

OVERVIEW

I'm a founding member at [PYOR](#) and since Optimism's recent round of on-chain Retroactive Public Goods Funding (RPGF) applications ended the first week of May, we analyzed the performance of previous RPGF receivers in the DeFi space, focusing on core fundamental on-chain metrics.

This analysis is an Exploratory Data Analysis (EDA) of the performance of these receivers. Our end objective with this analysis is – to empower the Optimism Governance to focus on recipients that bring in a net positive outcome to the Optimism Superchain.

As these are RPGF, these protocols weren't expected to meet any criteria post-grant.

From the [datasets](#) by Opensource Observer, we filtered 11 protocols, with DeFi presence, that received the January RPGF drop:

1. Aerodrome
2. Hop Protocol
3. Kromatika
4. Kwenta
5. Lyra Finance
6. Sonne Finance
7. Sushi
8. Synapse
9. Synthetix
10. Velodrome
11. Yearn

METHODOLOGY

For on-chain metrics, we defined the following:

- TVL - Total Value locked in USD terms in the smart contracts controlled by the protocol
- Fees - Fees generated via payment from users for the services provided
- Volumes - DEX or Bridge volume of the respective protocol, if any.
- User Activity - New and Active wallets interacting with the contracts of a protocol.

For the metrics that are not continuous, i.e. fees, volumes, and user activity, a smoothing operation is performed with a 5-day moving average. This is performed to remove volatility spikes and show trends better.

For the metrics above:

1. Before and After RPGF: A self-reflection analysis of each protocol was performed by comparing the data points before and after January 1st, 2024 (the start of RPGF distribution). This is done to see if there is potential growth in the protocol. This is quantified and made comparable by converting raw values into percentages, to the value on the date of RPGF distribution
2. Category-wise: Protocols are bucketed into their respective sectors, compared to see how a protocol performed with its peers
3. Normalization of Values: The growth data points are further normalized by the RPGF value distributed to find the protocols with the best bang for the buck
4. Benchmark for DEXs: For DEXes, Uniswap is chosen as a control and compared to with, to see if the growth can be correlated to RPGF

Benchmark for protocols: The TVL of all protocols is compared to the TVL of Optimism and Base, to gauge the performance of the protocols.

INSIGHTS

[1] The biggest growth was seen in Aerodrome across – TVL, fees, and DEX volume:

- TVL: Grew by 3x
- Fees: Grew by 30x
- DEX Volume: Grew by 13x (for comparison, Uniswap's volume grew by 5x in the time)

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[2] SushiSwap saw an initial dip in all metrics, before a late revival. Its 7x fee growth is second only to Aerodrome, while TVL only doubled.

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[3] Yield protocols like – YearnFinance and Sonne Finance fared poorly during the incentive period.

- Yearn's TVL fell by 5.6%
- Sonne's TVL fell by 13.5%

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[4] Bridges fared well after February 2024

- Hop's deposit grew by over 10x
- Synapse generated over 500% more fees
- Both bridges analyzed had flattish TVL growth during the period (due to rising withdrawals)

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CONCLUSION

The protocols that are well established – either in terms of popularity or in terms of the number of grants received – saw net neutral growth before and after RFGF allocation. However, the newer protocols, especially on OP Superchains like Base saw positive growth in fundamental metrics.

We would love to hear feedback from the community and the foundation to help us execute a data-driven approach to make the on-chain RFGF program more robust.

We will also be posting snippets from our research in the forum, like [this](#).

ABOUT PYOR

PYOR is a blockchain analytics firm, specializing in measuring the business performance of protocols. We're backed by Castle Island Ventures, Coinbase Ventures, Hash3, Balaji Srinivasan, and many more. We work with large institutional investors and protocols like Ribbit Capital, M31 Capital, Tezos, Compound, ICP, Swell, QuickSwap, etc. Our team has extensive experience building in the crypto space and were CXOs at Coinswitch, India's largest crypto exchange backed by a16z.