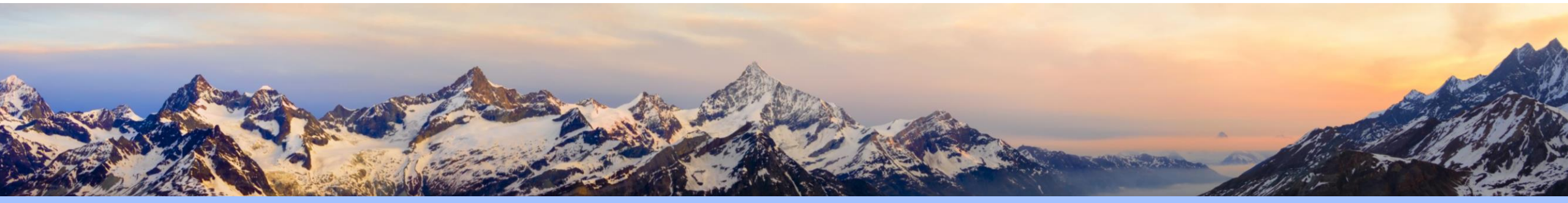


Treasury Management: Handling Member Exits and Forks – The Nouns DAO Example

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Nouns DAO: Origin and Purpose

<https://www.nouns.wtf>

The Fork: A Governance Shift

- **Introduced in August 2023** as part of Nouns DAO's V3 governance upgrade.
- **Why was it introduced?**
It was seen as a solution to internal disagreements within the DAO and as a safeguard against majority attacks where bad actors might try to control the DAO's funds.
- **How it works:**
 - Any Nouns NFT owner can propose a fork if they disagree with a proposal.
 - The fork is triggered if 20% of the Nouns NFT holders support it.
 - Once the threshold is met, the DAO's assets are split proportionally among those who join the fork, and they form a new, separate DAO.
- **Intentions of the Fork:**
To improve decentralization, empower dissenting voices, and create a way to “ragequit” (a DAO term for exiting with your share of the treasury).

The Problem: Arbitrage in Nouns DAO

- **Arbitrage in DAOs:**

The forking mechanism, while designed to enhance decentralization, has attracted opportunistic arbitrageurs who treat Nouns DAO as an investment vehicle rather than a community project.

- **How Arbitrageurs Exploit Forks:**

- Investors buy Nouns NFTs at prices below their "book value" (the treasury share each NFT represents).
- During a fork, these arbitrageurs redeem their NFTs for a higher value, taking out more than they initially invested
- Example: Investors bought Nouns NFTs for 27 ETH and redeemed them for 35.5 ETH during the fork.

- **Impact on Nouns DAO:**

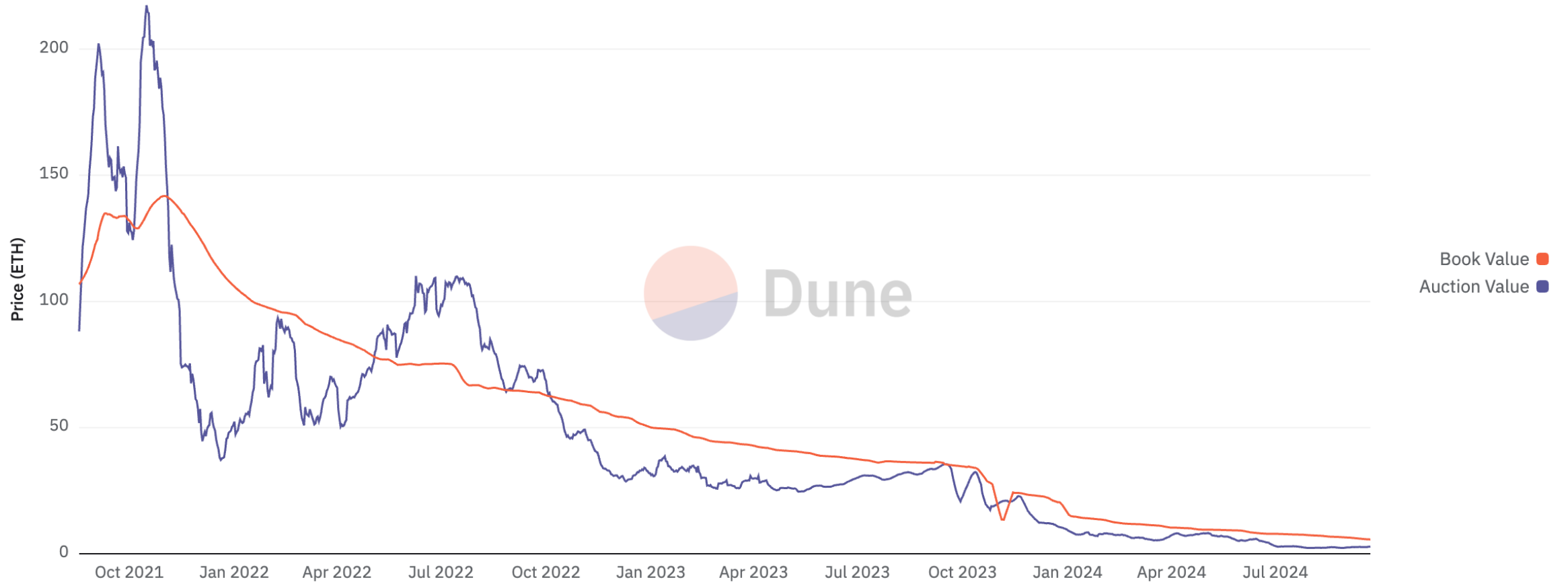
- The first major fork saw the exit of many arbitrageurs, who took 62% of the \$27 million treasury.
- These financial players used Nouns DAO's governance for short-term gain, leaving the community with fewer resources to fund long-term projects.

- **Broader Implications:**

- This case raises critical questions about the vulnerabilities in decentralized governance models.
- How can DAOs balance inclusivity and decentralization with protection from financial exploitation?
- Lessons for other DAOs that aim to introduce similar mechanisms: the need for more robust governance structures to avoid becoming a playground for arbitrage.

Nouns Auction Price vs. „Book Value“

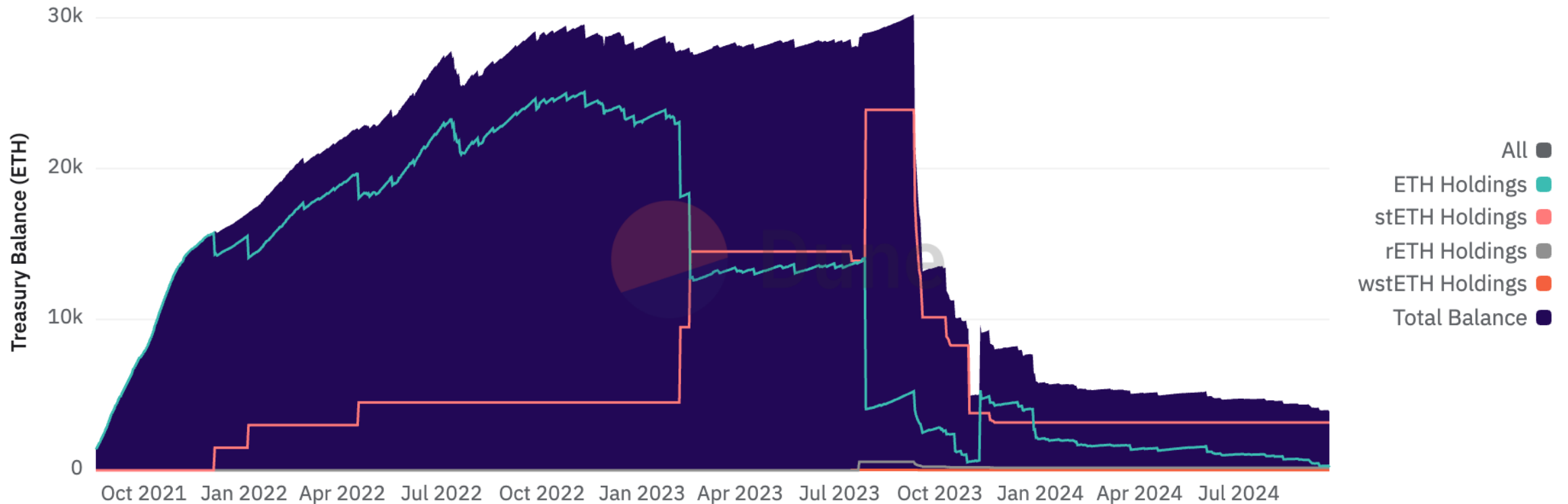
Auction Price vs Book Value Nouns Book Value



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Development of Nouns Treasury/Auction

Treasury Value (ETH) Nouns Book Value



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Potential Solutions in the Case of the Nouns DAO

Contribution-based Share:

- The split of the treasury following a fork can be based on the actual auction prices paid by the exiting members, rather than a pro-rata share of the entire treasury.
- Pro: With the right design, it can completely eliminate any arbitrage incentives.
- Pro: Leaves all other incentives and governance mechanisms untouched.
- Con: This requires tracking the prices paid for individual NFTs.
- Con: Adds properties to the Nouns NFTs in the secondary market.
- Con: Complex to implement.

Example:

- Alice and Charlie each paid *40 ETH* for their Noun, Bob paid *20 ETH* for his Noun. The DAO currently holds *90 ETH*.
- Alice and Bob decide to fork. Under the contribution-based share, the fork DAO receives a share of the treasury based on the proportion of the total prices paid by Alice and Bob. The calculation is as follows:
 $(40+20)/(40+40+20) \times 90 \text{ ETH} = 54 \text{ ETH}$
- Later, Alice decides to ragequit from the Fork DAO. Her share of the fork DAO's treasury is determined by the price she paid for her Noun relative to the total prices paid for all Nouns in the fork DAO:
 $40/60 \times 54 \text{ ETH} = 40/100 \times 90 \text{ ETH} = 36 \text{ ETH}$

Potential Solutions in the Case of the Nouns DAO (2)

Tax on payoffs:

- The higher the tax, the lower the arbitrage incentives.
- Pro: A sufficiently high tax rate can eliminate forks entirely.
- Pro: (Relatively) Simple to implement.
- Con: a tax may appear unfair to genuine participants and deter their membership.
- Con: the tax rate may need to be relatively high to deter arbitrageurs.
- And where do the taxed funds go?

Three possibilities for the taxed funds:

- **Old DAO:** The additional money in the treasury following the fork makes the next fork more likely and sooner.
- **New DAO:** Even after ragequits by arbitrageurs, a positive treasury remains. Depending on how NFTs of the new DAO can be acquired, new forks can occur.
- **Burning:** The “cleanest” approach, as the only effect of the tax is to reduce incentives for arbitrageurs.

Potential Solutions in the Case of the Nouns DAO (3)

Committed spending:

- Consistent spending keeps the treasury size in check. If for example the DAO would commit to spend all its treasury every day, no arbitrage incentives can exist anymore.
- Pro: fixing a spending path can make the possible return for arbitrageurs small enough such that they are not willing to bid enough to be able to win enough auctions to force a fork.
- Con: Requires commitment, e.g., via burning unspent funds.

Example: The Burn

- Shortly after the first fork, the Burn mechanism was proposed.
- Mechanism: If the treasury surpasses a threshold—based on the number of Nouns and the median of recent auction prices—Nouns holders can burn the excess funds.
- The possibility of burning surplus treasury is intended to incentivize the community to spend regularly on projects.
- This mechanism would also discourage arbitrageurs from participating.
- The Burn has not (yet) been implemented.

Key Message

“Innocent” goals in the DAO design

- **Goal 1:** allow anyone to participate in DAO governance;
- **Goal 2:** protect members from majority attacks;

can combine to have **unintended consequences**.

Thank you!

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