RollApp Economics and Governance

[Dymension](#)

Introduction

Dymension's RollApp Development Kit (RDK) is a rollup framework that enables online communities and applications to operate as decentralized, autonomous, and cryptographically secure economies. The goal of RollApps is to experiment and find the optimal economic and technological structure that allows an online collective to operate efficiently and securely.

Separation of Computation and Governance

One: Sequencers Handle Computation

RollApps utilize the economic and decentralized network of the Dymension Hub. In order to permission-lessly tap into the network, node operators bond capital on the Dymension Hub for the right to produce blocks on a RollApp (i.e. to become a sequencer). Sequencers receive block production rights similar to validators in Proof-of-Stake (PoS) blockchains. Allocated time is derived from the relative share of tokens bonded on the Dymension Hub, creating an open and decentralized system.

The following assets are eligible for sequencer bonding:

1. Native DYM

: Sequencers are able to bond Dymension Hub's native token (DYM) for the right to produce blocks on the RollApp.

1. RollApp token:

Enabled by Dymension Hub's AMM, sequencers will be able to stake the native token of a RollApp once approved by the Dymension Hub's governance.

1. LP DYM / ROLLAPP token

: Dymension Hub's AMM enables the bonding of LP positions. Dymension Hub's native protocol token DYM is required to be established as the base asset of liquidity pools to be eligible. The other side of the liquidity pool may be the RollApp's own native token. This is similar to Superfluid Staking that has been built out and put into production by the Osmosis team.

Two: Governors

govern the RollApp

While RollApp sequencers are in charge of node operation and block production, RollApp "Governors" manage the on-chain governance. As a generalized RollApp development framework, the RDK enables application developers to utilize NFTs, SBTs (Soul-bound tokens), delegation to addresses, and other creative means of separating governance obligations from block producers. We refer to the RollApp governors as "Governors".

Governors act as the RollApp board members or elected representatives, and gain their relative power from token delegations. Governors have full control of on-chain governance and value accrual mechanisms such as fee collection, token minting, and NFT royalties. RollApps can be viewed as DAOs with structures that resemble a state:

1. Working Class

— RollApp block producers (i.e sequencers)

1. Parliament

— RollApp Governors

1. Citizens

— RollApp token holders

RollApps may have only the RollApp deployer as a sole member, however RollApps can choose to decentralize the governing power by enabling Memberships according to any criteria chosen, e.g top 150 token holders or Sequencers only. Governors are created and distributed according to the logic and governance of the RollApp. Novel mechanisms may be instituted such as gradual Dutch auctions, cross-chain airdrops and other innovative approaches.

Similar to DPoS blockchains, Governors may receive token delegations from token holders which increase the power of a chosen Governor, in return delegators receive dividends, similar to the process of staking with a validator.

Revenue and Dividends

Transaction fees and block rewards are shared amongst Governors, Delegators, and Sequencers. The exact distribution is defined by a parameter, known as the Labor Parameter

, which splits the block revenue between Operators and Community. The parameter resides on the application logic of the RollApp and is applicable to changes by governance vote. Similar to the operating costs of a company, the Labor parameter can be used to cover the Sequencer operating costs and create a healthy equilibrium between RollApp stakeholders.

Maximal Extractable Value (MEV)

MEV is the ordering of transactions for the purpose of financial benefit. In a market for sequencing that is open and permission-less, sequencers can capture more MEV revenue by increasing their bond on the Dymension Hub which increases their sequencing time (PoS sequencing). This increases value accrued to the bonded token and results in greater security for both the RollApp and the Dymension Hub.

Costs

RollApps are required to publish transaction data and state updates on-chain. Costs of publication are incurred by the sequencer. Expenses for sequencers may be broken down into the following categories:

- State updates

- Data publication

- RollApp bonding

Sequencers publish state updates to the Dymension Hub. Sequencers may utilize either DYM or the RollApp's native token to pay for transaction fees on the Dymension Hub. Fees are collected by the Dymension Hub and are swapped to the equivalent value of DYM, if necessary.

Conclusion

RollApps are autonomous chains that can function similar to corporations with Working Class (Sequencers), Parliament

(Governors), and shareholders (token holders). RollApps optimize their economics and performance by easily utilizing the Dymension Hub.

This high level overview of RollApp economics demonstrates the equitable value that is captured on various layers of the ecosystem. Full economic paper which sets forth the Dymension economy and accompanying incentives is due to be released in Q2 '23.