Simple Summary

In response to user feedback, Gauntlet has developed an[updated account explorer](#) to surface account level data for all markets on our dashboard. The feature includes visualizations and a table with key datapoints about the accounts. Interactive filters and a search bar allow anyone to do their own analysis of positions on the protocol.

Context

We are constantly evolving our product to surface information around risk on Aave. Through consultation with users, delegates, and protocol teams, we heard a recurrent theme of wanting to dive deeper into data around specific users on the protocol.

We have consistently surfaced borrowers that made significant changes to their position or posed additional risk to the protocol via forum posts, leveraging our internal tooling. This quarter we worked to decentralize this tooling and make it available to all protocol stakeholders! Now, anyone can explore our data sets and filter on key parameters like collateral and borrow assets, health factor, and eMode category.

We surface this data in two ways, with different purposes in mind:

1) Account Explorer

- We've added a new account explorer tab at the market level, that surfaces all accounts on a given market, sorted on total collateral supplied.

- This feature is targeted at folks who want to interact with the dataset and learn interesting patterns about protocol user positions.

2) Asset Page Accounts

- On collateral asset pages, the same account explorer is displayed filtered on the given collateral asset.

- This feature provides a rich picture of positions collateralized by a given asset, sorted on asset supplied in context with other key metrics such as the liquidation curves, value at risk, liquidations at risk, asset price volatility, etc.

- This instance guides the users to look into the riskiest borrowers against a given collateral asset, and consider their health factor, position update history, etc.

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Aave Account Explorer 2

2444×528 39.2 KB

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Features

1) Scatterplot

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Aave Account Explorer 3

2286×1000 126 KB

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We visualize accounts based on size of borrows (circle size), health factor (x-axis) and last position update (y-axis). A red dotted line indicates the liquidation point when health factor drops below 1.0 - the center of a dot crossing this line means the account is eligible for liquidation. Accounts that are updated infrequently are considered riskier as well, as the user may not be paying attention to the position (or may not have the funds to add more collateral).

The scatter plot will always display the accounts in a given view in the table below it (maximum 10 accounts).

2) Accounts Table

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Aave Account Explorer 4

2460×976 203 KB

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The table displays details about individual accounts.

- The account

number is truncated for simplicity, and links to the DeBank page for that account, allowing users to see the full position as well as other positions held by the account across DeFi. Our Client Teams regularly look into specific positions to gain more context about the user's ability to add collateral, overall leverage and holdings.

- {Asset} Supplied

- Amount of this token supplied, in USD terms; this column is only applicable to the collateral specific asset pages

- Total Collateral

- Sum of all collateral assets deposited by this account, in USD terms

- Total Borrowed

- Amount borrowed against the collateral, in USD terms

- e-Mode

- Indicates whether an account is set to a given eMode, limiting the collateral that can be deposited, or not (the account is in the "normal" state)

- Health Factor

- Ratio of collateral value multiplied by each respective collateral factor (liquidation threshold) divided by total borrows; account with a health factor <1 are eligible for liquidation

- Collateral Assets

- Assets deposited as collateral by this account. Note: the table displays asset logos; the specific asset names are displayed on hover

- Borrowed Assets -

Assets borrowed against the collateral by this account

Tips:

- These definitions are available as tooltips upon hovering over the column headers.

- Click on any column header to sort in ascending or descending order.

3) Filters

We offer a number of filters to better hone in on specific accounts that match a given criteria:

- Collateral asset

- select one or more tokens used as collateral. All other accounts will be removed from view. This filter is an OR function that will display assets that match any (not necessarily all) of the selected assets.

- Borrowed asset

- select one or more borrowed tokens. This may include tokens not offered as collateral (borrow-only assets). This filter is an OR function that will display assets that match any (not necessarily all) of the selected assets.

- Max health factor

- set an upper limit for the health factor you'd like to include in the table and scatterplot to reduce the noise for positions

that aren't that risky

- Min. borrows

- define a lower bound for accounts you're interested in with respect to size of the loan. This effectively lets you eliminate small accounts unlikely to have a significant market impact

- Min. asset supplied

- available only on the asset specific pages, this filters the {asset} supplied column as another way to remove dust accounts and accounts cross-margined with other assets where the given collateral asset does not represent a significant portion of that collateral

- e-Mode

- focus on or eliminate eMode accounts from your search as these have different liquidation thresholds than accounts in the "normal", non-emode state

4) Search

The search bar enables you to paste in a specific account number to see the position details (and visualize the account on the scatterplot).

Special note about terminology: we use the term "account" throughout this feature, as the address may refer to either an individually controlled wallet or a smart contract address set-up to interact with the protocol.

5) Error messages

If no accounts match either the filter or search criteria, a message will appear that the search yielded no records.

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Aave Account Explorer 7

2392×1222 111 KB

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Remember that the asset specific pages will only include accounts collateralized by that asset.

Next Steps

We're excited to launch our Account Explorer, and look forward to seeing you all leverage it! We will continue to evolve it, and have a few ideas already under development:

- Histograms of the distribution by health factor

- systemic risk arises when either a large position or a number of positions that aggregate to a large amount become eligible for liquidation. If the market does not have enough liquidity to support the total liquidation amount, the result can be insolvencies. We've cited these aggregations in forum posts, and are working to get them added to our front end.

- Adding liquidation price

to the dataset (defined as the asset price at which a given position would be liquidated). This price can be calculated from the health factor of the position, but we want to save you the mental math and will add this as a column.

- User Archetypes

- classification of the strategy deployed by a given account such as recursive, stable-only borrowing, etc. Strategies greatly affect the risk profile of a position, and would therefore be useful to filter on.

We'd love any feedback on this feature. Please comment below or reach out to the team via the feedback link on the Dashboard.

Links

- [Account Explorer](#)