

Aave Risk DAO

I. Introduction

Since the launch of the second version of the Aave protocol (“V2” or the “Aave Protocol”) in January 2020, there has been exceptional growth in the Aave ecosystem, reaching over \$20 billion of liquidity in the protocol and nearly \$10 billion of borrows as well as over 200 integrations. In addition, the Aave Protocol is completely run by the community (“Community Governance”), with all decisions and changes for the protocol being implemented by Community Governance—that is, the group of over 90,000 holders of \$AAVE, \$aAAVE or \$StkAAVE. The [Community Governance forum](#) is rich with discussions among and with teams working on their own proposals to enhance or amend the Aave Protocol called “Aave Improvement Proposals” (“AIPs”). At this time, a total of 22 AIPs have been executed with success—*i.e.*, proposed by a community member and voted on by Community Governance.

Prior to an AIP being proposed and voted upon, a community member who seeks to make a proposal to change or amend the Aave Protocol can first submit an “Aave Request for Comment” (“ARC”). Changes to the Aave Protocol may—and typically do—carry some element of risk, whether the risk arises from changes to protocol parameters, the addition of a new asset pool, or otherwise. The community typically seeks feedback regarding the type of risk and how such risk may be mitigated. At this time, much of the feedback on risk comes from employees of the Aave companies, the group of software development companies that developed and deployed the Aave Protocol.

Assessing risk is critical given the \$20 billion of assets in the Aave Protocol and the Safety Module—a protocol that facilitates staking rewards and also provides a risk mitigation mechanism for the Aave Protocol. Each update to the Aave Protocol and/or the Safety Module (which is also controlled by Community Governance) has the potential to expose these funds. For this reason, the Aave community should have access to all relevant information to support the decision-making process for AIPs.

Advanced skills are required to fully grasp the complexity of protocol updates and their potential consequences; as well as to implement proposals optimally and securely. Given the critical importance of decentralized governance over the Aave Protocol, the implementation of a “RiskDAO” will facilitate the community’s active involvement in the maintenance and development of the Aave Protocol. One of the core mandates for a RiskDAO—a group of individuals tasked with analysing, assessing and seeking to mitigate risk on the Aave Protocol—will be to provide AAVE holders with the information necessary for the decision-making process in voting on an AIP. The Risk DAO will also facilitate, among other things, the implementation of changes to the Aave Protocol by building, supporting and submitting AIPs aligned with the community’s views.

The Risk DAO is a structure for proactive and risk conscious decentralisation.

II. Current Risk Analysis and Risk Management

The [Aave Risk Framework](#) (the “Risk Framework”) provides a risk management process based on actuarial modelling and behaviour analysis calibrated since the launch of Aave V1 in January 2020. At this time, the Risk Framework sets forth a risk assessment for:

- Asset Risk

With respect to asset risk, the Risk Framework sets forth factors to consider when a third party seeks to propose adding a new asset to the protocol. Potential assets are assessed based upon the [Asset Risk Scoring Algorithm](#), which relies, in part, on quantitative metrics for the underlying data relating to the potential asset, as well as some qualitative analysis on the smart contracts and design for the protocol or network with which the potential asset is associated. As part of the risk assessment for potential new assets, the Aave community provides additional risk analysis. Since certain third parties may harbour biases towards having a potential new asset listed on the Aave Protocol (*e.g.*, a particular project seeks to have its own asset listed on the Aave protocol), it is critical to have independent, third party expert analysis for any proposal seeking to list a new asset.

In addition, an independent third party needs to engage in constant monitoring of any assets currently listed on the Aave Protocol, as market forces and other asset-specific events may require risk parameter adjustments.

- Liquidity Risk

Because the various liquidity pools comprise the Aave Protocol, and enable efficient and seamless functioning for transactions on the protocol, it is necessary to assess continuously the availability of liquidity across the protocol. Market conditions and market demand may change for the various cryptoassets in the liquidity pools on the Aave Protocol, which would require changes in the parameters.

- External Audits & Analysis

Independent, third party reviews and assessment of the Aave Protocol are crucial to test the robustness of the smart contracts. The Aave Protocol is among the most audited with [7 smart contract security audits](#), a [formal verification](#) of the mathematical robustness and a [market risk assessment](#) to test the model and parametrisation.

III. Risk DAO Proposal

A. Purpose of RiskDAO

The RiskDAO, which will be comprised of five to ten independent parties (each, a “Member”) with different risk analysis skills, will analyse, assess and ultimately seek to mitigate risk on the Aave Protocol.

The RiskDAO will achieve this goal in a number of ways:

- *first*, by engaging with the Aave community to gather and also provide necessary information for decision-making related to asset listing, liquidity provision and external audits—as well as other risk-related matters that arise;
- *second*, by providing feedback and independent analysis regarding the risk levels for proposals made in the governance forum (ARCs) or on chain (AIP) for changes or updates to the Aave Protocol;
- *third*, by providing documentation regarding risks on the Aave Protocol and other important risk-related factors;
- *fourth*, by engaging with independent third parties to understand the Aave Protocol’s ecosystem and providing expertise with respect to various features of the protocol—and of course making such expert analysis public and thus, available to the Aave community. For example, Gauntlet’s risk analysis explores in depth market risks emerging from current assets on the Aave protocol, and provides recommendations to reduce the risk of insolvency. The Risk DAO can and should engage third parties to provide similar risk-related analyses;
- *fifth*, if the Members so decide, by submitting proposals to the Aave community through the governance forum—either on behalf of the Aave community or on behalf of the RiskDAO in order to propose an amendment for risk mitigation purposes; and
- *sixth*, by providing independent assessment of AIPs prior to submission by community members, with such assessment including a technical analysis and review as well as an analysis of other risk factors.

In addition to the above responsibilities, the RiskDAO will also be involved in the risk assessment portion of two key components on the Aave Protocol: (1) any proposal to add a new asset to the Aave Protocol; and (2) any proposal regarding technical upgrades.

Proposals Regarding Adding New Asset(s)

As is [well-documented](#), the process for onboarding any new asset via a governance proposal involves multiple steps, including but not limited to assessing the risks, calibrating the parameters, fitting the asset to the Aave contract design, coordinating the Chainlink oracle.

Anyone can submit a proposal to add an asset to the protocol, and anyone can provide feedback on such a proposal via the governance forum. Those proposals will include the parameters for the integration in the Aave smart contracts. These risk parameters are not always calibrated with what is best for the protocol or for all members of the Aave community, but may have

been proposed based on what could benefit a particular group (e.g., the original holders of the asset, etc.). However, assets onboarded via a governance proposal can carry inherent risks into the Aave protocol, which can, among other things, affect the solvency of the liquidity pool.

Any proposal to list a new asset must assess the following factors to determine the risk level:

- Smart Contract Security: is the code written correctly? Is the code “battle tested”? Has the code been audited and by whom? Does the smart contract allow for control by an entity or a group of individuals? How much control, is it at risk of infinite minting?
- Oracle Compatibility: Has the proposal accounted for coordination of a quality price feed for the asset with the Chainlink oracle?
- Market Metrics: Is the asset a good store of value relative to the volatility of the price? Is there sufficient market liquidity of the asset to avoid high price slippage in case of large liquidations which may result in cascading liquidations?
- Asset Governance: is the protocol or network with which the asset is associated centralised or run by a governance system? If centralized, is the counterparty trustworthy? If decentralized, has the governance system proven stable?
- Legal Issues: Are there features of the asset that raise legal issues?

Given these risks, it is clear that there is need for an independent, third party to assess any proposal to list a new asset. The Risk DAO shall conduct reviews of these proposals and the associated parameters and provide feedback publicly via the governance forum (or other public forums as it determines appropriate).

The Risk DAO shall also review the technical aspects of an asset onboarding AIP, including but not limited to:

- Smart contract architecture;
- Assets model parameters: used as collateral, Loan To Value (LTV), Liquidation Threshold (LT), Liquidation Bonus (LB) and Reserve Factor (RF);
- Interest rate model parameters: can/should the asset be borrowed, variable interest rate model parameters, can it be borrowed at stable rate and the stable interest rate model parameters; and
- Oracle price feed.

Risks associated with cryptoassets constantly evolve—e.g., a governance decision leads to a smart contract upgrade; market volatility can impact the value or use of an asset; market factors can impact liquidity for a particular asset. For that reason, the Risk DAO will constantly monitor each liquidity pool and the attendant assets for that pool and make any disclosures necessary or make proposals to the governance forum in order to help facilitate the continued market health of the Aave protocol and ecosystem.

Proposals Regarding Technical Changes or Upgrades

Anyone can submit a proposal to the governance forum regarding technical changes or upgrades to the Aave protocol. Any technical change to the protocol can also impact the “health” of any and all liquidity pool, the way assets interact with each other or protocol transactions.

Given the serious impact technical upgrades or changes can have on the overall functioning of the Aave Protocol, the Risk DAO must assess any such proposal for associated risks and provide feedback to the community regarding the feasibility and impact of the proposal.

The Risk DAO will also provide the same review of an AIP to ensure that the code is safe, and the proposal will not impact the protocol negatively.

B. Composition of Risk DAO Council

The RiskDAO shall be comprised of no less than five Members, and up to ten Members, all of whom shall work towards the risk assessment/information/mitigation goals. A Member can be a person, or an entity with a dedicated representative.

Each Member shall bring one of the various types of expertise to the RiskDAO:

- technical: smart contracts, oracles, security
- economics: market risk, token design, insurance, financial reporting
- legal/regulatory: security law, property law, real world assets

Each of the various areas should be covered by at least one of the Members. The RiskDAO can designate a Governance Facilitator and/or a Technical Facilitator to ensure that the systems run properly and efficiently, at least at the outset.

The ideal council would include:

- Auditor and Security expert: smart contract expert that can implement rigorous testing. Experience across the Ethereum projects, their code and security procedures
- Oracle expert: that understand price feeds and what makes them resilient
- Market risk expert: specialised in the Ethereum network with its high volatility, exchanges, and congestion
- Finance experts: reporting, token design, insurance
- Legal risk expert: to understand the non-technical, non-financial implications of listings
- Real world assets experts

Members will dedicate 5-10 hour per week, and will serve for a minimum of one calendar quarter, with the ability for the Membership position to be renewed. Renewal will be subject to a proposal on the governance forum for discussion with a subsequent vote. The first Risk DAO council will be elected by the community: applications are open and can be submitted as set out below.

Given the high level of expertise required, Members shall receive \$100-500/hr monthly. Payment will be based on success metrics, such as level and amount of active participation, number of ARCs reviewed or assessed, community signalling gathered and AIPs. A re-elected Member secures a bonus worth 10% of his last quarterly Risk DAO salary.

The starting budget likely should be approximately \$150,000 per quarter for five Members working 10 hours/week at \$200/hour, half renewed. An annualised budget of \$600k seems reasonable to gather top experts to secure the \$20 billion of assets on the protocol. This budget is expected to grow as the protocol scales. The Risk DAO should be funded via the Aave Grants

DAO, or the Aave DAO Treasury directly. All payments to the Risk DAO will be made in the AAVE governance token.

Ideally the Risk DAO would be composed of experts from the Aave community as well as experts from the wider Ethereum ecosystem. If you are interested in being a Member of the Risk DAO or would like to nominate someone to be, please reply to this thread with basic info, including:

- Describe your/the experts' involvement in the Aave ecosystem and in the space more generally
- What skills/experience do you/they bring?
- Can you commit ~5-10 hours a week?