

Blockchain Law

DAOs Enter the Spotlight

Robert A. Schwinger, *New York Law Journal* — March 22, 2022

What exactly are decentralized autonomous organizations, or “DAOs”? How do they operate? What are their advantages? Pitfalls? How do they compare to traditional legal entity structures, such as corporations and limited liability companies? In his Blockchain Law column, Robert Schwinger digs deep to explain.

In the world of blockchain and smart contracts, the idea of a “decentralized autonomous organization”—often referred to simply as a “DAO”—that uses these technologies to pursue a business purpose with minimal human intervention has been gaining increasing attention. Although the concept of DAOs goes back several years, developers of FinTech and DeFi applications more and more have looked to DAOs to play a role in the functioning of their ventures.

But what exactly are DAOs? How do they operate? How do they compare to traditional legal entity structures, such as corporations and limited liability companies, in terms of the benefits they offer and the risks they present?

What is a DAO and how does it work?

A decentralized autonomous organization (DAO) is a virtual organization that runs on blockchain technology. As the SEC stated in its so-called “DAO Report,” *Report of Investigation Pursuant to Section 21(a) of the Securities Exchange Act of*

1934: *The DAO*, [Exch. Act Rel. No. 81207](#) (July 25, 2017), an early discussion of securities law issues in the DAO context, a DAO “is a term used to describe a ‘virtual’ organization embodied in computer code and executed on a distributed ledger or blockchain.”

DAOs have been described as “an internet community with a shared bank account,” which use smart contracts to raise capital and make investments. See generally Taylor Locke, [“What Are DAOs? Here’s What to Know About the ‘Next Big Trend’ in Crypto,”](#) CNBC (Oct. 25, 2021). Some DAOs pool capital to invest in valuable items, such as the sole existing Wu Tang Clan album *Once Upon a Time in Shaolin*, while others, such as the HerStory DAO, invest in projects by Black women and non-binary artists. Id.

A recent New York Times article described DAOs as “a kind of digital co-op that uses cryptocurrency tokens to coordinate access, make payments and vote on group decisions” and noted that “DAOs, which have been described as ‘financial flash mobs’ or ‘group chats with bank accounts,’ are among the fastest-growing parts of the crypto ecosystem.” Erin Woo

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& Kevin Roose, "[*This Social Club Runs on Crypto Tokens and Vibes*](#)," N.Y. Times (Mar. 2, 2022). "There are thousands of DAOs organized around a variety of causes, ... [t]he largest [of which] have thousands of members, and some control billions of dollars' worth of cryptocurrency." *Id.*

According to proponents, launching a DAO typically involves three main steps. First, developers create a smart contract. Next, the DAO raises capital, typically by issuing tokens. Lastly, the DAO is deployed on the blockchain. As explained by Cardozo Law School professor Aaron Wright, "[a]t their most basic level, DAOs rely on smart contracts to grant people the ability to control or direct the organization's assets either directly or indirectly." See Aaron Wright, *The Rise of Decentralized Autonomous Organizations: Opportunities and Challenges*, 4 Stanf. J. Blockchain L. & Pol'y 152, 156 (2021); see also Locke, *supra*.

Once the DAO is created, it becomes independent of its smart contract developers. As explained in one industry publication, to gain membership in a DAO people typically purchase "governance tokens," which are cryptocurrencies that are tied to a certain project, and the proceeds then go into the DAO treasury. Locke, *supra*. DAO tokens are generally tied to voting power with voting rights being proportional to members' holdings.

Membership in a DAO gives participants specific rights. Some DAOs give members the right to a portion of an organization's profits or losses. Other DAOs provide their members with the right to access, manage, or transfer the resources or services that an organization controls. Membership can also be associated with specific privileges, providing people the opportunity to engage in an organization's decision-making processes.

Wright, *supra*, at 156.

Proposed advantages

DAO proponents argue that DAOs have many benefits in comparison to traditional corporate structures. One claimed advantage is that DAOs have lower barriers to entry because members across the world are able to contribute with the click of button from their cell phones or laptops. This allows tens or hundreds of thousands of disparate members to participate in the DAO regardless of their physical location or background. See Wright, *supra*, at 152.

Another claimed advantage is that in DAOs, voting and implementing decisions are more efficient and less costly. Unlike traditional corporate structures, which are built on a top-down hierarchy and controlled by a central authority, such as a board of directors or executive officers, the DAO members themselves collectively make decisions regarding the DAO. Any action by the DAO or change to the DAO requires members to vote.

Members of a DAO may hold a vote without organizing a formal meeting and instead are able to vote with the click of a button from wherever they may be. Thus, paper mailings and secure e-proxy services are no longer required. Smart contracts can provide for vote delegation, which reduces the cost of proxy-based voting schemes. See Wright, *supra*, at 160.

Supporters of DAOs also argue that DAOs can rapidly pool and deploy capital in a matter of seconds—once the voting threshold is met, smart contracts automatically deploy the funds. No further action is required and the transfer of funds is not delayed by layers of financial institutions. See *id.* at 153, 158.

DAO advocates argue the voting process also makes it faster to make changes to any rules governing a DAO—not only is it unnecessary to first hold a meeting to vote but also it is unnecessary to draft any amendments to corporate charters, by-laws or even statutory law governing the organization.

Unlike the traditional corporate structure which operates based on a combination of statutory law, certificates of incorporation, corporate bylaws and resolutions, DAOs are governed by smart contracts which can be changed much more quickly than such other documents.

Not having to hold a meeting to vote also allows voting to occur more often and on an ongoing basis, as opposed to once at a predetermined time of the year. See *id.* at 160. Some organizations managing over \$500 million in assets have noticed these operational efficiencies and have chosen to use DAOs rather than traditional internal governance structures. See *id.* at 153.

Because all members get a vote in any decision, DAO proponents note that power over the organization is spread throughout the group rather than lying within a small, elite subset of the organization. Prof. Wright contends that this highly participatory decision-making structure helps to ensure democracy within the organization and fosters an environment

of community collaboration. Wright, *supra*, at 152. This structure can be seen in digital startups outside Silicon Valley. See Kyle Chayka, "[The Promise of DAOs, the Latest Craze in Crypto](#)," *The New Yorker* (Jan. 28, 2022).

DAO proponents further argue that decisions are more likely to be made in the best interest of the organization in a DAO than in a traditional corporate structure, again because in the latter decisions are more likely to be made in the interest of an elite subset within the organization.

In a DAO, by contrast, all decisions made by DAO members directly affect the members themselves. Prof. Wright argues that a decreased likelihood for people to act in their own self-interests increases trust within the DAO, and that DAOs are therefore more responsive to the needs of their stakeholders. See Wright, *supra*, at 160.

Another claimed advantage in the use of a DAO structure is that because all actions of the DAO are conducted and automatically recorded on a blockchain, they are open for public audit and "members can cryptographically verify the results of member votes." This is argued to help to ensure that the rules for decision making are being followed and also decreases any risks due to miscalculated votes and thus avoids opportunities for contested decision making.

Furthermore, it is claimed that this full transparency may minimize exposure to many legal and regulatory risks that traditional organizations face from their operations being private, so that only the organization itself internally knows what occurs. See Wright, *supra*, at 160.

Another point raised by those who favor DAOs is that DAOs avoid principal-agent issues. In a traditional corporate structure, CEOs and other top officers acting as agents of the entity may act in their own self-interest or make decisions with which the shareholders (their principals) do not agree.

Because DAOs are not controlled by a single member, DAO proponents reason that it is not possible for an individual unilaterally to take any action without members' consent. Members join a DAO only after understanding the rules governing it and thus do not need to trust any agent acting on their behalf. Consequently, all acts carried out by the DAO are arguably done with consent and in the interest of its members. Cointelegraph, *Ethereum Guide for Beginners: "What is a Decentralized Autonomous Organization, and How Does a DAO Work?"* (last visited March 8, 2022).

DAOs also are claimed to provide greater safeguards to protect the entity's financial resources against misappropriation or misuses than traditional corporate structures. For example, smart contracts arguably reduce the potential for self-dealing because of the rigidity inherently created by the rules programmed into their code, which governs how the entity's members agree to cooperate. Whereas in a traditional corporation there is almost always a risk that some persons may be able to misappropriate the entity's funds through various means, there seems to be less opportunity for a DAO member to unilaterally transfer funds or defraud the DAO of any collected assets. This rigidity thus serves as a valuable further layer of institutional control. See Wright, *supra*, at 161-62.

Similar to many corporate structures, some DAOs allow their members to withdraw their capital should they decide being invested in the DAO no longer serves their interests. Allowing members to exit provides them with some control over the DAO's activities and some ability to protect themselves against feared future losses.

Members who do not agree with the organization to fund a certain investment, for example, can withdraw their assets, just like a corporate shareholder who may become dissatisfied with a corporation's direction. This provides DAO members with an avenue for downside risk protection similar to that enjoyed by traditional investors. See Wright, *supra*, at 162.

As Prof. Wright concludes:

If the cost of creating and deploying a DAO decreases, DAOs may (at least theoretically) coordinate the operation of a growing number of people. This is not surprising. As Ronald Coase recognized long ago, technological advances "like the telephone and telegraphy, which tend to reduce the cost of organizing spatially, ... tend to increase the size of the firm" especially in the case of "changes that improve managerial techniques." Centralized, and hierarchical organizations that currently dominate our economic landscape could eventually give way to DAOs mainly consisting of people loosely working together with a shared purpose, coordinated through smart contracts.

Wright, *supra*, at 163.

Potential pitfalls

While DAOs thus have many benefits, proponents acknowledge that they may present some challenges as well. One of these acknowledged challenges is that once a DAO is deployed on the blockchain, its code will remain fixed unless and until a vote of the DAO members is held to approve a change in the code. While holding such votes may be easier or speedier than getting corporate charters changed or state corporation laws amended, it still requires effort and takes time. This can delay the process of fixing any gaps or bugs in the coding originally deployed for the DAO's smart contracts.

In addition, while voting is occurring, hackers potentially can take advantage of gaps or bugs in the coding. For example, as discussed in the SEC's "DAO Report," *supra*, at 9-10, in the early DAO simply called "The DAO" interested persons gained membership by buying tokens in exchange for the cryptocurrency Ether, thus enabling The DAO to raise \$150 million in value. However, during a time in 2016 when The DAO was seeking to implement certain corrections to its code, an unknown individual or group began rapidly diverting The DAO's Ether—approximately one-third of its total value—from The DAO's blockchain address to one controlled by the attackers.

Before the attackers were able to move the diverted Ether from that initial address to a different one, however, The DAO was able to arrange and get approval for a so-called "hard fork" that "called for a change in the Ethereum protocol on a going forward basis that would restore the DAO Token holders' investments as if the Attack had not occurred," thus "of transferring all of the funds raised (including those held by the Attacker) from The DAO to a recovery address" so that "[a]ll DAO Token holders who adopted the Hard Fork could exchange their DAO Tokens for [Ether tokens], and avoid any loss of the [Ether] they had invested." *Id.* While seemingly a success story, The DAO nevertheless ended up collapsing not long after. See Wright, *supra*, at 159.

Another potential issue that DAO advocates recognize pertains to DAOs that are run using a so-called "multi-sig wallet"—a cryptocurrency wallet that requires at least two private keys to authorize a transaction. While such DAOs are supposedly powered by their governance tokens, the power to change the code and spend money from the treasury of such DAOs lies with a smaller group within the DAO that controls the multi-sig wallet. See Brady Dale, "[*Another Fork Bites the Dust*](#):"

[*The Looming Fall of Fortress DAO and the Perils of Off-Chain Governance*](#)," *The Defiant* (Feb. 18, 2022). Some argue that such DAOs are in fact not decentralized. Any decisions by the DAO are said to be made by all members, but in reality the group that controls the multi-sig wallet can make decisions contrary to what the full membership decides. In fact, some claim that DAO members' votes are essentially useless unless those who control the multi-sig wallet honor the results of the vote. However, proponents argue that most DAOs tend to honor what its members vote for. See *id.*

Because smart contracts govern the DAO, another cited issue arises if DAO members decide to transfer the majority of funds outside of the DAO's treasury. In one recent situation, a DAO's members reportedly voted to move almost 100% of its treasury into an interest-bearing stablecoin which allegedly is entirely controlled by that DAO's primary developer. See Dale, *supra*. Because almost all of the DAO's treasury is in the stablecoin, members have complained that the primary developer essentially controls all of the DAO's assets himself because he controls the smart contracts to the stablecoin, and that the DAO's members are now powerless to make him return the funds. See *id.*

While the voting structure may increase a DAO's efficiency in some ways, concern has been expressed that it decreases efficiency in other ways. It requires members to be consistently engaged and attentive to what the DAO is doing, but members may not have the time to perform the due diligence necessary to ensure they are making well-informed decisions, and so they may be deterred from participating in the voting. Some DAOs have tried to offset this issue by giving more weight to decisions based on how long a member supported a certain proposal or by making a decision based on the willingness of DAO members to pay for a certain outcome. Other DAOs avoid this issue entirely by managing the DAO solely through smart contracts and forgoing member voting. However, Prof. Wright notes that this is a very rigid approach and does not avoid any governance decision, since the decision whether to participate in the DAO becomes the governance decisions. See Wright, *supra*, at 165-66.

Another complication proponents acknowledge arises from the lack of a top-down hierarchy. Unlike in a traditional corporate structure which has people in executive positions, it is not as clear who gets rewarded for the work that goes into establishing a DAO, otherwise known as "sweat equity." If sweat equity is rewarded through receiving tokens, this

process would only be feasible for those who do not need immediate financial compensation. See Chayka, *supra*.

Additionally, as the SEC's "DAO Report" noted, there is no consistent regulatory framework for DAOs. DAO Report at 17-18. The DAO Report, which was issued after The DAO's 2016 incident discussed above, was one of the earliest expressions of the view that at least certain cryptocurrency tokens could constitute "securities" within the meaning of the federal securities laws. While further SEC pronouncements, enforcement actions and court rulings have reached similar conclusions in other cases, see, e.g., R. Schwinger, *SEC Takes Aim at Digital Tokens and Smart Contracts*, N.Y.L.J. (Jan. 18, 2019); R. Schwinger, *A 'Telegram' to SAFTs: 'Beware!'*, N.Y.L.J. (May 22, 2020), the issue continues to be hotly debated by some. See, e.g., Wright, *supra*, at 173. Such regulatory uncertainty may make it difficult for an organization to create a plan to protect against various issues.

Also, because members of a DAO may be spread across the world, it may not always be easy to determine the jurisdiction or jurisdictions whose laws apply will apply to it. This uncertainty could lengthen the time it takes to resolve any potential disputes that arise. Given the significant asset values that are being managed through DAOs rather than traditional governance structures, DAOs may need legal regimes to work towards accommodating the growth and development of DAOs by addressing and resolving such regulatory uncertainties. See Wright, *supra*, at 153.

As discussed in a recent paper by two industry participants, David Kerr & Miles Jennings, *A Legal Framework for Decentralized Autonomous Organizations* (2021), DAO members need to be aware of any tax obligations associated with the DAO and its activities. Some DAOs base their governance tokens in "foreign jurisdictions with favorable tax regimes," such as Switzerland, Singapore, the Cayman Islands, and Ireland, and then "wrap[] the DAO in a foundation entity formed in such jurisdiction." *Id.* at 14.

The potential benefits to this type of structure are obvious in that not only does the Foreign Foundation provide an extremely flexible framework that would support off-chain functions bound to executing validly executed proposals passed through a DAO's governance protocols, but the favorable tax regimes offer DAOs potential tax savings regarding their treasuries. Although the high costs associated with establishing such Foreign Foundations are

often cited as a barrier to entry for most DAOs, there are also risks associated with an offshoring strategy.

Id. The authors note, however, that these DAOs will still likely be subject to U.S. income tax for any income that is connected to U.S. trade or business, such as if any of the DAO's employees or directors were present in the U.S. for a significant period of time. Attention thus needs to be paid to whether any actions constitute a taxable presence in the U.S. for federal and state income tax purposes. See *id.* at 15.

Liability issues for DAO participants are another area of potential concern. In most states, DAOs are not a recognized form of legal entity. They thus do not have limited liability and would seem to be considered general partnerships by default, as they involve two or more persons carrying on as co-owners of a business for profit. Kerr & Jennings, *supra*, at 12-13. Unlike other traditional business corporations, limited liability companies or registered limited liability partnerships, the members of general partnerships are not conferred by law with the benefit of limited liability. The same may be true of the members of DAOs that are unincorporated organizations or associations, like The DAO discussed in the DAO Report. See DAO Report at 1, 15-16. Where there is no recognized structure that limits the liability of DAO members from creditors, each DAO member may be personally liable for the DAO's liabilities and responsibilities.

Although the facts and circumstances of most DAOs present a situation where the lack of a business purpose would likely prevent a partnership from being imputed, given the mechanics of how a DAO with strong ties to the U.S. is formed, it is also likely that the tax liability associated with the treasury would still be attributed to the developers, the DAO itself or directly to its members.

Kerr & Jennings, *supra*, at 14. People with significant assets thus may be deterred from becoming involved in a DAO where membership could put all their personal assets at risk. Wright, *supra*, at 167.

Currently there are two states that do formally recognize a DAO as a legal entity with limited liability, Wyoming and Vermont. Wyoming has added to the Wyoming Limited Liability Company Act the Wyoming Decentralized Autonomous Organization Supplement, codified at Wyo. Stat. §§17-31-101 through 17-31-115, which recognizes a DAO as a form of LLC. See *id.* §17-31-104(a). Vermont's Limited Liability

Company Act, codified at 11 Vt. Stat. Ann. §4173, recognizes DAOs as one possible form of a “Blockchain Based LLC” or “BBLLC,” a limited liability entity recognized under Vermont law. See id. §4173(2)(B).

Lastly, another cited disadvantage from the lack of formal legal status for many DAOs is that this may deter others from doing business with them. It may be unclear whether DAOs have the legal capacity to make and enforce contracts in the DAO’s own name. Moreover, where DAOs are not recognized as a legal entity, and are not required to comply with any registration process or statutory requirements such as having incorporators, articles of incorporation, bylaws or a board of directors, parties may be reluctant to deal with them. Parties who enter into contracts with entities often want to know the individuals behind the entities with whom they dealing, and to know which assets would be available to satisfy the entity’s contractual obligations.

However, where they do not have access to this information because disclosure is not required, they may therefore choose not to enter into business transactions with a DAO.

See Wright, *supra*, at 170. On the other hand, where DAO interests are based in more conventional structures, those interests might be more likely to be viewed by regulators as constituting “securities,” which may weigh against the appeal of using such structures.

Conclusion

In forms of business organizations as in any other area, with new concepts come both new opportunities and new challenges and risks. While DAOs may offer some attractive features, current uncertainties about regulatory status, tax exposure and recognition as a legal entity may make it difficult to fully anticipate and plan for legal issues that may arise when creating and operating a DAO. If, as recent trends suggest, DAOs gain popularity and become more of a focus in the crypto and DeFi space, these issues seem likely to be further explored and may even start to receive legislative or regulatory attention. At this early stage, though, it may be anyone’s guess as to how many of these issues will eventually turn out.



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