

2.0 Fundamental

Prime Rating Report V2.0

Protocol: Aave

Version: 2

Previous Report: [Link to previous report](#)

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Instructions

Please go to files and make a copy of this template.

Fill in all questions with a written explainer, any relevant links and score per variable. Insert the scores in the scorecard at the end of the report. Please follow the process as laid out in the Medium announcement and submit the report through the form.

Please include your sources into the text (as a link), so others can follow your trail of thought.

1. Value Proposition

The Value Proposition section describes the value a protocol delivers to its users. Based on the proportion of the problem the protocol aims to solve and the potential of the protocol to effectively solve the problem - better than other industry solutions - a Value Proposition rating is created.

a) Novelty of the solution (15 points)

This score evaluates the novelty (uniqueness) of the protocol. Has the protocol introduced any new innovations that help solve user's problems more efficiently? Is the project a fork? To what extent did they copy/fork the original?

Answer: Aave is one of the major DeFi lending and borrowing protocols with one of the highest TVLs and user adoption in the Ethereum ecosystem. Aave is a completely decentralized ecosystem of borrowers and lenders, allowing lenders to earn passive interest income on assets they contribute to the liquidity pool.

The protocol started as [ETHLend](#) in 2017, as one of the first peer-to-peer lending protocols. They rebranded in 2018 to Aave, when they adopted the peer-to-pool model pioneered by Compound and Uniswap and officially launched as Aave in early [2020](#).

Although not the first peer-to-pool lending/borrowing protocol, Aave has introduced many novelties and new products to the market (e.g. [stable rates](#), [credit delegation](#), and [flash loans](#)) and they have clearly solved user problems evident in their high number of [users](#). Furthermore, some of Aave's technical governance framework build for their token migration were copied by other protocols (e.g. [Kyber](#)).

Score: 15

b) Market fit/demand (15 points)

This score evaluates the degree to which the protocol satisfies a strong market demand. The market fit evaluates if the protocol is able to satisfy the needs of a specific market (can also be measured by user adoption/ #of users). To what extent has the protocol proven to meet the demand of a specific market? Is the timing of the product right for the market? Is the protocol targeting the right market?

Answer: Aave has clearly found its market fit and satisfies a strong market demand. At the time of writing, Aave is leading the DeFi Pulse [list](#) with regards to TVL, indicating that DeFi users are highly confident depositing their tokens into Aave.

In terms of user adoption, Aave has one of the highest user numbers with [~60k users](#). However, in direct comparison with its closest competitor Compound, Aave still has some catching up to do. Compound has over 300k users, which is also reflected in the number of holders of the most popular product (i.e. interest-bearing tokens):

| Aave | Compound |
|--|---|
| Holders of aDai: 3992 | Holders of cDai: 19'422 |
| Holders of aUSDC: 5052 | Holders of cUSDC: 218'223 |
| Holders of aUSDT: 2137 | Holders of cUSDT: 5529 |
| Holders of aWETH: 7911 | Holders of cETH: 66'620 |

Score: 13

c) Target market size? (10 points)

The target market size evaluates the current and future size of the problem the protocol is aiming to solve. The category of the Open Finance solution can be used as a reference to the target market (for example: Lending). Because Open Finance is by definition global, the global market for a specific problem equals the target market size.

Answer: The market for lending and borrowing is already a billion-dollar market that is expected to grow substantially with more adaptation and better access to DeFi services. In comparison, the global lending market in TradFi is worth [trillions](#).

Score: 10

d) Competitiveness within market sector(s) (10 points)

This score evaluates the competitiveness of the protocol within the market sector(s) it operates in. This score offers a relative comparison of the protocol and other protocols operating in the same market sector(s).

Answer: As mentioned above, Aave and Compound are neck-to-neck. While Compound was ahead of Aave for most of 2020, Aave has started to take the lead in most of the relevant metrics in 2021, according to this Dune [dashboard](#). This is a rather narrow view though, and when looking at the overall DeFi market, Aave is clearly one of the undisputed leaders of the ecosystem.

The newly introduced liquidity incentives on Ethereum mainnet and Polygon have probably supported this development quite a bit. The only metric where Compound is the undisputed leader is the number of users (see question 1.b). However, probably the most important metric is liquidity, and especially outstanding loans (as it generates revenue), where Aave and Compound are basically head-to-head. Furthermore, with Aave's [expansion](#) to Polygon, the protocol is exploring new grounds hoping for more retail adoption.

Score: 10

e) Integrations & Partnerships (15 points)

Due to crypto's open-source nature, the code of most protocols can easily be forked. This score represents a piece of "unforkable value". Some indicators to look at are the number of applications built on top of the protocol (vertical integration), other entities integrating the protocol's services (horizontal integration) or the number of relevant partnerships (be careful of logo collections/ partnerships without much purpose).

Answer: Aave is one of the main pillars (money legos) of DeFi, that is used and integrated by many other protocols.

Some protocols use Aave to develop their services (e.g. [Barnbridge](#)), some provide aggregated [access](#) to Aave's pools (e.g. Argent, Zapper or Zerion). Aave also has a [partnership](#) with Balancer, for idle capital in Balancer deployed productively into Aave, or with Curve to incentivize liquidity on Polygon. They also allow Balancer and Uniswap LP tokens as collateral in their new [AMM market](#). Besides,, Aave has countless other partnerships and integrations with smaller projects as listed in each monthly update [here](#). And a list of more partnerships can be found [here](#).

Last but not least, Aave has [partnered](#) with popular gaming dApp Axie Infinity, where players can win Aave tokens, and they have invested in Pixelcraft Studios for the development of Aavegotchi.

Score: 15

2. Tokenomics

The Tokenomics section of the review assesses the function of a protocol's token. This includes the token distribution, functionalities of the token, the ability of the token to incentivize positive behavior in the protocol, and the ability of the token to capture a portion of the value created.

a) Is the token sufficiently distributed? (15 points)

The token distribution can be an indicator of a healthy protocol. When the protocol tokens are widely distributed among different stakeholder groups and contributors, this genuinely improves the coordinating capability of the token and strengthens the resiliency of the protocol. Was the initial distribution balanced between relevant stakeholders? Are the tokens distributed over sufficient participants (10, 25, 100 largest addresses)?

Answer: The protocol originally sold roughly 75% of its tokens to the community through an ICO in 2017, raising [\\$16.2M](#).

With the introduction of [Aavenomics](#) in early 2020, Aave completed their move towards a decentralized governance system, in that Aave token holders now have full decision power over the protocol. The Aavenomics initiative was simultaneously a migration from the "old" LEND token, to the

new Aave token, whereby 81.25% of all Aave tokens went to LEND holders, and 18.75% to the Aave Ecosystem Reserve (basically increasing token supply by 23%). Currently, the token is held by over 85k wallets. While their GINI coefficient (a metric used to measure capital allocation) is not perfect with 79%, it's also not the worst ([study](#) from September 2020) and is one of the more distributed tokens among DeFi projects.

Score: 13

b) What is the extent of the token's capabilities? (10 points)

Is the token useful within the protocol? Does the token allow the holders to participate in governance or influence the protocol in any way? Does it serve any other purposes?

Answer: The token does represent voting power and is used to participate in [governance](#). Token holders can create and vote on AIP (Aave Improvement Proposals).

In addition, the token can be staked within the [safety module](#), to secure the protocol in case of a shortfall event, and in return earn some of the protocol's revenue generated by a fee model.

Score: 10

c) Is the issuance/distribution model able to improve the coordination of the protocol? (10 points)

To what extent does the issuance of the token support the advancement and function of the protocol? Are the tokens justifiably being issued? Does the issuance model incentivize the right behavior? Are all relevant stakeholders benefiting from the issuance model?

Answer: Roughly 80% of the Aave tokens are in circulation according to [Coingecko](#). However, Aave has managed to create a strong tokenomics model incentivizing both usage and security of the protocol. As indicated above,, the Aave token is used to [govern and secure](#) the Aave ecosystem, plus it earns rewards on top.

In other words, users can earn Aave tokens through staking (securing the protocol) and, since [AIP-16](#) passed in April 2021, usage of the protocol is further incentivized through liquidity incentives.

Furthermore, the community has created an [Aave Grants DAO](#), to empower community engagement and reward community members accordingly (with a budget of 2809 Aave).

Score: 10

d) Is the value capture model able to accrue and distribute value? (10 points)

A value accrual and distribution mechanism can help improve the utility of a token and its ability to be used as an effective coordination mechanism. Does the protocol have mechanisms to distribute some of the value created to the token holders?

Answer: Yes, like most other lending/borrowing protocols, Aave uses a [reserve factor](#) that subtracts a certain amount from the interests paid for borrowing. The reserve factor is currently between 10% for less risky assets (like stablecoins) and 35% for riskier assets. According to this [dashboard](#), Aave's

reserve pool currently holds \$7.8M in reserves and the [contract](#) shows a similar number. Aave also charges a 0.09% fee on flash loans, which has resulted in the collection of over \$5M. These fees also collected by the [Aave Safety Module](#), and re-distributed to Aave stakers.

Score: 10

e) Is the token sufficiently liquid to enable active use and trade? (5 points)

Is the token widely available and is there sufficient liquidity available to facilitate all protocol functionalities?

Answer: Yes, the Aave token is highly liquid on DEXs with millions of TVL in Balancer, Sushi, and Uniswap. In addition, Aave is [listed](#) on most leading centralized exchanges (e.g. Binance, Coinbase, Gemini, etc.).

Score: 5

f) Are there any extrinsic productivity use cases for the token? (10 points)

Besides the protocol's value distribution model as described in 2. d), can the token be used productively on other protocols (e.g. as collateral, for lending, LPing, yield farming, etc.)?

Answer: There are several use cases for Aave outside of the native protocol. For instance, Aave can be deposited on [Maker](#) to create Dai, it can be used to LP on Balancer and earn BAL rewards, or on Uni and Sushiswap to earn trading fees (which can be leveraged on [Alpha Finance](#) and [Impermax](#)). There are currently [discussions](#) to add Aave on Compound. Aave is also enabled on [Cream Finance](#) and Rari's [Fuse](#).

Score: 8

3. Team

The Team section describes the quality of the team behind the protocol. The current version of Prime Rating favors teams that are publicly identifiable. In the case of an anon team, the track record of the specific anons involved can be taken into account

a) Is the team credible and public? (15 points)

Are the identities of the core contributors and team publicly identified? In the case of anon team members, is there any way to track their background/record?

Answer: Most employees can be identified and are public:

- Aave was founded by CEO [Stani Kulechov](#)
- Aave's CTO is [Ernesto Boado](#)

- According to LinkedIn, the team counts 53 people while this [article](#) on Aave from March 2020 states that the team is only 20 people

There is no official team site and therefore not much information available. There are only a few images from their [Instagram account](#).

Score: 10

b) Does the team have relevant experience? (10 points)

Are there any documents or trails available to showcase the track record of the team? Do the team members have relevant backgrounds and skill sets?

Answer: With not much information available on who the team is, this question is hard to answer. However, given the great success the protocol had so far, we can assume that the team is highly competent.

Score: 8

c) Does the team participate and help shape the public debate? (5 points)

To what extent do the protocol contributors participate in the public debate around open finance? Are the team members giving presentations, sharing their thoughts and opinions, and do they help raise the collective intelligence of the industry?

Answer: Stani is quite active in the DeFi ecosystem, participating in podcasts, talks and keynotes. Generally, Aave as a protocol does participate in a lot of activities by sponsoring newsletters or organizing hackathons and other happenings.

Score: 4

d) Is the team able to effectively attract and coordinate resources? (10 points)

How effective is the team at attracting and coordinating resources for the benefit of the protocol? Has the team raised sufficient funding or are there mechanisms in place to attract resources when needed?

Answer: The team was able to attract \$16,2M in an ICO in 2017 (see first section). They have also raised additional [funds](#) for the development of Aave in 2020 from well known VC, such as Three Arrow Capital, ParaFi or Framework Ventures.

Moreover, as already mentioned, Aave has a grants scheme to reward contributions and therefore attract new talents to the protocol.

Score: 10

4. Governance

The Governance section evaluates how the protocol is governed and who the governors are. The different governance functionalities and processes are evaluated to determine to what extent the Protocol will be able to self-govern in a way that ensures the development of the protocols while respecting the needs of all current and future stakeholders.

a) Admin Keys (20 points)

Admin Keys allow some critical functionalities of a protocol to be controlled by an admin. This allows the developers to react to potential bugs, but also creates a risk as the developers could potentially misuse the admin keys to exploit the protocol. Does the protocol have admin keys and how are they managed?

Answer: The Aave team handed over their admin keys to the governance end of [October 2020](#). All [admin rights](#) regarding important protocol parameters, token listing or termination, as well as the token distributor contract (the smart contract that receives all fees and distributes them to users) are in the hands of Aave token holders.

One [exception](#) is the Polygon market, which is still governed by a 3-of-5 multisig held by the core team. This, however, will be handed over to the governance as soon as the bridge from Ethereum mainnet to Polygon is ready

Note: I participated at a talk at ETH CC 2021, in Paris, by Aave CTO Ernesto Boado, where he announced the new bridge (ready on testnet) that will enable governance on Polygon.

Score: 18

b) Extent of Governance capabilities (15 points)

Distributed governance allows the token holders to participate in the governance of open finance protocols. How much influence does the governance mechanism have? Are the votes affecting on-chain changes or do they function solely as signals to the team?

Answer: As mentioned above, governance on Aave basically holds all the rights to the protocol. However, the core team still has strong influence and most of the technical developments (such as the Polygon bridge) are done by the team.

When looking at the official [blog](#), it seems that all developments regarding partnerships and integrations with other protocols are also done by the core team.

On the other hand, listing of new tokens as well as parameter-changes are now coming from "outside the core team", i.e. the community and wider ecosystem through [governance votes](#).

Score: 11

c) Active Governance contributors (5 points)

Governance is a process that can be rather resource-intensive if executed well. To ensure good governance is practiced by the protocol, it's important to have a sufficient number of governors allocate resources to the governance process of the protocol. How many individuals participate in the debate around the protocol? How active are voters?

Answer: Activity around governance proposals has increased since April 2021. While some proposals still come from the core team (e.g. Marc Zeller's [AIP-09](#), [AIP-18](#) and [AIP-20](#)), there is an increasing number of participants that are not part of the core team.

For instance, [Shreyas Hariharan](#) from [Llama](#) has proposed [AIP-17](#) and [AIP-26](#). Other contributors are joining from other protocols to get their tokens listed (e.g. [AMPL](#), [PAX](#) and [RAI](#)).

Moreover, both the Aave [forum](#) as well as their Discord channel denote very high activity and lots of participants.

When it comes to voting participation, the rate is rather low. Looking at the last 20 votes, the number of tokens [participating](#) has ranged between 334k and 580k (with two exceptions that were higher). With a circulating supply of close to \$13M tokens, that's an average of 2.5% to 4.5% participation rate.

Score: 4

d) Governance technology/infrastructure (10 points)

The Governance infrastructure relates to the technology, software, and models used by the protocol's governance. Does the protocol have a reliable and usable voting mechanism? Are there channels for governance debate? Is there sufficient documentation available?

Answer: Aave is one of the few DeFi protocols using a fully on-chain governance voting infrastructure. Both Aave as well as staked Aave (stkAave) are eligible for voting. Besides the official voting site, there is a forum and Discord to discuss prior to votes going live.

Score: 10

e) Robustness of Governance process (10 points)

This score requires documentation specifically on the governance process that sets the basic framework in terms of agreements, norms, and language for governing the protocol and to create social consensus. Does the protocol have a formal governance process? How robust is the governance process and does it promote good governance?

Answer: The governance process is clearly laid out and described [here](#) and [here](#). There is also some info in the [FAQ](#) section.

In short, first an ARC (Aave Request for Comment) is created on the forum, if successful, an AIP (Aave Improvement Proposal) can be created and submitted to on-chain governance vote.

Score: 10

5. Regulatory

The Regulatory section describes the extent and quality of the regulatory environment that affects the Protocol. To be able to guarantee functionality, security, and legality the protocol should comply with regulatory requirements, or limit itself to facilitating services to users who are willing to operate outside of the traditional regulatory environment.

a) Does the protocol have any legal accountability? (15 points)

Does the protocol have any form of legal accountability? Can users and partners hold the protocol accountable in case of a breach of the agreement?

Answer: From their [docs](#): "Aave SAGL is a company incorporated in Switzerland, under license number CH50140228832 with registered office and principal place of business at Piazza Indipendenza 1, 6830 Chiasso, Switzerland."

Besides their legal entity in Switzerland, Aave has offices in London that serve as their headquarter. Aave has also been [granted](#) an Electronic Money Institution license by the U.K. Financial Conduct Authority (FCA).

From their [LinkedIn](#):

Locations

Primary

41 Corsham Street
London, England N1 6DR, GB

[Get directions](#) ↗

Piazza Indipendenza 1
Chiasso, Ticino 6830, CH

[Get directions](#) ↗

Score: 15

b) What is the quality of the legal jurisdiction? (10 points)

If the protocol has a legal entity, what is the quality of the jurisdiction the entity is established in? Will the jurisdiction be able to facilitate the legal framework for the protocol to expand while remaining accountable.

Answer: Both London (UK) and Chiasso (Switzerland) can be regarded as top tier jurisdictions.

Score: 10

Scorecard

| 1. Value Proposition | Points |
|--|----------------|
| a) Novelty of the solution | 15 / 15 |
| b) Market fit/demand | 13 / 15 |
| c) Target Market Size | 10 / 10 |
| d) Competitiveness within market sector(s) | 10 / 10 |
| e) Integrations & Partnerships | 15 / 15 |
| Total Points - Value Proposition | 63 / 65 |
| 2. Tokenomics | Points |
| a) Is the token sufficiently distributed? | 13 / 15 |
| b) What is the extent of the token's capabilities? | 10 / 10 |
| c) Is the issuance model able to improve the coordination of the protocol? | 10 / 10 |
| d) Is the value capture model able to accrue and distribute value? | 10 / 10 |
| e) Is the token sufficiently liquid to enable active use and trade? | 5 / 5 |
| f) Are there any extrinsic productivity use cases? | 8 / 10 |
| Total Points - Tokenomics | 56 / 60 |
| 3. Team | Points |
| a) Is the team credible and public? | 10 / 15 |
| b) Does the team have relevant experience? | 8 / 10 |
| c) Does the team participate and help shape the public debate? | 4 / 5 |
| d) Is the team able to effectively attract and coordinate resources? | 10 / 10 |
| Total Points - Team | 32 / 40 |
| 4. Governance | Points |
| a) Admin Keys | 18 / 20 |
| b) Extent of Governance capabilities | 11 / 15 |
| c) Active Governance contributors | 4 / 5 |
| d) Robustness of Governance process | 10 / 10 |

| | |
|---|------------------|
| e) Governance infrastructure | 10 / 10 |
| Total Points - Governance | 53 / 60 |
| 5. Regulatory | Points |
| a) Does the protocol have any legal accountability? | 15 / 15 |
| b) What is the quality of the legal jurisdiction? | 10 / 10 |
| Total Points - Regulatory | 25 / 25 |
| Total | 229 / 250 |

Author: [Lavi](#), I'm a steward/ core contributor to PrimeRating and community contributor to Index Coop. I wrote previous ratings (e.g. Compound, Kyber, Ren Protocol) and performed quality checks on multiple reports from other raters.