2024

EFFECTS OF GROWTH INCENTIVES ON NON-INCENTIVIZED PROTOCOL IN STIP & BSTIP

BY TEAM LAMPROS DAO

Preface

The purpose of this report is to analyze the unintended effects of growth incentives on protocols that did not directly receive them. This study is particularly important as it sheds light on how incentive programs, designed to stimulate growth in specific areas, can create ripple effects across the broader ecosystem. Understanding these spillover effects is critical for designing future incentive programs that promote sustainable growth without inadvertently disadvantaging non-recipient protocols.

This research was prompted by recent developments in the DeFi space, where various incentive programs, such as those under the Short-Term Incentive Program (STIP) and STIP Backfund, have been employed to enhance user engagement, liquidity, and activity across different categories, including decentralized exchanges (DEXes) and lending protocols. However, the broader impact of these incentives on protocols that were not recipients remains underexplored. This gap in understanding necessitates an investigation into how these programs affect non-recipients within the same category.

By focusing on key metrics such as Daily Active Users (DAU), Monthly Active Users (MAU), Total Value Locked (TVL), and fee growth, this report aims to provide insights into the overall effectiveness of incentive programs. The findings will contribute to understanding user behavior trends, liquidity changes, and fee dynamics for non-recipient protocols. Additionally, this research seeks to identify any potential negative consequences or competitive disadvantages faced by non-recipients, ultimately guiding future incentive strategies to be more equitable and effective for the entire ecosystem.

Acknowledgement

We are sincerely grateful to the Arbitrum ecosystem for entrusting us with this task and providing us the opportunity to contribute to such a significant initiative. This experience has allowed us to gain valuable insights into the ecosystem and make meaningful contributions to the broader community.

We would like to extend our heartfelt appreciation to Matt from StableLab, the LTIPP program manager, for his efficient management of the LTIPP program and seamless coordination between the council members and the team.

Furthermore, we are thankful to the Council members – GFX Labs, 404 DAO, Wintermute, GMX, and Karel Vuong – for their continuous support and constructive feedback. Their insights and encouragement not only enriched our work but also helped us refine our approach, enabling us to achieve a more comprehensive and impactful outcome.

We also want to thank Hayden from Blockworks for being there to guide us wherever required.

Team Information

Lampros DAO is an open community of builders and governance enthusiasts dedicated to fostering transparency, decentralization, and inclusivity within the Web3 ecosystem. Our mission is to empower emerging Web3 developers by enhancing their skills and knowledge, ultimately contributing to a more decentralized and resilient community. We actively engage in governance, collaborate on innovative projects, and provide mentorship to new builders, all while promoting a transparent and inclusive environment.

Our contributions to the Arbitrum community focus on several key areas: governance engagement, protocol development, ecosystem expansion, research and education, and geographic growth strategies.

We want to share an update with everyone that we have rebranded from **“Lampros Labs DAO” to “Lampros DAO”**. Everything else remains the same, including our values, mission and team members.

This project was focused on research, and the following team members from our team contributed significantly to its success.

Euphoria

Euphoria holds a management postgraduate degree from a Tier 1 institute, specializing in data analysis, project management, and marketing. He played a vital role in coordinating the research efforts, ensuring that insights derived from complex datasets were effectively communicated and utilized to drive the project forward.

Chain-L

Chain_L brings extensive experience from the blockchain industry, having developed various projects across multiple ecosystems. His contributions included analyzing on-chain data and tracking key metrics, which were essential in evaluating the project's impact and guiding future decisions.

ARDev

ARDev is proficient in data warehousing and ETL processes, specializing in integrating on-chain data and ensuring data quality. His expertise in using Dune Analytics allowed him to create interactive dashboards that provided valuable insights into user behavior, enhancing the project's research outcomes.

Jason

Jason is an expert in statistical analysis and data mining, utilizing programming languages like Python for exploratory data analysis. His work focused on econometric modeling and quantitative analysis, providing critical assessments of the financial mechanisms involved in the project, which greatly informed the research findings.

For a comprehensive view of our past work and contributions to the Arbitrum ecosystem, please visit our Notion page Lampros DAO | Arbitrum Contributions.

Methodology

Data collection methods

In this analysis, we focused on collecting data from several key sources to provide a thorough understanding of user interactions and the effectiveness of incentives within the Arbitrum network. We gathered user data including Daily Active Users (DAU), Monthly Active Users (MAU), User Migration Rate (UMR) and Transaction Count (TC) from Dune Analytics, which offered valuable insights into user behavior. Additionally, we sourced Total Value Locked (TVL) and Protocol Fees (PF) data from DefiLlama to assess the liquidity across various protocols.

Data Processing

Following the data collection, we focused on cleaning and processing the data to ensure accuracy and consistency. We utilized Python and its libraries, particularly Pandas, to handle this task. This process involved filtering out inaccuracies, managing missing values, and organizing the data into a structured format suitable for analysis. Thorough data processing was essential to establish a solid foundation for the subsequent analyses, ensuring that the insights derived would be reliable and valid.

Visualization Creation

Once the data was cleaned and organized, we proceeded to create visualizations to illustrate key findings and trends. We employed the Python library Plotly to generate interactive visual representations of the data. These visualizations played a crucial role in highlighting important patterns in user behavior, protocol performance, and the impact of incentive programs, making the analysis more accessible and easier to interpret.

Dashboard Creation

To further enhance our analysis, we created dashboards using Python. These dashboard served as user-friendly interfaces for community members to engage dynamically with the data, facilitating informed decision-making and deeper exploration of insights.

Report Creation

Finally, we compiled all the insights, visualizations, and findings into this comprehensive report. This report encapsulated the methodology, analysis, and conclusions drawn from the data, presenting a clear narrative about user interactions and the effectiveness of incentive programs within the Arbitrum ecosystem.

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A. Definitions

- **Daily Active Users (DAU):** The average number of unique users interacting with the protocol daily, measured over 7 days.
- **Monthly Active Users (MAU):** The average number of unique users interacting with the protocol each month, calculated over 30 days.
- **Total Value Locked (TVL):** The average total value held within protocols over 7 days, indicating the amount of capital committed and its fluctuations.
- **User Retention Rate:** The percentage of unique users in the Active Incentive phase compared to the Pre-Incentive phase, indicating the effectiveness of incentives in retaining users.
- **Protocol Fees:** The total fees collected by the protocol, representing the revenue generated through user transactions and activities.
- **User Migration Rate:** The percentage of users switching from non-incentive to incentive protocols during a specific period, reflecting how well incentives attract users.
- **Pre-Incentive Phase:** This period, from June 9, 2023, to November 2, 2023, serves as the reference point for performance benchmarks established before the incentive programs commenced.
- **Active Phase:** From November 3, 2023, to March 29, 2024, this phase covers the duration during which the incentive programs were actively in effect.
- **Post-Incentive Phase:** Covering the period from March 30, 2024, to August 23, 2024, this phase is used to evaluate the longer-term effects and residual impacts following the conclusion of the incentive programs.

B. Abbreviations

- **DAU:** Daily Active Users
- **MAU:** Monthly Active Users
- **TVL:** Total Value Locked
- **URR:** User Retention Rate
- **UMR:** User Migration Rate
- **TC:** Transaction Count

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List of Graphs

Executive Summary

The Short-Term Incentive Program (STIP) has proven highly effective in driving growth across various types of DeFi protocols. This report provides a comprehensive analysis of its impact on Decentralized Exchanges (DEXs), yield protocols, perpetual trading platforms, and bridge protocols.

Decentralized Exchanges (DEXs)

Incentivized DEXs such as Camelot, Ramses Exchange, and Trader Joe experienced notable increases in Daily Active Users (DAU), Monthly Active Users (MAU), Protocol's Fees, User Migration Rate (UMR) and Total Value Locked (TVL). These protocols benefited significantly from the incentives, showing sustained growth even after the incentive period. In contrast, non-incentivized DEXs like Curve and Chronos exhibited mixed results, generally falling short of the performance improvements seen by their incentivized counterparts.

Yield Protocols

Incentivized yield protocols, including Rodeo, Umami Finance, and StakeDAO, demonstrated remarkable improvements in user activity and TVL. These protocols capitalized on the incentives to attract and retain users, achieving substantial growth during and after the incentive phase. Non-incentivized yield protocols such as Equilibria and Vaultka showed slower growth, indicating that incentives played a crucial role in enhancing competitive performance in the yield sector.

Perpetual Trading Platforms

For perpetual trading platforms, incentivized protocols like GMX, MUX Protocol, and Vertex saw significant gains in DAU, MAU, and TVL. The incentives effectively boosted user engagement and market presence. In contrast, Non-incentivized protocols such as HMX and ApolloX displayed varied results, with some showing moderate growth while others struggled, underscoring the impact of incentives on competitive positioning.

Bridge Protocols

Incentivized bridge protocols, including Synapse, Wormhole, and tBTC, demonstrated notable increases in transaction counts and user retention during the incentive phase. Synapse and Wormhole saw significant surges in transaction counts, with Wormhole also achieving the highest user retention rate among all protocols. tBTC experienced a dramatic rise in transaction count, particularly in the post-incentive phase, reflecting strong continued user interest. In contrast, non-incentivized protocols like XY Finance showed minimal growth or decline in transaction counts and user retention, underscoring the competitive edge of incentives.

Overall, the STIP had a profound and positive impact across all protocol types, driving notable increases in user engagement, liquidity, and market positioning for Incentivized protocols. This success underscores the effectiveness of targeted incentive programs in fostering long-term growth and competitive advantage within the DeFi ecosystem.

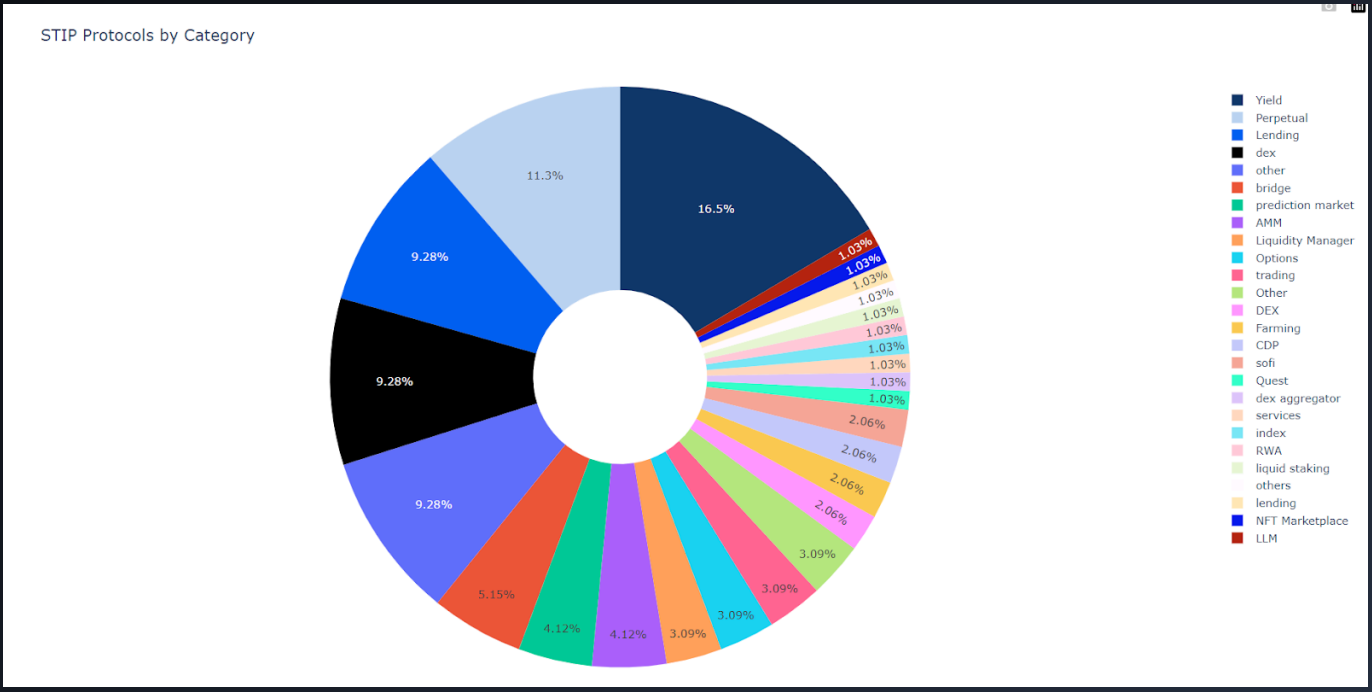
Introduction

This study explores the broader impact of Arbitrum's Short-Term Incentive Programs (STIP) on the DeFi ecosystem, focusing on protocols that still need to receive direct incentives. The STIP was rolled out in two phases: Round 1 (November 2023 - February 2024) and the STIP Backfund (December 2024 - March 2024), both designed to drive growth by providing financial and promotional support to selected protocols.

Arbitrum's STIP allocated millions of ARB tokens to various protocols to increase its user activity across the network. This report examines the ripple effects of these incentives on protocols that were not directly funded by the program. By analyzing key metrics such as Daily Active Users (DAU), Monthly Active Users (MAU), Transaction Count, User Retention Rate, User Migration Rate (UMR) and Total Value Locked (TVL) we aim to identify any potential competitive advantages or imbalances that may have arisen as a result of these incentive initiatives.

Categorical Representation of STIP Protocols

The STIP program encompassed various protocols, including decentralized exchanges (DEXs), bridge platforms, perpetual contracts, yield aggregators, NFTs, and cross-chain solutions. To maintain focus, our research concentrated on a few key areas to examine the impact of these incentives. A pie chart is provided to illustrate the breakdown of protocols into these categories, highlighting the significance of each in the STIP process. This framework helps contextualize our research and explains our rationale for selecting specific protocols for detailed analysis.



Visualization Link - [STIP protocols by category]

Our analysis concentrated on four primary sectors: Decentralized Exchanges, Yield protocols, Bridge protocols, and Perpetual protocols. To assess the impact of the STIP, we categorized the protocols into two groups—those that received incentives (incentivized protocols) and those that did not (non-incentivized protocols). For a balanced comparison, We selected incentivized protocols with current TVLs comparable to those of the non-incentivized protocols and vice versa. This segmentation allows us to thoroughly examine and differentiate the effects of the STIP on incentivized protocols versus those that did not receive direct support.

Decentralized Exchange(DEX)

Protocol Selection for DEX Analysis

In our analysis of decentralized exchanges (DEXs), we have selected the following protocols:

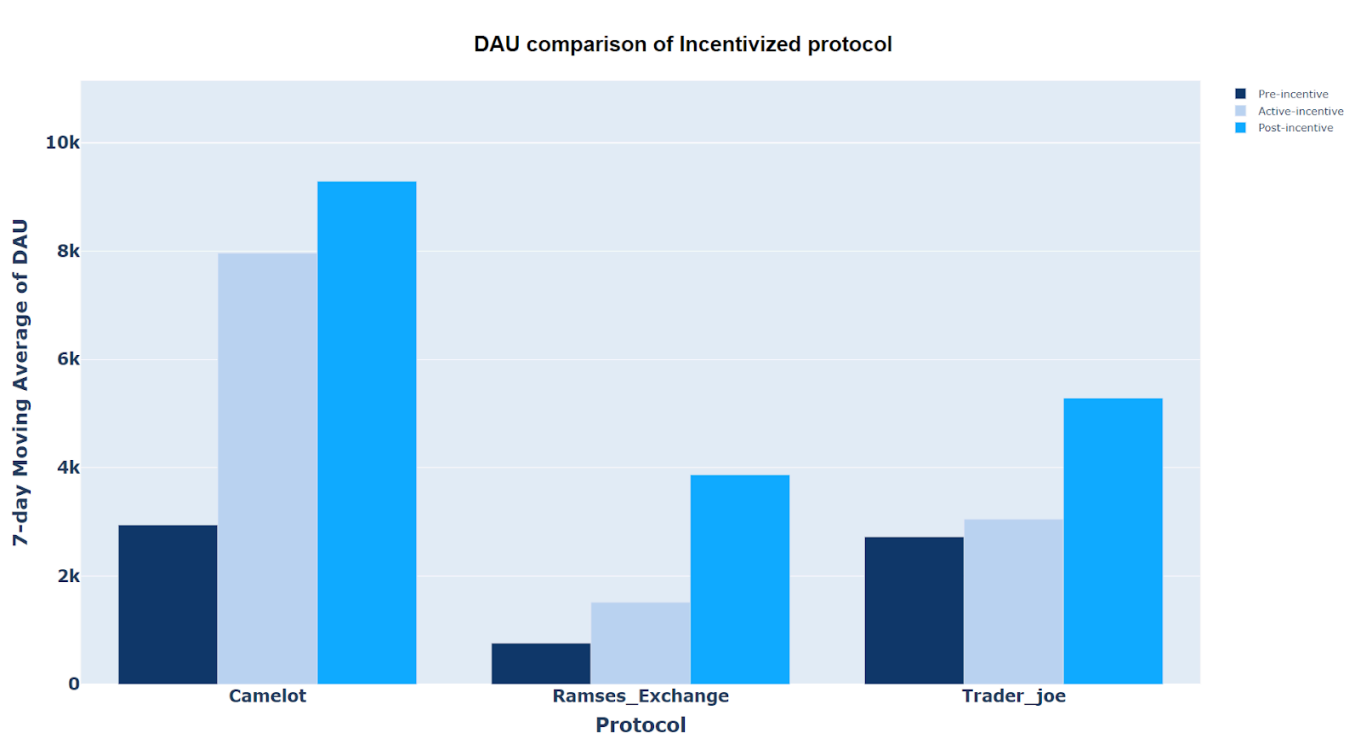
1. Incentivized protocols: Ramses Exchange, Camelot, and Trader Joe
2. Non-ncentivized rotocols: Chronos, Wombat Exchange, and Curve Finance

The comparison between these selected protocols aims to provide insights into the impact of incentive programs on DEXs. Our focus is on understanding how the incentives may influence the performance and competitive positioning of DEXs that . The total value locked (TVL) in the incentivized protocols ranges from $21.75 million to $104.34 million, while in the non-incentivized protocols, it ranges from $290,702 to $91 million. This comparison will help highlight any correlations between incentives and DEX performance.

To analyze user activity in decentralized exchanges (DEXs), we used the Dune's dex.trade table for each selected protocol as our dataset. This table provided detailed transaction data, including user interactions, trade volumes, and frequency of trades. By examining this data, we were able to measure user engagement, trading patterns, and overall activity across both incentivized and non-incentivized protocols. This analysis allowed us to assess the impact of incentive programs on user behavior and trading activity within DEXs.

Daily Active Users(DAU)

Comparison of Incentivized protocol & Non-Incentivized protocol



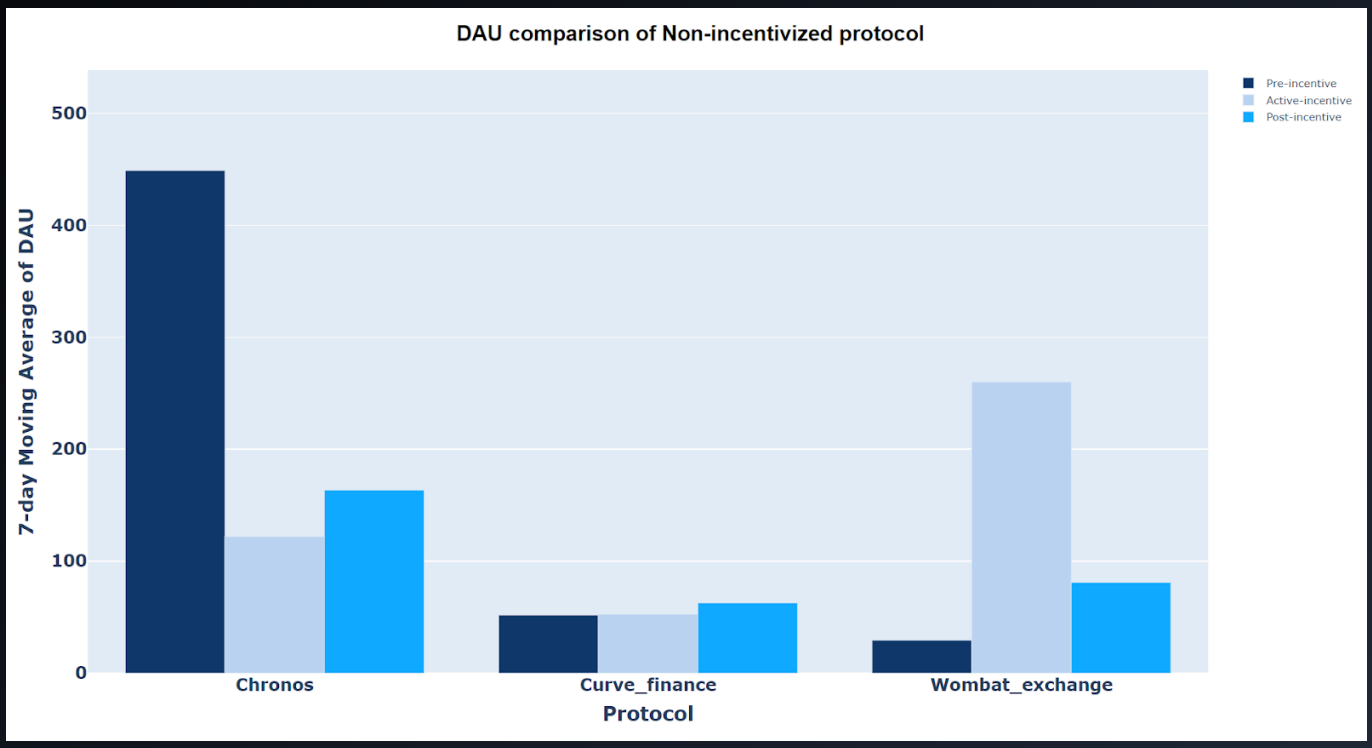
Visualization Link - [DAU comparison across the incentivized protocols]

The bar chart visualization reveals the impact of the incentive program on Daily Active Users (DAU) across the incentivized protocols: Camelot, Ramses Exchange, and Trader Joe.

Camelot experienced significant growth in DAU. The number of daily active users rose from approximately 3,000 to 8,000 during the incentive phase, reflecting a 166.7% increase. Post-incentive, DAU further surged to about 9,400, culminating in a total growth of 213.3%. Ramses Exchange also showed substantial improvement, with DAU increasing from around 700 to 1,500 during the active phase, representing a 114.3% rise. Following the incentive phase, DAU further increased to approximately 3,900, resulting in an overall growth of 457.1%.

Trader Joe saw significant gains, with DAU increasing from about 2,800 to 3,100 during the incentive phase, representing a 10.7% rise. Post-incentive, DAU surged to approximately 5,300 achieving a total increase of 89.3%.

These findings indicate that the incentive programs were effective for all three protocols. Camelot achieved the highest absolute DAU numbers post-incentive, while Ramses Exchange exhibited the highest percentage growth. Trader Joe, despite starting with a higher baseline, showed more modest growth compared to the other two protocols.

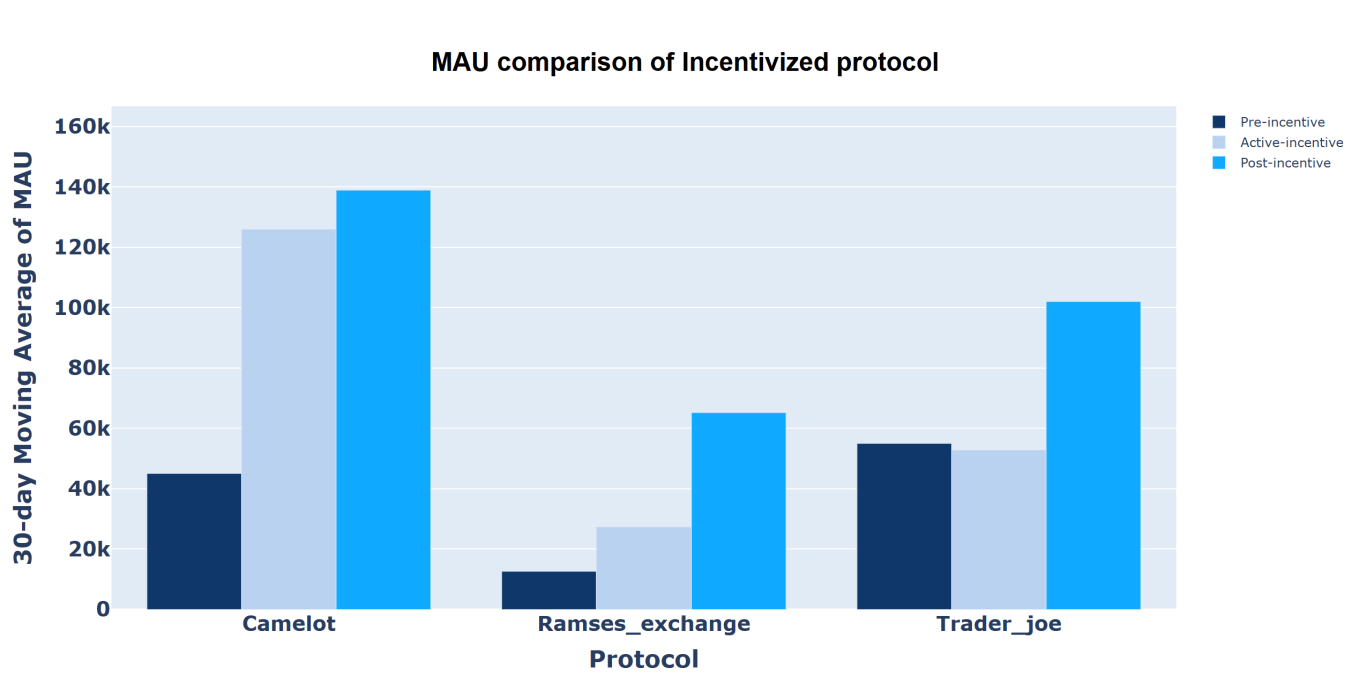


Visualization Link - DAU comparison across the non-incentivized protocols

For the non-incentivized protocols—Chronos, Curve Finance, and Wombat Exchange—the DAU trends varied considerably. Chronos experienced a significant decline in DAU, dropping from approximately 450 to 125 during the incentive phase, which represents a 72.2% decrease. The protocol saw a slight recovery post-incentive, with DAU increasing to about 160. Curve Finance exhibited minimal growth, with DAU increasing from about 50 to 55 during the incentive phase, representing a 10% rise, and further growing to 60 post-incentive. Wombat Exchange showed the most dramatic shift. DAU surged from approximately 25 to 260 during the incentive phase, a remarkable 940% increase. However, DAU decreased to about 80 post-incentive, which still marked a 220% increase from the pre-incentive period. These results suggest that the incentive programs had varying impacts across non-incentivized protocols. Wombat Exchange benefited significantly despite a post-incentive decline, Curve Finance saw minimal gains, and Chronos experienced a substantial decline during the incentive period with only a slight recovery afterward.

Monthly Active Users(MAU)

Comparison of Incentivized protocol & Non-Incentivized protocol



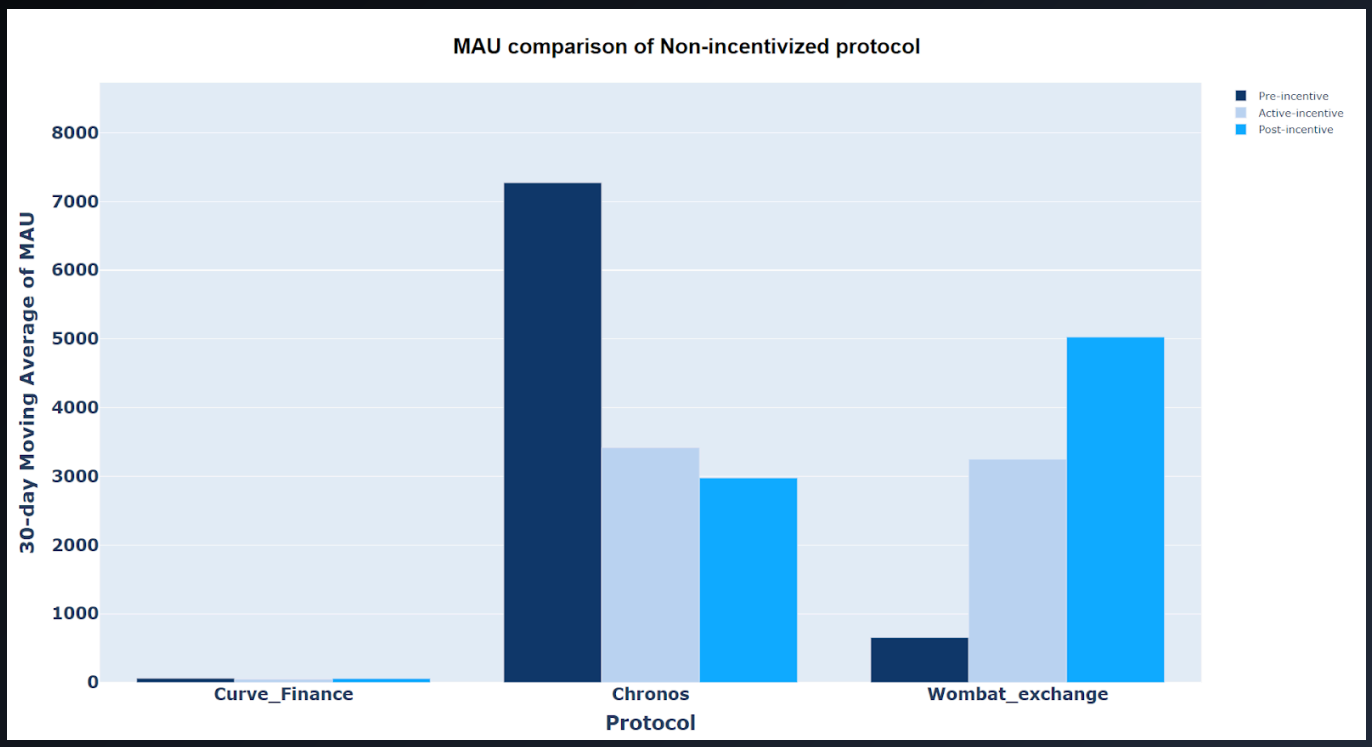
Visualization Link - [MAU comparison across the incentivized protocols]

The bar graph provides a comparison of Monthly Active Users (MAU) for incentivized protocols—Camelot, Ramses Exchange, and Trader Joe—across three phases: Pre-Incentive, Active Incentive, and Post-Incentive.

Camelot saw a significant increase in MAU, with the number rising from approximately 45,000 in the pre-incentive phase to 125,000 during the active incentive phase, which represents a 177.8% growth. Following the incentive period, Camelot's MAU further surged to about 138,000, resulting in an overall increase of 206.7% from the pre-incentive phase.

Ramses Exchange also demonstrated considerable growth. The protocol's MAU increased from around 13,000 to 28,000 during the incentive phase, a 115.4% rise, and reached approximately 65,000 post-incentive, marking a 400% increase from the pre-incentive phase. Trader Joe exhibited a different growth pattern. Its MAU decreased from about 55,000 to 52,000 during the active incentive phase, reflecting a 5.5% decrease. However, MAU then surged to approximately 102,000 after the incentives ended, showing an 85.5% increase from the pre-incentive phase.

Overall, all incentivized protocols experienced substantial growth in MAU during the post-incentive phase compared to the pre-incentive period, with Ramses Exchange showing the most dramatic percentage increase, while Camelot achieved the highest absolute MAU numbers post-incentive.



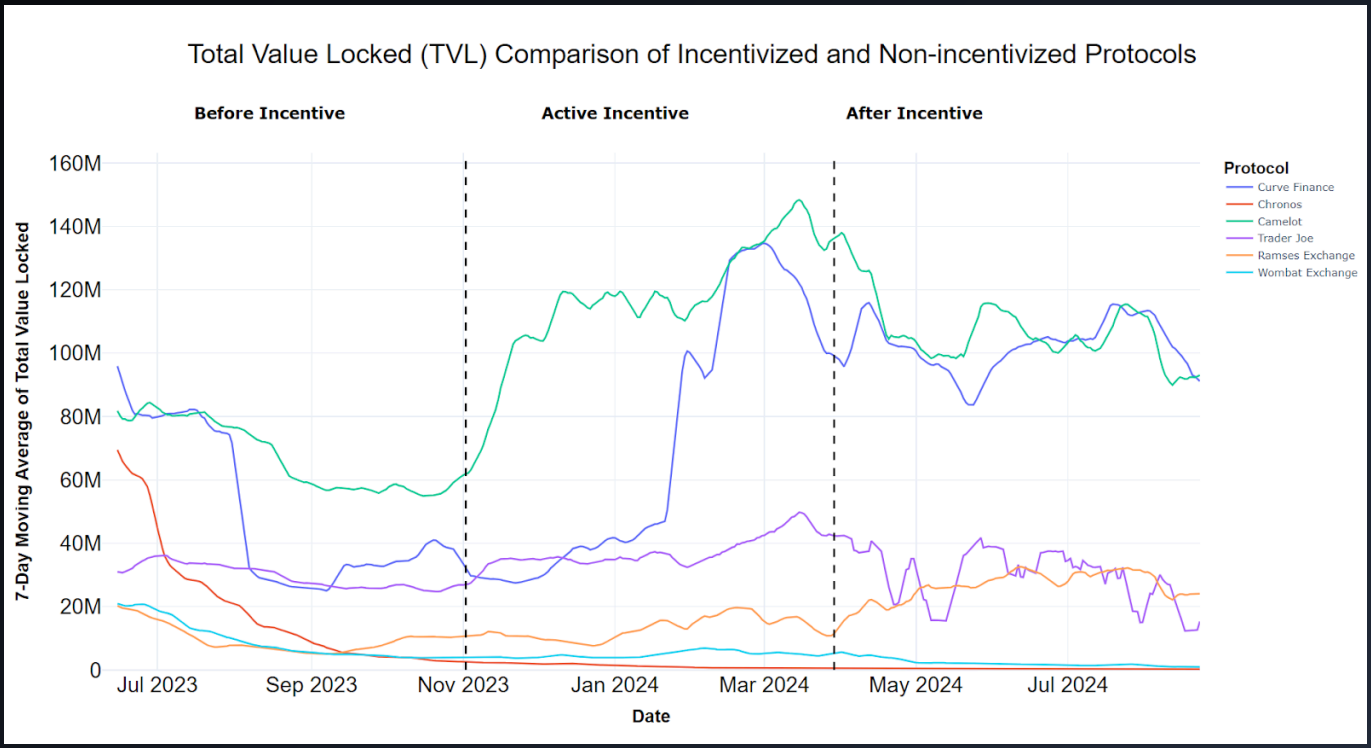
Visualization Link - MAU comparison across the non-incentivized protocols

For the non-incentivized protocols—Chronos, Curve Finance, and Wombat Exchange—the trends in MAU showed considerable variation. Chronos experienced a significant decrease in MAU from approximately 7,300 in the pre-incentive phase to 3,400 during the incentive phase, which is a 53.4% drop. The decline continued into the post-incentive phase, with MAU further decreasing to about 3,000, representing a 58.9% decrease from the pre-incentive phase. Curve Finance saw minimal change across all phases, with MAU staying consistently low at around 50-100 users throughout the pre-incentive, active incentive, and post-incentive phases. Wombat Exchange experienced remarkable growth. MAU surged from about 700 to 3,250 during the incentive phase, a 364% increase, and further escalated to approximately 5,000 post-incentive, reflecting an extraordinary 614% increase from the pre-incentive phase.

Overall, the non-incentivized protocols exhibited mixed results from the pre-incentive to the post-incentive phase, with Wombat Exchange showing substantial increases, Chronos experiencing a significant decline, and Curve Finance remaining relatively stable. This varied performance suggests that factors beyond the incentive programs likely influenced user engagement for these non-incentivized protocols, particularly for Wombat Exchange and Chronos. Curve Finance, while stable, did not see significant changes in its user base across the phases.

Total Value Locked (TVL)

Comparison of Incentivized protocol & Non-Incentivized protocol



Visualization Link - [TVL comparison of incentivized protocol and non-incentivized protocol]

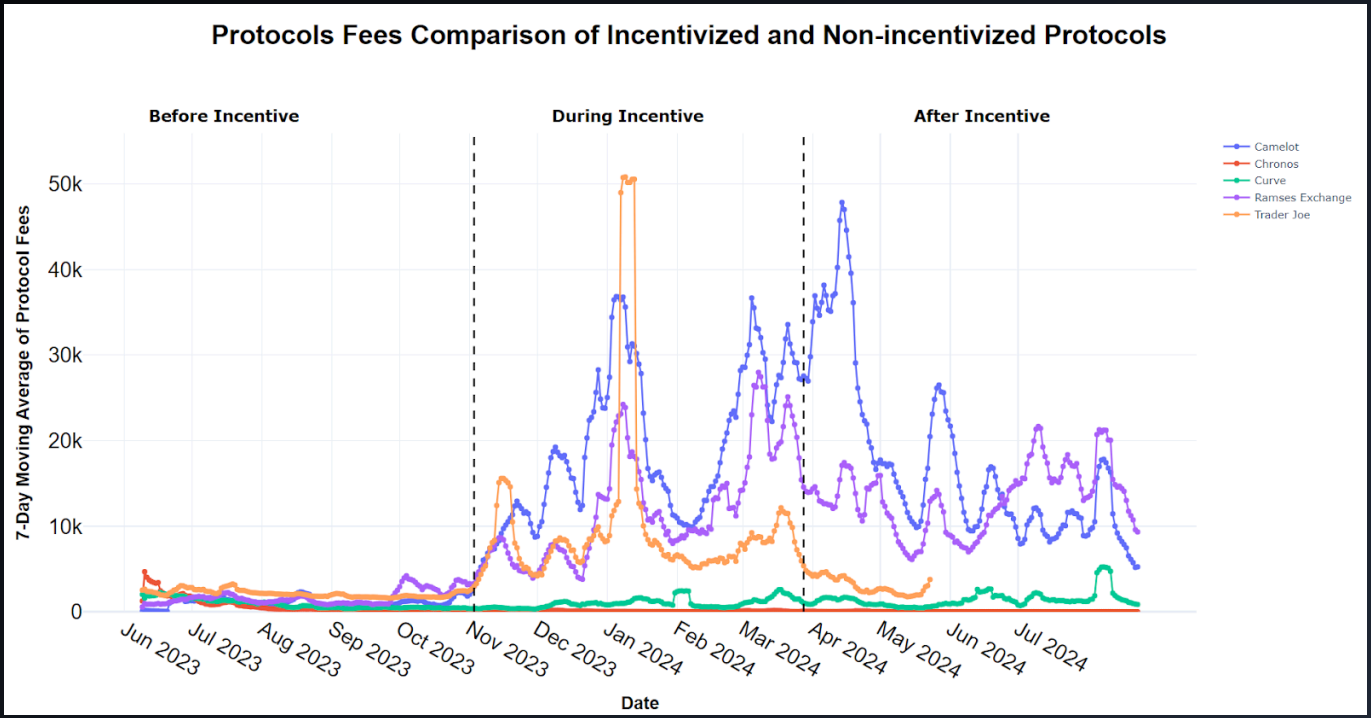
The incentive program, which ran from November 2023 to March 2024, brought notable changes in Total Value Locked (TVL) across various protocols. Curve Finance experienced a significant increase in TVL, surging by about 300% during the active phase, from approximately $30 million to $120 million. This growth fluctuated post-incentive, with TVL settling around $110 million by August 2024, marking a total increase of about 267%. Camelot also saw considerable growth, with TVL rising by roughly 100% during the incentive phase, from about $60 million to $120 million. This growth continued post-incentive, peaking at around $150 million before settling at about $90 million by August 2024. Trader Joe showed more modest growth, with TVL increasing by about 40% to $50 million during the active phase and experiencing some volatility post-incentive, settling around $15 million by August 2024.

Among the non-incentivized protocols, Ramses Exchange demonstrated significant growth, with TVL increasing from about $10 million to $20 million during the active phase, a 100% increase. It continued to grow post-incentive, reaching peaks of around $35 million before settling to about $25 million by August 2024. Chronos experienced a dramatic decline, with TVL dropping from about $70 million to nearly zero during the incentive phase and remained negligible thereafter. Wombat Exchange's TVL decreased from about $20 million to around $5 million during the active phase and remained relatively stable post-incentive, ending at about $5 million by August 2024.

For some protocols, Daily Active Users (DAU) and Monthly Active Users (MAU) are low despite high TVL, as TVL values encompass all the services provided by the protocol, while DAU and MAU metrics are specific to certain activities or events within the protocol.

Protocol’s Fees

Comparison of Incentivized protocol & Non-Incentivized protocol



Visualization Link - [Protocol’s fees comparison of incentivized protocol and non-incentivized protocol]

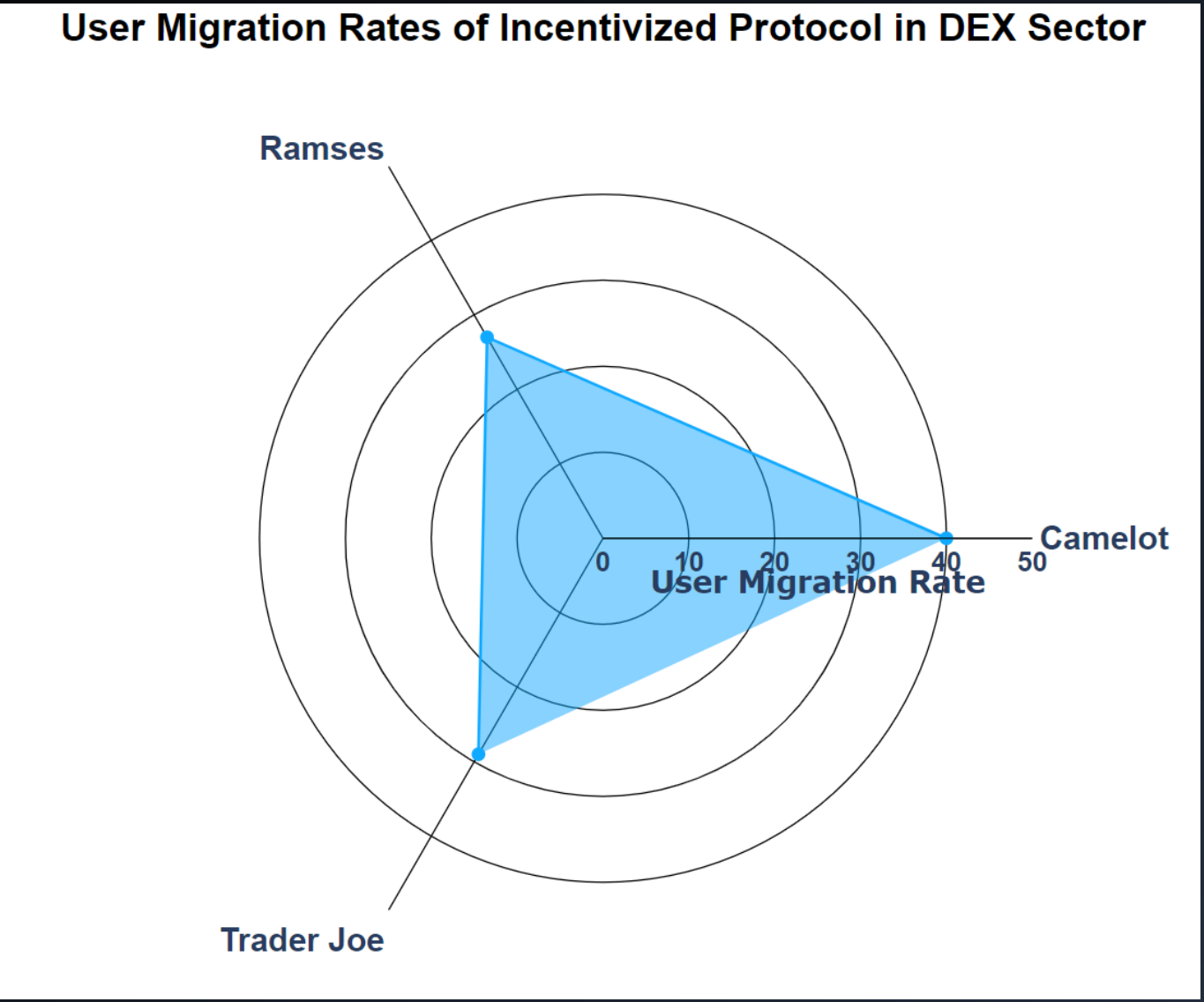
The line graph presented tracks the 7-Day Moving Average of Protocol Fees from June 2023 to August 2024 for various protocols. The two black dotted lines on the graph denote the beginning and end of the incentive phase, with the first line marking November 1, 2023, and the second line indicating March 31, 2024.

Incentivized protocols—Camelot, Ramses Exchange, and Trader Joe—experienced significant increases in fees during the incentive phase. Camelot's fees rose dramatically from approximately $1,000 in the pre-incentive phase to peaks of around $37,000 during the incentive period, reflecting an increase of about 3600%. Ramses Exchange saw its fees grow from around $2,000 to highs of about $25,000, representing a 1150% increase. Trader Joe's fees spiked from roughly $2,000 to over $50,000, demonstrating a substantial surge of about 2400%.

In contrast, non-incentivized protocols like Curve Finance and Chronos showed minimal changes in their fees, with Curve's fees generally staying below $2,000 throughout the period. Chronos maintained even lower fee levels, rarely exceeding $500. The incentive program had a notable impact on the incentivized protocols, particularly Trader Joe, which experienced the most substantial rise in fees in January 2024. After the incentive period, fees for the incentivized protocols generally remained higher than pre-incentive levels but showed increased volatility, with Camelot reaching peaks of nearly $50,000 in the post-incentive phase.

User Migration Rate

Non-incentivized protocol to Incentivized protocol



Visualization Link - [User migration rate of non-incentivized protocol to incentivized protocol]

This radial chart illustrates user migration rates from non-incentive protocols to recipient protocols during an incentive phase, highlighting how well Camelot, Ramses, and Trader Joe attracted users. It shows the percentage of users who originally engaged with non-incentive protocols (Curve Finance, Wombat Exchange, and Chronos) during the pre-incentive phase and then migrated to these recipient protocols once incentives were introduced.

The migration rate method captures users who performed their first transaction on these incentive protocols during the incentive phase. This approach calculates the migration rate by tracking new users entering a protocol for the first time during the incentive period, offering insights into how effectively each protocol attracted and retained new users. This data is then visualized in the chart, reflecting the impact of the incentives on user migration. Camelot leads with the highest migration rate at 40, followed by Trader Joe at 35, and Ramses at 30. This indicates Camelot's superior success in drawing users from non-incentive protocols. The triangular shape formed by connecting the data points compares migration rates and new user acquisition across these protocols, illustrating their relative effectiveness in capturing users from non-incentive platforms and attracting new users during the transition to an incentivized model.

The impact of the incentive program on non-incentive protocols is significant. As observed, non-incentive protocols like Curve Finance, Wombat Exchange, and Chronos experienced a noticeable shift in their user base, with users migrating to recipient protocols due to the allure of incentives. This migration reflects a reduced user engagement for the non-incentive protocols during the incentive phase, highlighting their decreased competitiveness. The reduced user activity on these non-incentive platforms suggests that incentive programs can effectively redirect user attention and participation toward incentivized protocols, impacting overall engagement and usage metrics for non-incentive platforms.

From the analysis, we can conclude that the incentive program had a significant impact on user migration from non-incentive protocols to incentive-based protocols. The migration data highlights that Camelot, Trader Joe, and Ramses successfully attracted users, particularly Camelot, which saw the highest migration rate at 40%. This illustrates the power of incentives in shifting user engagement and loyalty toward protocols offering rewards. The user migration from platforms like Curve Finance, Wombat Exchange, and Chronos, which were not part of the incentive program, demonstrates the competitive disadvantage faced by non-incentive protocols. As users migrated to recipient protocols, these non-incentive platforms experienced a noticeable reduction in user engagement and activity, suggesting that such incentive programs can considerably weaken non-recipient protocol’s ability to retain their user base.

To mitigate the negative impact of non-incentive protocols and promote a healthier ecosystem, Arbitrum could consider implementing a more balanced incentive structure. To reduce the negative effects of non-incentive protocols and create a healthier ecosystem, Arbitrum could adopt a more balanced approach to incentives. One idea is introducing smaller incentives for non-recipient protocols, helping them retain users. Arbitrum could also implement rewards that encourage collaboration across the whole ecosystem, benefiting all protocols. User loyalty rewards could encourage people to engage with multiple protocols, ensuring non-incentive platforms still receive attention. This approach would help non-incentive protocols maintain their user base and support the overall growth of the ecosystem.

Yield

Protocol Selection for Analysis of Yield Protocols

For our analysis of yield protocols, we have selected the following protocols:

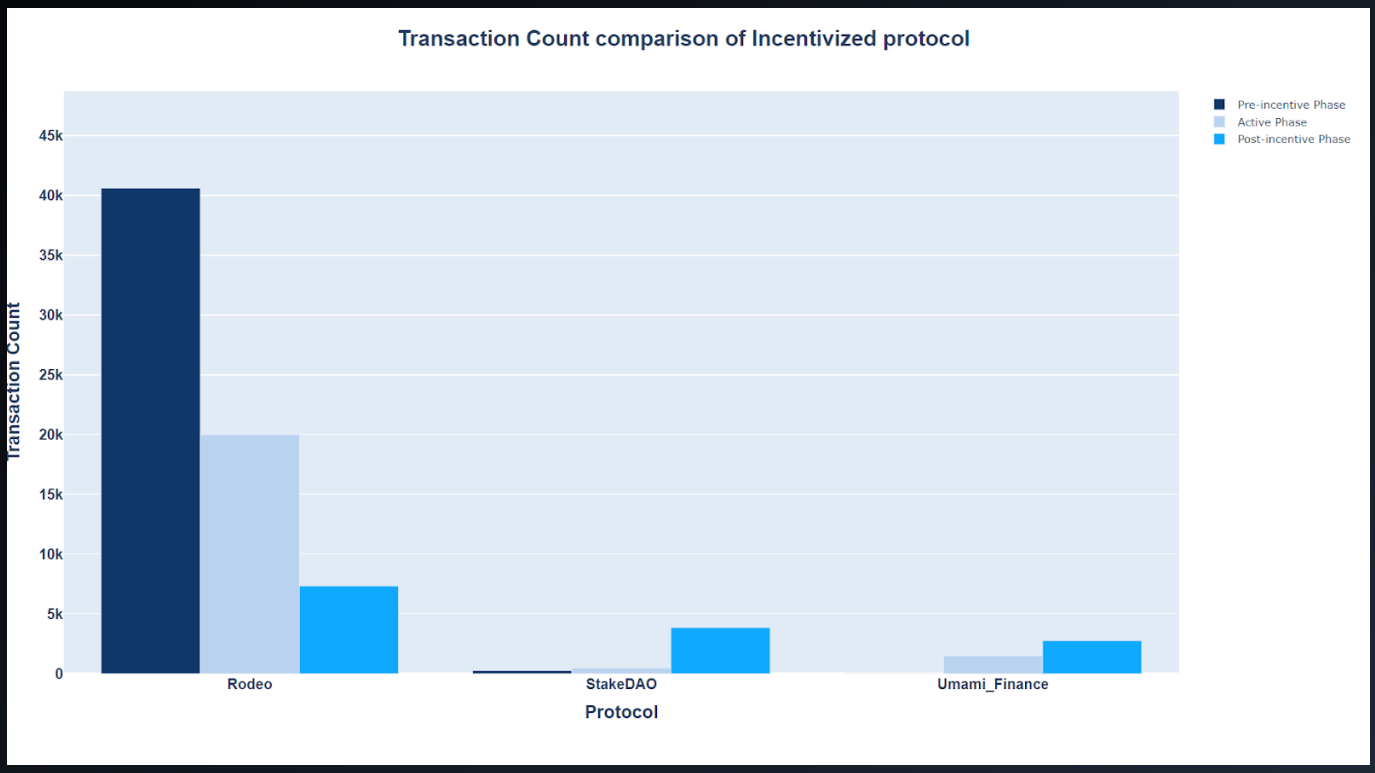
1. Incentivized Protocols: Rodeo, Umami Finance, and StakeDAO
2. Non-Incentivized Protocols: Equilibria, Wombex Finance, and Vaultka

This comparative analysis aims to reveal the impact of these incentives on yield protocols, focusing on how they influence the performance and competitive positioning of both incentivized and non-incentivized protocols. The total value locked (TVL) in the incentivized protocols ranges from $89,579 to $14 million, while in the non-incentivized protocols, it ranges from $32,523 to $16 million.

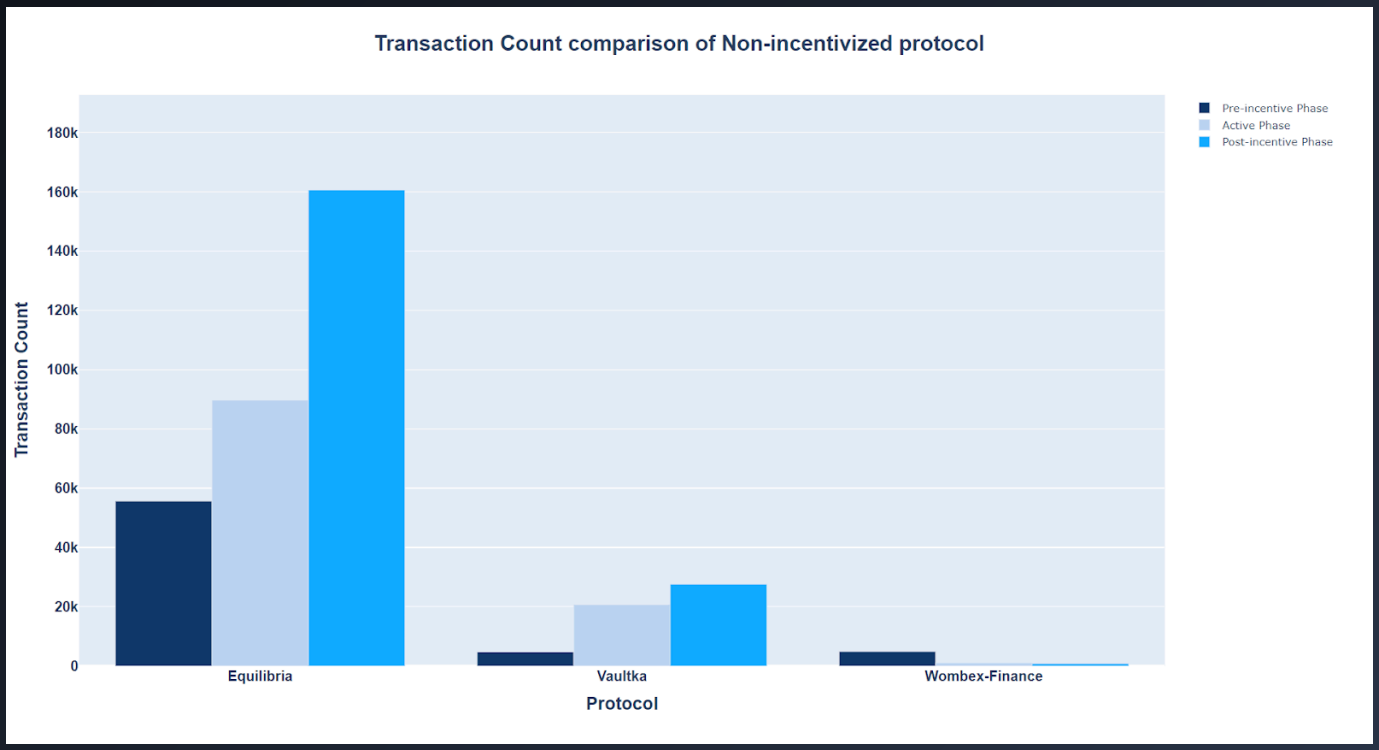
To assess user activity in yield protocols, we gathered transaction data from both factory and core contracts. Specifically, we analyzed events such as openPosition, closePosition, increasePosition, decreasePosition, claimRewards, and trading fees. These events provided detailed insights into user interactions with the protocols, allowing us to track the number of active positions, the frequency of trades, and reward claims. By examining this data, we were able to conduct a thorough analysis of user engagement and the effects of incentives on both incentivized and non-incentivized yield protocols.

Transaction Count

Comparison of Incentivized protocol & Non-Incentivized protocol



Visualization Link - Transaction count comparison across the incentivized protocols



Visualization Link - Transaction count comparison across the non-incentivized protocols

The graphs compare the average transaction counts of incentivized and non-incentivized protocols across three phases: Pre-Incentive, Active Incentive, and Post-Incentive.

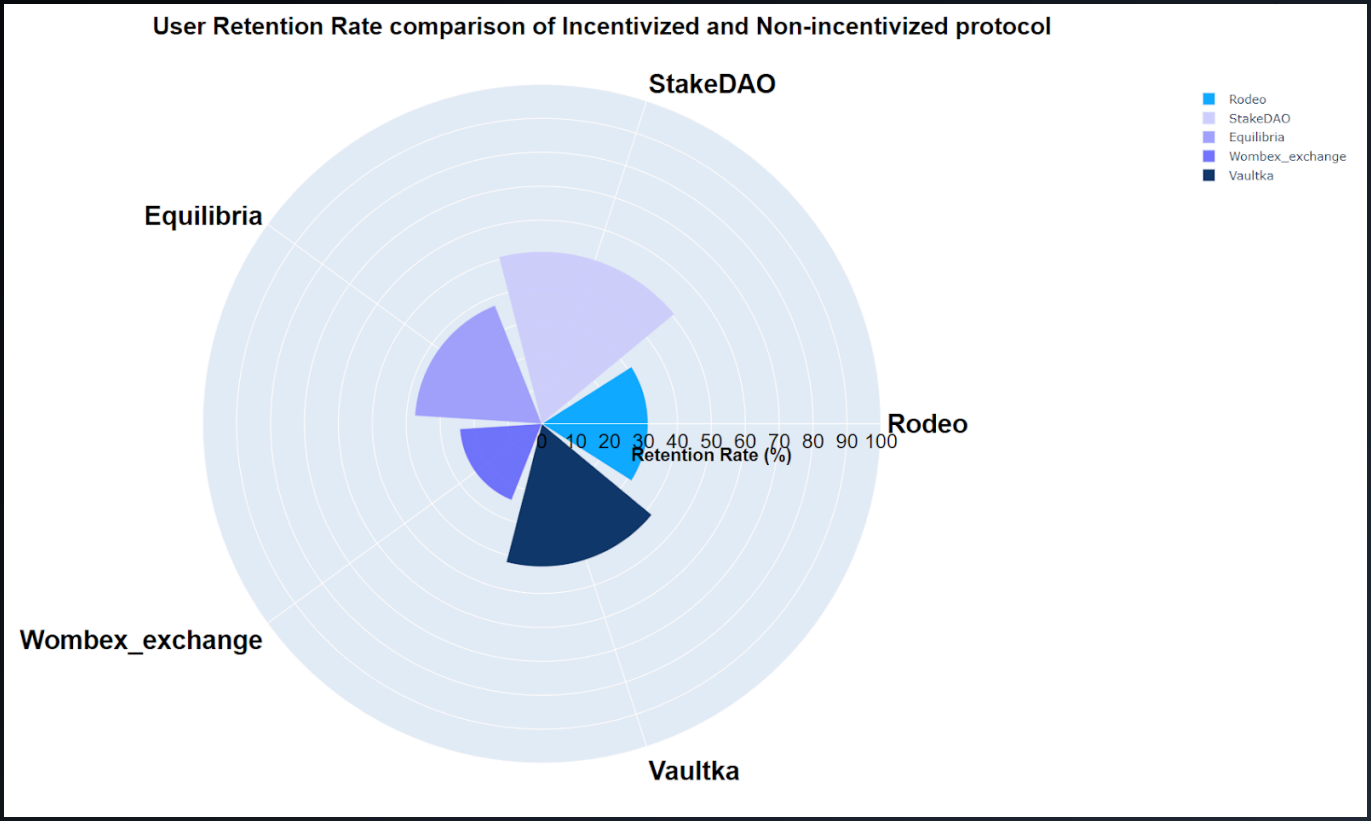
For incentivized protocols, Rodeo shows a significant drop in average transaction counts, from approximately 40,500 during the pre-incentive phase to no visible activity during the active-incentive phase, and then to about 7,500 in the post-incentive phase, representing an overall decrease of around 81.5% from the pre-incentive phase. StakeDAO starts with a very low average of about 500 transactions in the pre-incentive phase, with no visible activity during the active-incentive period before jumping to around 4,000 in the post-incentive phase, showing an increase of about 700% compared to the pre-incentive phase. Umami Finance does not have data for the pre-incentive and active-incentive phases but shows about 3,000 transactions in the post-incentive phase.

In comparison, non-incentivized protocols exhibit overall growth. Equilibria sees a steady rise in average transaction counts from about 55,000 in the pre-incentive phase to 90,000 during the active-incentive phase, and further to approximately 160,000 in the post-incentive phase, marking a 191% increase from the pre-incentive phase. Vaultka also shows significant growth, starting at about 5,000 in the pre-incentive phase and rising to 20,000 during the active phase, before reaching around 28,000 in the post-incentive phase, which represents a 460% increase. However, Wombex Finance sees a decline in transaction activity, dropping from about 5,000 in the pre-incentive phase to almost no visible activity during the active-incentive and post-incentive periods, indicating a nearly 100% decrease overall.

In summary, non-incentivized protocols like Equilibria and Vaultka show a strong upward trend in transaction counts, while incentivized protocols show mixed results, with Rodeo experiencing significant declines and StakeDAO showing growth in the post-incentive phase. This suggests that incentives may not consistently sustain higher transaction activity, whereas some non-incentivized protocols continue to grow organically.

User Retention Rate

Comparison of Incentivized protocol & Non-Incentivized protocol



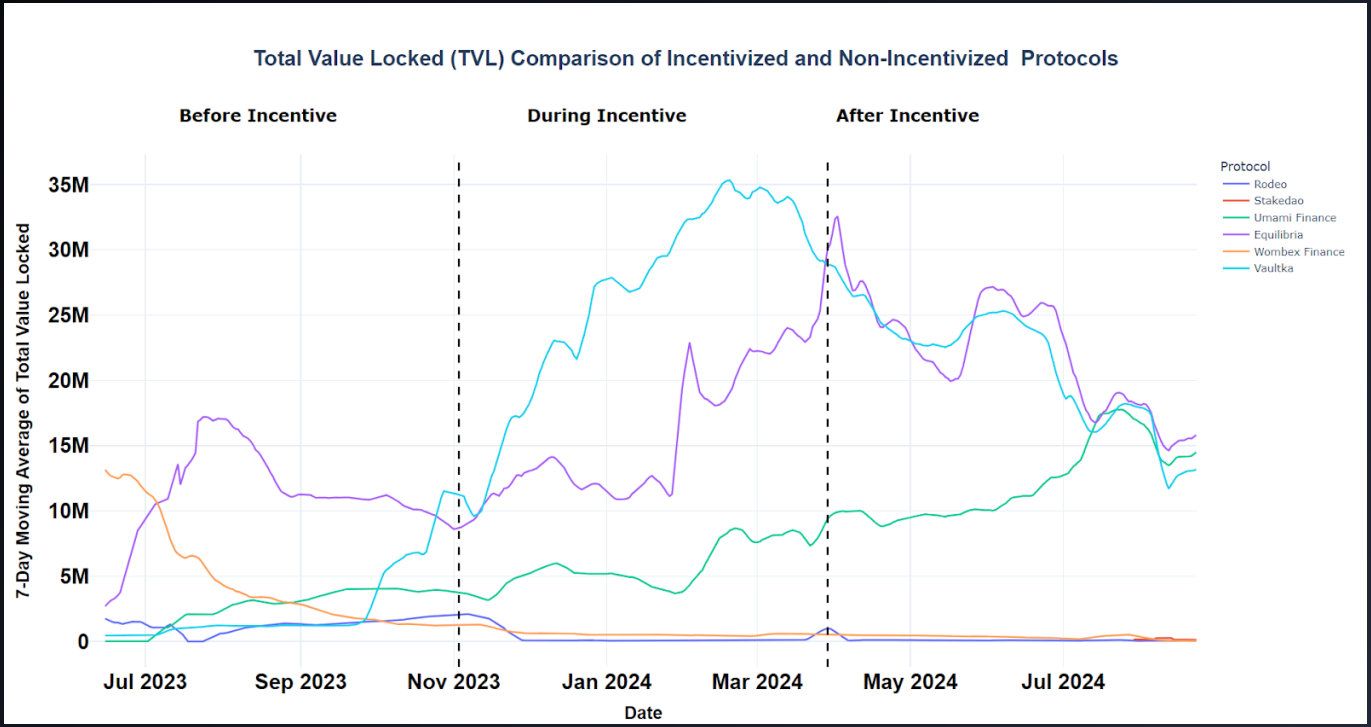
Visualization Link - User retention rate comparison across the protocols

The radial graph presents a comparison of user retention rates between incentivized and non-incentivized protocols. Among the incentivized protocols shown, Rodeo exhibits a moderate retention rate of approximately 30%, while StakeDAO demonstrates a higher retention rate of about 40%. For the non-incentivized protocols, Equilibria shows a strong retention rate of around 35%. Wombex Exchange has the lowest retention rate among all protocols displayed, at approximately 20%. Conversely, Vaultka stands out with the highest retention rate of about 45%, showing impressive user retention without the need for incentives.

This overall comparison highlights the varied performance in user retention across different protocols, with both incentivized and non-incentivized protocols showing a range of retention rates. Notably, the non-incentivized protocol Vaultka has the highest retention rate, while another non-incentivized protocol, Wombex Exchange, has the lowest. The incentivized protocols Rodeo and StakeDAO fall in the middle range. This suggests that factors other than just incentives play a significant role in determining user retention rates.

Total Value Locked (TVL)

Comparison of Incentivized protocol & Non-Incentivized protocol



Visualization Link - [TVL comparison of incentivized protocol and non-incentivized protocol]

The graph illustrates the Total Value Locked (TVL) trends for both incentivized and non-incentivized protocols, encompassing all services offered by each protocol. Vertical dashed lines mark the different phases—pre-incentive, active incentive, and post-incentive—with black dotted lines highlighting the start and end of the incentive phase.

For incentivized protocols, Rodeo maintained a relatively low and stable TVL of around $1-2M throughout all phases, showing little change. StakeDAO showed a decline from about $12M before the incentive to nearly zero during and after the incentive period. Umami Finance demonstrated significant growth, starting from around $0.5M before the incentive, increasing to about $5M during the incentive phase, and reaching approximately $15M after the incentive period.

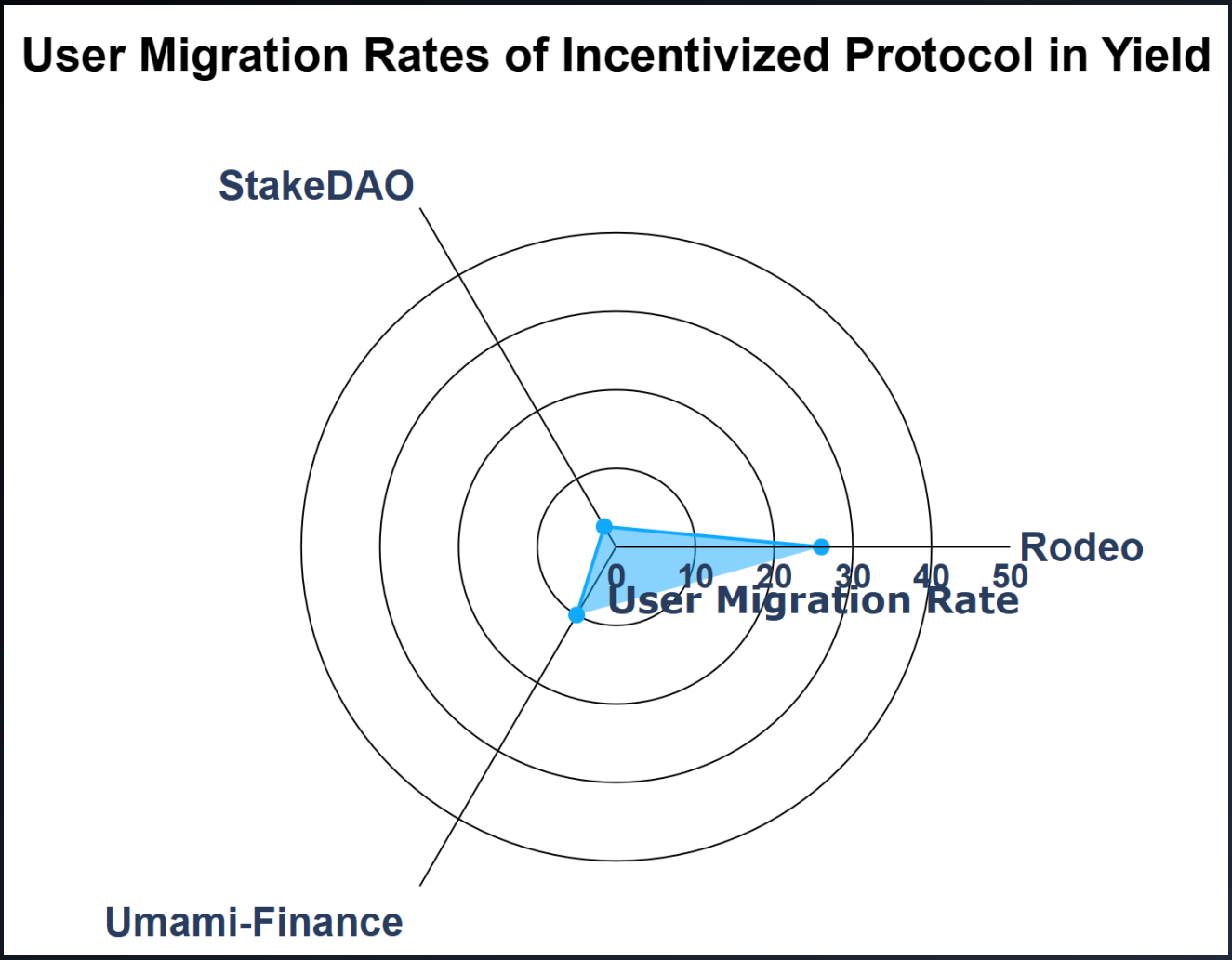
Non-incentivized protocols showed varied responses like Wombex Finance maintained a low TVL close to zero throughout. Vaultka experienced the most dramatic growth, starting from near zero before November 2023, peaking at about $35M during the incentive phase, and settling around $15M after. Equilibria showed significant fluctuations, starting at about $10M, peaking near $33M during the incentive phase, and ending around $15M post-incentive.

Comparing the pre-incentive and post-incentive phases, Rodeo's TVL remained relatively unchanged, whereas Umami Finance grew substantially, from about $0.5M to $15M. Among non-incentivized protocols, Vaultka showed the most remarkable growth from near zero to around $15M, while Equilibria increased from about $10M to $15M.

Overall, the incentive program appears to have had a positive impact on Umami Finance's TVL, while Rodeo remained largely unaffected and StakeDAO declined. Non-incentivized protocols like Vaultka and Equilibria experienced substantial growth, often exceeding the increases seen in incentivized protocols. This suggests that factors beyond the incentive program played a significant role in influencing TVL trends across these protocols.

User Migration Rate

Non-incentivized protocol to Incentivized protocol



Visualization Link - User migration rate from non-incentivized protocols to incentivized protocols

This radial chart illustrates the movement of users across three distinct DeFi protocols: StakeDAO, Umami-Finance, and Rodeo. The visualization employs a circular grid design that measures user migration numbers from 0 to 50, forming a blue triangular pattern that connects these three protocols and represents their interconnected user flow.

The migration data reveals interesting patterns in user behavior across these platforms. Rodeo demonstrates the strongest performance, attracting approximately 15-20 users during the observed period. This positions Rodeo as the leading protocol in terms of user acquisition among the three. StakeDAO and Umami-Finance, while active participants in the ecosystem, show comparatively lower numbers of user migrations, creating an asymmetric pattern in the data visualization.

The scale of movement across these protocols provides valuable insights into the current state of this particular DeFi segment. With total user movements remaining under 50 across all three protocols, the data suggests these might be specialized platforms catering to specific niches within the DeFi ecosystem. This relatively modest user base could indicate that these are either early-stage protocols, highly specialized services, or platforms that may have significant barriers to entry, such as high minimum investment requirements or complex technical requirements.

Looking at market implications, the small user numbers point to several possibilities regarding the nature of these protocols. They might be recently launched platforms still building their user base, or they could be serving a specific market segment that naturally has fewer participants. Alternatively, they might be operating in a specialized DeFi niche that attracts a more focused user group. This limited scale suggests significant room for growth and expansion in their respective markets.

From a strategic perspective, these findings indicate several potential areas for development. The protocols might benefit from investigating and addressing barriers to user adoption, implementing more straightforward onboarding processes, and developing comprehensive educational resources to expand their user base. Partnership opportunities could also be explored to increase exposure and attract more users. Additionally, collaborative efforts across protocols could help grow the overall ecosystem.

The ecosystem could benefit from a coordinated approach to growth. This might include joint initiatives focused on user education and awareness, development of shared infrastructure to reduce entry barriers, and collaborative marketing efforts. Cross-protocol initiatives could help expand the total user base while maintaining healthy competition among platforms. Such cooperation could lead to a more robust and sustainable DeFi ecosystem while still allowing individual protocols to maintain their unique value propositions.

These observations suggest that while the current user base is modest, there's significant potential for growth through strategic improvements in accessibility, user education, and cross-protocol collaboration. The key to unlocking this potential likely lies in balancing the specialized nature of these protocols with efforts to make them more accessible to a broader user base.

Perpetuals

Protocol Selection for Analysis of Perpetual Protocols

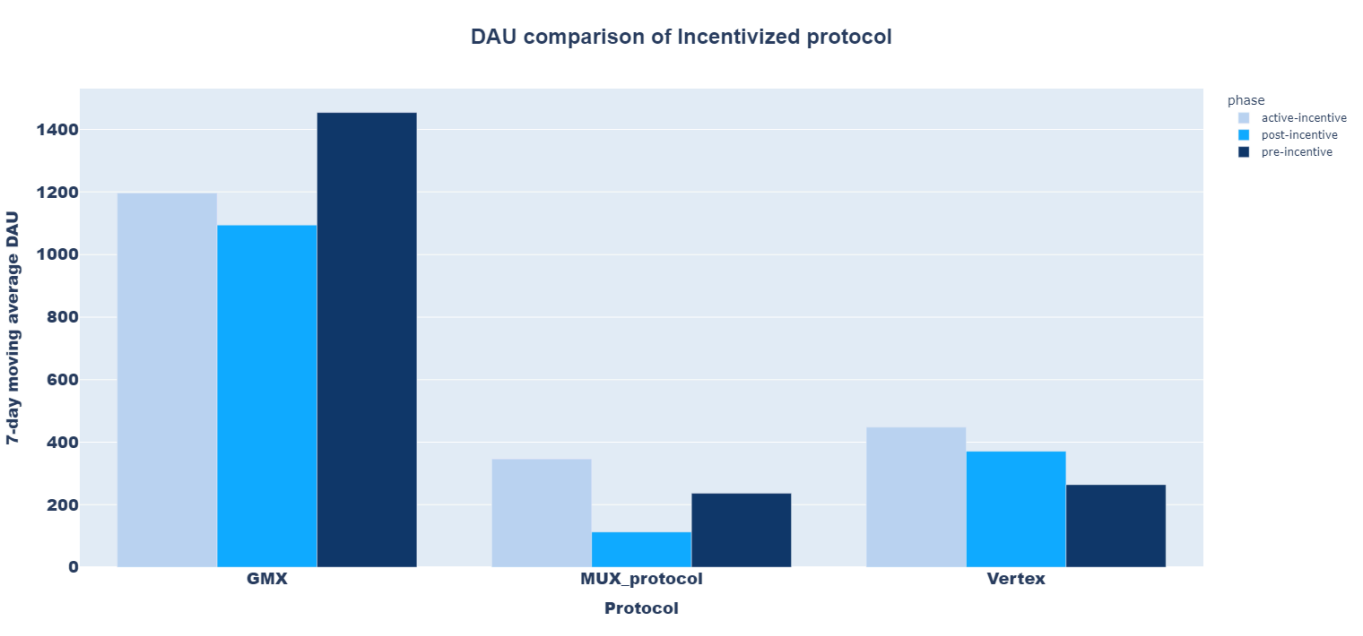
In our analysis of perpetual trading protocols, we have selected two distinct groups for comparison:

1. Incentivized Protocols: GMX, MUX Protocol, and Vertex
2. Non-Incentivized Protocols: HMX, ApolloX, and Vela Exchange

By evaluating the performance and competitiveness of these protocols, we aim to understand how the incentive programs have influenced the supported protocols compared to those that did not benefit from the incentives. The total value locked (TVL) in the incentivized protocols ranges from $26 million to $419 million, while in the non-incentivized protocols, it ranges from $4 million to $18 million. This analysis will provide insights into the impact of incentive programs on perpetual trading platforms and their overall market dynamics.

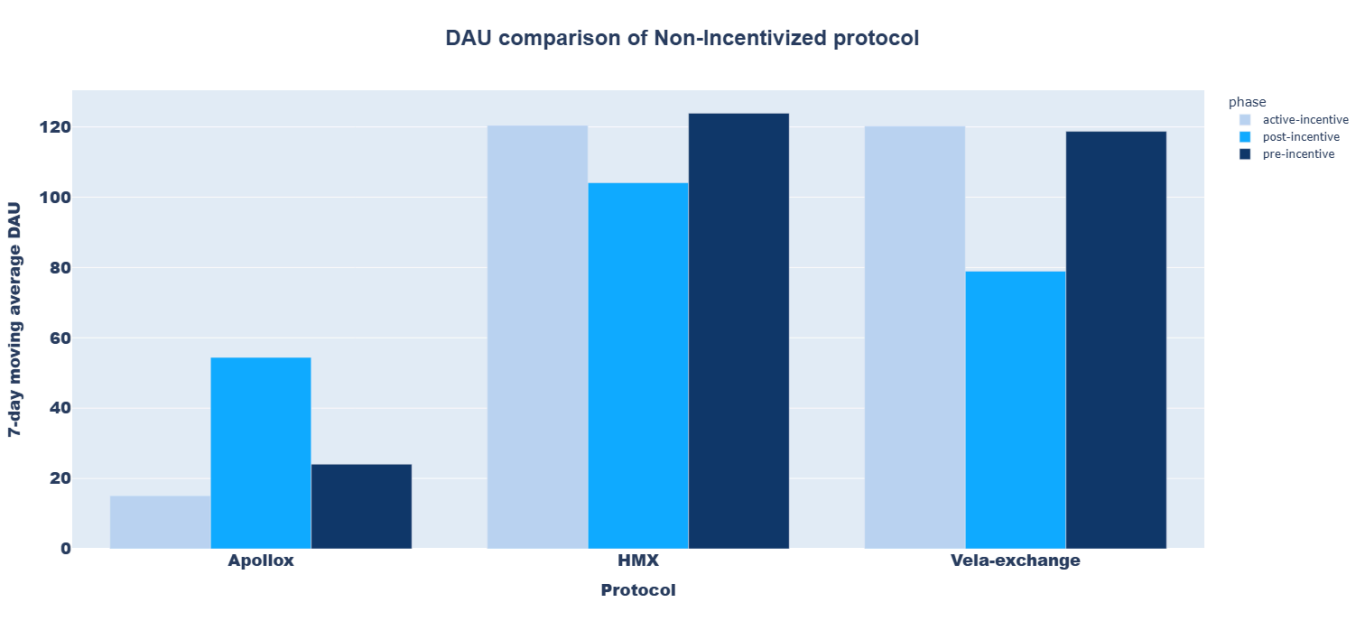
Daily Active Users(DAU)

Comparison of Incentivized protocol & Non-Incentivized protocol



Visualization Link - DAU comparison across the incentivized protocols

The graph illustrates the Daily Active Users (DAU) for GMX, MUX Protocol, and Vertex across the Pre-Incentive, Active Incentive, and Post-Incentive phases. GMX experienced a notable decline from the pre-incentive to the active incentive phase, with DAU decreasing from around 1,450 to 1,200 and then slightly declining further to about 1,100 in the post-incentive phase. Conversely, MUX Protocol saw a significant increase during the active phase, rising from approximately 240 DAU in the pre-incentive phase to 350 DAU, and then settling at 120 DAU post-incentive. Vertex also demonstrated positive growth, with DAU increasing from the pre-incentive phase (270 DAU) to the active phase (450 DAU), and then maintaining most of this improvement with 380 DAU post-incentive. Overall, while MUX Protocol and Vertex showed growth during the active incentive phase, GMX's decline suggests that the program had mixed effects, with smaller protocols seeing more benefit than the larger one (GMX) in terms of DAU.

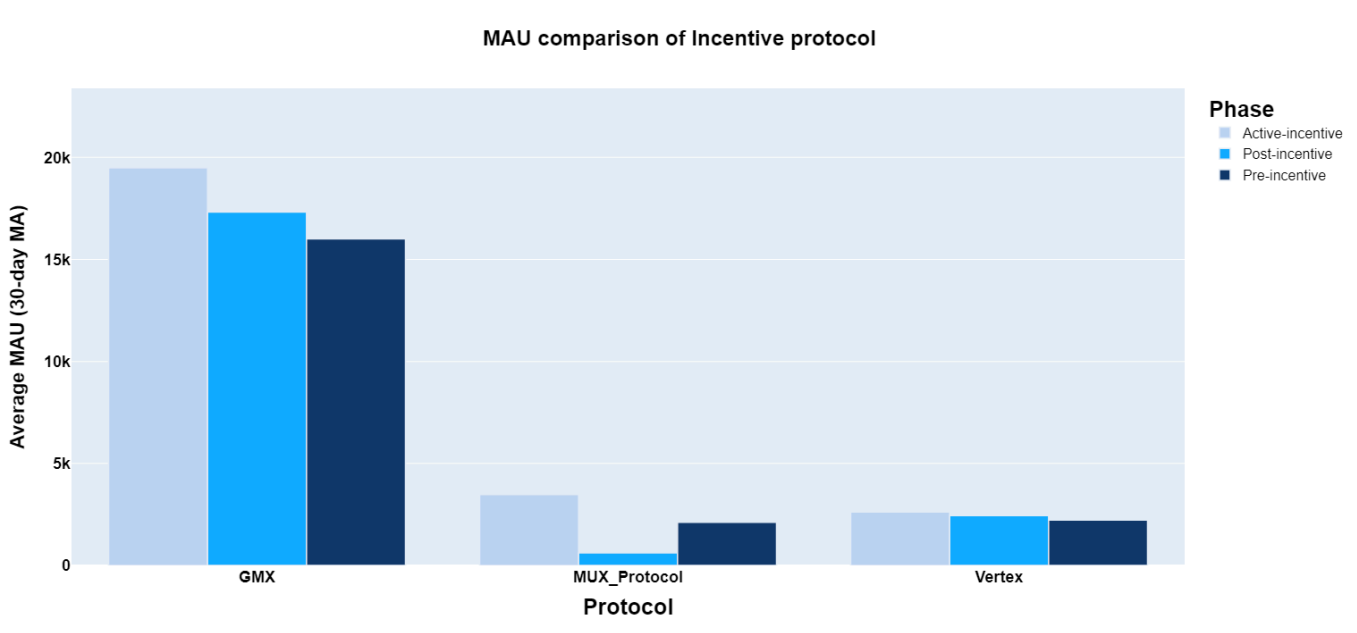


Visualization Link - DAU comparison across the non-incentivized protocols

The graph represents the Daily Active Users (DAU) for HMX, Vela Exchange, and Apollox across the Pre-Incentive, Active Incentive, and Post-Incentive phases. HMX saw a slight decrease from the pre-incentive to the active phase, with DAU dropping from around 124 to 120, and further declining to 104 in the post-incentive period. Vela Exchange, on the other hand, experienced a slight increase during the active phase (from 118 to 120 DAU) but then saw a decrease, dropping to 79 DAU in the post-incentive phase. Apollox faced a decline during the active phase (from 24 to 15 DAU) but then saw a significant increase, rising to 54 DAU in the post-incentive period. The mixed impact of the incentive program on non-incentivized protocols is evident, with Apollox showing considerable growth in the post-incentive phase, while HMX and Vela Exchange experienced declines in their user base.

Monthly Active Users(MAU)

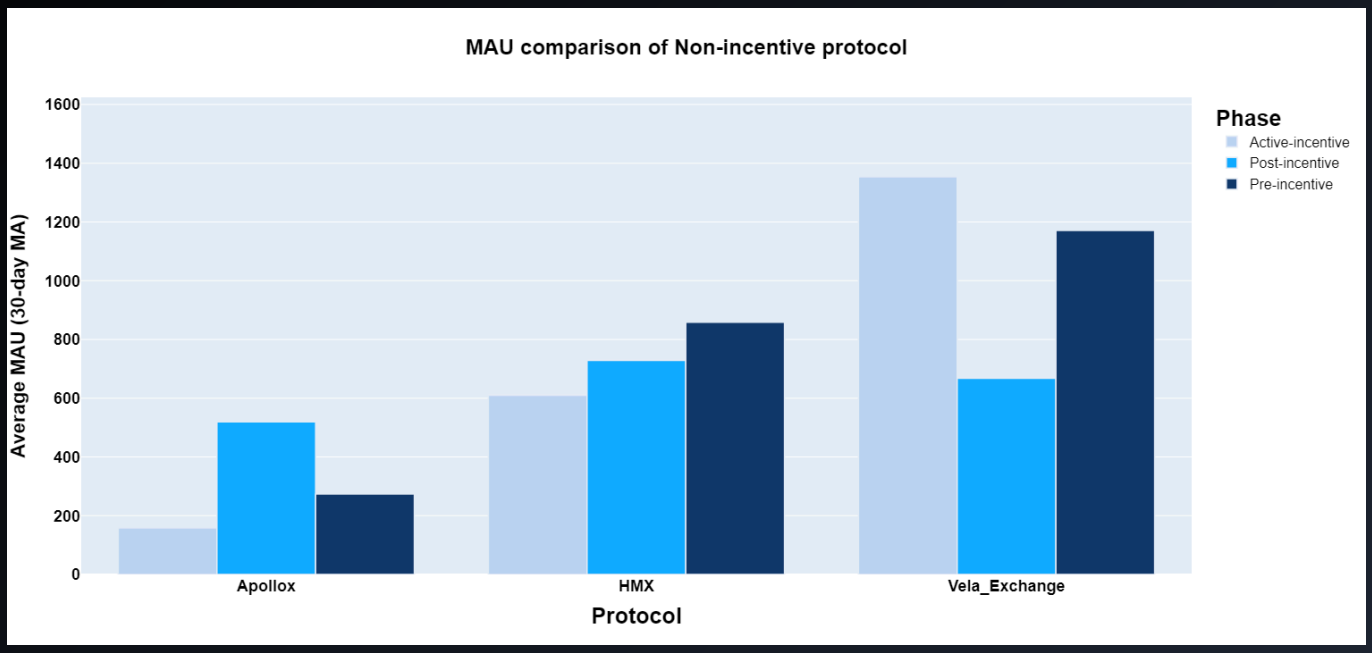
Comparison of Incentivized protocol & Non-Incentivized protocol



Visualization Link - [MAU comparison across the incentivized protocol]

The bar graph depicts the MAU comparison across three phases for the incentivized protocols GMX, MUX Protocol, and Vertex. The protocols exhibited varied patterns of user engagement. GMX, which started with the largest user base of around 16,000, experienced growth over the phases, increasing to about 19,500 during the active incentive phase (a 22% increase) and then decreasing slightly to approximately 17,500 post-incentive (still a 9% total increase from the pre-incentive phase). MUX Protocol showed a different pattern. Starting from about 2,200 users, it grew to approximately 3,500 during the active phase (a 59% increase), but then decreased to around 600 post-incentive (a 73% total decrease from the pre-incentive phase). Vertex followed a relatively stable trajectory, starting at about 2,300 users, decreasing slightly to 2,600 during the active phase (a 13% decrease), and then increasing to around 2,700 post-incentive (a 17% total increase).

These trends suggest that the incentive programs had varying impacts on the three protocols, with GMX seeing moderate growth, MUX Protocol experiencing significant volatility, and Vertex maintaining relative stability with slight growth. This indicates that the effectiveness of incentives can vary greatly between protocols.

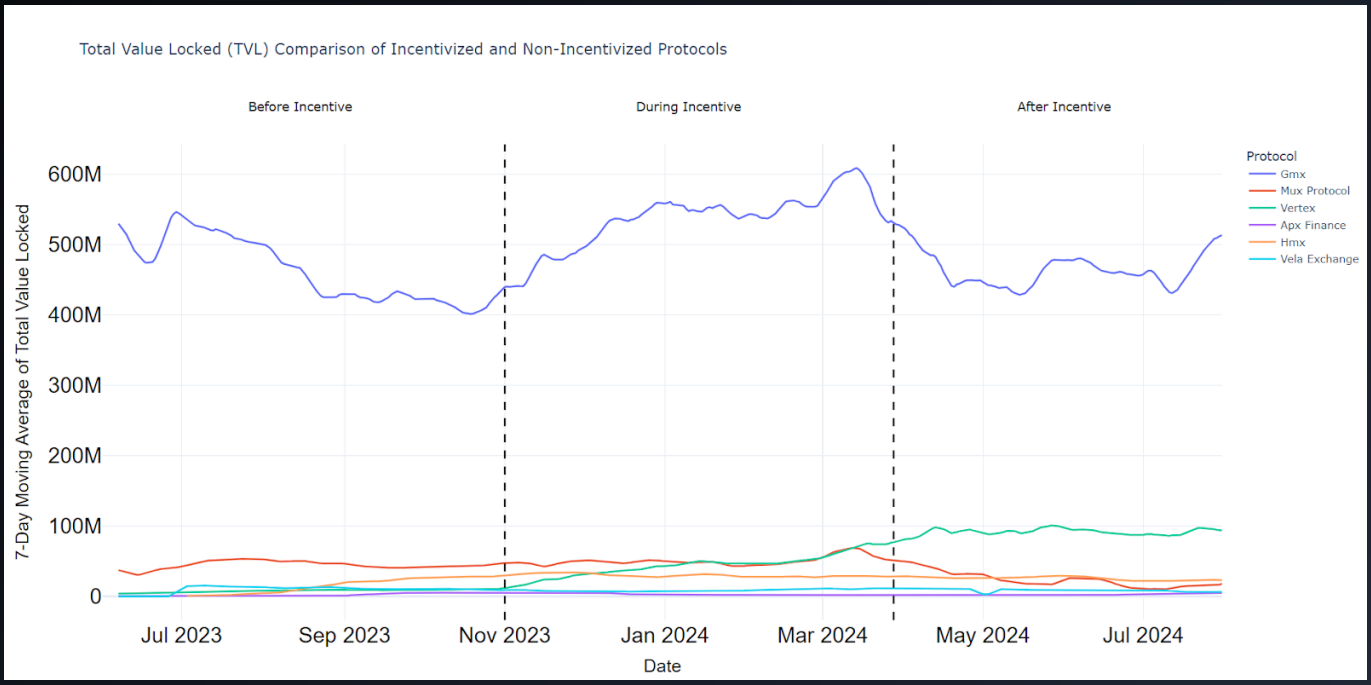


Visualization Link - [MAU comparison across the non-incentivized protocols]

The bar graph illustrates the Monthly Active Users (MAU) for Apollox, HMX, and Vela Exchange across the Pre-Incentive, Active Incentive, and Post-Incentive phases. The protocols demonstrated varying patterns of user engagement. Apollox showed the smallest user base, with approximately 275 MAU in the Pre-Incentive phase, decreasing to about 160 during the Active Incentive phase, but then growing significantly to around 520 in the Post-Incentive phase. This represents a total growth of about 89% from start to finish. HMX experienced a decline, starting from about 850 MAU in the Pre-Incentive phase, decreasing to roughly 610 during Active Incentives, and further dropping to approximately 725 in the Post-Incentive phase, showing a total decrease of about 15%. Vela Exchange had the largest user base and showed mixed results, beginning with around 1160 MAU in the Pre-Incentive phase, growing to about 1350 during Active Incentives, but then decreasing to approximately 660 in the Post-Incentive phase, representing a 43% decrease overall. The protocols exhibited different patterns across the phases, with Apollox showing significant growth in the Post-Incentive phase, while HMX and Vela Exchange experienced declines, suggesting that the impact of the incentive program varied among these non-incentive protocols.

Total Value Locked (TVL)

Comparison of Incentivized protocol & Non-Incentivized protocol



Visualization Link - [TVL comparison of incentivized protocol and non-incentivized protocol]

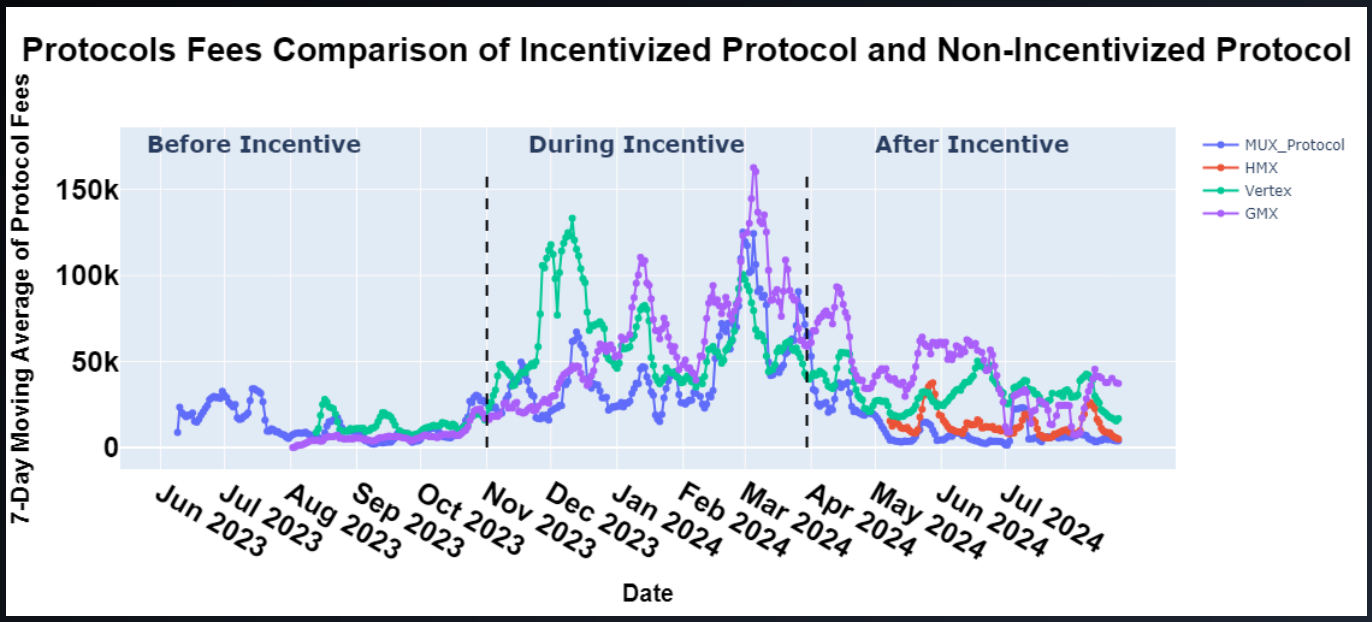
The line graph illustrates the varying impacts of the incentive program on different protocols. GMX, which began with the highest TVL of approximately $400-450 million before the incentive period, experienced a significant increase during the active incentive phase, reaching over $600 million at its peak. However, this growth was not fully sustained, and TVL declined to around $500 million in the post-incentive phase, though still higher than the pre-incentive level. In contrast, MUX Protocol, starting with a TVL of about $50 million, showed relatively stable performance throughout all phases with minor fluctuations, ending slightly lower in the post-incentive phase. Vertex demonstrated the most dramatic growth, starting from around $20 million pre-incentive, rising to about $50 million during the incentive phase, and continuing to grow to nearly $100 million by the post-incentive phase.

The non-incentivized protocols—APX Finance(Apollox), HMX, and Vela Exchange—maintained relatively stable, low TVLs throughout the entire period, all staying below the $50 million mark. APX Finance(Apollox) and Vela Exchange showed minimal growth, while HMX experienced a slight decline over time.

This suggests that while the incentive program positively impacted certain incentivized protocols, especially Vertex and to some extent GMX, its effects varied significantly across different protocols. GMX experienced a substantial but partially temporary boost, Vertex saw consistent growth, while MUX Protocol remained relatively stable. The non-incentivized protocols showed little change, indicating that the incentive program did not have significant spillover effects on the broader market.

Protocol’s Fees

Comparison of Incentivized protocol & Non-Incentivized protocol



Visualization Link - [Protocol’s fees comparison of incentivized protocol and non-incentivized protocol]

The line graph presents the 7-Day Moving Average of Protocol Fees from June 2023 to August 2024 for four protocols: MUX Protocol, HMX, Vertex, and GMX. Two black dotted lines on the graph mark the beginning and end of the incentive phase, with the first line indicating November 1, 2023, and the second line marking March 31, 2024.

Incentivized protocols - MUX Protocol, Vertex, and GMX - experienced significant increases in fees during the incentive phase. Vertex's fees rose dramatically from approximately 10,000 in the pre-incentive phase to peaks of around 135,000 during the incentive period, reflecting an increase of about 1250%. GMX saw its fees grow from around 5,000 to highs of about 160,000, representing a 3100% increase. MUX Protocol's fees grew from about 5,000 to peaks of around 125,000 during the incentive period, a 2400% increase.

HMX, as a non-incentivized protocol, is not visible in the pre-incentive and incentive phases, only appearing in the post-incentive period.

The incentive program had a notable impact on the incentivized protocols, particularly GMX, which experienced the most substantial rise in fees in February 2024. After the incentive period, fees for all protocols generally remained higher than pre-incentive levels but showed increased volatility. Vertex maintained the highest fees post-incentive, fluctuating between 20,000 and 55,000, while GMX showed significant drops but still maintained higher levels than pre-incentive, ranging from about 20,000 to 60,000.

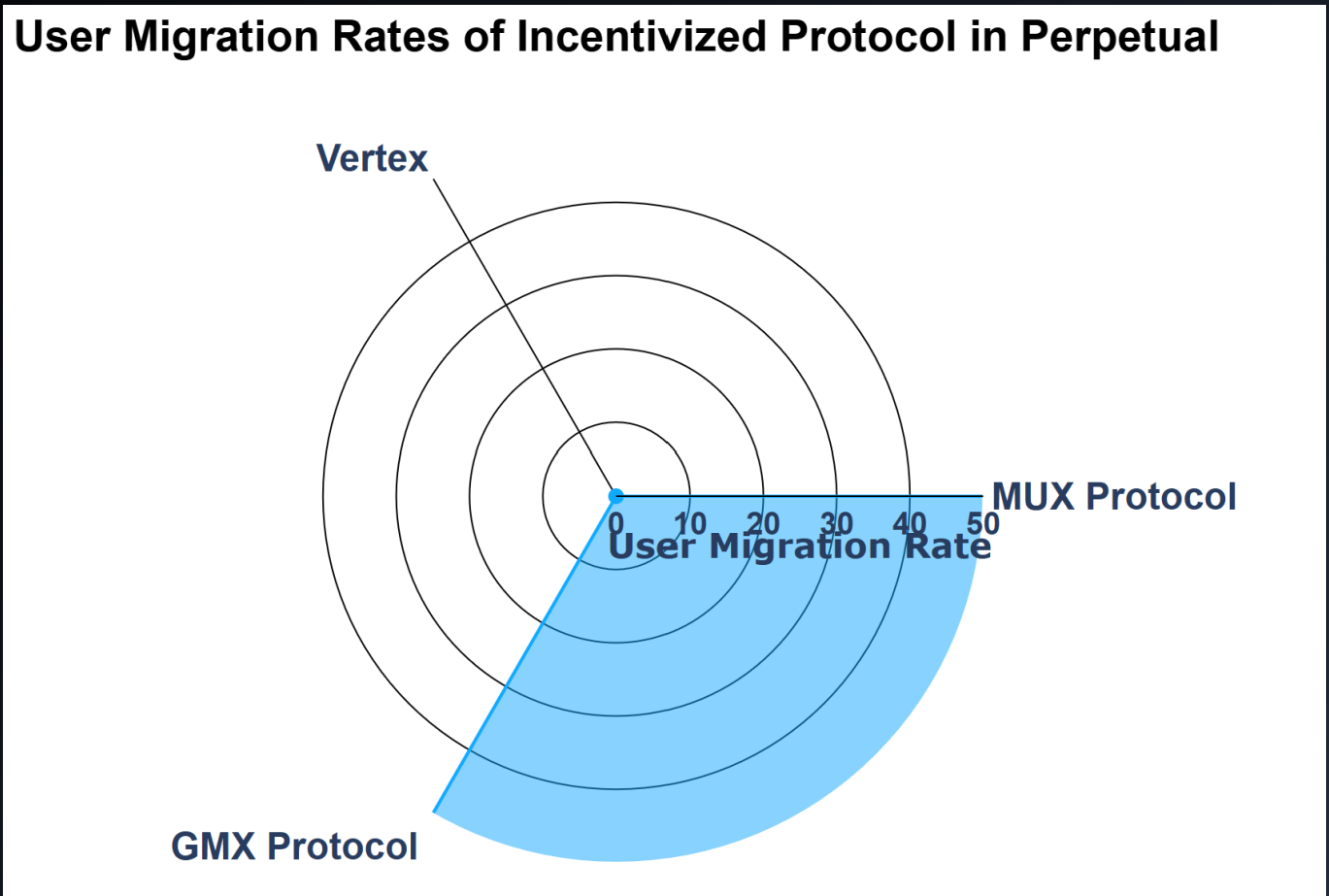
HMX becomes visible in the post-incentive phase, showing fees generally between 10,000 and 35,000. MUX Protocol's fees dropped significantly post-incentive, mostly staying below 20,000.

It's important to note that data for Vela Exchange and ApolloX protocol are not found in this graph. These protocols are not represented in the comparison.

This analysis suggests that the incentive program had a substantial impact on protocol fees for the incentivized protocols (MUX Protocol, Vertex, and GMX), with effects persisting to some degree even after the incentive period ended. The non-incentivized protocol HMX only appears in the post-incentive phase, making it difficult to assess the impact of the incentive program on its performance relative to the pre-incentive period.

User Migration Rate

Non-incentivized protocol to Incentivized protocol



Visualization Link - [User migration rate from non-incentivized protocols to incentivized protocols]

The radial chart presents user migration data across three DeFi protocols: Vertex, GMX Protocol, and MUX Protocol. The visualization employs a circular grid system measuring user movements from 0 to 50 users, with the blue-shaded area representing the actual migration patterns between these protocols.

A key observation from the data is that Vertex shows zero user migration, as indicated by the absence of any blue shading extending to its axis on the chart. This complete lack of user migration to or from Vertex is a significant finding, suggesting potential barriers to entry, lack of compatible features, or possibly indicating that Vertex operates in a completely different market segment that doesn't overlap with GMX or MUX Protocol users.

The most notable feature of the visualization is the substantial user movement between GMX Protocol and MUX Protocol, illustrated by the large blue-shaded sector in the lower portion of the chart. This sector spans from 0 to 50 users, indicating significant user flow between these two protocols. The size of this blue-shaded area suggests strong interconnectivity between GMX and MUX, possibly due to complementary features, effective cross-protocol incentives, or well-designed user experience that facilitates movement between the platforms.

The stark contrast between Vertex's zero migration rate and the active user flow between GMX and MUX protocols raises important questions about protocol design and market positioning. The complete absence of user migration to or from Vertex might indicate a need for strategic review of its platform integration, user incentive structures, or overall market approach. This could represent either a deliberate strategic choice to maintain platform independence or an opportunity for improvement in cross-protocol compatibility.

From an ecosystem perspective, these findings suggest a strong bilateral relationship between GMX and MUX protocols, while highlighting potential opportunities for Vertex to develop features or incentives that could encourage user migration. The data indicates that while some protocols have successfully created pathways for user movement, others might benefit from reviewing their cross-platform integration strategies and user engagement mechanisms.

These observations have significant implications for the future development of DeFi protocols. The success of the GMX-MUX relationship in facilitating user movement contrasts sharply with Vertex's isolation, providing valuable insights for protocol design and ecosystem integration strategies. This data could serve as a basis for developing more effective cross-protocol features and incentive structures to encourage broader ecosystem participation.

Bridge

Protocol Selection for Analysis of Bridge Protocol

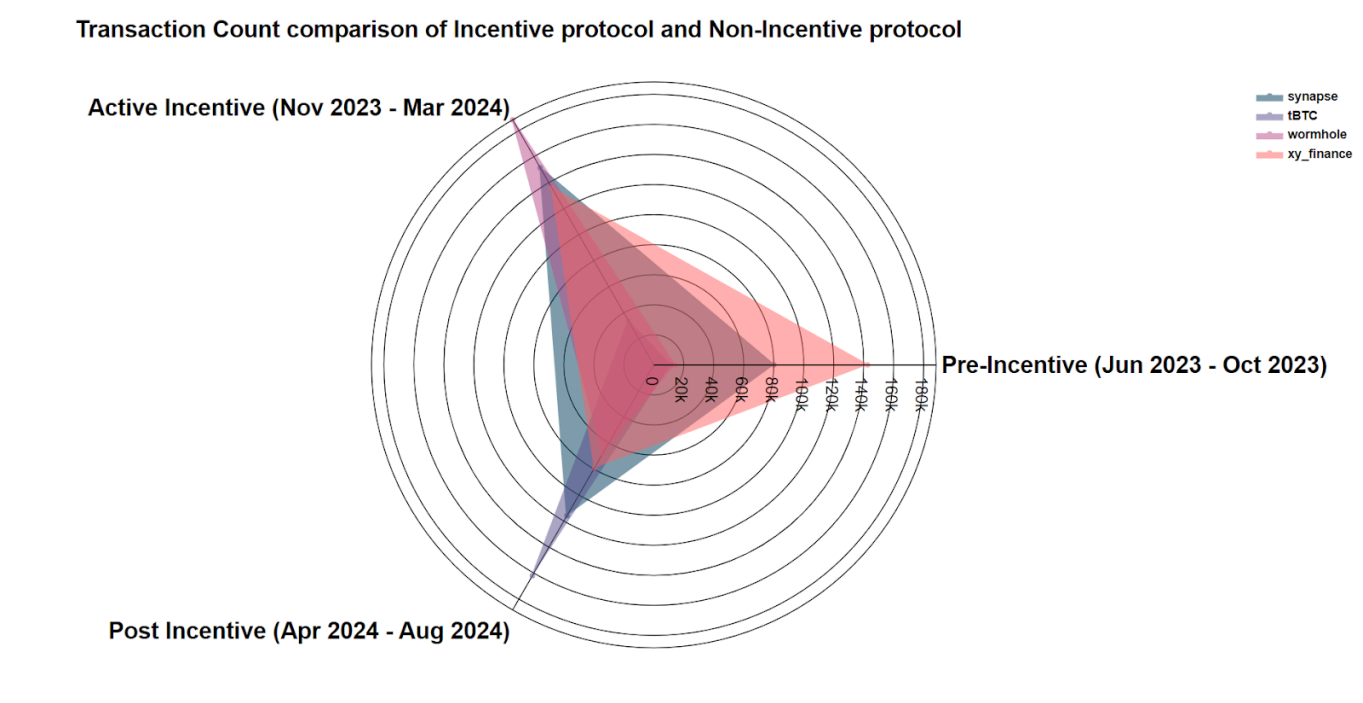
In our analysis of perpetual trading protocols, we have selected two distinct groups for comparison:

1. Incentive Protocols: Wormhole and Synapse
2. Non-Incentive Protocols: XY Finance and Threshold Network

The goal is to assess how incentives have impacted the performance and competitiveness of the supported bridge protocols versus those that did not receive incentives. This will help understand the influence of incentive programs on the bridge sector within DeFi.

Transaction Count

Comparison of Incentivized protocol & Non-Incentivized protocol



Visualization Link - [Transaction count comparison across the incentivized protocols]

The radar chart illustrates the transaction count trends across four protocols—Synapse, tBTC, Wormhole, and XY Finance—throughout three distinct phases: the Pre-Incentive phase (Jun 2023 - Oct 2023), the Active Incentive phase (Nov 2023 - Mar 2024), and the Post-Incentive phase (Apr 2024 - Aug 2024).

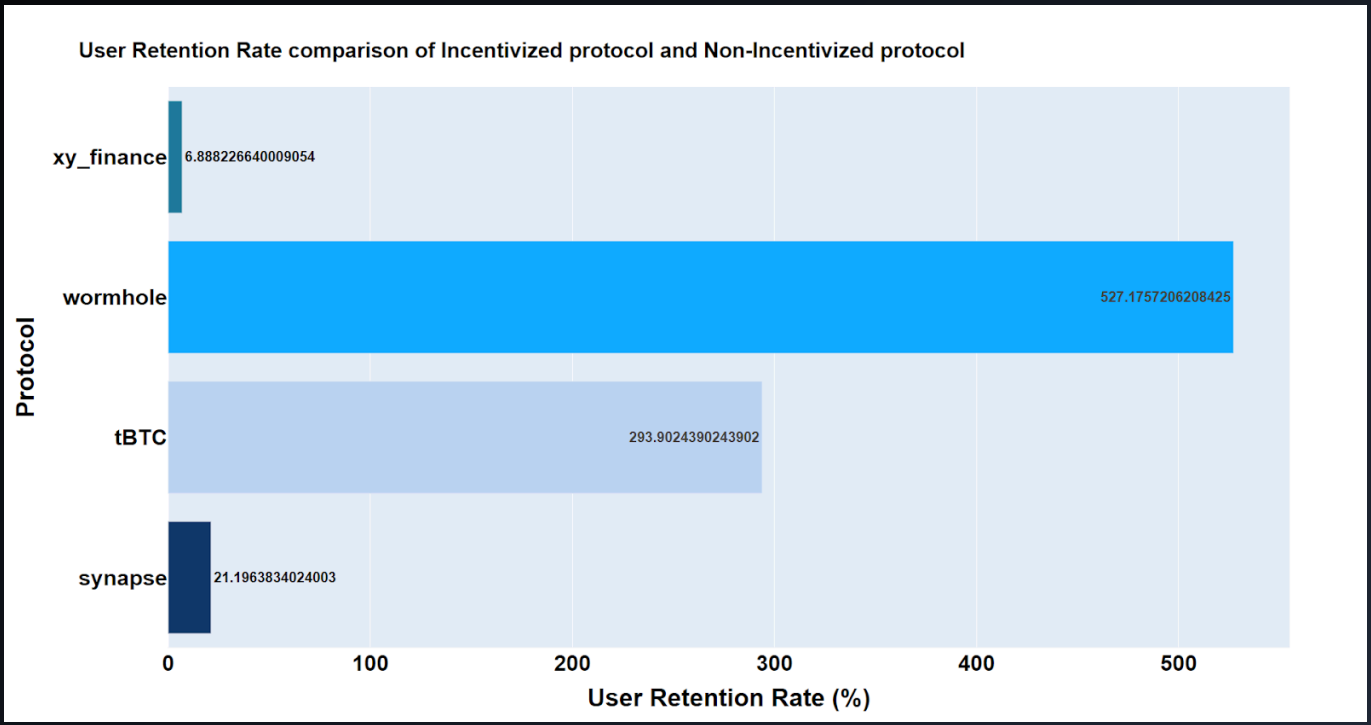
For Synapse, the transaction count starts at 80,031 during the Pre-Incentive phase, increases significantly to 151,447 during the Active Incentive phase, and then drops to 115,775 in the Post-Incentive phase. tBTC shows a dramatic rise, beginning with 11,089 in the Pre-Incentive phase, surging to 33,781 in the Active Incentive phase, and skyrocketing to 161,997 post-incentive.

Wormhole exhibits a different pattern, with 13,790 transactions in the Pre-Incentive phase, experiencing a massive increase to 188,285 during the Active Incentive phase, but then dropping back down to 67,995 in the Post-Incentive phase. Lastly, XY Finance starts high at 142,567 in the Pre-Incentive phase, slightly decreases to 136,081 during the Active Incentive phase, and experiences a sharper decline to 78,978 in the Post-Incentive phase.

This analysis highlights how transaction volumes evolve through the phases, demonstrating varied impacts of incentive programs across protocols.

User Retention Rate

Comparison of Incentivized protocol & Non-Incentivized protocol



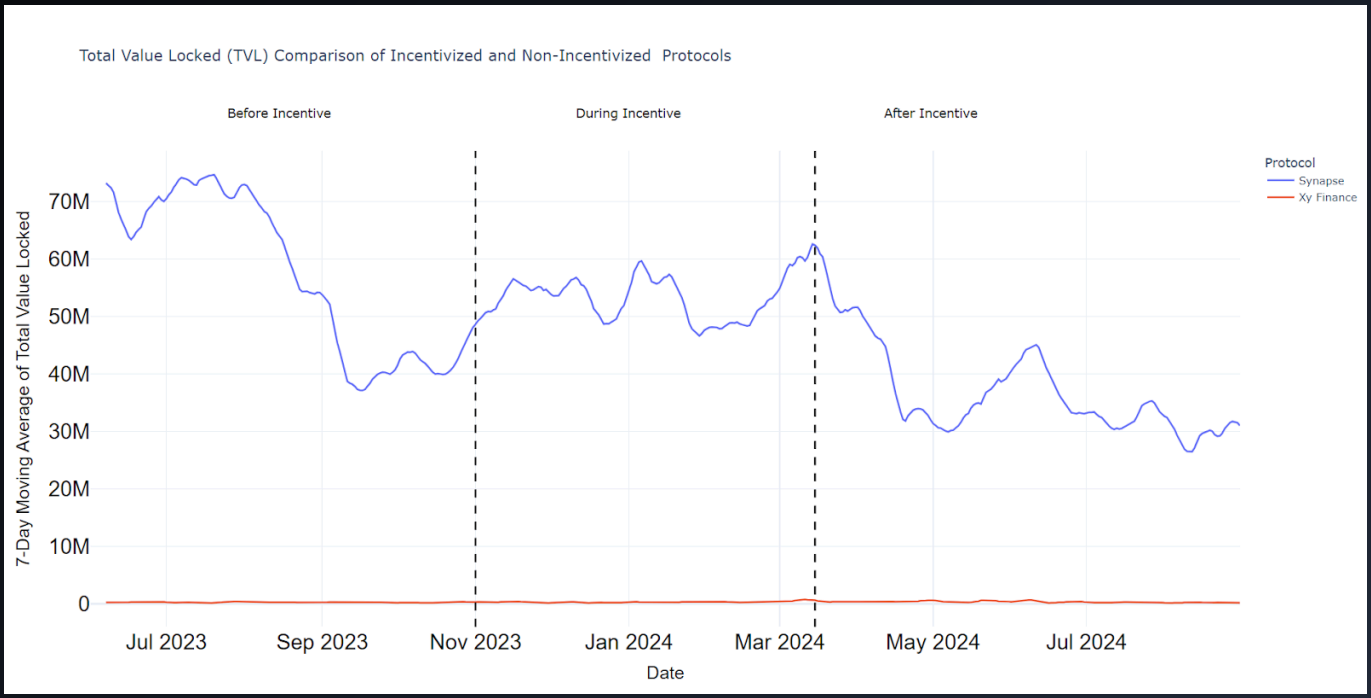
Visualization Link - [User retention rate comparison across the incentivized protocols]

The bar graph compares the user retention rates of four protocols—Xy finance, wormhole, tBTC, and synapse—between the pre-incentive phase and the active incentive phase. The x-axis represents the user retention rate in percentage, and the y-axis lists the protocols. Among the protocols, wormhole has the highest retention rate at 527.18%, followed by tBTC at 293.90%. Synapse shows a much lower retention rate of 21.20%, while Xy finance has the lowest rate at 6.89%.

When comparing the pre-incentive phase to the active phase, wormhole and tBTC show significant percentage increases in retention, with wormhole leading at over 500% and tBTC close behind at nearly 300%. In contrast, synapse and Xy finance display much smaller increases, indicating that the active phase had a less pronounced effect on their retention rates. This suggests that the incentive phase significantly boosted retention for some protocols, while others saw only modest improvements.

Total Value Locked (TVL)

Comparison of Incentivized protocol & Non-Incentivized protocol



Visualization Link - [TVL comparison of incentivized protocol and non-incentivized protocol]

The graph shows the Total Value Locked (TVL) comparison between the incentivized protocol Synapse and the non-incentivized protocol Xy Finance across three phases: Before Incentive, During Incentive, and After Incentive. Synapse's TVL started at over 70M in July 2023, dropped to around 45M before the incentive phase began in November, increased to about 55M during the incentive phase, and then declined again to 40M by July 2024. Xy Finance's TVL remained close to zero throughout the entire period, showing no significant changes.

In terms of percentage changes, Synapse's TVL fell by 35.7% during the Pre-Incentive phase but rose by 22.2% during the incentive phase. However, the overall drop from the start of the Pre-Incentive to the end of the Post-Incentive phase was 42.8%. It's also important to note that TVL data for Wormhole and tBTC on Arbitrum was not available in this analysis.

Key Insights

The Short-Term Incentive Program (STIP) has significantly influenced various categories of protocols—Decentralized Exchanges (DEXs), Yield protocols, Perpetual Trading platforms, and Bridge protocols. Here's an overview of the program's impact across these categories:

Decentralized Exchanges (DEXs): The STIP notably improved the performance of incentivized DEX protocols such as Camelot, Ramses Exchange, and Trader Joe. These protocols saw substantial increases in Daily Active Users (DAU) and Monthly Active Users (MAU) during the incentive period, with continued engagement post-incentive. Additionally, they experienced significant growth in Total Value Locked (TVL), demonstrating the program's effectiveness in enhancing liquidity and user activity. Conversely, non-incentivized DEX protocols like Curve Finance, Wombat Exchange, and Chronos showed mixed results, with only slight growth or stagnation, indicating that incentives played a crucial role in boosting adoption and competitiveness.

Yield Protocols: Incentivized yield protocols, such as Umami Finance, benefited from the STIP with significant TVL growth, while StakeDAO saw a rise in transaction counts post-incentive. However, Rodeo experienced declines in both activity and user retention, indicating mixed results from incentives. In contrast, non-incentivized protocols like Vaultka and Equilibria showed strong organic growth, with Vaultka notably increasing its transaction counts and TVL. This suggests that while incentives can boost engagement for some, non-incentivized protocols can still achieve substantial growth independently.

Perpetual Trading Platforms: Incentivized perpetual trading platforms, including GMX, MUX Protocol, and Vertex, saw substantial gains in DAU, MAU, and TVL during and after the STIP period. The incentives effectively boosted user engagement, with some platforms experiencing significant growth. This underscores the STIP's role in enhancing competitiveness and market presence. In contrast, non-incentivized platforms like HMX, ApolloX, and Vela Exchange exhibited varied results, with some achieving moderate growth while others struggled. The absence of incentives likely contributed to their slower adoption and less competitive positioning compared to incentivized counterparts.

Bridge Protocols: Incentivized bridge protocols, such as Synapse and Wormhole, experienced significant increases in transaction counts and user retention during the STIP period. Synapse saw a substantial rise in transactions and a boost in TVL during the incentive phase, while Wormhole exhibited the highest retention rate among protocols, underscoring the effectiveness of the STIP in attracting and retaining users. These gains highlight the STIP's impact on increasing protocol utilization and user engagement. In contrast, non-incentivized bridge protocols like XY Finance showed minimal growth and a lower retention rate, indicating that the lack of incentives contributed to their slower adoption and reduced competitiveness compared to their incentivized peers.

Conclusion

The STIP had a broad and positive impact across all protocol types, with incentivized protocols experiencing notable boosts in user engagement, liquidity, and overall performance. These improvements were evident not only during the active incentive phase but also continued post-incentive, underscoring the program's effectiveness in fostering long-term growth and market positioning. While non-incentivized protocols also saw some level of growth, they generally fell short compared to their incentivized counterparts. The STIP proved to be a powerful program in promoting growth and sustainability across various sectors—DEXs, yield, perpetual trading, and bridge platforms—demonstrating the positive impact of targeted incentive programs in the decentralized finance ecosystem.

Resources

1. Dune Dashboard

Description: Utilized to query on-chain data such as Daily Active Users (DAU), Monthly Active Users (MAU), transaction counts, and user retention rates across various protocols.

Access Link: Dune Analytics Tool

2. DefiLlama

Description: Used to gather data on Total Value Locked (TVL) and protocol fees. DefiLlama provided real-time financial insights into the liquidity and fee structures of the analyzed decentralized protocols, offering key metrics for comparative analysis between incentivized and non-incentivized protocols.

Access Link: DefiLlama

3. Statistical Analysis

Description: To assess the statistical significance of the findings in the LTIPP Research Project 1, please refer to the document, which provides a detailed statistical analysis. This document covers the methodology, results, and significance tests used in the project, offering insights into the reliability and implications of the data collected.

Access Link: Statistical Analysis

4. Dashboards

Description: Dashboards have been created to help us by providing an organized, interactive, and visual representation of data. They allow for quick insights and decision-making by summarizing key metrics, trends, and patterns from the analysis. The dashboards include all the visualizations from the analysis, along with brief descriptions.

Access Link: Python Dashboard