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Program Overview

- Protocol: [Yearn](#)
- Yearn Finance is a DeFi yield aggregation protocol, allowing individuals, DAOs and other protocols to deposit digital assets and receive yield. The core product, [yVault](#), are capital pools that automatically generate yield based on opportunities present in the market, each driven by one or more Strategies.
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- Governance Fund Season/Cycle: [Grant Season 2, Phase 1, Cycle 7](#)
- Incentive Program Period: May 18, 2023 - February 22, 2024
- Distribution Plan for the OP Incentives: 25,000 OP tokens per week * 40 weeks
- Wallet Funded: [0xF5d9D6133b698cE29567a90Ab35CfB874204B3A7](#)
- KPIs for Incentive Program
- Enable 10 new partners on Optimism, including: Alchemix, QiDao, Swype, Rhino, Omni, Spool, Revest, Abra, DeFi Saver, Tapioca
- Grow Optimism to Yearn's second highest TVL by chain
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- Grow Optimism to Yearn's second highest TVL by chain

Key Takeaways

- The Optimism Foundation allocated 1 million OP tokens to Yearn Finance Protocol, which Yearn will distribute 100% of grant \$OP tokens to yVault depositors to incentivize the move to Optimism.
- 25,000 OP tokens will be distributed weekly over the course of 40 weeks, starting on May 18th, 2023.
- Yearn successfully fulfills the second KPI outlined in the proposal by growing Optimism to Yearn's second highest TVL by chain, within the span of just one month, highlighting a substantial positive impact of the OP incentive program on Yearn's user engagement and presence on Optimism network.
- The incentive program successfully drew in new liquidity providers and encouraged active participation from existing users, with its TVL on Optimism surged from under \$300K to over \$14M, contributing to 2.3% of total TVL on Optimism in November. Optimism now became the second largest chain considering Yearn's TVL by chain.
- After the launch of the incentive program we observed that there is a clear increase in both deposit activities, as the deposit transactions grew from nearly 50 to over 3K per week. yvUSDT and yvUSDC now have the largest user deposits of 1.5M yvUSDT and 1.2M yvUSDC respectively.
- As of November 19, 2023, Yearn distributed a total of 534,758 yvOP tokens as rewards, with 86% claimed by users already.
- Although Yearn has allocated a substantial portion of yvOP rewards to one of the vaults named "yvVelo-a1ETH-WETH-f," user claim rate for these yvOP rewards is relatively low at 36%.

OP Incentive Distribution

This part analyzed how the 1,000,000 OP tokens allocated to Yearn were used by tracking the transfer history of Yearn's recipient wallet for OP grants ([0xF5d9D6133b698cE29567a90Ab35CfB874204B3A7](#)).

On November 24, 2022, Yearn received the allocated 1,000,000 OP tokens from OP Foundations to launch its incentive program.

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Then the 1 million OP tokens were deposited into yvOP vaults with four distinct transactions of 50K, 250K, 250K, and 450K OP tokens. These OP tokens are deposited to get yvOP tokens as actual incentives that will be added to Yearn vaults.

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Then, we tracked the total yvOP tokens deposited into and distributed to OP boosted Yearn vaults from the funded wallet by week, following the distribution plan Yearn proposed (25K OP tokens * 40 weeks).

As the chart below shows, the blue bar denotes instances where Yearn deposited 1 million OP tokens into the yvOP. Due to the transaction fees, about 993,699 yvOP tokens were generated in total. The orange bars represent the yvOP token incentives added to OP boosted Yearn vaults each week.

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The area chart below shows the remaining yvOP in the funded wallet awaiting for distribution. In general, the distribution process is continuous and steady.

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As of November 19, 2023, Yearn deployed a total of 534,758 yvOP tokens as rewards in the past 27 weeks, among which 460,863 yvOP tokens are already claimed by users. There are still 459K yvOP tokens awaiting for distribution in the following 23 weeks.

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OP Incentives Breakdown by yVaults

Yearn's core product is yVault, which refers to capital pools that automatically generate yield based on opportunities present in the market, each driven by one or more strategies.

The OP token incentives, as detailed in the Yearn's proposal, will be used to reward users deposited their assets in yVaults on Optimism.

Given this, we parsed Yearn vault's contract address on Optimism from [Yearn's data API](#), and labeled OP boosted vaults based on whether the vault rewarding contracts received OP tokens from Yearn's funded wallet.

Overall, there are 92 Yearn vaults (test contract excluded) created on Optimism, while 41 vaults, nearly a half, have been set with OP incentives.

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After tracking the yvOP tokens transferred from the funded wallet to other staking contracts, we identified all the rewards distribution contracts for each Yearn vaults.

The transfer highlighted in blue below demonstrates two examples of refilling yvOP tokens into rewarding contract of yvUSDT vault ([0xf66932f225ca48856b7f97b6f060f4c0d244af8e](#)).

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Looking into the yvOP token transfer history, the last transaction highlighted in blue is the first fillment of yvOP incentives into yvUSDT vaults. Then the three transactions highlighted in orange are examples where users claimed yvOP rewards from their deposit in the yvUSDT vault.

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Based on the methodology detailed below, we then calculated the allocation of yvOPs across various OP boosted vaults. It is observed from the data that there is no apparent preferential treatment among the different vaults, indicating a relatively equitable distribution of yvOPs across all vaults (Mean = 11,162; Median = 9,650).

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But we also observed an ineffective incentive in the yvVelo-a1ETH-WETH-f vault specifically. It was allocated the most 37,500 yvOP tokens as incentives, but only 36% were claimed by users. Compared to the claim rate over 90% of other vaults like yvUSDT, yvUSDC, etc, the efficiency of yvOP incentive for yvVelo-a1ETH-WETH-f appears to be relatively low. For future research, one should look into the possible reason for this irregularity.

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OP Incentive Impact

TVL

The Total Value Locked (TVL) for Yearn Finance exhibited robust growth following its launch in July 2021, reaching a peak of nearly \$7 billion in 2022. Starting around July 2022, the TVL remained relatively low, signaling a limited influx of capital into the protocol.

In October 2022, Yearn Finance launched vaults on Optimism network, where the TVL stabilized at approximately \$300K. During this period, Ethereum and Fantom emerged as the predominant chains for Yearn with the highest TVL of nearly \$442 million and \$16 million respectively.

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Following the initiation of the OP incentive program on May 18th, the TVL of Yearn on Optimism surged, which indicated heightened interest and active engagement with Optimism within Yearn. As demonstrated in the charts, Yearn's TVL on Optimism reached nearly \$14.17 million just after one month since the launch of the incentive program, surpassing Fantom and establishing itself as the second-highest TVL chain on Yearn. This reflects the fulfillment of the second Key Performance Indicator (KPI) outlined in Yearn's proposal within the span of just one month, highlighting a substantial positive impact of the OP incentive program on Yearn's user engagement and presence on Optimism network.

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Through an analysis of Yearn's overall TVL composition on Optimism, we observed that Yearn's contribution to Optimism's TVL has increased from 0.03% before the incentive program to 3% after the incentive program in August, stabilizing at 2.3% in November.

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Source: [Defilama](#)

By August, TVL of Yearn on Optimism chain reached its highest peak at approximately \$30 million, indicating the effectiveness of the incentive program. The incentive program successfully drew in new liquidity providers and encouraged active participation from existing users, resulting in a substantial boost of TVL.

User Activities

After the launch of the incentive program on May 18, 2023, a substantial increase in user transactions was observed across both OP boosted vaults and non-OP boosted vaults. We also observed an unusual peak in the user transactions with OP boosted vaults in April 2023. Although we are not able to perform a comprehensive exploration of the specifics of these transactions due to the time constraints, one plausible explanation for this surge could be attributed to the deployment of yvOP rewards for vaults and test transactions with these OP boosted vaults.

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When delved into the breakdown of user transactions specifically within OP boosted vaults, an interesting pattern was found in user deposit and withdrawal. After May, there is a clear increase in deposit transactions compared to withdrawals from OP boosted vaults.

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User Deposits and Withdrawals

Based on the user transactions with vaults, we conducted an analysis of token amounts deposited and withdrawn from each vault over time, as visually represented in the chart below.

Overall, users deposited more than they withdrew from the vault. Most of the deposits happened before July 2023, while the trading token amounts saw a decrease after August.

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If broken down by vaults, we can find that yvUSDT and yvUSDC are the hottest tokens with the largest trading amount historically.

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As of November 19, 2023, yvUSDC, yvDAI, yvUSDT and yvMAI are the OP boosted vaults with the highest user deposits.

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*It is worth noting that currently we haven't included token value for LP tokens nor calculated trading volume in USD or ETH, so there's still limitations when comparing user deposits in different vaults

Recommendations

- Enhance communication and awareness. Despite the success in drawing in new liquidity providers, the relatively low user claim rate, demonstrated in the [yvVelo-aIEth-WETH-f](#) vault, indicates a potential gap in user awareness. Implementing targeted communication, providing clearer instructions, and enhancing resources could help bridge this gap and improve user participation.

Closing Remarks

- The incentive of Yearn plans to last for 40 weeks starting from May 18, 2023. During the past 27 weeks, Yearn has deployed over half of the overall OP grants (534,758 yvOP tokens) as rewards for OP boosted vaults, among which 86% (460,863 yvOP tokens) were already claimed by users.
- The KPI set by Yearn in its proposal to make Optimism the second largest chain of Yearn by TVL was realized in one month after the incentive program. The significant increase in Yearn TVL on Optimism by chain as well as its contribution to Optimism's TVL both showed the effectiveness of the OP incentive program.

Resources

- [Yearn Incentive Analysis Dashboard

by @wyeeeh](https://dune.com/usc-blockchain-club/yearn-incentive-analysis)

- [OP Analytics Repo](#)
- [Incentive Program Performance Summary - Dune @oplabspbc](#)
- [@optimismfnd / Optimism Mainnet Project Deep-Dive

(OP Mainnet)](<https://dune.com/optimismfnd/optimism-project-deep-dive>)

- [Incentive Program Performance Summary - Dune @oplabspb](#)
- [[@optimismfnd](#) / Optimism Mainnet Project Deep-Dive]

(OP Mainnet)](<https://dune.com/optimismfnd/optimism-project-deep-dive>)

- [DefiLlama](#)
- [Optimism TVL \(Included liquidity staking TVL & double count in TVL calculation\)](#)
- [Yearn TVL across chains](#)
- [Optimism TVL \(Included liquidity staking TVL & double count in TVL calculation\)](#)
- [Yearn TVL across chains](#)
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- [Yearn Watch](#)
- [API](#)
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