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The Crypto Conundrum: Difficulties in Valuing Cryptocurrency Assets Held in Exchange Custody: Part Two

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Part One of this two-part article reviewed custodially held crypto assets as part of the bankruptcy estate. This installment discusses intrinsic value as a proper valuation method for crypto assets held in exchange custody, factors to consider when calculating the intrinsic value of custodially held crypto assets, and risk-mitigation approaches to preserve asset value.

Intrinsic Value as a Proper Valuation Method for Custodially Held Crypto Assets

When a record owner of crypto assets held in exchange custody files for bankruptcy, trustees and counsel must acknowledge the risk of an exchange bankruptcy during the pendency of the record-owner's bankruptcy case. As discussed in Part One, crypto assets held in exchange custody cannot be valued according to face value due to the risk an exchange bankruptcy's automatic stay will prevent the record-owner from exercising its directing interest over the assets.

While fair market value reflects the asset's current market price, intrinsic value reflects the asset's true value based on its "fundamental financial characteristics." [2] Due to factors such as the risk of an exchange bankruptcy, a lack of typical consumer and investor regulatory protections, limited market liquidity, and price volatility, intrinsic value may be a more accurate valuation for crypto assets held in exchange custody. Trustees and counsel to a record-owner's bankruptcy (as opposed to the exchange bankruptcy), therefore, may need to estimate the intrinsic value of custodially held crypto when calculating the feasibility of a reorganization plan or estimating creditor distributions in a liquidation to account for the practical risks unique to custodially held crypto assets.

While many debtors may hold only *de minimis* crypto assets, therefore rendering any risk discount inconsequential, businesses and individuals with large balance sheets, or that are particularly tech-savvy, might hold substantial crypto assets. In these cases, the risk discount from the asset's market value to its intrinsic value could result in a substantial change, affecting the record-owner's bankruptcy case.

Risk Factors to Consider When Calculating a Crypto Asset's Intrinsic Value

First, trustees and counsel will have to estimate the likelihood that the exchange holding custody will file for bankruptcy protection during the pendency of the record-owner's case. As control over crypto assets will only divest from a record-owner if the exchange files for bankruptcy, this estimation is essential to determine the risk discount. Estimating the risk of bankruptcy is difficult, but an exchange with a healthy balance sheet, reasonable debt levels and steady revenue will present a lesser risk than an exchange with consistently negative cash flow, security breaches and an overleveraged balance sheet. Furthermore, trustees and counsel will also have to judge the estimated length of time the record-owner will be in bankruptcy, as a longer bankruptcy case will present a wider window of opportunity in which an exchange may also file bankruptcy. While an individual's chapter 7 case may only last a few months, chapter 11 and 13 cases can take years and therefore present a greater risk of exchange bankruptcy occurrence.

Second, trustees and counsel should investigate the liquidity of the record-owner's crypto assets. Liquidity in markets generally refers to "[t]he characteristic of having enough units in the market that large transactions can occur without substantial price variations." [3] While many crypto assets may have millions or billions of outstanding units, a low number of willing market participants can create an illiquid market for any given asset. Crypto assets vary widely in their respective market liquidity, with some, such as Bitcoin, proving very liquid while many new "alt-coins" struggle to maintain value and suffer from large bid-ask spreads. As a result, dozens of websites now offer information on crypto arbitrage strategies, with some focusing on less popular cryptocurrencies in the belief that they will present wider arbitrage gaps. [4] Less popular crypto assets, therefore, can present liquidity issues that may play a considerable role in ascertaining a crypto asset's intrinsic value.

Third, trustees and counsel should examine the volatility of the crypto assets at issue. Volatility means an asset that has "the quality of . . . sudden and extreme price changes." [5] While related to liquidity (indeed, an illiquid market can often create greater volatility), volatility refers only to the variation in an asset's market price. As crypto assets are infamous for their extreme price fluctuations, [6] record-owners holding crypto assets in exchange custody can be subject to the risk of price depreciation when the exchange files for bankruptcy, partially depending on whether the bankruptcy court determines the claim to be "liquidated" or "unliquidated" under § 502. [7] The relative volatility of the record-owner's crypto assets, therefore, can present a considerable risk depending on the court's determination of liquidated claims or its chosen date for § 502(c) estimation.

Fourth, counsel should look to the terms of the user agreement of the exchange holding custody of the crypto assets. If the agreement permits the exchange to pool crypto assets held in custody or otherwise control the private keys for use in ventures such as staking, [8] the record-owner has a greater risk of loss in value, as the record-owner is more likely to be considered a general unsecured creditor. If the agreement specifies, however, that each customer's crypto assets will be held in separate custodial accounts, the value of the crypto assets should not be discounted as severely, because the record-owner will have a stronger argument to establish a constructive trust. [9]

Based on these factors, trustees and counsel may discount the face value of crypto assets anywhere from 10-90% depending on the crypto asset, the exchange bankruptcy risk, and the terms of the exchange's user agreement. While a more widely accepted crypto asset such as Bitcoin or Ethereum will likely have a smaller discount due to lower liquidity risk, the risks of exchange bankruptcy, asset-commingling and high volatility persist, and require trustees and counsel to discount the asset's market value to determine its intrinsic value.

Risk-Mitigation Approaches

Given these various risk factors for a record-owner's custodially held crypto assets, counsel may seek to minimize the risk of losing the assets' current value. One option for the record-owner's counsel to consider would be to immediately liquidate all crypto assets before filing the bankruptcy petition. [10] This would not only ensure that the record owner will not lose access to the crypto assets if the exchange files for bankruptcy during the pendency of the record-owner's case, but would also provide a liquid cash source to pay creditors.

A drawback of this approach is the possible loss of value in a large asset liquidation, especially if the particular crypto asset has an illiquid market. Additionally, this approach will be more difficult to implement if the record-owner is a business that accepts cryptocurrency in exchange for its goods or services, as the record-owner would then be required to seek court approval under § 363 to sell crypto assets received post-petition. Finally, if the record-owner must hold crypto assets to generate revenue through staking, this strategy is likely unfeasible, as the sale of these assets would eliminate the record-owner's revenue source.

A second option for counsel seeking to minimize risk is to move the record-owner's crypto assets to a cold storage wallet, an offline electronic wallet that stores crypto assets' private keys in a physical format. [11] This option would similarly eliminate the risk of an exchange bankruptcy but would also preserve the crypto assets in their current form, allowing the trustee or counsel to distribute crypto assets as part of the reorganization or liquidation. On the other hand, trustees or counsel lacking experience with crypto storage or without sufficient storage capabilities could lead to the loss of the assets' private keys, rendering the underlying assets unrecoverable. Furthermore, if the record-owner is a business that requires crypto assets for revenue or accounts receivable, the trustee or counsel will have to continuously transfer crypto assets to and from the cold-storage wallet, resulting in additional labor and reduced business capacity. Even if the record-owner operates as a debtor in possession and keeps crypto assets in its own cold-storage facilities, transferring crypto assets from an exchange to cold storage is both burdensome and costly. [12] Finally, retaining crypto assets before and during a bankruptcy case bears the risk that the assets' value will decrease during the case.

A one-size-fits-all solution to maximize the value of a record-owner's crypto assets and minimize risks does not exist. Trustees and counsel, therefore, will have to weigh the facts before them to decide whether a risk-mitigation approach is appropriate for the record-owner. The benefits of these risk-mitigation strategies are magnified when exchange bankruptcy, asset and liquidity risks cause a severe discount from a crypto asset's current market price to its estimated intrinsic value. In that case, trustees and counsel may pursue these strategies to preserve asset value and enhance the likelihood of success in a record-owner's bankruptcy.

[1] on Schlotterback wrote this article during his tenure as the 2021-22 term law clerk for Hon. Paul M. Black, Chief Judge of the U.S. Bankruptcy Court for the Western District of Virginia. The views expressed herein are those of the author and not of the U.S. Bankruptcy Court for the Western District of Virginia.

[2] James M. Lukenda, *Westlaw Practical Law, Valuation Fundamentals in Bankruptcy: Overview* (2022).

[3] "Liquidity," *Black's Law Dictionary* (11th ed. 2019).

[4] Colin Dodds, "Crypto Arbitrage: How It Works & Trading Strategies," *Sofi Learn* (July 23, 2021), **www.sofi.com/learn/content/crypto-arbitrage/** ("Investors can find bigger price spreads for the same cryptocurrency digital assets among less-popular, less-frequently traded forms of crypto.").

[5] "Volatility," *Black's Law Dictionary, supra* n.3.

[6] *See* Shaurya Malwa, "Terra's LUNA Has Dropped 99.7% in Under a Week," *CoinDesk* (May 12, 2022), **www.coindesk.com/markets/2022/05/12/terras-luna-has-dropped-997-in-under...** (reporting that cryptocurrency LUNA lost 96% of its value in one day).

[7] Record-owners are likely subject to greater risk if their claims are considered liquidated because they bear most of the risk of post-petition asset price depreciation but stand to gain little from asset price appreciation until all secured and priority creditors are paid in full. If the court considered the record-owners' claims to be unliquidated, however, the date of a § 502(c) claim estimation would likely present the greatest risk for record-owners due to the volatility of crypto asset prices.

[8] Staking is the process by which investors "lock up" units of cryptocurrency to validate transactions and forge new blocks on the blockchain. In exchange for "locking up" their assets with exchanges, investors earn interest as part of a "staking pool" (a pool of staked crypto assets used to achieve required minimum asset levels). Sam Becker, "What to Know About Staking," Personal Fin., Bus. Insider (July 12, 2022), www.businessinsider.com/personal-finance/staking-crypto.

[9] A successful argument that an exchange holds crypto assets in a constructive trust would assist the record-owner because assets held in trust for another generally do not enter the bankruptcy estate. 11 U.S.C. § 541(d); *Begier v. IRS*, 496 U.S. 53 (1990).

[10] While counsel should be mindful of pre-petition transfer restrictions such as those found in §§ 547 and 548, this strategy is likely viable if the record-owner sells the crypto assets for market (*i.e.*, reasonably equivalent) value and maintains the cash proceeds for distribution to creditors.

[11] Glob. Digit. Fin., *Crypto Asset Safekeeping and Custody: Key Considerations and Takeaways*, at 17 (2019).

[12] Transfers from exchanges to cold storage typically require transaction costs.

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