

he focal point of blockchain technology is the concept of decentralization—that is, no central authority exists with control and decision-making power. As blockchain technology has evolved, innovators have found creative uses of the technology to disrupt centralized structures, including the increasingly popular decentralized autonomous organization (DAO).

DAOs are an entirely democratic form of organizational governance. Unlike traditional organizations, such as corporations or limited liability companies, DAOs are not governed by a single individual or group of individuals with management authority. Rather, DAOs are collectively owned and managed by their members on the blockchain. This unique governance structure will create a number of issues of first impression

when a DAO inevitably fails and considers wind-down or restructuring options, including those available under the U.S. Bankruptcy Code.

The first step in forming a DAO is for the founders, often called sponsors, to establish the purpose of the entity. Once a purpose is established, the founders then develop and deploy a smart contract, which controls the DAO's operations. A smart contract is a computer code that self-executes events when programmed conditions are met.

Anyone interested in becoming a member of the DAO purchases membership rights, generally in the form of tokens on the blockchain. The proceeds from token purchases—usually in the form of well-known cryptocurrencies, such as bitcoin or ethereum—are held in a digital wallet. Once deployed, the smart contract

restricts the release of funds from the digital wallet pending a vote by token holders. Depending on the structure of the smart contract, certain individuals or groups of the member community may propose uses for the funds, and these proposals are then voted on by the community as a whole.

DAOs are commonly formed by groups of individuals interested in pooling assets and making investment decisions on how to apply those assets. To date, DAOs have been used for fundraising, investing, charities, borrowing, and asset acquisitions. For example, dash is a cryptocurrency that is managed and mined by its users through a DAO structure. PleasrDAO invests in digital art. ConstitutionDAO obtained substantial notoriety when it was created to purchase a rare copy of the U.S. Constitution. After raising more than \$47 million (in ethereum),

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ConstitutionDAO ultimately was not the successful bidder for the Constitution, and the sponsors have begun the process of offering refunds and redemptions to investors.

DAOs have exploded in popularity and rapidly evolved with the widespread adoption of blockchain technology. The flexibility of DAOs is expected to lead to more complex and creative uses in the near term. Given their increasing popularity, it is reasonable to expect that some DAOs will fail and quickly become insolvent, which begs the question: How, if at all, can a DAO utilize the Bankruptcy Code?

Can a DAO Be a Debtor?

The legal implications surrounding insolvent DAOs remain largely unclear. One gating issue is whether and to what extent DAOs can be recognized as distinct legal entities under existing

organizational structures that would permit them to seek bankruptcy relief. Because an insolvent DAO's ability to seek bankruptcy relief depends, at least in part, upon its legal existence and organizational structure, it is necessary to first consider the compatibility of DAOs and certain legal entities in connection with the Bankruptcy Code's restrictions on who may be a debtor.¹

Under Bankruptcy Code Section 109(a), "only a person that resides or has a domicile, a place of business, or property in the United States . . . may be a debtor under this title." 11 U.S.C. Section 109(a).² Section 101 defines "person" to include, in relevant part, an "individual, partnership, and corporation[.]" Further, the term "corporation" is broadly defined under Section 101(9) to encompass a non-exhaustive list of both unincorporated and corporate entities. Importantly,

however, a corporation filing a voluntary bankruptcy petition requires a corporate act, which means there must be an existing legal entity at the time of filing.

Today, DAOs are not recognized as independent legal entities in most states.3 Moreover, the decentralized, member-driven governance structure upon which DAOs operate is largely incompatible with existing legal entities in the United States, which generally have centralized management structures. Nevertheless, three legal entities offer varying degrees of structural flexibility and protection against liability, which enable DAOs to select organizational frameworks based on their unique interests and likely qualify for relief under the Bankruptcy Code.

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Partnerships. As a general matter, DAOs are not formally recognized legal entities and are typically viewed as unincorporated associations or general partnerships. These entities are not required to observe corporate formalities, nor are they bound by any centralized governance structure.

Likewise, such entities have no separate legal existence from that of their individual members. To that end, members of unincorporated associations and partnerships are subject to unlimited joint and several liability for the unsatisfied obligations of the partnership. Although unincorporated associations and partnerships can allow DAOs to maintain their decentralized governance structures, these entities are widely disfavored because they expose members to significant personal liability.

Limited Liability Companies. Limited liability companies, on the other hand, offer DAOs an organizational structure that exists as a matter of right and that limits the potential liability of individual members. Unsurprisingly, these additional protections come at a price—namely, the imposition of more formal structural and organizational requirements under applicable state law.

Thus, in forming a limited liability company, a DAO should assess whether and to what extent these additional state law requirements conflict with the existing decentralized governance structure (e.g., the efficient and democratic decision-making processes, the autonomous execution, or the absence of barriers to entry). Indeed, a DAO's failure to satisfy these requirements can expose its members to additional liability.

Cooperatives. DAOs may also obtain legal recognition by creating a cooperative association, the precise requirements of which vary by state. At least six states have adopted the Uniform Limited Cooperative Association Act (ULCAA) since its formation in 2010, and others have passed legislation for similar entities, such as California's Worker Cooperative Act.

Under the ULCAA and similar acts, cooperatives are similar to

DAOs in that they are viewed as democratic organizations with active participation by members and allow members to each realize profits from their membership interests. Accordingly, cooperatives provide legal recognition to decentralized governance structures while still providing the liability protections of more structured organizations.

Can a DAO Authorize a Bankruptcy Filing?

Whether a DAO could qualify as a debtor under existing legal structures is only the first step in what may be a complicated path to a U.S. Bankruptcy Court. To commence a case, the filing entity must have proper authorization (e.g., a written resolution of the board of directors of a corporation). The only likely means for a DAO to obtain this authorization would be to conduct a member vote, like it would for investment or other decisions. If the measure was approved, the DAO would then use that voting process as proof of authority to file the petition. However, it may not be that simple.

As discussed earlier, a DAO is formed for a specific purpose and operates strictly within the code of a smart contract. Thus, there is an argument that the smart contract is akin to articles of incorporation or partnership agreements. It is highly unlikely that the concept of commencing insolvency proceedings is baked into the smart contract for DAOs.

Accordingly, unless the vote to commence bankruptcy is unanimous, a dissenting member could seek dismissal of the bankruptcy case, arguing that the petition was not filed with proper authority. In this scenario, a Bankruptcy Court would be tasked with deciding whether a passing vote is sufficient authorization to file bankruptcy despite a bankruptcy filing not being designated as subject to a vote under the DAO's smart contract.

One potential solution to this problem is a community vote to develop and deploy a new smart contract, similar to a company amending its articles of incorporation. DAOs generally have the ability to vote on modifying the purpose governed by the DAO. Thus, members could first vote to develop a new smart contract to include bankruptcy-related concepts and then subsequently vote to authorize the bankruptcy filing.

Assuming DAOs have the ability to amend the smart contract through a vote, this would likely resolve a number of other potential issues regarding the bankruptcy process, including:
(i) retaining bankruptcy professionals;
(ii) selecting the appropriate person to sign the bankruptcy petition (and other pleadings); and (iii) authorizing a sale or other significant transaction.

Are DAO Members Equity Holders or Creditors?

The classification of DAO members in bankruptcy is almost certain to be an issue of contention. At a high level, it appears obvious that a DAO member that holds voting rights tied to the token that the member purchased should be treated no differently than a corporation's shareholder who holds voting rights tied to shares. However, it's possible that DAO members are in fact creditors, not equity holders.

Bankruptcy Code Section 101(16) defines "equity security" as "(A) share in a corporation, whether or not transferable or denominated 'stock', or similar security; (B) interest of a limited partner in a limited partnership; or (C) warrant or right, other than a right to convert, to purchase, sell, or subscribe to a share, security, or interest of a kind specified in . . . (A) or (B) " On the other hand. Section 101(10) defines a "creditor" as an "entity that has a claim against the debtor that arose" on or before the petition date. And a "claim" includes "a right to payment, whether or not such right is reduced to judgment, liquidated, fixed, contingent, matured, unmatured, disputed, undisputed, legal, equitable, secured, or unsecured."

Based on the foregoing definitions, the determination of how to classify a DAO member is up for interpretation and depends on a number of variables, including: (i) whether a DAO is treated as a corporation, partnership, or other entity; (ii) whether the token issued to the DAO members is considered a security; and (iii) whether holding the token represents an unliquidated right to payment from the DAO.⁵

Who Are the Fiduciaries of a DAO?

In the typical corporate structure, directors of a corporation owe fiduciary duties to the company and its residual stakeholders (i.e., the shareholders). When a corporation becomes insolvent, those fiduciary duties then also extend to the company's creditors.

September 2022 Because of the autonomous structure of DAOs, it is unclear whether (i) DAO founders, DAO members, or both have fiduciary duties and (ii) to whom those fiduciary duties are owed. When a DAO becomes insolvent and creditors become residual stakeholders, DAOs enter an even more complicated area. For example, could a DAO member's vote to commence (or not commence) a bankruptcy proceeding give rise to a breach of fiduciary duty claim?

Is it Possible for a DAO to File Complete Schedules?

Bankruptcy Rule 1007 requires that debtors file certain schedules, including schedules of the debtor's assets and liabilities, which include all known creditors. For the traditional debtor, this process requires combing through the debtor's books and records. DAOs, however, likely do not know the identity of all of their members. Anonymity is critical to many individuals in the crypto industry and is widely viewed as a key component of decentralization.

Indeed, identification is not needed to purchase tokens of a DAO— members only need a digital wallet and the requisite type and amount of cryptocurrency necessary to purchase the token. If members are unwilling to forego their anonymity, DAOs may be unable to file schedules, as required by the Bankruptcy Rules.

Confirming a DAO's Chapter 11 Plan

Bankruptcy Code Section 1123(a)(1) requires that a Chapter 11 plan designate classes of claims and interests. To confirm a Chapter 11 plan, at least one class of impaired creditors must vote to accept the plan by creditors that hold at least two-thirds in amount and more than one-half in number of the allowed claims in the class. 11 U.S.C. Section 1126(c).

DAOs generally do not need traditional secured lending because DAOs are funded through the purchase of tokens. Accordingly, creditors (that are not members) of a DAO are likely limited to traditional trade creditors. This means that a Bankruptcy Court's ruling as to whether members are creditors or equity holders could lead to an inequitable result in the context of plan confirmation.

Specifically, if a Bankruptcy Court finds that DAO members are creditors, the DAO will likely create a class of *only*



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DAO members in the plan. This will create a scenario in which the DAO can confirm a plan that is beneficial only to the DAO's members solely with the acceptance of the members' class (assuming the class is impaired). Although non-member creditors of the DAO may object to the plan for reasons other than acceptance (e.g., whether the plan was proposed in good faith), this situation provides an example of the impact each ruling in a DAO bankruptcy may have on other aspects of the case.

Conclusion

DAOs are still in their infancy. To date, no DAO has sought relief under the Bankruptcy Code. However, given the constant evolution and growing popularity of DAOs (and the increasing recognition of DAOs as legal entities), it is only a matter of time before a DAO finds itself insolvent and in need of bankruptcy relief. It is critical that DAOs, their members, and their creditors carefully consider the many obstacles that will arise in bankruptcy.

 This discussion aims to provide discrete examples of potentially suitable entities and is not intended to provide

- an exhaustive list of organizational structures that DAOs can choose from.
- ² It is worth noting that Section 109 is not based on either venue or jurisdictional grounds. Thus, if no party challenges the eligibility of a debtor seeking relief under a particular chapter of the Bankruptcy Code, such relief may not later be challenged on jurisdictional grounds. Accordingly, to the extent that an insolvent DAO seeking bankruptcy relief may be ineligible to be a debtor under a particular chapter, it is incumbent on other parties to raise the issue. See 2 *Collier on Bankruptcy* ¶ 109.01(2) (16th ed. 2022).
- ³ As of the writing of this article, at least two states—Wyoming and Vermont—have passed legislation recognizing DAOs as blockchainbased limited liability companies, subject to certain statutory requirements.
- ⁴ In enacting legislation recognizing DAOs as blockchain-based limited liability companies, Wyoming sought to address the unique governance structure of DAOs by, for example, eliminating the fiduciary duty and allowing more flexibility in DAOs' management. The majority of states, however, have not made similar accommodations.
- ⁵ Even if DAO members are creditors, their claims may be subject to recharacterization and equitable subordination for several reasons.
- The anonymity issue cannot be avoided. Bankruptcy Rule 1007(a)(3) requires that debtors file a list of equity security holders. Thus, if the court finds that members are equity holders, their names will still need to be disclosed.

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