Discussion of "DAO Governance" by Jungsuk Han, Jongsub Lee, and Tao Li

Radoslawa Nikolowa

October 2023
WBS Gilmore Centre Conference on DeFi and Digital
Currencies

DAOs

Decentralized Autonomous Organizations (DAOs) are intended to provide **democratized management** for projects, **businesses**, and communities.

- DAO founders create a new cryptocurrency - a governance token;
- They distribute these tokens to users, investors, and other stakeholders;
- Each token has a set amount of voting power within the DAO and a price on the secondary market, where it can be traded.

DAOs Challenges

Concentrated Ownership of Governance tokens

Share of users holding 90% of all governance tokens by DAO

© Chainalysis
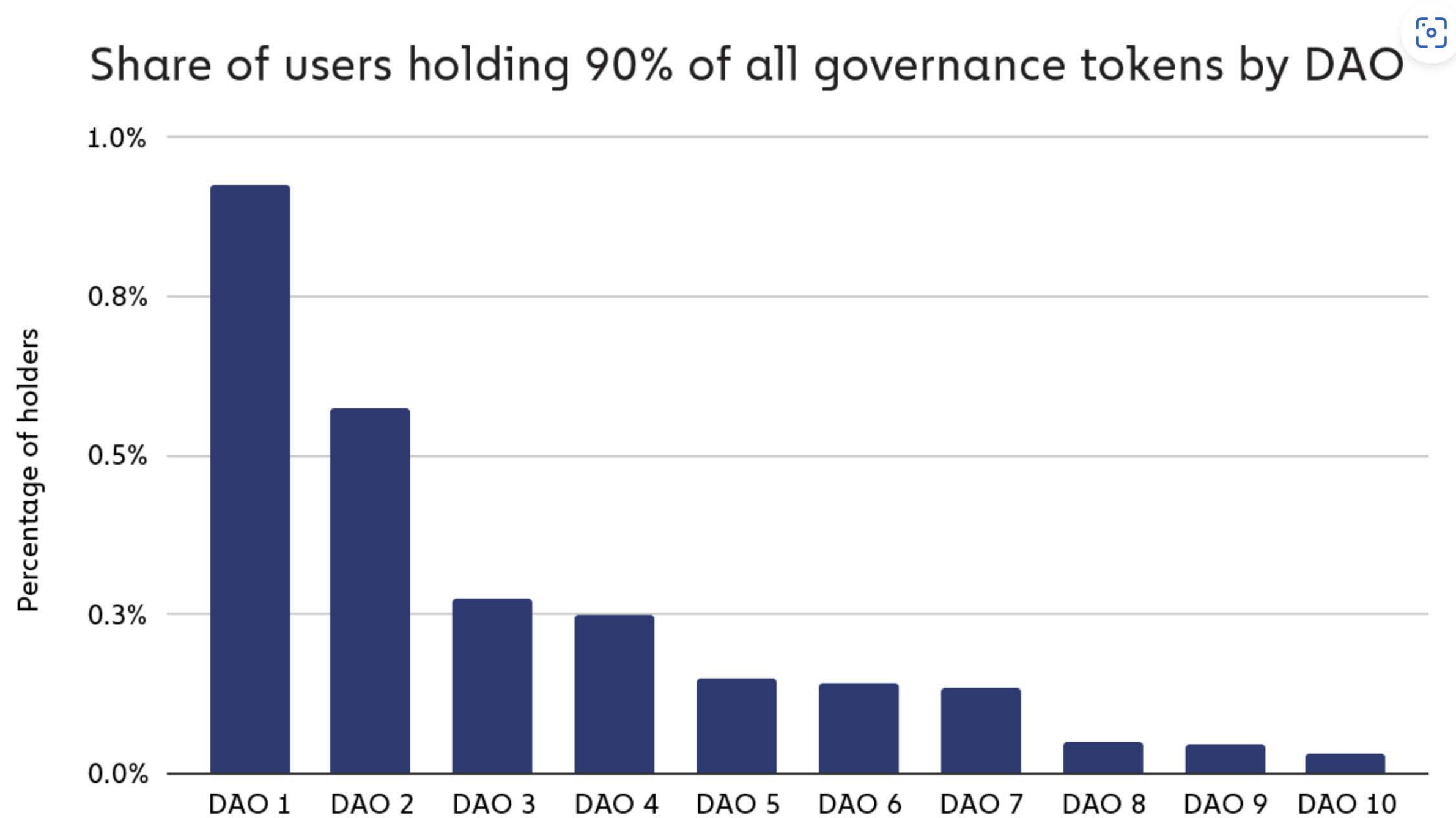
DAOs Challenges

Voter Apathy

- Snapshot and Fyde study: participation rate across 200 top DAOs on average 20% with large variability in participation rates: Olympus (51.9%), Uniswap (3.3%)
- Laturnus (2023) 2,377 DAOs: off-chain participation 23.9%, on-chain 10.9% on average.

This Paper

- Focus on the conflict of interests between whales (large stakeholders) and small stakeholders.
- Assumes no benefit of concentrated ownership (more on this in comments).
- Studies the forces that could mitigate the conflict of interests: platform size, token illiquidity, and lock-in-periods.

The Theory

- A whale is endowed with a large stake.
- The whale has a private benefit from the implementation of a proposal that may have a negative impact on the value of the platform.
- The whale needs to liquidate its position within a certain time frame.
- Trading is costly.

The Theory

A whale votes in favor of a value-destroying proposal if:

+ The private benefit from the proposal outweighs

- The decrease in intrinsic value

- The trading cost (cost of acquiring additional tokens and cost of liquidating the whale's position)

The adoption of a value-destroying proposal is less likely:

- If the platform's tokens are less liquid
- If the whale is required to lock in its tokens for a longer period
- If the intrinsic value of the platform is higher

Comments

Very interesting paper on an important topic

Two assumptions that I would like to challenge:

1. The assumption that there is an absence of conflicts of interest other than the conflict between whales and small stakeholders

➤ Who writes and maintains the smart contracts? We cannot avoid the human factor even if decisions are implemented through smart contracts.

Arbitrum Foundation Sold ARB Tokens Ahead of 'Ratification' Vote; ARB Falls

The intrigue: The basic structure of most DAOs, including Aragon, is that anyone with a token can participate in governance, from voting to discussion.

- But the Aragon core team recently [shut out](#) several new arrivals to its governance forums, despite the fact that they were token holders, accusing them of attempting what looked like a hostile takeover.

March 11, 2023   🔗 🐦

PeopleDAO loses $120,000 after payment spreadsheet is shared publicly

Comments

Very interesting paper on an important topic

Two assumptions that I would like to challenge
1. The assumption that there is an absence of conflicts of interest other than the conflict between whales and small stakeholders.
2. The whale is a VC, founder etc. (according to the paper) but their stake is not linked to an investment (money or effort) that could affect the intrinsic value of the platform.

Comments

The technology offers opportunities to decentralize …

but is there value for centralization and clear hierarchy?

- Complex decisions, requiring expertise
- Access to information/context
- Need for speed
- Accountability/Incentives
- …

Empirical Analysis

Bring the theoretical predictions to the test: use data on off-chain voting of 207 DeFi DAOs.

Some questions/comments:

- TVL (total value locked) used as proxy for platform size. It would be useful for to understand why this is a good proxy and what it captures.
- The number of voters is used as proxy for DAO members. In light of low voting participation, is this a good proxy?
- Are there any TVL growth/voting concentration patterns over a platform lifetime?
- Are you accounting for differences in governance protocols or are all the DeFi platforms using one token one vote?

Conclusion

Interesting paper on an important topic

- Nice model

- Empirical application with potential

A lot more to explore on DAO/Blockchain Governance

- Lessons for DAOs from corporate organization/governance

- Lessons for corporations/organizations from DAO governance experimentation