a serious moral hazard problem: the exchanges have every incentive to engage in riskier behavior because they gain all of the upside from their risky ventures, while the downside is externalized on their customers.

Bankruptcy (and bank insolvency) law has special regimes to protect the customers of insolvent brokerages and banks. But because cryptocurrency—even if it is a security, commodity, or currency—does not fall into those special regimes, cryptocurrency is subject to the default treatment in bankruptcy. Bankruptcy law honors property rights, not contract rights. If a customer does not hold the private key to cryptocurrency, its beneficial interest in a custodially held cryptocurrency is likely to be treated as a mere contract right rather than a property right. That means that the customer of a failed exchange is could well to end up in the unhappy position of being a general unsecured creditor of the exchange, looking at eventually recovering only pennies on the dollar, rather than be deemed the owner of the cryptocurrency. Unfortunately, it might well take a high-profile bankruptcy of a U.S. cryptocurrency exchange for cryptocurrency investors to understand this Article's basic lesson: “not your keys, not your coins.”