Introduction

OpenBlock is excited to release a comprehensive analysis of the Short-Term Incentive Program (STIP) for the Arbitrum community. Our aim is to assess the effectiveness of the incentives by examining key performance indicators at the ecosystem, vertical, and protocol levels, normalized by claimed ARB amounts. These metrics include total value locked, user activity trends, trading volumes, fees, and utilization rates.

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30 protocols were allocated a share of 50 million ARB tokens, with distributions beginning on November 3, 2023. As per STIP guidelines, projects were mandated to distribute their entire grant allocation by March 29, 2024, with any surplus funds being returned to the Arbitrum Multisig. This resulted in the return of approximately 736k claimed ARB tokens at the end of the STIP.

Due to varying initial distribution dates for each project, we established a cut-off date for assessing performance metrics relative to the respective initial distribution dates. To normalize these metrics, we divided growth indicators by the value of ARB claimed, utilizing the average price of the ARB token from November 3 to March 29, 2024.

Ecosystem Analysis

Key Takeaways

- Protocols supported by the STIP outpaced non-STIP protocols on Arbitrum in TVL growth by 82.6 percentage points.
- Arbitrum added more than 94,000 daily active users throughout the STIP.
- Arbitrum realized an 101.9% increase in transaction volume, exceeding 1 million transactions per day by the end of the STIP.

TVL and DAU

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During the STIP period from November 3 to March 29, 2024, Arbitrum experienced remarkable growth in both Total Value Locked (TVL) and Daily Active Users (DAU).

The TVL on Arbitrum increased by more than $1.31 billion, surpassing the combined nominal growth on Optimism and Base. Notably, protocols supported by the STIP collectively realized a 118.2% increase in TVL over the same period, constituting approximately 75.8% of the total TVL growth on Arbitrum. In contrast, non-STIP protocols on Arbitrum collectively increased their TVL by 35.6%, underscoring the significant outperformance of STIP grantees, whose TVL growth surpassed that of non-STIP projects by 82.6 percentage points.

Arbitrum saw a notable 76.4% increase in DAU, adding around 94,000 new daily users. While Base experienced a larger surge of 136,000 DAU and surpassed Arbitrum, Arbitrum still outpaced Optimism by approximately 46,000 users.

An essential gauge for assessing the effectiveness of the STIP incentives is the normalized growth relative to the claimed ARB grants. When applying individual cut-off dates to account for each protocol's initial incentive distributions, STIP grantees collectively generated $13.95 in TVL growth for every $1 of ARB incentives claimed and added 37 additional users engaging on a daily basis per 100,000 ARB claimed. Excluding Galxe, this figure rises to 57 additional users.

Transaction Count and Fees

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The transaction volume on Arbitrum increased by 101.9%, exceeding 1 million transactions per day by the end of the STIP. While this increase of over 577,000 transactions outpaced Optimism in nominal growth, it slightly underperformed Base by approximately 14,000 transactions. In December, the Arbitrum One sequencer experienced a brief outage, resulting in a backlog of transactions. Upon restoration, the network processed an all-time high of over 5 million transactions, briefly elevating transaction counts and fee metrics. Subsequently, transaction volumes began to rise again in March, coinciding with the network's introduction of blob transactions, which notably reduced user transaction fees paid in ETH.

Efficacy Across Verticals

Key Takeaways

- Pendle outperformed all grantees in TVL growth, gaining an incremental $150.01 per ARB claimed.
- Balancer demonstrated the highest efficiency in increasing daily user activity relative to claimed ARB
- Gamma stood out as the leader in annualized fee growth relative to claimed ARB

TVL

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Among the DeFi verticals, the yield category emerged as the frontrunner in TVL growth, increasing by 647.5%. With approximately 5.7M ARB claimed by projects within this category, this translates to an additional $57.73 in TVL when normalized by the value of ARB claimed. Notably, Pendle Finance played a pivotal role in driving this performance, contributing to 91.4% of the nominal growth within the yield category. In addition to ARB incentives, Pendle's growth was catalyzed by the recent tokenization of points, drawing significant liquidity to the platform. If we exclude Pendle, the lending category demonstrated the highest growth, realizing an additional $29.52 in TVL normalized by the value of ARB claimed.

Daily Active Users

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The DEX category witnessed the largest nominal increase in daily active users. With approximately 21,000 additional users engaging on a daily basis, this translates to an increase of 348.9%, or 364 additional users per 100,000 ARB claimed. To achieve this growth, these protocols collectively claimed 5.8M ARB tokens. Balancer and Camelot contributed approximately 9,000 users each, however, when normalized by claimed ARB, Balancer was 41.3% more efficient.

Fees

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True to its focus, the yield protocols outperformed other categories in annualized fee growth relative to claimed ARB. Gamma demonstrated exceptional efficiency, being at least three times more efficient than any other grantee in this regard. Meanwhile, Pendle led with a remarkable 2,771.98% increase in fees. Grantees in the DEX and Perpetuals categories also demonstrated notable fee growth compared to their received grants, collectively securing six of the top ten positions on the leaderboard.

Vertical Analysis

Key Takeaways

- Within the DEX category, Balancer was the most efficient in increasing TVL, while Camelot led in fee growth.
- Within the lending category, Silo was the most efficient in increasing TVL, while Dolomite led in fee growth.
- Perpetuals exhibited lower efficiency in attracting TVL compared to the DEX category but was the most efficient in increasing trading volume.

DEX

TVL

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The DEX category reached a TVL of $348.1 million by the conclusion of STIP, reflecting a 104.08% increase. Among the projects within this category, Camelot emerged as the leader, showcasing the highest growth in terms of both total value and percentage growth. However, considering the normalized growth, Balancer was more efficient.

It is crucial to contextualize these findings by comparing them to a relevant benchmark. Uniswap on Arbitrum, although not part of the STIP, offered its own incentives, including a previous ARB airdrop (1.8 million ARB) and individual incentives from various projects. From November through March, Uniswap on Arbitrum experienced a 37.6% increase in 30-day MA TVL, reaching $267.9 million.

Fees and Volume

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At the close of the STIP, DEX trading volume surged by 690.5% compared to pre-incentive figures, totaling $181.7M. Camelot, Trader Joe, and Balancer experienced remarkable growth rates of 952.4%, 502.7%, and 390.8%, respectively. For comparison, Uniswap on Arbitrum observed a 273.5% rise in volumes, reaching $502.7 million during the same period. Notably, Camelot led in normalized fee growth, generating an additional $8.28 in annualized fees per ARB claimed. Trader Joe and Balancer followed suit, each generating an additional $7.46 and $1.25, respectively. It's also worth noting that Trader Joe led in capital efficiency, as indicated by trading fees and volume normalized by TVL.

Lending

TVB

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For the purpose of evaluating STIP efficacy within the lending category, this analysis excludes Radiant Finance due to a flashloan attack in January, allowing for a more reasonable assessment.

The lending category witnessed substantial growth in total value borrowed (TVB), adding $128.9 million, representing a 317.3% increase compared to the pre-incentive period. Silo emerged as the leader in this category, contributing to 54.2% of the nominal growth. When normalizing this growth relative to their ARB grant, Silo achieved an additional $24.50 per dollar of ARB. Dolomite and Lodestar also demonstrated efficiency in increasing TVB with incentives, adding $20.33 and $19.72, respectively.

While total value locked holds less importance as a KPI for lending protocols, it's worth noting that Silo ranked second among all STIP grantees in normalized total value locked, realizing an incremental $46.07.

Fees

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The lending category realized a $4.1M increase in annualized fees compared to the pre-incentive figures. Dolomite led in normalized growth, generating an additional $1.48 annually per dollar of ARB claimed. Directly impacting fees, utilization rates serve as a leading KPI for lending protocols. Compared to the pre-incentive period, the aggregate utilization rate for this group increased by 5.3 percentage points, reaching 53.4%. Compound on Arbitrum serves as a benchmark for comparison. During the period from November to March, Compound on Arbitrum realized a 220.9% increase in 30-day MA TVL, while the utilization rate decreased by 4.6 percentage points to 36.7%.

Perpetuals

TVL

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The TVL of the perpetuals category increased by $90.8M (+17.4%), reaching $611.8M. Normalized by claimed ARB, this growth equates to an additional $2.61 in TVL. Notably, perpetuals have shown to be six times less efficient in attracting TVL through incentives compared to the DEX category, reflecting differing incentive structures. Perpetuals incentivize traders directly through volume-based incentives or trading fee rebates, while DEXs focus solely on incentivizing liquidity providers.

Vertex emerged as a standout performer within the perpetuals category, contributing to 66% of the nominal TVL growth. Moreover, Vertex demonstrated superior efficiency in increasing TVL with incentives, being at least 5 times more effective than other protocols within the perpetuals category.

It is important to note that GMX's ARB grant was utilized to incentivize the adoption of GMX V2. By the end of the STIP, GMX V2's share of the protocol's TVL increased from 20% to 68%, indicating a successful migration of liquidity from V1 to V2. Normalized, this $217 million increase in TVL for GMX V2 translates to an additional $11.30 per dollar of ARB claimed, positioning GMX V2 as a close contender to Vertex in terms of incentive-driven TVL growth.

Fees and Volume

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The perpetuals category realized a $102.3M increase in annualized fees compared to the pre-incentive figures. GMX led in normalized growth, generating an additional $3.31 annually per dollar of ARB claimed. Regarding daily volumes, this group exhibited the highest growth among all categories, increasing by $656.6M (+196.2%) to $991.2M. Normalized, this equates to an additional $18.86 in volume. Vertex led in efficiency here, being at least 2.5 times more efficient at increasing volume with incentives than the rest of the group.

Conclusion

Arbitrum's inaugural round of the STIP has yielded significant insights into the effectiveness of ARB incentives across various ecosystem segments. Through examining a range of KPIs, it's evident that STIP-supported projects have made substantial strides in enhancing the Arbitrum ecosystem's vitality and growth.

One of the most notable observations is the outperformance of STIP grantees compared to non-STIP protocols. Protocols supported by the STIP accounted for 75.8% of the nominal TVL growth on Arbitrum.

Furthermore, vertical analysis revealed nuanced trends within different sectors. While the DEX category demonstrated the highest efficiency in attracting new users relative to incentives claimed, the lending category led in efficiency for attracting TVL. Additionally, perpetuals showed lower efficiency in attracting TVL compared to DEXs but demonstrated the highest efficiency in increasing trading volume.

In conclusion, the findings from the STIP highlight the pivotal role of incentives in fostering ecosystem development and user engagement on Arbitrum. Moving forward, continued assessment and refinement of incentive mechanisms will be crucial in sustaining growth momentum and ensuring the long-term success of the Arbitrum ecosystem.

About OpenBlock

OpenBlock is a data-driven platform dedicated to incentive engineering, fostering sustainable growth within decentralized protocols. Powering over $1B in annual incentive spend, OpenBlock supercharges teams during critical operations.

If you are interested in working with OpenBlock, please visit us atopenblocklabs.com or reach out via Twitter at @openblocklabs.