Proposal: Activate ARB Staking (FINAL)

Changes Based on Feedback Since the Temperature Check Version (posted 20th Oct)

- For simplicity and security reasons, decided to forego the token mint aspect of the proposal entirely and fund staking with a treasury request instead. Using the mint to fund staking was deemed too circular and not a necessary step based on feedback.
- Added the idea of the'Arbitrum Coalition' as a potential key partner to gather data and monitor the impacts of this staking mechanism over the next 12 months with the end goal of using these insights to refine the ARB staking mechanism further. This is reliant on the Arbitrum Coalition's conditional funding.
- Added an additional 1.25% voting option
- Clarified that voting will be ranked choice voting with five different options

Changes Based on Feedback Since the RFC Version

- Added several options for voting - 1.75%, 1.5%, and 1%. Examples of APRs at different ARB staking percentages can be found later in the proposal.
- The maximum lock penalty % has been changed from 80% to 60%.
- Suggested that the implementation details (selecting a vendor and auditor) will be decided in a further proposal

Abstract

The Arbitrum DAO treasury is growing rapidly, yet that growth is not currently being shared with token holders. The Arbitrum DAO treasury address holds 3,54B ARB tokens, and an unexpected $69,4M of unclaimed individual ARB airdrops were recently returned to the DAO treasury. The treasury is exceptionally well funded, and it's important to note thatthe DAO fully controls the usage of the Arbitrum DAO treasury and that all surplus revenues belong to the DAO. This includes sequencer revenues.

We believe that the Arbitrum token needs a staking mechanism. We propose creating a mechanism that distributes ARB to token lockers. A locking mechanism would incentivize long-term token holders and become a fundamental building block for future token utility proposals (e.g., distributing sequencer revenues).

Along with creating a locking mechanism, we propose requesting 1.75%, 1.5%, 1.25% or 1% of the total ARB token supply from the Arbitrum DAO treasury and distributing this over 12 months through the proposed locking mechanism. The final amount would be decided with a Snapshot and that decision cemented on-chain with a Tally vote. We suggest that the 'Arbitrum Coalition' gathers data and monitors the impacts of this staking mechanism over the 12-month period and potentially audits the contracts if funded in time. Of course, this relationship is reliant on both proposals passing and the DAO and Coalition Advocate supporting the scope of work for the coalition. The goal is to use these insights to give the DAO the data and tools to refine the ARB staking mechanism further.

It is important to note that this proposal is entirely separate from the ongoing liquidity incentives framework and grant discussion. Both can and should co-exist - Arbitrum should have a functional grants framework and a staking mechanism. The Arbitrum DAO STIP program has recently concluded, and 50M ARB tokens will enter the market over the coming months. As proposed here, a supply sink through staking would benefit the Arbitrum ecosystem as a whole.

In the discussions over the previous months, we've seen the legal aspect be a deterrent to sharing value with ARB token holders in the form of revenue. The way we are proposing the staking mechanism through using existing treasury funds to reward lockers in ARB is the most palatable option from a legal perspective, as it does not involve sharing revenues. It also does not rule out the possibility of later moving on to a model that allows for other value accrual methods to the token. Should our proposal pass, when additional value accrual methods are proposed and the legal landscape is more mature and better understood, the process will likely be much quicker since a staking mechanism is already in use with audited contracts in place.

We thank the following delegates and others for their valuable feedback while drafting this proposal.

Westie from Blockworks Research

Coinflipcanada

And several others

Motivation

The Arbitrum ecosystem would benefit in multiple ways from a staking mechanism that is constructed to heavily align incentives with those most aligned with the ecosystem long-term. While staking mechanisms are familiar and a mainstay across DeFi, sustainable models and their impact on the token in question have been scarcely studied. These staking mechanisms are often poorly designed and have rampant inflation that negatively affects the token.

Regarding staking mechanisms, there are few examples to model after in the Layer 2 token space. We propose that the Arbitrum ecosystem takes the first step in this endeavor and leads the way - as it already does in many other verticals. We believe that to construct a long-term staking mechanism that is sustainable, there is first a need to gather actual data that is strictly specific to the Arbitrum ecosystem and the ARB token.

Because of this, we propose that the 'Arbitrum Coalition' monitors the effects of this 12-month staking experiment and provides quarterly updates on the impacts of the mechanism through dashboards and qualitative reporting. After the 12-month staking experiment is over, we suggest that the DAO funds the 'Arbitrum Coalition' to produce a comprehensive report with results and recommendations on what they believe is the most sustainable way forward in building a staking mechanism and incentive model that is sustainable yet attractive for the ARB token. The expertise of the 'Arbitrum Coalition' is perfectly suited for analyzing the results of this experiment, given that Gauntlet is an industry-leading authority in tokenomics design, Blockworks spearheads the industry's research efforts and Trail of Bits is a top-tier security organization. To read more about the Arbitrum Coalition, please visit their proposal here.

Broader Implications for Arbitrum

This proposal passing would have extremely positive implications for the entire Arbitrum ecosystem. Having a native staking model that the DAO officially approves would be likely to have the following consequences:

- Significantly increase interest in Arbitrum and the ARB token
- Allow for composability around an ARB token that can earn yield
- Reward long-term aligned stakers with yield while penalizing mercenary capital and short-term actors
- Positively differentiate ARB from any other L2 tokens and bring the spotlight back to Arbitrum
- Offer a first step and infrastructure towards introducing different forms of revenue sharing in the future

These are some of the benefits that will likely result from having a staking mechanism; however, verifying these predictions' accuracy by an independent third party such as the 'Arbitrum Coalition' is essential. These hypotheses cannot be truly verified without actual data, highlighting the importance of a 12-month trial period for staking.

Benefits for Users

By introducing a staking contract that responsibly distributes the allotted amount of tokens to users who are willing to lock their ARB, the incentives are aligned in a way that rewards those parties most loyal to the Arbitrum ecosystem. This includes long-term holders of ARB and DAOs that have received an airdrop and are willing to lock their tokens.

The figures below detail possible APRs for stakers at different staked percentages if 1.75%, 1.5%, 1.25% or 1% of the total supply was distributed annually. The current circulating supply of ARB is approximately 1.275B.

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image

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](https://global.discourse-cdn.com/standard17/uploads/arbitrum1/original/2X/8/87f8dc9e506d60ebd15f3098d0ff626ee8453c71.png)

Specification

- The ARB staking contract will allow users to lock their ARB for up to 365 calendar days. A user's weight is proportional to their lock time.
- Users may increase their lock times.
- Users may pause their lock times (meaning the time to unlock does not increase - this saves having to relock continuously)
- Users may have many independent locks.
- Users will receive and may claim ARB emissions according to their weight.
- Users may exit their lock for a penalty between 0-60% of their lock amount, linear vs. lock time remaining (365 days remaining would mean a 60% penalty, and 0 days would be a 0% penalty). This penalty is shared between remaining users according to weight.

Example usage: ARB locker

- The user locks 100 ARB for 365 days.

- The lock weight formula is (ARB amount locked * lock time / 365)
- Their ARB lock ‘weight’ is currently 100 (100 ARB * 365/365).
- All rewards are distributed based on a user’s weight / the total sum of all the users’ weights.

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- After 182.5 days, the user will have a lock ‘weight’ of 50 (100 ARB * 182.5/365).
- At this point, they may increase their lock time, do nothing, or withdraw.
- The early exit penalty is (0.6 * lock time / 365)%.
- For a lock time of 182.5 days, the penalty is, therefore, 30% of the locked amount - if the user were to withdraw now, they would receive back 70 ARB.

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- ARB staked in this contract will still have voting rights and can be delegated - voting power will not be diminished by a shorter lock length

Frequently Asked Questions

1. Why a locking mechanism?

A locking mechanism allows users who are long-term believers in Arbitrum to signal this belief through their actions and get rewarded for it accordingly. Locking for longer is always optional - users may lock for any time period. One year is a reasonable lock time compared to the previously popular 4-year locking model. A one-year lock is not too long to the point of disincentiving locking, as users can choose the lock duration. Not only does this give individuals optionality and a mechanism to earn a native yield on their ARB tokens, but it also gives protocols that were a part of the DAO airdrop or have otherwise accumulated ARB a mechanism to earn on their treasury.

1. What are the consequences of this proposal?

Ultimately, this proposal introduces utility to ARB and gives users more incentive to hold. In addition, long-term believers will be net increasing their network share, which sets up a base from which we can build further proposals for ARB value accrual without worrying about the distribution mechanism.

1. What would this staking mechanism mean for delegation?

From a user standpoint, it’s important to note that the ARB staked in the proposed contract will still have voting rights and can be delegated - voting power will not be diminished by a shorter lock length. The staking contract will be upgradeable and controlled by the DAO - this ensures that the DAO can pause this distribution at any time.

Summary

As it stands today, ARB has no native utility or yield. We propose approving the creation of the staking contract detailed above and distributing an equivalent of 1.75%, 1.5%, 1.25%, or 1% of the total ARB supply from the DAO treasury to the staking contract. These tokens would be distributed over a 12-month period, during which the ‘Arbitrum Coalition’ could - pending their proposal passing - monitor the impacts of the proposed staking mechanism and draft a report and recommendations by the end of the period. Note that the Arbitrum Coalition proposal is entirely separate yet synergistic to this proposal. The passing of either proposal is not conditional on the other proposal’s performance.

It’s important to highlight that to move toward a final and refined version of value accrual to the ARB token, trial and experimentation is required. We believe there is a strong need for actual data from a live staking mechanism, such as the one suggested in this proposal, from the unique context of Arbitrum’s growing ecosystem to make more informed decisions on what the ultimate mechanism for ARB staking and value accrual might look like.

Innovation has always been Arbitrum’s forte in both technical advancements and building a vibrant community - we believe that the approach to building a cutting-edge staking model for ARB through trial and experimentation is a logical way forward.

Timeline

This proposal will follow the official lifecycle of an AIP detailedhere. Please note that this proposal is a non-constitutional proposal.

The suggested timeline can be found below.

Week 36-37 - Forum post, request for comments and feedback (Complete)

Week 42-43 - Temperature check forum post & Snapshot poll (1 week)

Week 43 - Formal AIP and call-for-voting (3 days)

Week 43-45 - On-chain DAO vote on Tally (14 days)

Week 46 onwards - Implementation phase

If the proposal passes, a draft of the implementation phase is detailed below in “Suggested Steps to Implement.” The final implementation schedule depends on the result of the vendor decision proposal, community review, audit schedules, and subsequent findings. A concrete schedule for the implementation stage will thus be locked in at a later stage.

Voting Options on Snapshot

When this proposal moves to Snapshot, there will be five voting options. The voting method will be ranked choice voting. To read more about ranked choice voting, please visit this article from Snapshot.

1. Fund staking with 1.75% of the total ARB supply (175M ARB tokens)
2. Fund staking with 1.5% of the total ARB supply (150M ARB tokens)
3. Fund staking with 1.25% of the total ARB supply (125M ARB tokens)
4. Fund staking with 1% of the total ARB supply (100M ARB tokens)
5. Do not fund staking

Suggested Steps to Implement

1. The Arbitrum DAO will receive another proposal concerning implementation, which will aim to decide the vendor of the implementation and associated contracts and an auditor.
2. After the contracts and audits are finished, they will be provided to the community for review for two weeks.
3. After the community review period, the contracts will be deployed to Arbitrum, and the ownership will be transferred to the DAO.
4. Ratification of reimbursement of costs as illustrated in the Cost sections below and disbursement of such reimbursements to applicable service providers

Costs

The costs of this proposal are mainly related to the implementation process, during which a vendor and auditor will be decided. The true extent of these costs can only be estimated after these decisions are made.