

CRYPTOCURRENCIES DECRYPTED: DECIPHERING THE RIDDLE OF INSOLVENCY LAWS AND CRAFTING A REGULATORY TAPESTRY

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The rise of cryptocurrencies has exerted considerable strain on the conventional financial system, triggering apprehensions regarding the efficacy of insolvency and bankruptcy laws. This article delves into the intricacies within the legal framework overseeing bankruptcy proceedings, specifically in the realm of cryptocurrencies. The authors first explore whether cryptocurrencies should be classified as assets or alternatively positioned within the nuanced categories of currency or commodities in the context of insolvency proceedings. The second facet of the argument focuses on the challenges faced by stakeholders, including creditors and resolution professionals, when dealing with debtors holding cryptocurrency assets on exchange platforms. The article culminates with a proposition for an insolvency law framework tailored for India that is adept at navigating the dynamic landscape of virtual digital assets like cryptocurrencies. The article advocates for the infusion of best practices gleaned from advanced bankruptcy law regimes worldwide, aiming to streamline the insolvency resolution process. The ultimate objective is to advocate for considering cryptocurrencies within the insolvency law framework, facilitating the accommodation of the ever-evolving nature of cryptocurrencies while harmonising the interests of all stakeholders.

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I. INTRODUCTION

The emergence of cryptocurrencies has fundamentally altered the global financial system by upending long-standing conventions and putting legal frameworks to the test. The growing value of digital assets has given rise to complicated legal issues, especially when it comes to bankruptcy and insolvency procedures. Many obstacles must be overcome by the parties engaged in these procedures, including classifying cryptocurrencies, locating their owners, and handling bankrupt companies that possess them.

In order to provide clarity and direction on handling and valuing cryptocurrency assets, this study intends to investigate the complex interaction between insolvency laws and cryptocurrencies. With regard to the particulars of virtual currencies, there is a rising concern about how standard bankruptcy rules may not adequately address these issues. In light of this, this discussion aims to find practical solutions that balance the interests of all involved, encourage openness, and guarantee efficient dispute resolution.

Examining the ongoing dispute over whether to classify cryptocurrencies as currencies or commodities, the article dives into the controversial topic of cryptocurrency classification. The research aims to clarify the nuances of this classification and highlight its broad implications, particularly in relation to exchanges that are insolvent, by closely examining this crucial question. The

study aims to provide invaluable advice on the management and valuation of cryptocurrency holdings by carefully examining this classification conundrum. Besides, it looks at the financial scene from a broad perspective, exploring the ways in which cryptocurrencies interact with and add to the wider range of financial instruments.

The authors dive into the complex legal and technological issues that cryptocurrency introduces in bankruptcy processes across jurisdictions, going beyond the classification controversy. Some of these concerns include the volatility of crypto, jurisdictional conundrum, fraudulent transfers, etc. Solutions inferred after an analysis spanning multiple jurisdictions have been proposed to manage these complications properly.

Ultimately, the authors suggest workable steps to amend India's bankruptcy regulations to address the particular difficulties brought about by cryptocurrencies. They accomplish this by looking at how other nations have handled comparable problems and making recommendations for changes that can successfully incorporate digital assets into India's current legal system.

II. CLASSIFICATION OF CRYPTO ASSETS

The categorization of cryptocurrencies as commodities or currencies poses complex legal and technical issues in bankruptcy proceedings. Technically, asset recovery and identification are made more difficult by blockchain technology's decentralised structure. Since cryptocurrency transactions can happen internationally and are pseudonymous, it can be challenging to track and seize assets during bankruptcy procedures. Further complicating matters is the fact that storing cryptocurrency in digital wallets may require private keys only owned by the debtor.

Cryptocurrency classification is based on how they are regulated in various jurisdictions and their primary purposes. Certain nations regard cryptocurrencies as legal money, while others consider them commodities governed by securities regulations. They may be treated differently in bankruptcy due to this regulatory divergence, which may have an effect on creditor priority, taxation, and valuation. Moreover, asset valuation becomes uncertain due to the volatility of cryptocurrency markets, making it more difficult to assess the value of these assets for the purpose of distributing them among creditors.

A. COMMODITY VERSUS CURRENCY DEBATE

The resolution of the conflict between cryptocurrency and bankruptcy depends greatly on how bankruptcy courts classify cryptocurrencies—as commodities, currencies, or assets of the estate. Some suggest that digital assets held by a company at the time of filing should be included in the bankruptcy estate to aid in restructuring efforts. By selling cryptocurrencies and returning the proceeds to the estate, more funds are made available for repaying the creditors.¹

However, several crypto exchange companies have designated their clients as either general unsecured creditors or equity holders, placing them at the end of the repayment priority list. Disputes arise over whether client deposits remain under their ownership or become part of the bankruptcy estate.

Cryptocurrency is a relatively new and rapidly evolving concept that has been the subject of much debate among regulatory bodies. The classification of cryptocurrency is a crucial issue that affects its treatment in bankruptcy proceedings and the regulatory oversight of exchange platforms. However, determining the valuation of cryptocurrency in bankruptcy is challenging due to its volatile nature. While the Commodity Futures Trading Commission ('CFTC') classifies cryptocurrencies as commodities, the Securities and Exchange Commission ('SEC') considers them securities. Unfortunately, bankruptcy courts have yet to establish a definitive classification, leading to uncertainty in the industry.²

This uncertainty arises from the unique characteristics of cryptocurrency. Unlike traditional currencies or physical commodities like gold, cryptocurrency lacks intrinsic value tied to government-backed currencies. Bankruptcy courts often refer to the Internal Revenue Service ('IRS') classifications, which consider cryptocurrency property for taxation purposes. Meanwhile, the SEC evaluates

¹ Theodora Kostoula, 'Valuation of cryptoassets in EU insolvency: Challenges and prospects' (2023) 32(1) *International Insolvency Review* 8 <<https://doi.org/10.1002/iir.1490>> accessed 9 March 2024.

² Cadwalader, Wickersham and Taft LLP, 'Quantifying Cryptocurrency Claims in Bankruptcy: Does the Dollar Still Reign Supreme?' (2022) 14 *The National Law Review* 7 <<https://www.natlawreview.com/article/quantifying-cryptocurrency-claims-bankruptcy-does-dollar-still-reign-supreme>> accessed 24 February 2024.

the classification of each cryptocurrency based on its specific characteristics and utility, using the Howey test to determine if it qualifies as a security.³

It is important to note that Bitcoin, a prominent cryptocurrency, has been classified by the SEC and the U.S. Treasury as not a security due to its decentralized operation, which differs from centralized systems typically associated with securities.⁴ The classification of other cryptocurrencies remains a subject of ongoing debate among regulatory bodies, and the lack of consensus on classifying cryptocurrency continues to pose challenges for the industry.

Similarly, the Indian regulatory landscape appears to be quite receptive to cryptocurrencies. This is evident from the announcement in the Union Budget 2022-2023 that any revenue generated from the transfer of virtual digital assets ('VDAs') will be subject to a 30% tax.⁵ Additionally, the Ministry of Finance, through a notification, brought cryptocurrencies under the ambit of the Prevention of Money Laundering Act ('PMLA') to address the issue of illicit wealth generation and its routing through crypto assets.⁶ A significant development in this area is also the Securities and Exchange Board of India ('SEBI') recommending a multi-regulator approach to oversee crypto trading in the country.⁷ However, there still remains considerable uncertainty regarding the distinction between cryptocurrencies and the currencies issued by the Reserve Bank of India.

B. ADVOCATING FOR COMMODITY CLASSIFICATION FOR CRYPTO ASSETS

Cryptocurrencies have been a subject of intense debate and discussion among financial experts for quite some time now, owing to their unique nature and the challenges they present in various financial proceedings. One of the most significant challenges is valuing cryptocurrencies in bankruptcy proceedings, particularly in cases involving avoidable transfers. However, classifying cryptocurrencies as commodities can address this issue, as it would allow

³ *ibid.*

⁴ *ibid.*

⁵ The Income Tax Act 1961, s 115BBH.

⁶ Ministry of Finance, 'Gazette Notification' (7 March 2023) <<https://egazette.nic.in/WriteReadData/2023/244184.pdf>> accessed 1 December 2024.

⁷ Navdeep Singh, 'SEBI considers regulatory role in crypto trading, diverging from RBI's approach. Here's what experts think' *Economic Times* (New Delhi, 17 May 2024).

trustees to recover the actual coins instead of their cash value, thus avoiding costly disputes over valuation.⁸

From a functional standpoint, cryptocurrencies such as Bitcoin closely resemble commodities more than currencies. Unlike traditional currencies backed by central governments or commodities like gold, cryptocurrencies derive their value solely from market activities. In other words, their value is not tied to any underlying asset or government promise.⁹ While some users may treat Bitcoin as a medium of exchange, its fundamental nature aligns more with commodities, and its price is driven by supply and demand dynamics, similar to other commodities.

Cryptocurrency markets have also developed futures trading platforms similar to those for traditional commodities, indicating their suitability for commodity classification. Regulatory bodies such as the IRS and CFTC have recognized these distinctions and rejected the notion of classifying cryptocurrencies as currencies.¹⁰ This further supports the argument for treating them as commodities in bankruptcy proceedings. By doing so, the actual coins can be recovered, and the valuation disputes can be avoided, making the process more efficient and cost-effective.

III. CHALLENGES POSED BY CRYPTOCURRENCIES IN BANKRUPTCY PROCEEDINGS

This part of the article will delve into the various challenges cryptocurrencies pose when a cryptocurrency exchange files for bankruptcy. These challenges arise due to multiple factors that exist because of the lack of a regulatory framework within the insolvency and bankruptcy laws for the treatment of such types of assets. Firstly, the following section will discuss the legal issue surrounding the valuation of cryptocurrency which has become important because of its rapid fluctuation given its inherent volatile nature. Secondly, the avoidance power of the bankruptcy trustee to seek custody of such assets to increase the liquidation estate of the corporate debtor. Thirdly, the jurisdictional

⁸ Josephine Shawver, 'Commodity or Currency: Cryptocurrency Valuation in Bankruptcy and the Trustee's Recovery Powers' (2021) 62 Boston College Law Review 2013 <<https://bclawreview.bc.edu/articles/111>> accessed 24 February 2024.

⁹ *ibid.*

¹⁰ Erin Illman and Robert Cox, 'Bitcoin: A New, Volatile Asset in Bankruptcy' (*LAW360*, 13 March 2018) <<https://perma.cc/ZV6R-N6FR>> accessed 23 February 2024.

issue also becomes important in terms of filing the bankruptcy petition and in terms of enforcement of the orders across jurisdictions while exercising avoidance powers. Fourthly, taking into account the volatility of crypto assets, it is important to ascertain the valuation of such assets at the time of liquidation.

A. VALUATION OF CRYPTOCURRENCY

The valuation of cryptocurrencies has been plaguing bankruptcy courts since the advent of crypto assets. The inherently volatile nature of cryptocurrencies makes it very difficult to ascertain their precise value at a particular point in time. Since there is no reliable method for estimating the real-world value of crypto assets, it is difficult to pinpoint a single value at any given time due to their extreme volatility, which is frequently cited as a major barrier to their growth.¹¹ Even though stablecoins have been created to overcome price volatility by deriving value from tangible sources that are stable and not prone to frequent fluctuation of the value of the assets but still the majority of the crypto assets are prone to such volatility and pose a threat to the stakeholders involved in the bankruptcy process.¹²

Given that the value of a crypto asset can change drastically as its price depends upon the demand and supply factors that drive the market dynamics of such assets, it becomes important to analyse in what ways the intersection of such assets and bankruptcy disrupts the smooth restructuring or liquidation process of the corporate debtor. The crucial component of creditor repayment—through asset liquidation or restructuring—is one area in which crypto assets may impact insolvency procedures. If a debtor has a sizable amount of crypto assets, these virtual assets may become the primary means of paying creditors during the insolvency procedure. As a result, the valuation of these assets becomes crucial and affects the final payouts to creditors.¹³

The continuous fluctuation in the value of cryptocurrencies brings another issue to the forefront: What date should a bankruptcy court use to determine the value of the cryptocurrencies of the debtor? The date of determination of the valuation of assets becomes important because numerous bankruptcy cases have

¹¹ Financial Stability Board, *Assessment of Risks to Financial Stability from Crypto-Assets* (2022).

¹² Sumit Kumar and others, *Relevance of On-Chain Asset Tokenization in 'Crypto Winter'* (2022).

¹³ *ibid.*

demonstrated that due to the abrupt changes in value over brief periods of time, the price may fluctuate during the insolvency process.¹⁴

In the *Hashfast case*¹⁵, for example, the value of Bitcoins surged from the transfer date to the bankruptcy petition date and then skyrocketed during the bankruptcy process. This raises questions regarding proper valuation. Similarly, in another case of *Mt. Gox*,¹⁶ the importance of the date of valuation was reiterated as the market value of Bitcoins at the start of the bankruptcy proceedings was used by the trustee managing Mt. Gox's case to value the claims of creditors. This price was significantly less than the value of Bitcoin on the date of estate distribution and during the bankruptcy proceedings. As a result of the rapid rise in Bitcoin, Mt. Gox actually became solvent in the interim because its asset value exceeded the claims.¹⁷

Another facet to ponder amidst the tumultuous nature of crypto assets revolves around the choice between valuing and cashing them out in fiat currency or retaining them within the crypto sphere. Opting for fiat valuation and conversion might offer a semblance of stability, shielding against future market swings.¹⁸ However, this path entails relinquishing any potential price surges and prospective profits and entitlements. Moreover, it would obligate the insolvent estate to muster the necessary cash. Conversely, valuing crypto assets against other cryptocurrencies could safeguard the estate's valuable liquidity, crucial for realization and debt settlement. Nevertheless, creditors must weigh the prospect of seizing future appreciation and gains against the risk of abrupt value downturns stemming from market volatility.¹⁹

Given the significant fluctuations observed in cryptocurrency assets, there is a growing concern about the potential impact of creditors on restructuring or liquidation efforts. When a company liquidates its assets, it typically happens

¹⁴ Theodora Kostoula (n 1).

¹⁵ *Morici v Hashfast Technologies LLC* [2014] United States District Court Northern District of Carolina San Jose Division No. 5:14-cv-00087 EJD.

¹⁶ *Mt. Gox case. See Mt Gox Co., Ltd.* [2015] Tokyo District Court, Judgement of Civil Division 28 Case 25541521.

¹⁷ Adrienne Jeffries, 'Inside the Bizarre Upside-down Bankruptcy of Mt. Gox' (*The Verge*, 22 March 2018) <<https://www.theverge.com/2018/3/22/17151430/bankruptcy-mt-gox-liabilities-bitcoin>> accessed 1 December 2024.

¹⁸ Kira Egorova, 'Crypto Exchanges, Explained' (*Cointelegraph*, 10 July 2018) <<https://cointelegraph.com/explained/crypto-exchanges-explained>> accessed 1 December 2024.

¹⁹ *ibid.*

swiftly. However, if creditors believe that the relevant cryptocurrency asset is becoming more valuable, they may push to delay liquidation. However, this approach carries risks, as the value of cryptocurrency assets can decrease as quickly as they increase. As a result, the insolvency practitioner is unlikely to postpone liquidating cryptocurrency assets based solely on the possibility of future value appreciation. This is because they are legally obligated to prioritize the interests of creditors and related legal liabilities.²⁰

The volatility of cryptocurrencies and their valuation also affects the bankruptcy trustee's ability to avoid seeking custody of such assets from the debtor in order to preserve their liquidation value for the benefit of the bankruptcy process.

B. FRAUDULENT TRANSFER AND TRUSTEE'S AVOIDANCE POWER

The challenge to the trustee's avoidance power in the bankruptcy proceedings stems from the fact that crypto assets hold a higher level of anonymity as compared to other assets of the debtor, the transactions carried on a blockchain cannot be easily tracked and controlled by any central authority of a particular state or government. This is further intensified by the pseudonymous nature of such types of assets, which do not record the names of the buyer and seller in a transaction, making it much more difficult to trace the parties to such transactions of crypto assets. Debtors often use this nature of cryptocurrencies to shield their assets from the eyes of the trustee to escape liquidation for the realisation of dues from creditors.²¹

Similar behaviour was observed in the case of *re Schultz*²², where it was discovered that the debtor had neglected to disclose \$30,000 in crypto assets. Additionally, creditors have raised concerns with bankruptcy courts about the potential abuse of the bankruptcy process by debtors seeking debt discharge while safeguarding their crypto assets from creditors.

²⁰ Janis Sarra and Louise Gullifer QC, 'Crypto-claimants and Bitcoin Bankruptcy: Challenges for Recognition and Realization' (2019) 28 *International Insolvency Review* 233. <<https://doi.org/10.1002/iir.1346>> accessed 1 December 2024.

²¹ Josephine Shawver (n 8).

²² *Schultz v Keyword Rockstar, Inc* (In re Schultz) Ch. 7 Case No. 17-01568-LA7, Adv. No. 17-90126-LA, [2019] B.A.P. 9th Cir 2385186, para 2 (June 4, 2019).

*Re Peebles*²³ case also underscores the considerable hurdles creditors face when they suspect a debtor possesses undisclosed crypto assets. Given the inherent challenges in substantiating such suspicions, one might anticipate that courts would adopt a stern stance when debtors are unequivocally found to have failed to disclose these assets. However, the current reality aligns differently with this expectation. Thus far, bankruptcy courts in America seem inclined to view a debtor's failure to disclose crypto assets as an oversight that can be rectified, rather than deeming it a significant abuse of the bankruptcy process.²⁴

The emergence of anonymous transactions heralds a plethora of fresh challenges, particularly in relation to a trustee's capacity to avoid preferences. Under US law, the statutory provision empowers trustees to annul any transfer occurring within the ninety-day window preceding a bankruptcy filing,²⁵ with the recovery period extending to one year if the recipient falls under the statutory definition of an 'insider'—typically encompassing close relatives or business associates of the debtor.²⁶

The inherent anonymity intrinsic to crypto transactions further complicates the avenues available for trustee recovery. A debtor might openly acknowledge prior ownership of crypto assets but assert that they were divested before the preference period, thereby thrusting trustees into the daunting task of disproving such claims with scant evidence.²⁷ Moreover, even if a trustee manages to ascertain the timing of a specific transaction, establishing whether it involved an insider becomes markedly challenging due to the anonymity surrounding the recipient. Consequently, we are poised to witness a surge in complexities for trustees grappling with future liquidation cases entangled with crypto assets. These complexities necessitate a thorough reassessment of existing frameworks to navigate the intricate landscape of anonymous crypto transactions within the context of avoidance of bankruptcy trustees.²⁸

²³ *Re Peebles* Ch. 7 Case No. 14-23970, Adv. No. 14-2236, [2018] B.A.P. 10th Cir 3424680, para 7 (July 16, 2018).

²⁴ Eric S. Rein and John Guzzardo, 'The Trustee and the Bitcoin' (2018) 37 American Bankruptcy Institute Journal 4.

²⁵ 11 USC § 547(b)(4)(A).

²⁶ Megan McDermott, 'The Crypto Quandry: Is Bankruptcy Ready?' (2020-2021) 115 Northwestern University Law Review Online 24.

²⁷ *ibid.*

²⁸ *ibid.*

The *HashFast*²⁹ case has also highlighted the inherent uncertainty surrounding crypto assets. Moreover, the anonymity of these investments has caused significant challenges for parties involved in bankruptcy proceedings. These difficulties threaten the likelihood of creditor recovery when debtors refuse to disclose their crypto assets. To mitigate these risks, it is recommended that bankruptcy courts mandate the disclosure of such assets. Additionally, courts should contemplate withholding a discharge from debtors who fail to provide sufficient information.³⁰

In addition to grappling with challenges related to the avoidance power and fraudulent transactions associated with cryptocurrency assets, both the court and stakeholders encounter a profound dilemma concerning the jurisdiction of the bankruptcy court. This quandary arises due to the decentralised nature of blockchain-based assets, which transcend geographical boundaries, thereby complicating the determination of the appropriate jurisdiction for initiating bankruptcy proceedings.

C. JURISDICTIONAL CONUNDRUM POSED BY CRYPTO CURRENCIES

The emergence of blockchain technology and cryptocurrencies has triggered a significant shift in the financial world. However, this shift requires an in-depth examination of jurisdictional matters within insolvency law. The decentralised nature of cryptocurrencies and the borderless architecture of blockchain entities have raised critical questions that require close attention.

Cryptocurrencies function on decentralised networks powered by blockchain technology. Since digital assets are not governed by a single entity, a network of nodes maintains a distributed ledger where transactions are verified and recorded. Cryptographical security and immutability of each transaction ensure transparency and integrity within the network.³¹

²⁹ *Morici v Hashfast Technologies* (n 15).

³⁰ Matthias Haentjens, Tycho De Graaf & Ilya Kokorin, 'The Failed Hopes of Disintermediation: Crypto-Custodian Insolvency, Legal Risks and How to Avoid Them' (2020) 2020 *Sing J Legal Stud* 526 <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3589381> accessed 1 December 2024.

³¹ D Skauradszun and J Kuempel, 'Crypto Custodians in Financial Distress' (2023) 32(3) *International Insolvency Review* 538 <<https://doi.org/10.1002/iir.1521>> accessed 03 March 2024.

However, this decentralisation poses a significant obstacle when determining jurisdiction in bankruptcy cases.³² Cryptocurrencies are unrestricted by geography, unlike traditional financial assets that are usually held and governed within certain jurisdictions. They can be accessed and transferred from anywhere in the world with an internet connection. Thus, determining the appropriate jurisdiction to file for bankruptcy becomes a complicated task.³³

The jurisdictional conundrum is further complicated by the pseudonymous nature of Bitcoin transactions. Although blockchain keeps track of every transaction, it can be difficult to identify the parties involved.³⁴ Cryptocurrency addresses, used as identifiers in transactions, are not connected to physical identities. They are cryptographic keys, making it challenging to determine the location or place of residence of debtors who are part of bankruptcy proceedings.³⁵

Furthermore, the absence of consistent regulatory frameworks makes the jurisdictional conundrum worse. Regulations surrounding cryptocurrencies differ greatly between jurisdictions, with some welcoming digital assets like cryptocurrencies and others placing severe restrictions or outright bans on them. The distribution of regulations makes it more difficult to decide which jurisdiction to use in cryptocurrency-related bankruptcy cases.³⁶

However, efforts are being made to address these issues. There is a growing consensus that international bankruptcy laws should be harmonised to account for the special features of cryptocurrencies. Jurisdictions can reduce uncertainty and conflicts and enable more efficient and seamless bankruptcy proceedings by instituting uniform and well-defined legal frameworks for managing cases involving digital assets.

³² *ibid.*

³³ Case C-339/07 *Cristopher Seagon v Deko Marty* [2008] ECLI:EU: C:2008:575, Opinion of AG Colomer, para 64.

³⁴ Dillon Collett, *Cryptocurrency Assets Under Insolvency and Personal Property Security Law*, (AIRD BERLIS, 2018) <<https://www.airdberlis.com/insights/publications/publication/cryptocurrency-assets-under-insolvency-and-personal-property-security-law>> accessed 01 December 2024.

³⁵ *ibid.*

³⁶ Australian Financial Security Authority, 'Dealing with Cryptocurrency in a Bankrupt Estate' <<https://www.afsa.gov.au/insolvency/i-am-practitioner/dealing-cryptocurrency-bankrupt-estate>> accessed 01 December 2024.

Thus by harmonising international bankruptcy laws, jurisdictions can mitigate the risks and uncertainties surrounding cryptocurrency-related bankruptcy cases and ensure that these proceedings are managed more efficiently and seamlessly.³⁷

D. LIQUIDATING THE CRYPTO ASSETS

Cryptocurrencies are highly liquid assets that can be easily traded on exchanges, much like traditional market-traded assets such as securities and commodities. However, liquidating cryptocurrencies can be a complex process due to the nuances of crypto exchanges, which can lead to unexpected challenges. Unlike traditional finance exchanges, crypto exchanges operate differently, confusing those who are familiar with traditional markets. It is important to note that selling digital assets like Bitcoin does not always yield the same value in fiat currency, as is often assumed. This discrepancy underscores the intricacies of navigating liquidity in the crypto landscape during liquidation events. Despite the readily available price data and exchanges, the operational dynamics of crypto exchanges can be challenging, making the process of converting digital assets into tangible fiat currency more complicated.³⁸

When paying creditors by liquidating assets, the value of these assets is of utmost importance. The accurate valuation of the assets will determine the funds that can be obtained through this process. On the other hand, asset valuation becomes a key component of the overall restructuring plan during a company's restructuring process. This plan should clearly outline the benefits of adopting a business rescue plan, which demonstrates a more favourable outcome than immediate liquidation.³⁹

The term 'liquidation value' refers to the amount a company can expect to receive when selling off its individual assets as part of an insolvency process.⁴⁰ Often, this is done through auction. When a business is unable to generate revenue and is facing liquidation, this value comes into play. Essentially, it assumes that the business has failed and needs to sell its assets immediately. The

³⁷ Victoria Sandberg, 'Regulating Cryptocurrencies in the International Insolvency Law' (Master's Thesis, University of Turku, 2020) <<https://www.utupub.fi/bitstream/handle/10024/150515/opinn%C3%83%C2%A4ytety%C3%83%C2%B6.pdf?sequence=1&isAllowed=>>> accessed 01 December 2024.

³⁸ McDermott (n 26).

³⁹ Skauradszun and Kuempel (n 31).

⁴⁰ *ibid.*

liquidation value is the estimated price of an asset when there isn't enough time to sell it on the open market. It is the opposite of the going-concern value. Even though this value provides a market value for the business's assets, it is typically less than both the going-concern value and the market price (value in use) due to the unusual circumstances of a distressed, reluctant sale.⁴¹

When facing insolvency, IPs must carefully consider the best liquidation strategy based on various factors such as market fluctuations and timing. A decision may be made to distribute assets in kind, depending on these considerations. It is worth noting that in some cases, creditors are granted the authority to determine how cryptocurrency assets will be handled within the insolvency estate. For instance, in the *Mt Gox*⁴² case, creditors were given the option to receive assets in kind or sell them on the open market.

Similarly, *Gatecoin*⁴³ creditors were offered the freedom to choose their preferred method of liquidation, which included receiving payment in either cryptocurrency or fiat currency. *BlockFi*⁴⁴ also proposed a reorganisation plan that involved the direct distribution of cryptocurrency to creditors, who were referred to as 'holders of applicable claims.' This approach of distributing assets in kind exemplifies the flexibility and choices available for managing crypto-assets during bankruptcy proceedings.

IV. TREATMENT OF CRYPTOCURRENCY UNDER BANKRUPTCY PROCEEDINGS

A. VALUATION METHOD AND DATE OF VALUATION

1. *Different Methods of Valuation for Cryptocurrencies*

Customised valuation methodologies for crypto assets have emerged as a result of the limitations of conventional valuation techniques. These innovative methods have been tailored to account for the unique features of crypto assets, including their technological underpinnings, continuous trading availability,

⁴¹ Eugenio Vaccari, 'Promoting Fairness in English Insolvency Valuation Cases' (2020) 29(2) International Insolvency Review 285 <<https://doi.org/10.1002/iir.1382>> accessed 01 December 2024.

⁴² *Mt. Gox* (n 16).

⁴³ *Gatecoin Limited* [2019] HCCW 18/2019 (High Court of Hong Kong Special Administrative Region).

⁴⁴ *Joint Plan of Reorganisation* (November 18, 2022), BlockFi Inc., et al., [2019] US Bankruptcy Court District of New Jersey Case No. 22-19361.

decentralised exchange networks, significant price disparities across platforms, and their ability to swap between various cryptocurrency pairs.⁴⁵

One of these innovative methods is the Cost of Production approach, which estimates the cost per coin mined by analysing the expenses associated with producing or mining a crypto asset.⁴⁶ While this approach assumes that miners engage in production or mining activities only when the cost remains below or equals the market value of the mined coin, its applicability may be limited within proof-of-stake ('PoS') frameworks. Additionally, this approach tends to overlook factors beyond production costs, such as the genuine value and future risks associated with the crypto asset.⁴⁷

Another emerging methodology, the Equation of Exchange, mirrors the traditional discounted cash flow ('DCF') model and is frequently used in assessing utility tokens. This approach correlates the present utility value with the anticipated economic scope the token is poised to serve, rather than projecting future cash flows.⁴⁸ Although it shares similarities with traditional valuation methods, its reliance on assumptions may be hindered by the scarcity of empirical data, particularly concerning variables like market size and transaction velocity. Additionally, its suitability appears confined to utility tokens.⁴⁹

The Network Value to Transactions ('NVT') ratio method draws inspiration from conventional market-based practices and is gaining prominence in valuing crypto assets. This method evaluates the network value, representing the collective market worth of all circulating coins or tokens, alongside the network utility, which reflects the daily transaction volume denominated in fiat currency. The premise behind this method is that the assets'

⁴⁵ Tara Singh and Tyler St John, *'Decrypting Crypto: An Introduction to Cryptoassets and a Study of Select Valuation Approaches'* (Chartered Business Valuators Institute, 2019).

⁴⁶ Adam Hayes, 'A Cost of Production Model for Bitcoin' (2015) SSRN Electronic Journal <<https://dx.doi.org/10.2139/ssrn.2580904>> accessed 01 December 2024.

⁴⁷ *ibid.*

⁴⁸ Financial Stability Board, *Assessment of Risks to Financial Stability from Crypto-Assets* (Financial Stability Board 2022) 7.

⁴⁹ Rauchs et al, 'Distributed Ledger Technology Systems: A Conceptual Framework' (2018) SSRN Electronic Journal 46 <<https://www.ssrn.com/abstract=3230013>> accessed 01 December 2024.

value correlates with their liquidity, a metric discernible from on-chain transaction volumes.⁵⁰

In conclusion, these evolving valuation strategies for crypto assets indicate a shift from conventional methodologies to accommodate the unique characteristics of this asset class. While they have great potential, they also present challenges relating to data availability, empirical validation, and applicability across diverse crypto asset categories.⁵¹

The NVT ratio is a commonly used metric to compare different crypto assets. However, it faces difficulties when precise daily transaction volumes are not calculated, especially for assets that prioritise anonymity and privacy. The limited availability of trustworthy empirical data due to the relative immaturity of the crypto asset industry further hampers meaningful comparisons. The NVT ratio also ignores 'off-chain' transactions and variations in transaction volume recording, restricting the comparability of assets.

2. *Date of Valuation*

The Insolvency and Bankruptcy Code does not provide a clear date for valuing assets, leaving courts with discretion, particularly when dealing with volatile or unconventional assets like cryptocurrencies. One approach is to value the asset on the date the debtor transferred it. This method is consistent with the principle of restoring the bankruptcy estate to its original state, as if the transfer had never occurred. It is especially beneficial when the asset has depreciated significantly since the transfer, ensuring that the estate recovers the full value the transferee gained at that time.⁵² This approach aligns with rulings like in the case of *Drewes v FM Da-Sota Elevator Co*,⁵³ where the court held that a 'wasting asset,' such as an elevator contract losing customers, should be valued at the transfer date to fairly reflect the benefit received by the transferee.

⁵⁰ Chris Burniske, 'Cryptoasset Valuations' (Medium, 21 October 2017) <<https://medium.com/@cburniske/cryptoasset-valuations-ac83479ffca7>> accessed 01 December 2024.

⁵¹ Henri Arslanian and Fabrice Fischer, *The Future of Finance: The Impact of FinTech, AI, and Crypto on Financial Services* (Springer International Publishing, 2019) 153.

⁵² Josephine Shawver (n 8).

⁵³ *Drewes v FM Da-Sota Elevator Co* (In re Da-Sota Elevator Co) 939 F 2d 654.

An alternative method is to value the asset on the date the trustee initiates recovery proceedings.⁵⁴ This approach allows the estate to capture any appreciation in the asset's value that occurred after the bankruptcy petition was filed.⁵⁵ The underlying logic is that had the asset remained in the estate, any post-petition gains would have been available to creditors. However, this method also carries risks, as cryptocurrency values are notoriously volatile and could decrease significantly during this period. Despite the potential for gains, courts must consider the uncertainty associated with such assets when choosing this valuation date.⁵⁶

A third option is to use the date of the bankruptcy petition as the valuation benchmark.⁵⁷ This date holds significance in bankruptcy law as it marks the formation of the bankruptcy estate and the imposition of the automatic stay, which protects the estate's assets.⁵⁸ Valuing assets at this point offers a clear delineation of what constitutes the estate and which parties are affected by the proceedings. While this method provides a sense of certainty, it may not always reflect subsequent changes in asset value, whether positive or negative. Each of these approaches reflects a balance between fairness to creditors, the nature of the asset in question, and the overarching goals of bankruptcy law.

Selecting the proper valuation date requires taking into account several variables and competing interests. It is essential to consider new issues and explore various options that could lead to different outcomes.⁵⁹

B. RESOLVING THE JURISDICTIONAL CONUNDRUM

In cross-border insolvency cases, determining jurisdictional issues is a complex matter that typically involves the application of either the territoriality or universality model. Many often favour the universality approach, which posits that the insolvency process should commence in the debtors' home state. This entails that all assets of the insolvency estate are subject to state law, referred to as *lex concursus* or *lex forum concursus*, irrespective of their location. This

⁵⁴ 11 USC § 550(a).

⁵⁵ 11 USC § 541(a).

⁵⁶ Krzysztof Gawron, Alina Yakymchuk and Olena Tyvonchuk, 'The Bankrupt Entity's Assets Valuation Methods: Polish Approach' (2019) 16 *Investment Management and Financial Innovations* 319.

⁵⁷ 11 USC § 550(a).

⁵⁸ 11 USC § 301.

⁵⁹ Gawron (n 56).

legislation is established by the court that oversees the entire insolvency process.⁶⁰

In contrast, the territoriality model restricts the legal implications of insolvency proceedings to the jurisdiction where the proceedings are initiated. The estate administrator's legal authority does not extend to assets or creditors located outside this jurisdiction.

The universalist approach, which is supported by the European Insolvency Regulation and ultimately by the UNCITRAL Model Law,⁶¹ emphasises the debtor's centre of main interest ('COMI'). This principle stipulates that the initial insolvency proceedings must take place at the debtor's principal place of business activities, registered office, or habitual residence. By reducing concurrent proceedings and facilitating restructurings, COMI endeavours to expedite insolvency proceedings. If secondary proceedings are necessary, they are limited to assets within another member state's territory, and usually only involve winding-ups. The concept of COMI serves to establish international jurisdiction for national courts, promoting efficiency and predictability in insolvency proceedings.⁶²

The Recast European Insolvency Regulation ('EIR') offers several advantages over the UNCITRAL, beyond merely applying the universal principle that the debtor's COMI should be used to determine international jurisdiction.⁶³ The EIR Recast's direct application to every Member State of the European Union makes it unique, as required by the Regulation's legal status under Article 288(2) of the Treaty on the Functioning of the European Union ('TFEU').⁶⁴ The courts of the Member State where the debtor's COMI is located have jurisdiction to initiate main insolvency proceedings, as per Article 3(1) of

⁶⁰ Sandberg (n 37).

⁶¹ United Nations Commission on International Trade Law, *UNCITRAL Model Law on Cross-Border Insolvency* (1997).

⁶² Koji Takahashi, 'Implications of Blockchain on the UNCITRAL Works' (Paper presented at the UNCITRAL Congress on 'Modernizing International Trade Law to Support Innovation and Sustainable Development', Vienna, 2017).

⁶³ *ibid.*

⁶⁴ Treaty on the Functioning of the European Union, art 288(2).

the EIR Recast⁶⁵. Until proven otherwise, the registered office of a company or other legal entity is considered to be the hub of that entity's primary interests.

In most cases, the location of registered offices is where crypto custodians operating under national financial regulatory authorities obtained their authorization to operate their crypto custody business. It is expected that the presumption stated in EIR Recast Article 3(1.2) will not be disputed.

The EIR Recast's universal scope simplifies the complicated issue of international jurisdiction, making it easier to understand how crypto assets are distributed across different jurisdictions. The Regulation is based on the universality principle, which states that the courts of a Member State have exclusive jurisdiction to initiate insolvency proceedings if the debtor's COMI is situated there. As a result, the location of crypto-assets becomes irrelevant, regardless of whether they are situated in Europe or elsewhere in the world. All assets, regardless of whether they are located in several EU Member States or the world, are subject to bankruptcy proceedings initiated in the Member State where the COMI is located. This implies that crypto-assets may be included in the insolvency proceedings initiated in the debtor's state of mutual obligation, even if they are spread across multiple EU Member States or the world.⁶⁶

Although both the UNCITRAL Model Law and the EU's EIR use the concept of COMI, their primary differences lie in its application. Under the UNCITRAL Model Law, COMI determines the extent to which a court must recognize a foreign insolvency proceeding.⁶⁷ In contrast, within the EIR, COMI determines which member state has priority when insolvency proceedings are initiated in multiple jurisdictions within the EU. Despite this difference, both legal frameworks use COMI to classify proceedings as either main or non-main.

V. NAVIGATING CRYPTO: TREATMENT WITHIN INDIA'S INSOLVENCY FRAMEWORK

This section focuses on the effectiveness of India's insolvency framework in managing digital assets, particularly cryptocurrencies. Current insolvency laws in India do not have provisions specifically designed to handle the complexities

⁶⁵ Council Regulation (EC) No 1346/2000 of 29 May 2000 on Insolvency Proceedings (European Insolvency Regulation) [2000] OJ L160/1, art 3(1).

⁶⁶ Jurgita Miseviciute, 'Blockchain and Virtual Currency Regulation in the EU' (2018) 19(3) *Journal of Investment Compliance* 33.

⁶⁷ *ibid.*

of cryptocurrencies, leaving uncertainties and potential disparities in how they are handled during bankruptcy proceedings. To address this gap, it is necessary to investigate possible additions or changes to the current framework and establish clear policies for the identification, appraisal, and distribution of digital assets. Improving regulatory clarity on cryptocurrencies can boost investor confidence and create a more favourable environment for investing in this emerging asset class. We will discuss the unique challenges the Indian insolvency framework faces in handling cryptocurrencies and suggest practical solutions to meet the changing demands of the digital asset market.

A. EXPANDING CONTOURS OF SECTION 3(27) OF INSOLVENCY BANKRUPTCY
CODE

India's legal environment for cryptocurrencies has been turbulent, with numerous regulatory actions and court challenges. The Reserve Bank of India ('RBI') first raised a number of issues regarding cryptocurrencies, such as the possibility of fraud, market turbulence, and the lack of effective consumer protections. In response, the RBI released a circular in April 2018 that essentially stopped banks from offering services to people or companies engaged in cryptocurrency transactions, effectively ending the trading of cryptocurrencies.⁶⁸

However, the Internet and Mobile Association of India ('IMA')⁶⁹ filed a case that resulted in the Supreme Court overturning this ban in a historic decision, despite legal challenges. Due to the court's ruling nullifying the RBI's circular, cryptocurrency interest and investment have surged throughout India.

The Indian government continued to be wary of the risks connected to cryptocurrencies despite this legal setback. In response to these worries, the Ministry of Finance formed an Inter-Ministerial Committee tasked with looking into the laws governing virtual currencies. After discussing the matter, the committee recommended that all virtual currencies be outlawed completely and sent a draft bill to Parliament for review.

⁶⁸ Reserve Bank of India, 'Prohibition on Dealing in Virtual Currencies (VCs)' RBI/2017-18/154 (6 April 2018).

⁶⁹ *Internet and Mobile Association of India v Reserve Bank of India* [2018] Writ Petition (Civil) No 528 (SC).

Nevertheless, regarding the treatment of cryptocurrencies in insolvency proceedings, it is important to determine the classification under the category of property of the insolvent debtor in order to initiate the insolvency proceedings.

The Insolvency and Bankruptcy Code ('IBC') can be interpreted to take into account contemporary forms of wealth such as crypto assets, just as Section 3(27)⁷⁰ of the IBC broadly defines 'property' to include a wide range of assets regardless of their location, including money, goods, actionable claims, land, and interests. This all-encompassing strategy is consistent with the broad interpretation supported by English courts in Section 436 of the British Insolvency Act, 1986. Thus, for the purposes of the Corporate Insolvency Resolution Process ('CIRP') and liquidation, it may be appropriate to consider expanding the definition of property under the IBC to include emerging assets such as cryptocurrencies and virtual digital assets.

A similar position was also adopted in the Insolvency Law Committee's 2020 Report, which noted that Section 3(27) of the IBC offers a broad and inclusive definition. Taking this into account, special attention needs to be paid to the sub-section's use of the phrase 'and every description,' which permits cryptocurrencies to be regarded as property.⁷¹

It is important to note that the classification of property is subject to meeting the Ainsworth⁷² criteria, which includes four important aspects: (i) definability, (ii) identifiability by third parties, (iii) capability of being assumed by third parties, and (iv) some degree of permanence. This test was used in the Indian court cases of *Shakti Insulated Wires Ltd v Joint Commissioner of Income Tax*⁷³ and the *IMA* case.⁷⁴ The same was applied to cryptocurrencies in the case of *Ruscoe and Moore v Cryptopia Limited*,⁷⁵ where it was found that cryptocurrencies satisfy the criteria.

⁷⁰ Insolvency and Bankruptcy Code 2016, s 3(27).

⁷¹ Richik Dadhich, 'Encrypting The Fate Of Cryptocurrency Investors under The Indian Insolvency Regime' (*CBFL Blog*, 22 September 2022) <<https://www.cbflnludelhil.in/post/decrypting-the-fate-of-cryptocurrency-investors-under-the-indian-insolvency-regime>> accessed 1 December 2024.

⁷² *National Provincial Bank Ltd v Ainsworth* [1965] 2 All ER 472 (HL).

⁷³ *Shakti Insulated Wires Ltd. v Joint Commissioner of Income Tax* [2003] 87 ITD 56 (Mum).

⁷⁴ IMA Case (n 70).

⁷⁵ *Ruscoe and Moore v Cryptopia Limited* [2020] NZHC 728 (CIV-2019-409-000544).

The Court established that cryptocurrencies were defined and identified by the courts, capable of being traded by third parties on exchange platforms, and permanent, owing to their traceability through public recordkeeping. Hence, cryptocurrencies were considered a type of intangible property. These cases make it clear that cryptocurrencies are an intangible property that should also undergo insolvency proceedings in India.

B. CRYPTO INVESTORS AS CREDITORS

In the framework of insolvency proceedings under the IBC, the key players are the creditor, corporate debtor, and the existence of debt. In case of a default, the creditor takes control of the debtor's assets with the assistance of the adjudicating authority and the appointed insolvency professional. Creditors are broadly categorized into two groups: financial and operational creditors, each having distinct rights, claims, and incentives.

As per Section 5 of the IBC⁷⁶, a financial creditor is an entity that is owed a financial debt. Financial debt, described in Section 5(8),⁷⁷ includes debts with interest paid against the consideration for the time value of money, including specified events. Legal interpretations have highlighted that a financial transaction under Section 5(8) is characterised by its consideration for the time value of money. However, in cryptocurrency exchanges, the absence of debt disbursed against the consideration of the time value of money and the lack of interest repayment preclude cryptocurrency investors from being classified as financial creditors.⁷⁸

On the other hand, operational debt, defined in Section 5(21)⁷⁹ of the IBC, pertains to claims arising from goods or services provision. The broad definition of 'goods' in the Sale of Goods Act, 1930 encompasses movable property, excluding actionable claims and money. Regulatory directives and judicial pronouncements have clarified that cryptocurrencies do not hold the same status as fiat currency, legal tender, or money. As a result, cryptocurrencies are classified as movable goods within the subset of property.⁸⁰

⁷⁶ Insolvency and Bankruptcy Code 2016, s 5.

⁷⁷ Insolvency and Bankruptcy Code 2016, s 5(8).

⁷⁸ S Hasthisha Desikan, 'Critical Analysis of the Position of Virtual Currency under IBC' (2022) 4 Indian JL & Legal Rsch. 1.

⁷⁹ Insolvency and Bankruptcy Code 2016, s 5(21).

⁸⁰ Insolvency and Bankruptcy Board of India, *IBC: Evolution, Learnings and Innovation* (2023).

In situations where a creditor extends cryptocurrency to a corporate debtor, such transactions qualify as operational debt under the IBC. In the event of default, the exchange becomes liable for repayment, and the adjudicating authority may order restructuring, with the insolvency professional assuming control over all assets, including cryptocurrencies.

With regard to ongoing insolvency proceedings, legal experts have indicated a high likelihood of users being treated as unsecured operational creditors, highlighting the evolving landscape of cryptocurrency within insolvency law.

VI. CONCLUSION

In summary, this article has explored the complex area where bankruptcy laws and cryptocurrencies collide, highlighting issues and suggesting ways to improve integration. Insolvency proceedings have highlighted the intricacy of cryptocurrency legal status, as it is being examined whether they belong in the asset, currency, or commodities classification. Also, the discourse has brought attention to the real-world challenges faced by stakeholders—from creditors to resolution specialists—when handling cryptocurrency assets in bankrupt businesses.

The study has explored the practical ramifications, such as jurisdictional complexities and cryptocurrency volatility, in addition to the theoretical debate. The writers, with an emphasis on India, have argued for a progressive strategy to integrate cryptocurrencies within current insolvency law frameworks by incorporating lessons from other jurisdictions and highlighting a need for a separate regulatory framework within the IBC tailored specifically for cryptocurrencies.

By guaranteeing effective dispute resolution and supporting the dynamic nature of cryptocurrencies, the suggested solutions seek to achieve a balance between the interests of all parties concerned. The article offers a road map for expediting insolvency resolution procedures in the age of virtual digital assets by promoting the adoption of best practices from sophisticated bankruptcy law regimes across the globe. In the end, the goal is to create a regulatory framework that can adapt to the difficulties presented by cryptocurrencies in order to support financial stability and safeguard the interests of all parties engaged in bankruptcy procedures.