

Hey Aave Community,

Messari published the [State of Aave Q2 2023](#)

report yesterday. A few takeaways:

- Interest revenue in Q2 increased by 14% QoQ to \$2.6 million, largely driven by activities on Ethereum Mainnet.
- The leveraged stETH-ETH strategy consistently provided the highest yields across Aave's Layer-2 deployments.
- BGD Labs introduced the concept of Aave Forest, a proposed framework for enhancing protocol security.

You may notice a large difference between the Q1 and Q2 protocol revenues below compared to the revenues shown in [Llama's Q1 Report](#) and [Llama's Q2 Report](#), also published yesterday. The revenue numbers in our report did not include what we believe to be the \$2 million transferred to the treasury, in order to execute the [CRV bad debt repayment](#), or the \$3 million [\\$ARB Airdrop](#).

We feel this highlights the value in having multiple parties assessing a DAOs finances as these figures are ultimately used to make critical strategic decisions. However, while we'd love to continue creating these reports this will be the last one we publish as typically this work is sustained through project grants which we unfortunately haven't been able to find a route forward with Aave.

We're looking forward to any feedback on this report and the revenue recognition component. We hope to find a path forward in the future to continue contributing on a more sustainable basis.

Key Metrics

Performance Analysis

Total Value Supplied

After experiencing a 45% surge in Q1, the total value supplied on Aave continued its upward trajectory in Q2. Its increase of 9% QoQ in USD terms and 3% in ETH terms outpaced the broader market.

stETH emerged as a significant gainer, acquiring an additional 5% in deposit market share. Concurrently, there was a minor downturn in ETH deposits of about 5% or 53,700 ETH, while WBTC deposits proved to be on the rise, with an increase of 11% or approximately 4,200 WBTC.

In the stablecoin arena, USDC deposits held steady but ceded 1.5% of its market share to USDT Year-to-date, USDT deposits have soared 63% to \$772 million, and in Q2 alone, Aave saw an influx of approximately \$93 million in USDT deposits. This shift in preference took shape in March, following a temporary USDC depegging event. Nevertheless, USDC continues to maintain its lead over USDT, holding a 12% market share, which is 3 percentage points ahead of USDT.

Usage

Aave's usage trends decreased substantially in Q2, with daily active borrowers and depositors falling 45% and 54% respectively. Despite the overall downward trend, there was a slight shift in usage from Aave's V2 to V3 markets. The proportion of active borrowers utilizing V2 markets receded by half a percentage point to 11.5%, whereas the share of active depositors in V2 markets rose by one percentage point to 8.9%.

Amidst the general downturn in usage, certain Aave markets exhibited more resilience than others — specifically, the count of borrowers on Aave V3 Ethereum and the count of depositors on Aave V3 Polygon proved to be the most resistant, falling by a comparatively moderate 9% and 24%, respectively.

Revenue

In the second quarter, Aave saw a 14% QoQ increase in protocol interest revenues. The revenues totaled \$2.7 million, largely driven by activities on Ethereum Mainnet. Notably, ETH revenue grew by 38%. It made up 43% of the total quarterly interest revenue, up from its 35% contribution in Q1.

Stablecoin revenue, comprising USDC, USDT, and DAI, remained constant, accounting for 42% of the total quarterly revenue. However, the internal composition altered as DAI and USDC revenues together increased by \$154,000, while USDT revenues decreased by \$147,000.

The revenue share from Aave's V3 markets surged to 33%, doubling over the quarter. This growth can mainly be attributed to the Aave V3 market on Ethereum Mainnet. Its daily revenues increased by 220%, indicating a continued user migration.

Leveraged stETH-ETH Positions & Profitability

The stETH-ETH leverage [strategy](#)

has consistently yielded the highest net returns on Aave's Layer-2 deployments. Despite this, the profitability spread narrowed across Aave's different markets.

The spread on Aave V3 Ethereum moved from negative 1 basis point in April to positive 12 basis points by June. Its movement was driven by the inflow of ETH, which pushed down utilization and positively influenced borrow rates. This was the only market where the strategy saw an increase in profitability QoQ.

The Aave V3 Polygon market started supporting wstETH as a collateral asset in May. Nevertheless, the stETH-ETH strategy reported the highest net returns for Q2. Specifically, the average spread of stETH yield over ETH borrow rates on this market was 214 basis points.

However, the potential for interest rate arbitrage between markets is restricted by the pool-specific supply and borrow caps introduced with Aave V3. These caps were designed to manage the risk of insolvency and maintain a smooth liquidation process even under extreme market conditions. They are determined by methodologies that consider several factors such as on-chain liquidity and historical price variance. Notably, the demand has been high enough to fill supply caps as swiftly as 30 seconds following an increase. As Ethereum's Layer-2 scaling solutions continue to draw more liquidity, the spreads in profitability between Aave markets should continue to narrow.

Borrower Perspective

ETH and BTC borrow rates continued to diverge in Q2. The weighted average borrow rate of ETH climbed 19 basis points, landing at 3.67%, while the weighted average borrow rate of BTC declined 36 basis points to settle at 1.39%. What began as a mere 22 basis point difference in Q4 escalated to 227 basis points by the end of Q2. This expanding gap can be attributed to two primary factors:

1. The emergence and growing popularity of liquid staking tokens. As borrowers increasingly leverage these tokens to acquire more of the underlying asset (in this case, ETH), they remain relatively insensitive to higher borrowing costs. As long as these costs remain lower than the staking rewards earned, the trend is likely to persist.
2. The year-to-date surge in the price of BTC by 84%. This price appreciation has made borrowing less attractive, pushing down borrow rates.

For major stablecoins including USDC, USDT, and DAI, the weighted average borrow rate experienced a steady ascent, climbing 83 basis points over the quarter to end at 3.73%. This uptick was primarily due to both the increased borrowing and withdrawal of supply. Both factors contributed to a higher utilization of deposits which in turn influences borrow rates. At quarter-end, there was a net decrease in the value of USDC, USDT, and DAI deposits over borrowing amounting to \$342 million.

Safety Module

During Q2, the weighted Annualized Percentage Yield (APY) for depositors in Aave's Safety Module experienced a slight QoQ reduction, moving from 8.7% to 8.1%. Despite daily emissions of 1,100 AAVE from the [Ecosystem Reserve](#)

, the Safety Module's balance only grew by a modest 12,770 AAVE over the quarter. Should net deposits continue at a similar pace without an additional source of yield, the APY will fall further for existing stakers.

As of quarter-end, ~1.2 million AAVE remained in the Ecosystem Reserve. At the current pace, the Reserve has an estimated runway of three years, without factoring in Aave DAO payments in AAVE. By the end of the quarter, a total of 3.3 million AAVE were staked in the Safety Module, representing 21% of the overall AAVE supply.

Qualitative Analysis

GHO Launch

Source: [Aave Governance](#)

On July 15, Aave launched GHO, its native over-collateralized stablecoin, marking a significant milestone just over a year after its [introduction](#). GHO exhibits key characteristics of flexibility, decentralization, over-collateralization, and configurability. The creation of new GHO tokens is carried out through strategies implemented by approved entities called "Facilitators."

Source: [Etherscan](#)

Each approved Facilitator is assigned a Bucket with a specified Capacity, representing the maximum amount of GHO they can generate. The amount of GHO tokens generated per Facilitator at a given time is referred to as the Level. This dynamic system ensures a balanced and controlled creation of GHO.

The initial fixed rate for GHO is set at 1.5%, and the first two facilitators are the [Aave V3 Ethereum Pool](#) and the [FlashMinter](#), with Capacities of 100 million GHO and 2 million GHO, respectively. More details of the current and future Facilitators' Capacities and Levels can be obtained by calling the [getFacilitatorsList](#) and [getFacilitator](#) functions on the GHO Token smart contract.

One notable feature of GHO is the ability for users to borrow it against any collateral asset on the Aave V3 market on Ethereum at an optimized fixed rate. This setup allows the supplied collateral to remain productive and continue earning yield, thereby reducing the user's cost of borrowing GHO. Stakers of AAVE in the Safety Module receive an additional benefit of borrowing GHO at a discount rate of 30% (up to 25% of the total GHO bucket size), subject to changes through Governance. The Staking Discount tool, with adjustable parameters, is available for reference.

Source: [Aave](#)

The introduction of GHO-denominated debt significantly enhances Aave's earning potential. With other stablecoins such as USDC, Aave shares interest revenues with depositors and retains only 10%. However, GHO allows the Aave protocol to retain 100% of the interest revenue.

Portals

Introduced in mid-March 2022, Aave V3 brought new features that have since become integral parts of the core protocol, including Efficiency Mode and Isolation Mode. Aave V3 also introduced Portals, a toolbox designed to enable bridges to source liquidity on-demand for their users. Portals achieve this by allowing the burning of aTokens on the source network and minting them on the destination network. In doing so, Portals facilitate a deferred asset supply to the Aave Protocol. However, the release of Portals was delayed due to the early stage of cross-chain messaging and associated risks related to minting unbacked aTokens.

Developments from Chainlink's [Q1 Product Update](#), followed by the mainnet release of the [Cross-Chain Interoperability Protocol \(CCIP\)](#) on July 17, indicated progress towards resolving the delay in releasing Portals. The Q1 update subtly mentioned that Aave was one of three protocols to begin testing an early alpha version of CCIP in October. Its early moves were likely in preparation for integrating with Aave's Portal feature along with other core utilizing cross-chain infrastructure, such as [a.DI \(Aave Delivery Infrastructure\)](#).

Portals could also support GHO in achieving organic adoption through seamless cross-chain transfers and could even enable undercollateralized borrowing powered by Lens Protocol, a decentralized social graph and sister protocol of Aave developed by Aave Companies.

Aave Forest and CapsPlusRiskSteward

In June, BDG Labs introduced [Aave Forest](#), an initiative aimed at enhancing the security of the Aave protocol. Aave Forest is a proposed framework that integrates live monitoring technologies and external platforms, referred to as "Owls," to detect potential exploit patterns before they occur. Aave Forest involves trusted entities known as "Rangers," which are enabled thanks to the core "Roles" mechanism that provides granular permissions over risk and security levers. These Rangers can take protective actions when alerted by the Owls. The framework acknowledges the inherent challenge of achieving 100% security assurance in a system like Aave due to external components. It also aims to continuously improve security through real-time monitoring and exploit prevention.

With the introduction of Aave V3, a system of roles was implemented, including RISK_ADMIN, POOL_ADMIN, and EMERGENCY_ADMIN, which can be assigned to Risk Stewards. These Risk Stewards are smart contracts that receive one or more of these roles from Aave governance, acting as an additional layer of validation. They enable strict on-chain controls over the actions performed by the Steward's owner.

The first iteration of the Risk Steward, called the [CapsPlusRiskSteward](#), was implemented in May. It simplifies community voting overhead and operations by managing the increase of supply and borrow caps. The CapsPlusRiskSteward smart contract is owned by a 2-of-2 multisig, with one signer representing Gauntlet and another Chaos Labs. Both Gauntlet and Chaos Labs are contracted Risk Providers for Aave. The owner of the CapsPlusRiskSteward contract has permissions to call specific functions, allowing them to increase the supply and borrow caps of all assets in Aave V3 pools, subject to certain on-chain limitations.

The initial concept of Aave Forest and the implementation of CapsPlusRiskSteward showcase the Aave communities ongoing commitment to enhancing security measures and optimizing operational efficiency within the protocol.

Closing Summary

Aave demonstrated continued growth in Q2 with a 9% QoQ increase in the total value supplied, outpacing the broader

market. Significant shifts included stETH gaining an additional 5% deposit market share, a minor decrease in ETH deposits, and a rise in WBTC deposits. In terms of revenue, the protocol saw a 14% QoQ increase, largely due to activities on Ethereum Mainnet. The revenue share from Aave's V3 markets doubled, signaling user migration. Just after Q2 ended, Aave also launched its native over-collateralized stablecoin, GHO, on July 15. The new token allows for borrowing against any collateral asset on the Aave V3 market at an optimized fixed rate. The Aave Forest framework was proposed to enhance the protocol's security, and the delay in releasing Portals looks to be coming to an end with developments from Chainlink.