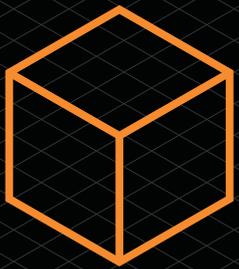
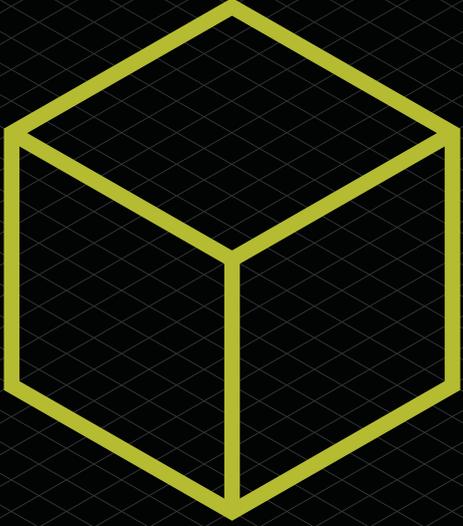
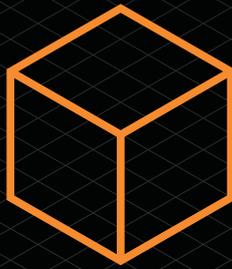
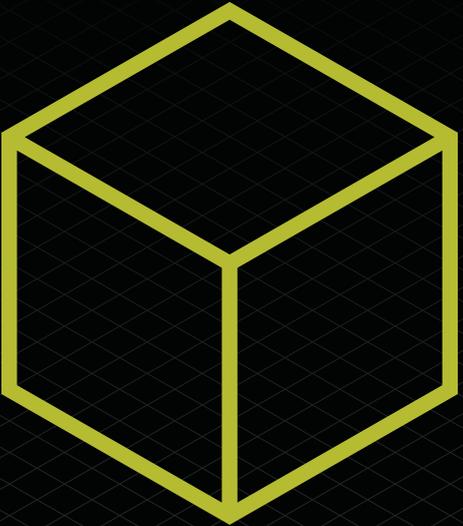


**Part 2:
Impacts
on the Wider
Landscape**

Section 8

Daos –
Decentralised
Autonomous
Organisations



Section 8: Daos – Decentralised Autonomous Organisations

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Part A – What is a DAO?

1. Introduction, definition and summary of key features

The idea of a decentralised autonomous organisation (**DAO**) was first articulated by Vitalik Buterin in 2014 as “an entity that lives on the internet and exists autonomously, but also heavily relies on hiring individuals to perform certain tasks that the automaton itself cannot do”¹⁸¹. This is distinguished from a decentralised organisation (**DO**), defined in the article as “a set of humans interacting with each other according to a protocol specified in code, and enforced on the blockchain”, because “in a DO the humans are the ones making the decisions, and a DAO is something that, in some fashion, makes decisions for itself”¹⁸².

In practice, most so-called DAOs are in fact DOs, because although both have internal capital (i.e. a treasury, however structured), few so-called DAOs are capable of making autonomous decisions and instead rely on human interaction and decision-making, with some degree of automation and blockchain technology involved in the governance process and implementing the outcome of decisions. This is somewhat confusing. Nonetheless the concept of humans using the blockchain to organise, interact and make decisions in pursuit of a common purpose, has become colloquially known as a DAO.

With this in mind, from this point forward this section refers to a “DAO”, even though such references are to associations of humans with the features of a DO; however inaccurate, that is now common parlance. We are not yet aware, at the date of this publication, of any “true DAOs”, only DOs with varying degrees of success in their current challenge of decentralisation. Given the anticipated legal and regulatory landscape around DAOs, this challenge is particularly critical for the future viability of these associations.

DAOs, then, such as they are, are an association of often anonymous or pseudonymous members with internal capital. The DAO uses technology to communicate and exchange ideas in pursuit of a common purpose, as well as blockchain technology to vote on, and in some cases, implement agreed governance proposals.

Voting on a governance proposal is typically conducted through the use of a “governance token”. These are fungible or non-fungible digital asset tokens recognised by the DAO, and associated support websites (such as Snapshot), as having voting rights in the DAO and which may also serve as a “badge” of DAO membership. Voting is typically conducted through the DAOs own front-end website, or a third-party support site, allowing the wallet holding the tokens to be recorded as voting for or against a proposal.

Proposals that pass represent “the will of the DAO” and constitute a mandate for implementation or enforcement by the DAO as a whole. Implementation may be through the blockchain (where such changes are capable of implementation through smart contracts, particularly where a DAO governs a blockchain protocol, or the direction of treasury assets), or the instruction of third parties to perform functions in pursuit of implementation of the mandate, and adherence may be by behaviour or governance process changes.

¹⁸¹ “DAOs, DACs, DAs and More: An Incomplete Terminology Guide”, Decentralized Autonomous Organizations, Vitalik Buterin, 6 May 2014

¹⁸² “DAOs, DACs, DAs and More: An Incomplete Terminology Guide”. Decentralized Autonomous Organizations, Vitalik Buterin, 6 May 2014

The purpose of a DAO is generally unrestricted, ranging from control over blockchain protocols, to decentralising access to space. As of early December 2022, around 10,000 to 11,000 DAOs are recorded¹⁸³.

2. Decentralisation

The first effort to recognise the ideal of a DAO was “The DAO” project developed and launched by slock.it during 2016. Slock.it’s presentation of the history of the DAO and the lessons learned, succinctly sets out the rationale for a DAO and the philosophy behind decentralisation as a concept:

“When you need funds to grow your company in the cryptospace, doing a token sale is a promising option and in this case would have helped guarantee an initial, decentralized user base for the Ethereum Computer and the Universal Sharing Network.

“But after coding up a simple crowdfunding contract, we could not stop ourselves from giving the token holders more power. And with this, the story of the DAO started.

“In the beginning, we created a slock.it specific smart contract and gave token holders voting power about what we — slock.it — should do with the funds received.

After further consideration, we gave token holders even more power, by giving them full control over the funds, which would be released only after a successful vote on detailed proposals backed by smart contracts. This was already a few steps beyond the Kickstarter model, but we would have been the only recipient of funds in this narrow slock.it-specific DAO.

We wanted to go even further and create a ‘true’ DAO one that would be the only and direct recipient of the funds, and would represent the creation of an organization similar to a company, with potentially thousands of Founders.

“In this truly decentralized and autonomous model which we detailed in a whitepaper, people would create an organization together, and we as slock.it would be just one of the many companies that would offer products and services to it. Offers would take the form of Proposals detailed in smart contracts and giving the project even more flexibility.

“After getting as much legal advice as we could, we came to the conclusion this model was also superior to token crowdsales in general. Nothing like this had ever happened before though, and therefore all legal advice was just that, advice. But we already believed in the dream of Decentralized Autonomous Organisations and were excited to be part of this revolution.

“We made all the code open source so anyone could start one of these DAOs, audit their code and make improvements to their feature set.”¹⁸⁴

Although it is a philosophical ideal and the purported core feature of DAOs, decentralisation as a concept is, and is likely to remain, difficult to define or quantify to any degree of confidence. This difficulty creates uncertainty and an inconsistency of approach for DAOs, their participants, legal advisers, other service providers, lawmakers and regulators.

Vitalik Buterin’s original article examined the rationale of decentralising human organisation:

¹⁸³ <https://deepdao.io/organizations> and <https://snapshot.org/#/> accessed on 27 November 2022.

¹⁸⁴ “The History of the DAO and Lessons Learned”, The Quest For Autonomy, Christopher Jentzsch, slock.it, 24 August 2016

“The idea of a decentralized organization takes the same concept of an organization, and decentralizes it. Instead of a hierarchical structure managed by a set of humans interacting in person and controlling property via the legal system, a decentralized organization involves a set of humans interacting with each other according to a protocol specified in code, and enforced on the blockchain. A DO may or may not make use of the legal system for some protection of its physical property, but even there such usage is secondary.”¹⁸⁵

Since this description was published in 2014, the constituent elements of a DAO (which, as noted above, is currently in practice a DO) generally extend far beyond mere code, although the code/blockchain aspect itself remains a key element of its identification – separate to other forms of human organisation – and operation.

Typically, a DAO constitutes:

- a front-end website which may or may not facilitate interaction with governance processes;
- a suite of off-chain documentation explaining its purpose, operation and initial governance processes;
- community participation through online for a Discord or other social media channels;
- one or more smart contracts (including multisignature, or multisig, wallets) for issuing governance tokens, executing some operational elements, and holding internal capital such as a treasury;
- and, in many cases, use of third-party websites to facilitate the governance process such as presenting and voting on governance proposals.

The obvious point here is that a DAO does not spontaneously come into existence. The above components evidence a concerted effort by a group of people acting together to create the infrastructure through which a DAO can be created and operated. The number of participants in that group, and their geographic spread may vary, but they are very clearly not decentralised, by necessity. This same group of DAO founders will typically oversee the inception and initial development of a DAO and seek to steward it towards increased membership and participation, with a view to eventually fully vesting management and control into the community of token holders. In this way, many DAOs start off largely centralised but may aspire to significantly more decentralisation than when they began life.

Additionally, many DAO founders – or eventually, the community – elect or appoint individuals to positions of supervision or management over some or all of the operations and/or governance processes of a DAO as a form of control layer. For example, The DAO had “curators” and other DAOs may convene a governing council or a functional equivalent. This approach may make day-to-day DAO operations more efficient, but it also risks being construed by regulators and lawmakers as evidencing control over the DAO by a small group of identifiable individuals, with concomitant regulatory consequences.

In the case of The DAO, the US Securities and Exchange Commission determined that such curators exercised significant control over the operations of the DAO, which had implications for US securities law purposes¹⁸⁶. The Financial Action Task Force, in its guidance to Recommendation 15 relating to anti-money laundering obligations for “virtual asset service providers” (**VASPs**), similarly notes:

¹⁸⁵ “DAOs, DACs, DAs and More: An Incomplete Terminology Guide”, Decentralized Organizations, Vitalik Buterin, 6 May 2014

¹⁸⁶ “Report of Investigation Pursuant to Section 21(a) of the Securities Exchange Act of 1934: The DAO”, Section III(B)(4)(a), Securities and Exchange Commission, Release No. 81207 / July 25, 2017

“In cases where a person can purchase governance tokens of a VASP, the VASP should retain the responsibility for satisfying AML/CFT obligations. An individual token holder in such a scenario does not have such responsibility if the holder does not exercise control or sufficient influence over the VASP activities undertaken as a business on behalf of others”¹⁸⁷,

further noting that:

“Where it has not been possible to identify a legal or natural person with control or sufficient influence over a DeFi arrangement, there may not be a central owner/operator that meets the definition of a VASP”¹⁸⁸.

DAOs and their legal advisors should therefore carefully consider the level of control exercised over a DAO by founders, both initially and on an ongoing basis, and any subsequent layers of management or control in the future.

DAO “decentralisation” may be further challenged by reference to its initial service provider setup. For example, *slock.it* in the same blog post above note that:

*“For the DAO to be truly independent of *slock.it*, the default service provider to the DAO would have to be replaced by a set of independent curators. A lot of well-known experts from the Ethereum community volunteered to do this job, which gave the project additional traction. *Slock.it* saw its main responsibility as continuing to help with the development of the DAO framework, alongside many volunteers on *github*”¹⁸⁹.*

Although the curators and their roles were intended to move The DAO towards independence, their role was influenced by the SEC’s analysis of The DAO’s activities. The SvEC also determined that the continuing role of *slock.it* in overseeing The DAO constituted “significant managerial efforts”¹⁹⁰. Nonetheless, *slock.it* recognised that it could not continue to be the default service provider to The DAO if it was truly to be independent and believed the appointment of curators could help move the needle towards independence.

In practice, many DAOs continue to retain some sort of relationship with its founders, at least initially, through significant token allocations or engaging a company owned by the founders as a service provider, such as a “Labs” entity, which provides research and development services to the DAO or the relevant protocol it governs. This again may lend to challenge by regulators who may construe the relationship between a Labs or other default service provider entity and a DAO as one of control. As a rule of thumb, if a party can intervene in the operations of a DAO or its protocol in the case of an emergency, that party may be construed as having a control relationship. DAOs and their legal advisors should carefully consider such arrangements, their purpose and intended duration. Eventually, that link may need to be severed to defend against a control challenge with legal and regulatory obligations potentially also arising if such a determination is upheld.

3. How does a DAO operate?

The rules of the DAO are initially established by a core team of community members through the use of smart contracts. These smart contracts lay out the foundational framework by which the DAO is to operate. They are publicly accessible and auditable, often accompanied by extensive technical documentation, so that any potential member can fully understand how the protocol will function at every step.

¹⁸⁷ “Updated Guidance for a Risk-based Approach – Virtual Assets and Virtual Asset Service Providers”, paragraph 68, Financial Action Task Force, October 2021

¹⁸⁸ “Updated Guidance for a Risk-based Approach – Virtual Assets and Virtual Asset Service Providers”, paragraph 69, Financial Action Task Force, October 2021

¹⁸⁹ “The History of the DAO and Lessons Learned”, The Birth of “The DAO”, Christopher Jentzsch, *slock.it*, 24 August 2016

¹⁹⁰ Report of Investigation Pursuant to Section 21(a) of the Securities Exchange Act of 1934: The DAO”, Section III(B)(4)(a), Securities and Exchange Commission, Release No. 81207 / July 25, 2017

After these rules have been fully recorded on the relevant blockchain, the next step for the DAO is to source funding: the DAO needs to determine the best fund-raising strategy, and which governance mechanisms will work best for its purposes.

DAOs typically bestow governance and raise capital through token issuances whereby the DAO sells its governance token to raise funds that will be held in treasury, controlled by and for the benefit of the DAO. In return for payment of fiat or other digital assets, token holders are given certain voting rights, usually proportionate to their holdings. Voting power is often distributed across users based on the number of tokens they hold. For example, one user that owns 100 tokens of the DAO will have double the amount of voting power than a user that owns 50 tokens – although this can vary.

Generally, at this point, once the code is deployed it cannot be altered by any means other than by reaching a consensus amongst voting token holders, pursuant to the DAO's governance protocol. That is, no special authority can modify the rules of the DAO; it is entirely up to the community of token holders to decide.

Types of DAO and their uses

Protocol DAOs

This type of DAO is one of the most common. As the name indicates, these DAOs focus on supporting the governance of decentralised protocols. When tokens are used as the voting metric for introducing and approving any changes in the protocol, such governance structures represent protocol DAOs. A notable example of a protocol DAO would be MakerDAO – one of the original DAOs. MakerDAO utilizes smart contracts to help users borrow and lend cryptocurrencies at customized lending rates and estimates of repayable amounts. The platform utilizes the Maker protocol's governance token MKR for holders to use when voting on different proposals in the Maker protocol.

Collector DAOs

This type of DAO is a relatively new one. This type of DAO primarily focuses on pooling or collecting funds so that the community behind it can have collective ownership of blue-chip NFTs like the Bored Ape Yacht Club and other digital collectibles.

Service DAOs

This type of DAO is another relatively new one. Service DAOs create decentralized working groups for people to work. This can be to individuals, businesses or even other DAOs. This type of DAO arose from people trying to provide services to DAOs in areas where they were deficient – talent acquisition, talent management, legal uncertainties etc.

Investment DAOs

This type of DAO (also known as a Venture DAO) generally pools funds for investments in early-stage web3 startups, protocols and even off-chain investments. One of the more popular investment DAOs would be Krause House – a venture DAO trying to buy a professional NBA team.

Social DAOs

This type of DAOs are collaborative platforms for social networking in the cryptocurrency space. Social DAOs are focused on the self-organizing community aspect of DAOs by bringing together like-minded individuals such as builders, artists, and creatives. While Social DAOs are community focused, typically there is a barrier to entry such as owning a specific number of tokens, owning an NFT, or being personally invited. An example of a social DAO would be LexDAO – a decentralized legal guild focusing on the various aspects of 'crypto law'.

PART B – Pros and cons of a DAO

Pros	Cons
Decentralised – cannot be controlled/shutdown	Hacks (vulnerability of code, especially if open source; “flash loan” attacks in which money borrowed from a decentralised finance pool is used to arbitrage on a DeFi protocol, then the capital is returned to the pool quickly after making a profit from the arbitrage, and such profit remains after the borrowed capital is repaid) and exploits which, although not a “hack”, exploit opportunities in protocols or systems to the advantage of the exploiter
Trustless/Autonomous	Legal uncertainty (regulatory implications/sanctions)
Enables global cooperation (especially for people in restrictive countries)	Lack of speed for decision making (potentially adds time for transactions)
Open source	Concentration of voting power

Pros

1. Decentralised

As noted above, whilst the decentralised nature of a DAO can sometimes be questionable, in principle the DAO will have no central body responsible for its governance. Unlike classic limited liability companies, which typically have a board of directors, whose role it is to put in place the decisions of those eligible to vote, a DAO’s code is automatically updated when a decision is made. Decisions therefore do not require reliance on certain individuals to be run but instead rely on the code.

2. Autonomous

As described above there is continued discussion as to whether a DAO must be fully autonomous and automated to be considered a DAO (rather than a DO) or whether the concept of autonomy can be more broadly interpreted. Whilst we are unaware of any “True DAOs” in most cases the need for human oversight will be reduced from traditional off-chain organisations. Even where smart contracts require a human trigger to execute, they then do not require external human management to run them.

3. Global cooperation

The voting tokens in a DAO are not fixed to certain jurisdiction or require to be allotted under national regulations. This makes for a low barrier to access and allows anyone anywhere in the world to purchase tokens and be able to vote on the decisions of the organisation.

4. Open Source

The code which sets out the rules on which the DAO operates is available for everyone to see. This therefore provides clarity for all token holders as to how they can contribute to the running of the DAO but also allow other programmers to update and improve the programming for future DAOs.

Cons

1. Hacks

Whilst open source code can be a positive aspect to a DAO (in that it allows anyone to view and develop the programming on which the DAO is based), there are also drawbacks. If the coding includes imperfections and loopholes (which any would-be hacker can see) the DAO is susceptible to attack. Whilst there have been historical incidences of large losses as a result of flaws in a DAO's code, early errors have driven the improvement of the programming, and the tokens on which it is based on, to generally advance the security of DAOs.

2. Legal uncertainty

As highlighted in Part C, as DAOs continue to evolve and become more common place, their legal status and the regulations relating to DAOs will need to catch up. Whilst there is uncertainty, it is clear that the UK by way of the Law Commission's recent call for evidence wishes to understand what currently prohibits DAOs from choosing UK legal structures and how this can be addressed in the future¹⁹¹.

3. Lack of speed for decision making

As all holders of governance tokens have the ability to vote on all the decisions of the DAO, this can slow down the time for transactions. Unlike with a UK company where day-to-day decisions are delegated to the directors, all decisions are put to the holders of the tokens. This can cause significant delays even if a voting mechanism does not require everyone to vote to make a decision.

4. Concentration of voting power

Whilst DAOs are predominantly intended to facilitate a more democratised organisational structure, allowing all members to vote on its decisions, a recent report¹⁹² found that this is negatively impacted by the distribution of voting power.

The report reviewed the distribution of governance tokens of 10 major DAOs and found that fewer than 1% of the governance token holders held more than 90% of the voting power. As well as the voting distribution the report considered how many holders in the reviewed DAOs could create a proposal and how many could actually pass it.

Governance will vary from DAO to DAO, but the report considered DAOs with the following criteria: (i) that to create a proposal would require a holder to have between 0.1-1% of the governance tokens and (ii) would require 1-4% to be able to single handedly pass a proposal. This would mean that only 1 in 1,000 to 1 in 10,000 users in the 10 DAOs could make a proposal and between 1 in 10,000 to 1 in 100,000 users could pass a proposal single-handedly.

There is however a balancing act. If the threshold is too low, then the DAO would likely not function effectively due to the sheer volume of proposals. Whereas if the concentration of voting power is too high then this questions whether, in fact, the DAO can be considered decentralised due to power to making decisions on sitting with so few.

¹⁹¹ Law Commission – Decentralised autonomous organisations (DAOs) Call for evidence, November 2022

¹⁹² <https://blog.chainalysis.com/reports/web3-daos-2022/>

PART C – Legal Implications to Consider when Setting up a DAO

1. Regulatory considerations

Legal implication to consider when setting up a DAO

Those considering setting up a DAO need to consider whether the DAO's activities or participants fall within the perimeter of UK financial services regulation.

For the most part, financial services regulation is technology-neutral. As such, when considering whether a DAO, or any part of it, is subject to regulation, it is necessary to look behind the structure and consider whether any part falls within the scope of the UK Financial Services and Markets Act 2000 (FSMA).

Pursuant to s.19 of FSMA, a person is prohibited from carrying on regulated activities by way of business in the UK unless it is authorised to do so by the Financial Conduct Authority (FCA), it is an exempt person or an exemption applies. This is known as the "General Prohibition".

A business will be carrying on regulated activities if it is:

- carrying on activities of a 'specified kind';
- in relation to investments of a 'specified kind'; and
- is doing so by way of business in the UK.

For a DAO, the analysis is not straightforward and is subject to legal uncertainty. The FCA has provided limited guidance on its treatment of cryptoassets generally in its publication *Guidance on Cryptoassets Feedback and Final Guidance - PS19/22* (Policy Statement), but there is little guidance specifically on DAOs.

Territoriality

A DAO is only subject to UK regulation if any legal or natural person is undertaking regulated activities in the UK. However, the whole point of a DAO is that it is decentralised – operating cross border. Accordingly, it can be difficult to determine where the activity is carried on.

The FCA has provided limited guidance in its Policy Statement by reference to its more general Handbook Perimeter Guidance.

PERG 2.4 provides details around the link between regulated activities and the United Kingdom. It sets out that even where part of the activity is outside the UK, a person may still be carrying on a regulated activity in the UK. For example, a firm that is situated in the UK and is safeguarding and administering security tokens that are securities or contractually based investments for clients overseas will be carrying on activities in the UK even though the client may be situated outside the UK.

By Way of Business

Activity is only regulated if it is undertaken by way of business. A DAO which is controlled by a multitude of private individuals, who are not operating a trade and where participation is not for commercial purposes, may not be operating by way of business regardless of the underlying activity.

Specified Investments

A DAO is conventionally controlled by token holders. As a starting point, it is generally necessary to consider whether the tokens are specified investments under FSMA and potentially subject to regulation. Tokens which have characteristics which mean they are the same as or akin to traditional regulated instruments like shares, debentures or units in a collective investment scheme are within the regulatory perimeter and are known as "security tokens". Firms carrying on specified activities

involving security tokens need to ensure that they have the correct permissions and are following the relevant rules and requirements.

This is important, not only for the DAO itself but also crypto exchanges which list the tokens. Exchanges cannot generally list security tokens unless they themselves are licensed by the local regulator to provide financial services.

Who is regulated?

Both legal and natural persons carrying out regulated activities require authorisation. In the case of DAOs, it is not straightforward which legal entity requires authorisation and is subject to regulation. Depending upon on the structure of the DAO any of the following could require authorisation:

- a. A promoter of the DAO
- b. A miner/minter of DAO tokens
- c. An incorporated company or other legal entity used by the DAO to effect “real world” transactions
- d. The DAO as a partnership of its token holders
- e. The DAO as an unincorporated association of its token holders
- f. An individual token holder
- g. A token holder with special rights
- h. A committee of token holders
- i. An exchange dealing in DAO tokens

The implications of regulation

In order to advise on the implications of regulation, it is necessary to consider the rights and obligations which attach to a particular security token. Security tokens which have rights akin to debt securities will be regulated in a similar manner to conventional debt securities. Tokens which are units in a collective investment scheme will be regulated like other collective investment schemes.

However, with all security tokens it is necessary to consider how tokens are initially offered. If a token is a transferable security and the tokens will either be offered to the public in the UK or admitted trading on a regulated market, an issuer will need to publish a prospectus unless an exemption applies. If a prospectus is required, the specific disclosure requirements will depend on the type of security.

The regulatory treatment of a token may change over the token’s lifecycle. For example, initially, a token may be regarded as regulated security token, but over time change to an exchange token.

Money Laundering Regulations

The UK’s anti-money laundering regulations are set out in the Money Laundering, Terrorist Financing & Transfer of Funds (Information on the Payer) Regulations 2017 (MLRs).

Since 2019 cryptoasset exchange providers and custodian wallet providers acting in the course of a business carried on by them in the UK are subject to the MLRs and must be registered with the FCA.

Cryptoassets are widely defined as a “cryptographically secured digital representation of value or contractual rights that uses a form of distributed ledger technology and can be transferred, stored or traded electronically” and will almost certainly encompass DAO tokens.

The definition of cryptoassets exchange providers is similarly wide and includes the following (undertaken by way of business):

- a. exchanging, arranging or making arrangements with a view to the exchange of, cryptoassets for money or money for cryptoassets,
- b. exchanging, arranging or making arrangements with a view to the exchange of, one cryptoasset for another, or
- c. operating a machine which utilises automated processes to exchange cryptoassets for money or money for cryptoassets.

As such it is not simply those businesses that sell or buy cryptoassets that are caught, merely facilitating the exchange of cryptoassets by another person may be caught.

2. Tax Considerations

Is a DAO a taxable entity?

It was thought to be a misconception that a DAO possesses separate legal personality with the ability to act independently of their promoters or owners. Under the law as it stands, they could be expressly incorporated as a separate legal person (as a company or partnership with its token holders being classed as separate legal entities such as trusts, individuals or companies. Failing this, the DAO is most likely to be classified as a general partnership.

DAOs are not currently recognised as legal entities in their own right. Potentially, in the abstract, they could be seen as a general partnership or a joint venture agreement between participants.

- a. Some DAOs are linked to a legal entity such as a limited liability company. Such DAOs would have official legal status.
- b. If they were to be classified as general partnerships, then they would be tax transparent (whereby we would look through the corporate structure to the true owners).
They are not considered to be separate legal entities, and the partners are thus jointly and severally liable.

DAOs that are not linked to legal entities might struggle to comply with laws as the decentralised nature makes it difficult to determine who is liable to file the tax returns. It is unclear whether they would be taxed as foreign companies if their members are resident abroad.

DAOs can still be an 'entity' for tax purposes. In the US regulations provide that a joint venture or other contractual arrangement may create a separate entity if the participants carry on a trade, business, financial operation or venture and divide the profits therefrom¹⁹³. The key is that the DAO generates profits and divides them between their members.

Thus, to the extent that a DAO is created by investors who intend to vote and opt for investment proposals, contribute funds for investment, and share the profits, the DAO may be a separate tax entity. Some DAOs formed for purposes other than carrying on a trade or business and making profit, such as a DAO created for raising funds to purchase a copy of the US Constitution, are likely not considered tax entities.

Limited Liability Company

In the United States, both Wyoming and Vermont have recently passed legislation that allows DAOs to register as limited liability companies, under their own name, and with their own legal personality.

A **Wyoming LLC** is governed by "articles of organization", operating agreements,

¹⁹³ Decentralised organisations: Tax considerations | Business Blockchain HQ

and smart contracts. All of these items can detail the rights and duties of the DAO's members. Under the terms of the legislation, a DAO is "a limited liability company whose articles of organization contain a statement that the company is a DAO."

Standard corporations are usually burdened with double taxation on income (business profits are taxed and then shareholders pay tax on dividends). LLCs receive pass-through treatment – allowing allocated profits to be taxed on each member's tax return. For example, DAO LLCs registered in Wyoming are usually regarded as pass-through entities meaning that their members are responsible for paying income taxes. Foreign members of DAO LLCs registered in Wyoming may be subject to the standard 30% withholding tax on their US source income. Since Wyoming is one of the few US states without state taxes on personal and corporate income, the DAO LLC registered there is subject only to an annual state tax of USD 60 or 0,0002% of all assets located and employed in Wyoming (whichever is greater)¹⁹⁴.

Aside from tax, investors have had growing concerns about the legal liability resulting from their investments in DAOs (i.e. their personal assets could be put at risk for any lawsuits or debts of the DAO). As a result, two states, Vermont and Wyoming, have allowed DAOs to register in their states as DAO LLCs which, like regular LLCs, provide the benefit of limited liability for the DAO members. This is also important for tax purposes as the members will not be personally liable for any tax liabilities of the DAO.

From a tax perspective, a DAO LLC, because it is registered under state law, may be treated as a domestic partnership for tax purposes. Although this is better for legal reasons, this may be detrimental for the US partners, who must report their share of the DAO's income and losses — regardless of whether the DAO makes a distribution. However, it may be possible for a DAO LLC to elect to be treated as a domestic corporation for tax purposes, which, on the one hand, would prevent passthrough taxation, but on the other hand would subject the DAO's income to US corporate tax.

Persons who own tokens issued by DAOs may also be subject to capital gains tax on the capital gains generated from the sale of their tokens. When a token is exchanged for another token, this will be a taxable event.

Foundation Company

Several jurisdictions including Switzerland, Singapore and the Cayman Islands offer memberless corporate vehicles such as foundation companies.

The Cayman Islands adopted the Foundation Companies Act, 2017. This introduced a new type of legal entity called a foundation company. This can function like a regular civil law foundation or a common law trust, but it is a body corporate, with limited liability, separate legal personality from its members and directors and other officers. It can sue and be sued and hold property in its own name and exist to further non-charitable purposes. Key features of foundation companies that distinguish them from other types of corporate vehicle available in the Cayman Islands include that the company does not have to have members following incorporation, amendments to its memorandum and articles of association can only be made if expressly stated and it is not allowed to pay dividends to its members.

Instead of members, the foundation company can have 'supervisors' who are not owners of the foundation. Their function is merely to ensure that the directors of the foundation company comply with their obligations, and act in accordance with the governing documents of the foundation company. The supervisors are supposed to act in the interests of the foundation company and not in their own interest, as they do not have any equity interest in the foundation company.

¹⁹⁴ <https://www.withersworldwide.com/en-gb/insight/on-the-rise-distributed-autonomous-organizations-daos>

Members of DAOs sometimes do not want to link legal entities to DAOs because they are concerned that this might lead to taxation of the DAOs. This is not an issue in the Cayman Islands as it does not impose any direct taxes. This leaves open the question of whether the foundation company can be set up in a tax haven to obtain similar benefits. However, this would likely result in reactive tax measures by governments and legislatures around the world. (See the option of a structural mix below.)

A structural mix

A structural mix involves different entities performing different and separate functions in support of a DAO. For example, a Cayman Islands foundation company can exist to support and act on the instructions of the members of a DAO. In turn, the foundation company contracts with a Bulgarian company that provides services to the DAO, under which the foundation company pays the Bulgarian company using DAO treasury funds (which may or may not be assets of the foundation company, or may be under the direction of the foundation company) in exchange for the Bulgarian company providing technical and organisational support to the foundation company for the benefit of the DAO. The Bulgarian company will pay tax on the income generated from providing services to the Cayman Islands company.

Malta has also begun to develop a new DAO-based corporate scheme. The Maltese scheme allows for the registration of 'Innovative Technology Agreements', for distributed ledger technologies. Whilst this does not grant DAOs legal personality, it does attempt to provide DAOs with some assurances, particularly in the context of local approval and recognition. The advantage of this approach is that it offers a high level of flexibility to DAOs, providing them with the ability to operate internationally, whilst establishing a foundation to comply with Maltese tax laws.

A Cayman Islands foundation company, Wyoming DAO LLC or a similar legal entity is strongly recommended. Such an entity will have mainly a protective function. Any services supporting the operation of the DAO may be provided by a second entity registered in a jurisdiction having low taxes and an affordable IT workforce. The risk here is the potential reactive tax rules when governments examine the approach, together with any potential regulatory implications on the arrangements or activities of or between the entities.

Where a DAO is located

Where a DAO is "located" depends on what question is being asked and by which court. A DAO may be treated as being present in one or many jurisdictions. The issue is that they are ultimately transnational in that they may have a global presence, no principal HQ and do not submit to any specific jurisdiction — that is the very nature of a DAO. Because DAOs typically exist solely on the blockchain and do not register with any government authority as such, DAOs could potentially be classified as a foreign partnership for tax purposes — even in situations where all DAO owners are US tax residents.

However, with no physical place of business, an all-digital treasury, and members dispersed across multiple countries, counterparties generally want to contract with an entity that in some way represents, acts on behalf of, or "is" (depending on perspective) the DAO. That entity has to exist in some form somewhere, although depending on the purpose and activities of that entity, it may not be the corporate embodiment of a DAO in and of itself.

Under this approach, DAOs would be able to pick and choose the jurisdiction in which they find most favourable to establish one or more corporate vehicles to contract with the world. Competition amongst jurisdictions would increase in the hope of tapping into a new world of economic activity, as too would innovation amongst DAOs in the hope of making use of a regulatory regime that would best recognise their status.

DAOs may eventually also have opportunities to register in places with the most favourable tax rules. The diverted profits tax might come into play here - this is aimed at arrangements where sales are made to customers in the UK by a foreign company that has no permanent establishment in the UK (and thus is not usually liable to tax). For this to bite, it must be reasonable to assume that any activity is designed to ensure the non-UK company does not carry on its trade for UK corporation tax purposes.

That said, even if a DAO has a body corporate in a jurisdiction, the agreements that entity concludes may not be governed by the laws or subject to the courts of that jurisdiction. The risk then remains that identifiable DAO members may remain personally exposed. In some instances, it may be entirely irrelevant where the DAO is “located”, e.g. damages sustained within England and Wales. In others, e.g. insolvency and tax, locus and situs of assets and activities may be critical.

A wider point is that, if a DAO incorporates an entity in a jurisdiction and the DAO is inextricably linked to that structure, does that effectively dissolve a “DAO”, instead leaving a group of token holders whose liability may derive from their relationship with the corporate entity, rather being part of a DAO as an unincorporated association which can instruct the corporate vehicle? Can this be mitigated by ensuring corporate entities serve, rather than be, a DAO? Analysing anything to do with a DAO an English court will not attach any legal relevance to or recognise a DAO as a “creature of law”. It will just analyse it in terms of legal individuals and entities involved in the specific enterprise. Depending on the court, question and context, it is unlikely that any satisfactory and broad answers will emerge anytime soon.

Tax¹⁹⁵

In many cases, identifying that a transaction has occurred will be straightforward. The online purchase in the metaverse of real-world goods or services will likely follow established rules that apply to online transactions. However, where the transaction is the exchange of one virtual asset for another, such as an NFT acquired with cryptocurrency, it may be less obvious how the rules apply.

The UK’s position on the direct tax treatment is relatively clear. Applying these principles to a hypothetical transaction where a UK consumer uses cryptocurrency to acquire a limited edition NFT accessory from the metaverse store of a UK company, the following tax liabilities could arise:

- a. Capital gains tax (CGT) for the individual on the disposal of their cryptocurrency when buying the NFT, assuming that the value of the cryptocurrency has increased.
- b. Corporation tax for the UK corporate on the profit generated from the sale of the NFT.
- c. CGT for the individual on any future sale of the NFT, again assuming that its value has increased.

The indirect tax treatment, that is, the VAT position, is less clear. Spain is the only European jurisdiction at the moment with a clear tax ruling specifying that NFTs attract VAT. The question of which tax authority has jurisdiction can also be unclear. Current tax rules require the tax residency of the real-world parties to the transaction to be determined, but questions arise as to how these rules apply to a metaverse sale by a decentralised, member-owned and controlled organisation governed by blockchain-powered smart contracts. Perhaps this could be something that is dealt with by double-taxation treaties.

Collection and reporting: the Organisation for Economic Co-operation and Development consulted on a framework for the automatic exchange of information on cryptoassets.

¹⁹⁵ The metaverse: far from the wild west, by Dr Mark Watts, Bristows LLP

These proposals require a cryptoasset service provider to provide identifying information on its users and a list of cryptoasset transactions. This framework may need to be extended to capture metaverse platform hosts. In much the same way that online sales platforms have been forced to act as VAT collectors in respect of transactions facilitated by their platforms, metaverse providers may need to accept a degree of responsibility for policing tax in the worlds that they have created.

3. Liability of members of a DAO

Part D will consider in further depth the types of legal structure which may be implemented for a DAO but (as was the starting point of the Law Commission's recent call for evidence) for the purpose of this section we will consider a DAO in its pure form as an unincorporated arrangement or association of its participants.

This structure, under English law, can be considered in the following ways¹⁹⁶:

- a. Unincorporated associations
- b. General partnerships
- c. Form of trust arrangement
- d. Arrangement of joint ownership of assets

The main distinction under the laws of England and Wales is that these structures do not in themselves have a separate legal identity.

Trust arrangements and arrangements of joint ownership of assets will depend how specific assets are held by the DAO. Whilst they acknowledge that a DAO may use a trust as constituent part of their overall organisational structuring, in most cases a trust will not arise. This section will therefore focus on unincorporated associations and general partnerships.

Unincorporated associations

There is no statutory definition of an "unincorporated association", however, it has been described in case law as:¹⁹⁷ "Two or more persons bound together for one or more common purposes, not being business purposes, by mutual undertakings each having mutual duties and obligations, in an organisation which has rules which identify in whom control of it and its funds rests and on what terms and which can be joined or left at will."

The key criteria for an unincorporated association are that it should:

i. **Consist of two or more persons with a common purpose other than making a profit**

Unlike general partnerships unincorporated associations are prevented from undertaking business for profit.

Although not established for a business purpose or for profit, an association will nevertheless usually have funds of some kind. Income from member subscriptions can be pooled in pursuit of the association's purpose **other than business for profit**.

Income may be used to cover the running costs of the association, but any incidental profits which are made (for example from investments) must be applied to the objects of the association rather than be shared by its members.

ii. **Have contractual relations between those persons**

There are no registration requirements to form an unincorporated association. It will come into existence as soon as a group of people agree to co-operate for a mutual purpose other than business.

¹⁹⁶ Law Commission - Decentralised autonomous organisations (DAOs) Call for evidence, November 2022

¹⁹⁷ *Conservative and Unionist Central Office v Burrell* [1982] 1 WLR 522, 525 by Lawton LJ.

If they then adopt specific rules or sufficiently clear but implied understanding is reached between them, then the contract forms the unincorporated association.

iii. Be governed by rules

As noted at point 2 the rules of the association will set out the rights and obligations of the members to manage and run the association. It is advised for the members to adopt written rules which can address multiple topics including:

- a. Member subscriptions;
- b. Voting rights of the members;
- c. Positions in the association including any right of indemnity of those officials; and
- d. Distribution of the association's assets on its dissolution.

iv. Be non-temporary

An unincorporated association can accommodate a changing membership as members join or leave simply by applying the rules of contract. If another person wishes to join the association, they must contract with each other member to be bound by the rules of the association.

If a member wishes to resign, they must follow the method prescribed by the rules. If the rules are silent on this matter then members are deemed to resign if they sufficiently show their intention to leave.

v. Not have distinct legal personality

Unless its members chose to incorporate a limited liability legal structure (as considered at Part D below) an unincorporated association will not have a separate legal identity separate from its members. This therefore poses an issue for the structuring of a DAO as the association itself cannot own property or enter into contracts with third parties.

Consequences of characterisation as an unincorporated association

As the unincorporated association does not have a separate legal identity, it will usually enter into a contract by an individual member or one or more of the executive committee members on behalf of the unincorporated association. The normal rules of agency will apply so if an agent makes it clear that they are contracting on behalf of an unincorporated association, the contract will be made only with the persons who are the agent's principal. There are two main classes of person who are likely to be held liable as principals under such a contract:

- a. the entire membership of the unincorporated association; and
- b. some or all of the members of the executive committee, as at the date of the contract which is being entered into.

An unincorporated association shall continue in existence with a changing membership until it is dissolved.

As noted below, the members may choose to take the additional step of incorporating their organisation, for example, by registering as a limited company.

If they do not incorporate a limited liability structure then the liability attaches to the persons who were members at the time any contract was entered into and who authorised the contract. Members who are liable under a contract are jointly and severally liable for the full amount due unless liability is expressly limited under the contract to the amount of the association's funds. So a creditor could pursue just one member.

The rules of the association may also set out any right of indemnity of officials and trustees against the assets of the association in respect of liabilities incurred from activities undertaken on behalf of the association.

General partnerships

General partnerships are governed by the Partnership Act 1890 and are defined as the “relation which subsists between persons carrying on a business in common with a view of profit”.

There must be a “business”

The definition of “Business” under s.45 of the 1890 Act is broad to include “every trade, occupation, or profession”.

ii. The business must be carried on by persons acting in common

In other words, the persons must be carrying on a single business together for their common benefit, accepting some level of mutual rights and obligations as between themselves. It is not sufficient where only one of the persons is seeking only to improve their own, individual profitability.

The term “persons” includes bodies corporate, meaning an individual, a body corporate or a group of bodies corporate may form a partnership.

iii. The persons must have a view of profit

Unlike with an unincorporated association, this means that the partners must have the intention to make a profit, even if a profit is not actually realised. “Profit” means the net amount remaining after paying out of the receipts of a business all the expenses incurred in obtaining those receipts. This is in contrast with “gross returns”, for example, the royalties received by an author.

A partner relationship arises from contract but like with an unincorporated association there are no formalities to satisfy. The partnership agreement may be express or else be inferred from the parties’ conduct.

As noted above, the general partnership does not have legal personality separate from the partners who constitute it. Therefore, if a partner leaves the partnership or a new person joins, technically the old firm is dissolved and replaced by a new firm of partners who take on the assets and liabilities of the old firm and continue its business. It is possible, although currently unusual, for a partnership agreement to give a partner the right to transfer their share to a third party and make the third party a partner in their place. Again, this would result in the old firm being dissolved and a new firm created. In the past, partnerships with a large number of partners and freely transferable shares were more common than they are today.

Whether a partnership has formed is a question of fact and law, it is not for the parties to decide this for themselves.

In evaluating if a partnership has formed, a court will consider the following:

- a. any agreement between the parties which reflects their true intentions**
- b. any common features of partnership are present**
- c. any other relevant evidence**

Importantly, a court will look to the substance of the parties’ relationship rather than any label that the parties choose to use. Simply saying that a relationship is a “partnership” is not itself conclusive as to whether a partnership actually exists, although it may be relevant. Equally, an express declaration by parties that their interaction does not constitute a partnership will not decide the matter.

Consequences of being considered a partnership

Like unincorporated associations, general partnerships in England and Wales do not have legal personality separate from the partners who constitute them, again meaning that they cannot enter contracts, own, or grant security over, assets. Any

property is normally held in the names of individual partners as trustees for the partnership. No debt can exist between any member of the partnership and the partnership itself and the partnership cannot technically be a creditor or debtor of its members. Partners do not have any rights or liabilities against the partnership itself because it has no separate legal identity. Rights and liabilities of the partnership are actually rights and liabilities of the partners either against third parties or each other. However, actions can be brought by or against partners in the name of the partnership.

A partner is both a principal and an agent of their co-partners. As principal, a partner is personally liable to meet the debts or liabilities of the partnership, whether or not they could be met out of the partnership assets.

A DAO could be classified as a general partnership if there is an express or inferred agreement between persons to carry on a business in common with a view to profit. Whether that is the case will depend on the specific DAO in question, and its nature, objects, and operations. We anticipate that for some DAOs, particularly where participants do not have a profit motive or if a profit motive is subsidiary to some other purpose for participating in the DAO, the possibility of inferring a partnership agreement will be small, but they might instead be an unincorporated association. For other, explicitly commercial DAOs, a categorisation as a partnership might be more likely, though it would still require showing that (some or all of) the DAO's participants were acting "in common".

The Law Commission therefore considers that where a DAO has not taken any steps to put in place a limited liability structure it will likely be characterised as an unincorporated association or a general partnership under the law of England and Wales.

The Law Commission notes however that considering DAOs as either unincorporated associations or general partnerships is only the starting point of analysis. Stopping analysis at this point would fail to consider in detail the different crypto-token ecosystem functions performed by participants within those ecosystems and fail accurately to reflect the realities of how DAOs are structured and operate in the market today.

Part D – Legal Entity Structures

1. How could a DAO benefit from a legal structure?

As noted by Vitalik Buterin in his genesis article: "A DAO may or may not make use of the legal system for some protection of its physical property, but even there such usage is secondary"¹⁹⁸.

Due to the 'decentralised' nature of DAOs and their constituent parts, DAOs are not generally recognised as legal entities in their own right and are therefore not capable of entering into legal agreements with third parties. This can result in practical difficulties in contracting with third parties to provide services to the DAO or to further its purpose.

Increasingly, corporate legal structures are established by a DAO's funders to enhance the capacity of a DAO to contract with the world. The activities of these companies are as varied as the potential purposes of a DAO. Each corporate structure may vary by level of control by the DAO over the structure, director and officer appointments and holding of internal capital by one or more corporate entities and appearing on their balance sheets. Typically, however, DAOs tend towards jurisdictions offering memberless corporate vehicles such as foundation companies

¹⁹⁸ "DAOs, DACs, DAs and More: An Incomplete Terminology Guide", Decentralized Organizations, Vitalik Buterin, 6 May 2014

(particularly in Switzerland, Singapore and the Cayman Islands), with flexible and often highly bespoke constitutional documents, primarily on the basis that no one or more individuals “owns” and can therefore control that vehicle or its assets contrary to DAO mandates.

Occasionally legal advisers may be asked to structure a “legal wrapper” for, or “incorporate”, a DAO. What this means is not yet settled and may reflect an expression of intent rather than actionable structuring. The intent may range from establishing a corporate vehicle through which a DAO can contract with the world, acting on instructions from but otherwise independent of the DAO, to establishing a corporate vehicle which holds the DAO’s assets and disposes of them in accordance with DAO proposals. Either way, a DAO is not a recognised legal concept in most jurisdictions so by definition cannot be incorporated.

a. UK legal structures

The UK has multiple limited liability structures which could potentially be utilised by DAOs, including:

- i. private companies limited by shares;
- ii. private companies limited by guarantee;
- iii. public companies limited by shares;
- iv. unlimited companies;
- v. community interest companies;
- vi. limited partnerships;
- vii. private fund limited partnerships;
- viii. limited liability partnerships;
- ix. charitable incorporated organisations; and
- x. registered societies (co-operative societies and community benefit societies).

The Law Commission in their call for evidence paper¹⁹⁹ have however highlighted that current trends in DAOs tend not to use UK legal structures but instead predominantly choose to establish themselves in other jurisdictions. We will therefore focus on these entities in further detail in the rest of this section but the Law Commission has sought further information as to why this is the case and by doing so aim to consider if the laws of England and Wales in any way inhibit. Therefore following this consultation we may start to see DAOs begin to consider the types of structures set out above.

b. Key issues with a DAO seeking to establish a legal entity with nexus to, or embodying, the DAO

While a handful of USA jurisdictions, such as Wyoming and Vermont, and non-USA jurisdictions like the Marshall Islands, have attempted to provide for DAOs to be incorporated into recognised legal structures, in practice the end result is often a company with some degree of automation of some record-keeping and management and governance functions, or some external control of the same. Ultimately, however, liability for the activities of that entity will remain with its appointed directors, officers and equity interest holders (if any). As noted above, the question is whether a DAO can really be “incorporated” or “wrapped” and the consequences for members of a DAO of any attempt to do so. In and of themselves, DAOs are not currently recognised as legal entities in most jurisdictions. Due to this, the structuring and regulatory advice that law firms provide can be vastly different depending on the project or aim of the DAO, the purpose of a corporate structure and its constituent entities, the jurisdiction founders or key members of a DAO are based in and which activities it intends to carry out. Corporate structures may provide some liability protections, but a DAO’s founders, representatives or key members should seek expert legal advice and analysis on what these will be as against the desired protections sought.

The activities of corporate vehicles may require them to be regulated under local laws and regulations. Particular care should be taken if a corporate vehicle is established to issue governance tokens to DAO members or will receive existing governance

¹⁹⁹ Law Commission - Decentralised autonomous organisations (DAOs) Call for evidence, November 2022

tokens from the DAO for onward transmission to third party purchasers (sometimes known as a “treasury diversification”), as the laws and regulations local to potential purchasers must also be considered, particularly in the US.

Absent laws, regulations or regulatory guidance to the contrary, there is an argument that a corporate structure deploying a decentralised protocol or application and making changes to the code on instructions from the DAO is not “running” or benefiting from the protocol, as it typically does not receive revenue or fees for its services or from the protocol or applications operating. Instead, value accrues in and through the protocol itself and the potential increase in the market value of the associated digital assets, including the DAO governance tokens. There is a risk that this position may change in future, and DAOs and their legal advisors should monitor both global and local regulatory consultations and possible changes to laws carefully for any developments to the contrary.

Practically, many DAO members communicate and operate pseudonymously and some may be reluctant to disclose their personal details, known as “doxing”. Professional directors are sometimes engaged to be appointed to director roles on corporate structures, but changes to beneficial ownership regulations in several jurisdictions popular for corporate DAO structuring may require a revised analysis of this approach once those laws are settled and prior to their implementation, particularly where the end result is or will be a publicly searchable register of beneficial owners of a corporate entity.

Pseudonymity will also be impractical where engaging professional service providers to incorporate and maintain a corporate entity or provide services to it. Such service providers generally must identify a natural person as their client or, if the client is an entity, the ultimate beneficial owners, as part of their know-your-customer obligations. (Some jurisdictions allow for a solution that partially compromises between the legal requirements of client due diligence and the philosophical ideal of decentralisation.)

Whether incorporated or not, DAOs must still consider and comply with relevant sanctions regimes and applicable anti-money laundering laws and regulations, particularly when receiving or disbursing assets. Subject to the circumstances and nature of the relevant transaction, due diligence information may be required on third party recipients. DAOs should seek legal advice on when and how this may apply.

Part E – Current DAO Trends

While the concept of a DAO can be very new and foreign, there is a definite trend towards maturity in this industry. It is not just a random group of individuals on the internet arguing about what to do next, as some may paint DAOs.

In many instances DAOs are very well-organized groups with well-defined reporting structures and governance mechanisms in place to guide and organize the DAO members. Many individuals are now taking on full time positions with the DAO; where there is a wide range of opportunities to work on, from purely technical development to community managers, marketing, accounting, and many more. The following are some of the current trends in the DAO ecosystem:

1. Community guidelines and By-Laws

As with any group of people working together – community guidelines are a critical component. They are an essential part as they guide the community and govern how actions are taken. For those who are used to a more traditional corporate structure, you can think of these guidelines as the by-laws. The guidelines define how the DAO will function, how proposals are created, how voting will take place, and many more. They should also include guidance on processes to follow in worst case scenarios – such as conflict resolution or split votes. Additionally, the guidelines may define specific requirements for significant actions such as winding down the existence of the DAO or fundamentally changing the operations. In these instances, the

community guidelines will define specific requirements that should be met, like the quorum and percentage of ‘yes’ votes required for a vote to pass. For significant matters, a higher quorum and percentage may be required. This is to ensure that not only the community agrees, but also ensure that large token holders cannot force the DAO into a specific direction.

DAO guidelines will also define practical considerations such as appointment/removal of directors, a company secretary or any other official positions required where the DAO is linked to a legal entity. Additionally, the guidelines should ensure no votes or actions are taken that are against the law in a specific jurisdiction and checks and balances are in place to avoid votes being passed for actions that are potentially harmful to the DAO. This can be achieved through either the proposal process, voting or the appointment of a Council/DAO manager.

2. Councils

A general trend for DAOs is the implementation of councils to guide and manage the DAO and ensure it stays on track. The council not only fulfills these functions, but also takes care of the many administrative tasks. The council can take responsibility for certain operational tasks and will have the freedom to decide as defined in the community guidelines.

Council members are appointed via a vote and can normally nominate themselves or be nominated by a DAO member. Most DAOs have defined terms and mechanisms to remove council members in their community guidelines and the council is responsible for ensuring DAO votes are enacted and the DAO is managed effectively.

In many instances council members will formally engage with the DAO where it has a legal structure. This is to ensure that there are legally binding terms that define the relationship between the DAO and council members. Council members would also receive some remuneration for fulfilling their role. Remuneration is very important as this incentivises council members to be active participants and ensure the DAO moves forward. There have been a number of instances where council members are not remunerated, become inactive and the DAO stagnates. As the industry matures, some DAOs will also require council members to undergo AML procedures given the pseudo-anonymous nature of the industry.

One good example of why background checks are important is the Wonderland DAO. It was identified by a community member that one of the individuals managing the treasury known as “0xSifu” was actually QuadrigaCX co-founder Michael Patryn – who had a history of being involved in illegal activities. After the removal of Patryn as the treasury manager, the founders decided to hand over the treasury to the community and wind down the project due to the loss of trust in the project. In the end, the fate of the project was decided in a community vote which is discussed further below.

Well-defined community guidelines and council transparency is extremely important. The Graph is an example of a DAO where the council is very transparent with all the members being publicly known with public voting by the council on their actions. The Graph also has a very well-defined proposal and voting process with a Graph Advocates Sub-DAO which is responsible for specific actions.

3. Proposals

It is essential for a DAO to have a defined structure around proposals that are put forward for a vote. In instances where no structure is defined, you will often see proposals that are not developed thoroughly, resulting in community questions and votes that stagnate.

The structure for proposals is normally defined in the community guidelines and will include where proposals are posted, how long they are up for comments, any “temperature check” steps to see whether the community feels that the proposal should go up for voting and the final requirements for a proposal to become a vote.

Each DAO has different requirements for proposals, but a proposal would usually include the following:

- Summary of actions/proposal
- Benefit for the DAO
- Costs
- Implementation requirements

It is important to have a filtering mechanism in place before proposals are put up for vote by the community. In a DAO where each proposal is a vote, you will get community apathy and low voting participation rates. You may also get harmful or illegal proposals which are easily passed due to the lack of review.

4. Voting

Voting is likely to be the most important part in any DAO and should be very well defined and managed. Every action of the DAO does not have to be a vote, however any significant action should have sufficient community support, well-defined quorums and voting percentages.

To achieve this, it is recommended that different classes of votes are defined. Low impact votes that will not have any significant impact on the operations of the DAO of the community can have low quorums and simple majority votes. You may see 1% of active tokens as a quorum and 51% majority votes here.

For more significant votes such as fundamental changes to the nature of the DAO or actions that involve large amounts of the DAO treasure, higher thresholds may be put in place. As an example, you may see 10% of active tokens as a quorum and a 65% majority required here.

Each DAO can define the classes of votes and participation required based on its community and how the operations will be run. Voting mechanisms may also evolve over time based on operations as well as where tasks are identified that may be delegated to the council or sub-DAOs/committees.

With the above in mind, the DAO also has several voting mechanisms that can be used. The following are just a few of the current voting mechanisms being used:

Token-based quorum voting

Token-based quorum voting is one of the most common voting mechanisms. For a proposal to pass, the quorum is required to be met and if so, the decision with the most votes pass. If the quorum is not met, then no further action is required as no decision has been made. This voting mechanism is the easiest to implement and is commonly used by a variety of projects.

This model is reliant on members of the DAO being actively involved. Without active community involvement, the quorum will have to be set at an extremely low level that there is almost no quorum required.

A current trend is that the quorum is set based on the nature of the vote. This allows minor changes or votes to require a low quorum (for example changing the token name from John Doe to Jane Doe). In contrast, if there is a proposal requiring expenses to be paid from the treasury, it will require a higher quorum to pass.

Curve and Compound are the most well-known DAOs using token-based quorum voting.

Quadratic Voting

Quadratic voting uses a mechanism that decreases the power of large token holders and increases the power of minor token holders. This decreases the chance of whales (large holders) swaying votes in their favour at the cost of minority holders. The voting mechanism works by increasing the cost of each additional vote that is cast by the power of two. For example:

Vote	Number of tokens required
1	1
2	$4 + 1 = 5$
3	$9 + 4 + 1 = 14$
4	$16 + 9 + 4 + 1 = 31$

The major risk is where DAO members create multiple fake identities in order to vote for a specific proposal. A proposed solution for this can be that the DAO requires a proof of identity before members can vote.

Bitcoin is currently the most well-known project using quadratic voting.

Permission Relative Majority

This is a fork from token-based quorum voting as it eliminates the quorum requirement completely. The only factor that matters is how many votes were cast for or against the proposal. The side with the most votes wins. This is the easiest method of voting for a DAO with the lowest amount of effort required. The drawback is that a proposal can be created and if only a single person has voted at the end of the proposal, that vote stands. The risk here, for example, is that a DAO member creates a malicious proposal where the entire treasury is sold to a single wallet address.

Moloch DAO uses a slightly divergent method from this method. All proposals are required to be sponsored by a member of the DAO before it can proceed to voting.

Rage Quitting

A rage-quit vote is the process where a member of a DAO exits part or all of their stake, leaves with a proportional share of the assets in the DAO's treasury and quits their participation.

The Wonderland DAO employed this method after a successful vote was casted to remove the treasury management team. This resulted in a sharp decrease in the value of Wonderland tokens (wMEMO) below the value of the treasury of the DAO. Wonderland created a rage-quit proposal where members of the DAO who wanted to exit the DAO were able to receive the proportionate value of their token holdings paid out to them from the treasury. This was done to create a pathway for members of the DAO who wanted to exit but did not want to exit at a loss, which would have incentivized them to create proposals for short term gain and not the long-term health of the DAO itself.

Conviction-based voting

This method is based on the community's aggregated preference and uses time as a utility. Multiple proposals can be voted on by DAO members using their tokens, with members allocating more or fewer tokens to those votes they favour more. The longer DAO members stake their tokens to a specific vote, the more conviction it shows in the proposal. The increase of DAO member conviction slows over time. The decrease of the conviction rate is measured through the half-life decay curve.

The effect of this is that for whales the opportunity cost increases the longer they commit to the vote as their return decreases. This allows smaller holders to hold greater power overall. This method is new, with one of the drawbacks that it is a lengthy voting process.

Holographic Consensus

This mechanism is designed to screen proposals and separate the proposals that will likely fail from those that are likely to succeed. This is done by the community betting on proposals. If the proposal succeeds, then you receive your initial bet plus a reward. If the proposal fails, then you lose your bet. This method of voting is likely to be used in conjunction with another voting method as this is used primarily for screening proposals and incentivises community participation in the review of proposals.

Liquid Democracy

This functions very much like the well-known representative democratic systems employed by the US and other nations. Votes are delegated to an individual and they are empowered to make decisions on your behalf. This reduces the time commitment for members as only representatives are required to vote on proposals. The difference between this system and the standard model is that you can revoke your tokens from your selected representative and allocate them to another person at any point in time, hence the term liquid democracy.

Voting conclusion

Voting in a DAO can take various forms. It is important to balance the mechanism employed with the purpose of the DAO. A DAO that is created to invest in rare art for example, can use conviction voting as its primary mechanism to determine community interest in a piece.

Investment DAOs would probably prefer liquid democracy as they would need to make investment decisions based on identified market opportunities. In this manner liquid democracy would be the ideal vehicle as it would enable swift decision-making abilities.

Finally, consideration should be given for circumstances where almost any voting mechanism would result in an unjustifiable delay between the emergence of an event and the execution of the event. In the case of a hack of a wallet in the DAO, the decision to pause all operations of the DAO must be an option, even though DAO members were not consulted. They can be (and should) be consulted afterwards.

5. Sub-DAOs/Committees

Everything in a DAO does not necessitate a vote. For example, a grant provided to an organisation that will be paid if certain milestones are met, is not required to be voted on when each milestone is deemed to be completed. It is possible to have sub-committees in the DAO that operate within certain parameters.

For example, a DAO can have a public vote on the marketing budget for the current year of \$500,000. If passed, then the marketing committee has discretion on how and where those funds are spent. Limitations can be placed on the committee such as:

- No single marketing event can exceed \$100,000
- The budget can only be used for conferences
- All marketing expenses incurred should be publicly published

If the committee believes that there is an opportunity that exceeds the limitations, then they can create a proposal on which the community can vote to approve it.

6. Grants

Grants are an important function in any DAO as they incentivize community members to make proposals and contribute to improving the DAO. There should, however, be a well-defined process around the grants. Considerations can be :

- Vetting of proposals and the team/individual behind a proposal
- Well defined milestones that have to be achieved for grant payments to be released
- Performance reviews of grants to ensure the receiver of the grant has delivered
- Formal agreements between the DAO and the grant recipient
- KYC/AML checks on grant recipients

7. Operations

As DAOs further mature, more attention is being paid to the traditional day-to-day operations. The following areas are currently garnering increased attention:

Multisignature wallets/bank accounts

Not all service providers will accept tokens or stablecoins as their form of payment (though more and more are moving to do so). For certain expenses a bank account is required. The bank account is normally opened in the foundation companies name as the legal structure thereof allows the foundation to enter into binding agreements. A complexity with the opening of bank accounts is whether the bank is willing to work with cryptoassets and this should be confirmed before any further steps are taken.

For the DAO wallets itself, a multisig wallet is often used and advised. This allows for segregation of approvals which protects the assets in the wallet from theft by a single user. Individuals added to the multisig should be trustworthy and vetted. Any actions taken on the wallet should be managed by approved guidance or a DAO vote passing.

Financial statements/budgeting

Token holders **have** a right to know the balance of the treasury as well as the corresponding expenses and revenues being incurred. Though it is expected that a majority of this information is on-chain, there are certain expenses and perhaps revenues that could occur off-chain. In addition, it is overconfident to assume that all members of the DAO will have the knowledge, expertise and time to go through the blockchain to obtain financial standing of the DAO. In this sense, traditional financial statements are being created by more and more DAOs and published on their website.

It is increasingly common for DAOs to publish a budget projecting their finances for the coming year for commentary by DAO members. This includes salary expenses, marketing costs, regulatory and legal costs, and projected revenue (if part of the DAO). The format of the budgets can vary widely and each DAO can determine what should and should not be included.

8. Community members

DAOs are a collective group of members sharing a vision. You have your ‘never say die’, your ‘casual hangers-on’, your ‘only here for a while’ and everyone in between. But just as with any platform, there are opportunities for bullying, scamming and hurtful behavior. DAOs have started to publish “Rules” for interacting with the DAO and other members. These generally follow a similar approach:

- No racist, sexist or misogynist language
- No spamming
- No lewd, excessive cursing or expletive laden statements
- No threats of violence

These can be overarching rules with warning systems in place or outright bans from the Discord server and other platforms. This is an area that is garnering more and more attention to facilitate a healthy and supportive environment for members.