



# AAVENOMICS

— Aave Protocol Tokenomics —

# Decentralizing Aave



The Aavenomics introduce a formalized path to the decentralization and autonomy of the Aave Protocol. Covering governance mechanisms and financial incentives, it aims to share a vision of alignment between various stakeholders within the Aave ecosystem, protocol functionality and the **AAVE** token as a core securing element of the Aave Protocol.



A synthesis of the Aavenomics proposal can be found in the **Flashpaper**.

Governance mechanisms in decentralized protocols stem from the interplay of community participation, incentives, self-regulation and policy management, all adjusted to live through and alongside the market. They are political, financial and social institutions which can only be altered by market forces.

One key design goal of decentralized governance protocols should be to balance Shleifer and Vishny's [1] emphasis on behavioral incentives with Tirole's focus on stakeholders' welfare [2], while prioritizing more recent focus on governance minimization and automation [3].

**The goal of the Aave Tokenomics, through its incentives and policies, is to create a Shelling Point where the protocol's growth, sustainability and safety take priority over individual stakeholder objectives.**

Conflict dynamics amongst open or closed governance can produce unfocused goals and lead to suboptimal decisions [2] [4]. Multilevel governance is more efficient as market

participants must operate under the realm of agreed risk standards and higher-level policies.

**AAVE** token holders bear the risk of the protocol. Stakeholders contribute in more tangible ways to the protocol, usually in the form of technical integration (DeFi Front End, integrations etc.) or financial participation (Liquidity Provider). Both have some expectations for the protocol behaviour, safety and functionality.

**The Aave Protocol** codifies trust between stakeholders (AAVE token holders, Vote delegates, Market Manager, Liquidity Providers and integrators). Moreover, although this implementation of multilevel governance cannot practically solve voter apathy, our liquidity-based governance creates economic incentives that keep the voting pool active and renewed as new Aave participants become potential voters [5].

The incentives design resulting from multilevel governance encourages participants to become risk aware as they are economically co-dependent on each other and the protocol [6] while allowing more flexibility between market operators.

Within a decentralized ecosystem, governance is what Reinhard describes as “*a catch-all concept for various forms of steering.*” Still he recognizes that governance “*pay[s] tribute to the complexities of steering in poly-centred, globalised societies.*” [7] Taken from this perspective, governance is a term often associated with opacity. **The vote and the result of a vote are only a small part of governance processes and ongoing power diffused through participants.**

While the Ethereum blockchain is an on-chain system operating in full transaction transparency, it abides by an off-chain process that is broadcasted on-chain [8]. The result is a system where power “*constitutes agents rather than being deployed by them*” [9]. Therefore, every agent is an intrinsic part of the governance model.

In contrast, the organizational design and power distribution of the **Safety Module** follows Clarissa Hayward’s vision of power as a set of boundaries and rules of organization within a particular system. “*Power’s mechanisms are best conceived, not as instruments powerful agents use to prevent the powerless from acting freely, but rather as social boundaries that, together, define fields of action for all actors. Power defines fields of possibility. It facilitates and constrains social action. (...) Freedom enables actors to participate effectively in shaping the boundaries that define for them the field of what is possible*” [10].

In the protocol, the Aave Token governance defines the rules for market participants, aiming to improve the challenging condition of the governance framework by enhancing “*people’s relative capacities to know and shape these boundaries*” [10]. This will also be carried by more informal supports such as open Community and Governance meetings, the **Aave Improvement Proposal process**, and forums that incentivize communication between stakeholders.



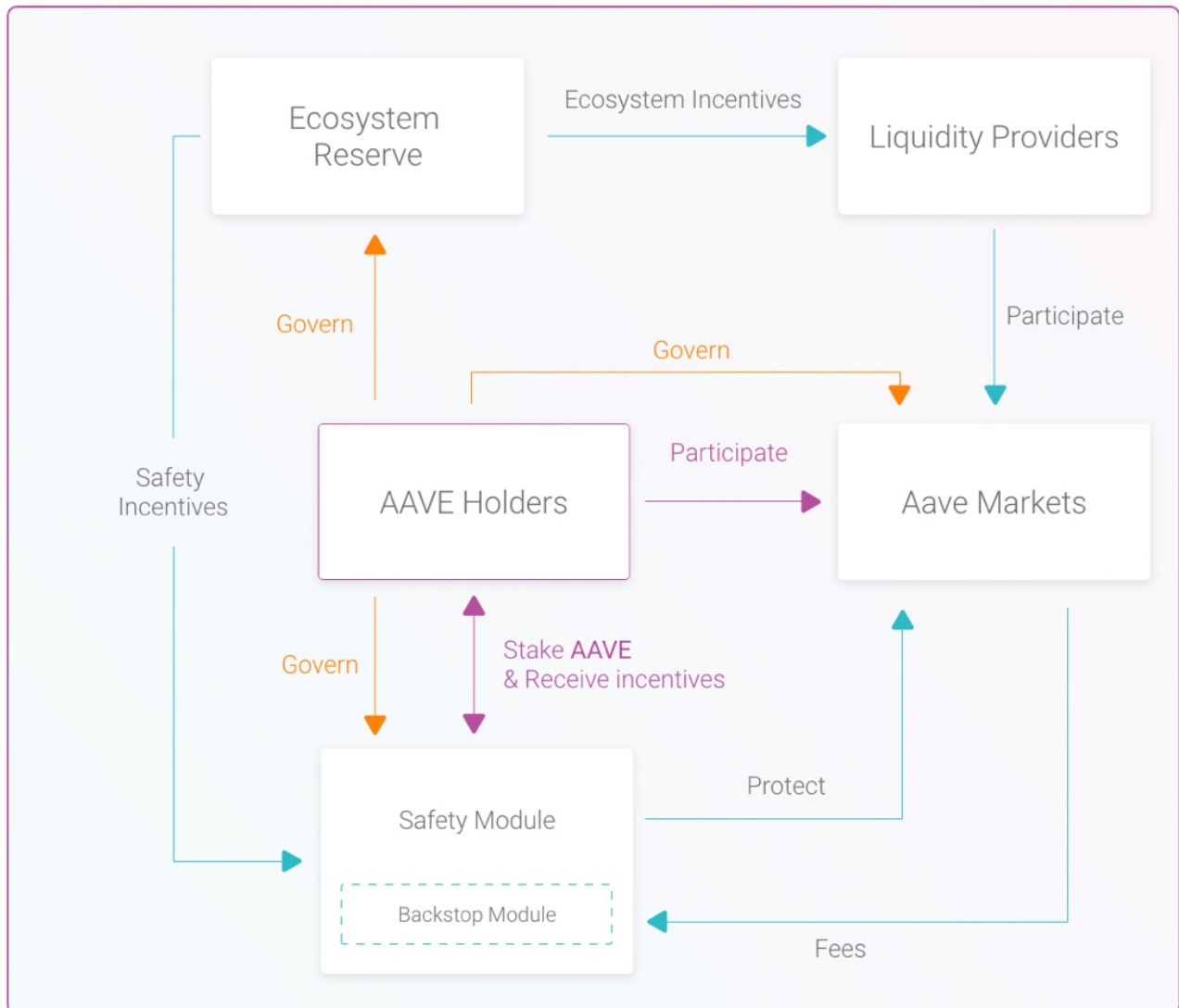
AAVE Token Holders Govern Aave Protocol

This Aavenomics proposal is designed as a catalyst for the growth and long-term governance of the Aave Protocol. The goal is to create a future-proof framework which relies on systemic incentives and multilevel governance to create an efficient equilibrium that stimulates long-term growth and optimization of the protocol.

# Ecosystem Overview

Aave Ecosystem Overview

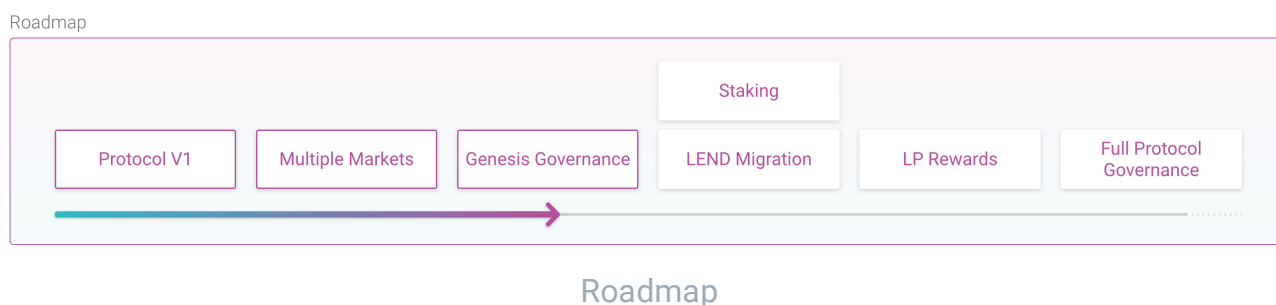
■ Governance ■ AAVE Holders



*The above diagram describes the goal to create a flexible, secure and sustainable network of markets regulated by both protocol-wide and market-specific policies, that are defined and validated through a governance process that empowers token holders with the right to decide the path forward.*

## Roadmap

The Aave Protocol aims to enable global permissionless tokenized assets money markets. This mission was initiated with the release the protocol and pursued with the recent launch of alternative markets. The next steps towards decentralization entail governance and the launch of Aavenomics. The following diagram highlights Aave's execution plan and the current position in the development cycle:



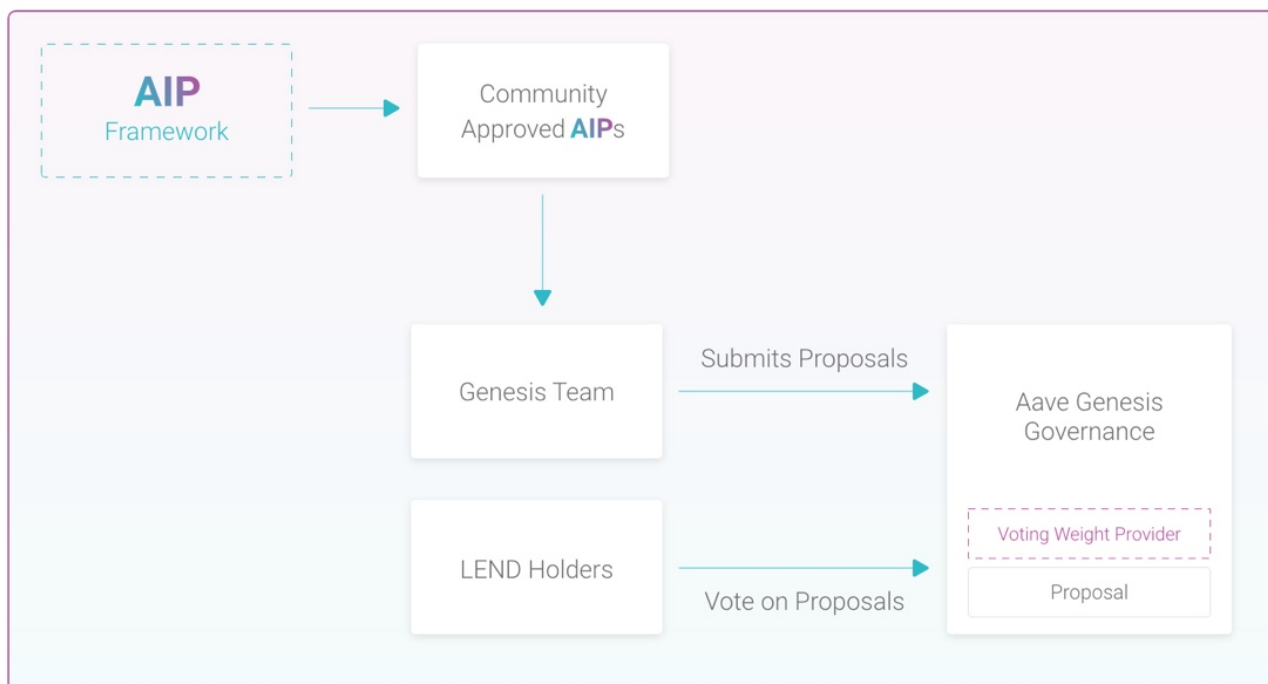
## The Genesis Governance

The first step of the Genesis Governance is the initial bootstrapping of the Aave ecosystem, comprising the **AAVE** token contract, the migration contract from the LEND token to the AAVE token and a governance contract designed to have the AAVE token as the only voting asset.

The objective of the Genesis Governance is to enable this transition by submitting one or multiple proposals in a governance contract designed to have the LEND token as the voting asset. During this transitional period, the bootstrapping proposals will be submitted by the Genesis Team after being approved by the community via the Aave Improvement Proposal procedure defined in the **AIP framework**.

The following diagram presents the flow for the approval and execution of proposals during the Genesis Governance phase:

## Genesis Governance



## Genesis Governance

The Aave Genesis governance architecture's smart contracts components are:

- **AaveProtoGovernance**: A core component of governance which stores the state related to each submitted proposal, allows voting by the LEND token holders and permits the execution of approved proposals. This contract will have the ownerships needed to execute proposals containing all the bootstrapping actions of the Aave ecosystem.
- **AssetVotingWeightProvider**: Defines weights a voter can vote on proposals. Only LEND tokens will be allowed to vote, with a weight of 1 (1 token = 1 vote).

Compared to other governance systems, the Aave governance allows users to vote using cold wallets. Users can simply sign a message and forward the vote using a different wallet to help holders of considerable amounts of funds to vote without needing to move their tokens from cold storage. The only requirement is to keep the LEND funds in the wallet from which the message was signed during the whole duration of the proposal. This has the potential to be abused, as it does not require tokens to be locked (users voting multiple time with the same tokens using different wallets). To avoid this, the governance implements a vote challenging procedure. The validation period  $V$  can be activated when:

- The minimum voting duration is reached, and a voter crosses the quorum.

- The minimum duration is not yet reached, but the vote is already past the quorum. In this case the challenging period needs to be triggered manually.

During the validation, a challenge function will be executed for each address that doesn't hold the tokens with which the vote has been performed. This challenge action will cancel the voting power of the challenged wallet and, if the proposal threshold is crossed down because of this, the voting period will be reopened. This process will be repeated for a certain number of iterations, defined in each proposal (so that more urgent proposals can have faster execution times). If the number of iterations defined by the proposal is reached, the result will be taken without a quorum.

## Governance Process

The Governance Process is fuelled by governance forums at [governance.aave.com](https://governance.aave.com) and ratified through on-chain [Aave Improvement Proposals](#) (AIPs) using [AAVE](#). The following diagram explains how the governance process will flow, from the inception and definition of the concept to the actual implementation:

Governance Process

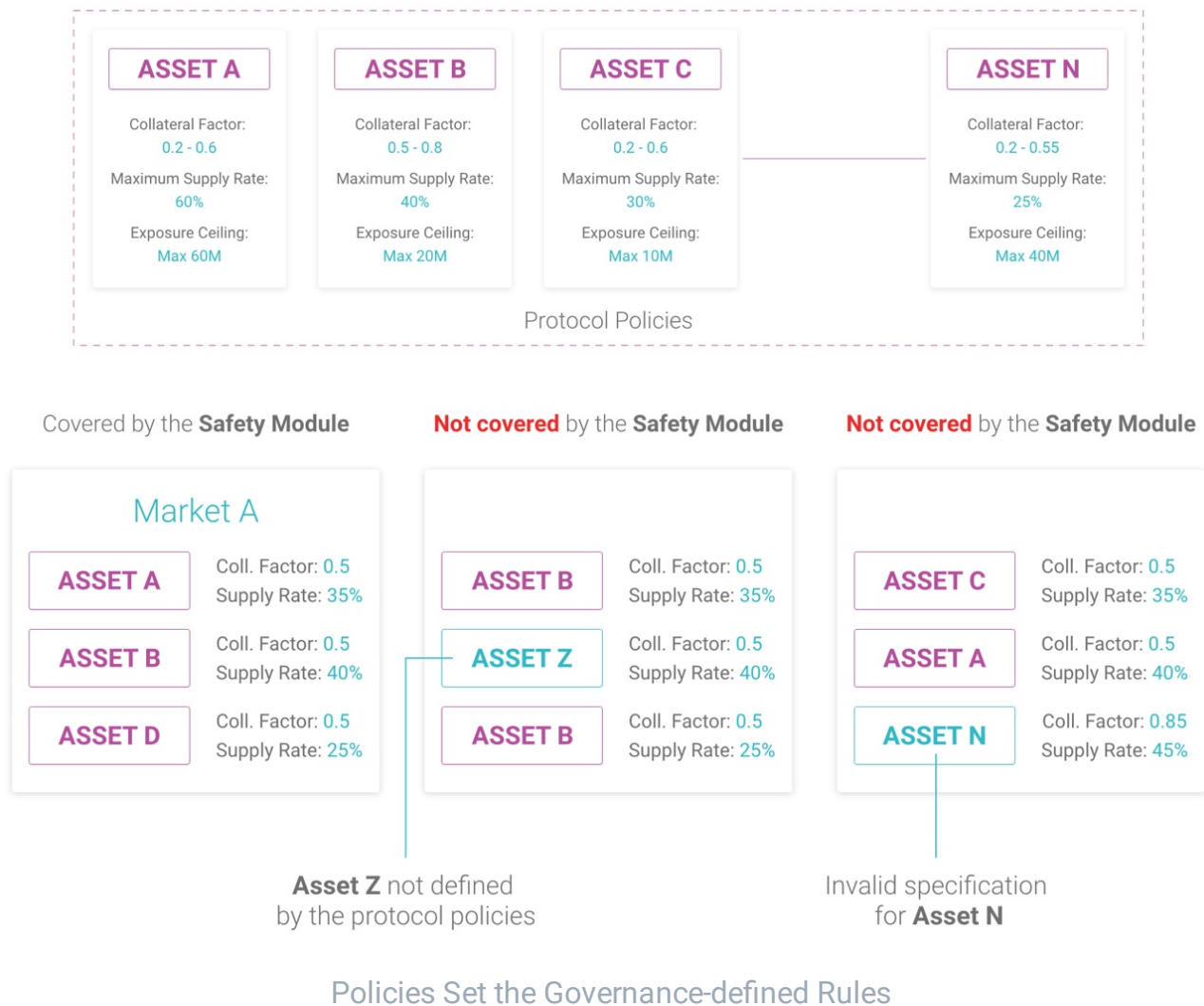


Governance Process



# Policies

Aave Governance enacts policies on key parameters which are determined within the protocol. A policy is defined as a set of governance-defined rules that control specific aspects of the protocol or the individual markets.



At the higher level of abstraction, we can classify the policies as follows:

- **Protocol Policies:** These policies govern the overall behaviour of the protocol and the entities belonging to it. They regulate specific aspects of the protocol related to safety, economics and expansion.
- **Market Policies:** These policies are defined in the context of each market and, for markets belonging to the Aave ecosystem, they are specified within the boundaries

identified by the Protocol Policies. A market participating in the Aave ecosystem needs to operate under safety policies that are not violating the protocol safety policies.

The governance of these Policies is the core function of Aave as a protocol for on-chain money markets.

---

## Protocol Policies

### Risk Policies

The Risk Policies define the set of rules that ensure the safety and protection of the protocol and the users participating in it. Risk Policies include, but are not limited to, decision-making for:

- **Assets compatible for integration within Aave:** The list of assets for which risk is deemed acceptable for the safety of the protocol.
- **Modelling of the interest rates:** Interest rates modelling is a key risk parameter as it determines the actual yield for depositors, the ratio between borrowed, available liquidity and the general the competitiveness of a market for a specific asset.
- **Base risk parameters for overcollateralization and liquidation:** The risk parameters that are governed by [AAVE](#) affect all money markets and set global boundaries for those markets. The current methodology for the global risk parameters is presented in [Aave's risk documentation](#).
- **Configuration and behaviour of the Safety Module (SM):** The [Safety Module](#) is one of the core components of the Aave Ecosystem which is regulated by a set of rules and behaviours.
- **Acceptance of new money markets:** Anyone will be able to instantiate their own money market within the Aave Protocol. However, markets will be accepted under the Governance and secured by the Safety Module only if the [Market Level Policies](#) satisfy the constraints imposed by the protocol Risk Policies.

### Improvement Policies

Improvement policies define rules under which ecosystem improvements are incepted, developed and applied to the ecosystem, including but not limited to:

- Smart Contracts
- Governance processes
- Governance contracts
- Safety Module
- AAVE Token contract

## Incentives Policies

Incentives Policies define the rules under which token incentives in Aave are generated. Financial incentives are used to shape behaviours within the ecosystem to achieve a common objective [11]. For Aave, the common goal is to ensure the safety of the Aave Protocol, cost-efficient usage by the market participants, and proper ecosystem incentives to drive innovation and long-term growth of the ecosystem.

### Safety Incentives (SI)

Safety Incentives ensure the safety of the protocol by incentivizing AAVE holders to participate in the **Safety Module**. This is achieved with a set of incentives pushing behaviour to naturally create a positive feedback loop within the Aave Protocol. In that sense, the essence of those systemic incentives is to materially fade away while having lasting impact on participants behaviour [12]. This behaviour materializes with the birth of policy motivated agents that have incorporated the sustainability of the system they now belong to [13].

AAVE holders participating in the Safety Module earn both Safety Incentives in the form of **AAVE** and fees from the protocol.

### Ecosystem Incentives (EI)

Liquidity Providers and Liquidators (in the form of a single user or as a DeFi end-user interface) are two key components of the sustainability of a decentralized finance protocol by enabling liquidity within the protocol. As stakeholders and maintainers of the Aave Protocol, they should be rewarded with governance power through the EI.

---

# Market Policies

The Aave Protocol will eventually allow anyone to create a money market. However, to benefit from protocol incentives, the market parameters and assets selected must be within the realm of the Risk Policies.

The following list describes which parameters must be defined at inception by market creators in order to customize their own market:

- **Supported assets to provide liquidity and borrow from.** The currency should be validated by the higher layer Protocol Governance.
- **Supported assets to use as collateral.** In the whitelisting scenario, the currency should be already validated by the higher layer Protocol Governance.
- **Enable/disable borrowing modes of an asset.** Variable, stable or any other mode included in the future in the protocol.
- **Market-specific components update.** Smart contract updates for new versions already approved by the Protocol Governance or the addition of smart contract modules, optional per market.
- **Risk configurations per asset.** Loan-to-Value, Liquidation Threshold, Liquidation Bonus and automatic liquidation parameters.
- **Interest rates model per asset.** Adjustment of the curves which determine the relationship between the state of each asset's reserve and its interest rates.

# Governance

## Protocol Governance

The Protocol Governance consists of the decision-making process for the different risk parameter changes, improvements and incentives that constitute the Policies. Future decisions governing the protocol will be enacted through this procedure.

The AAVE token empowers holders with the capability to vote on proposals and collectively act as governors of the protocol.

## Protocol Governance Architecture

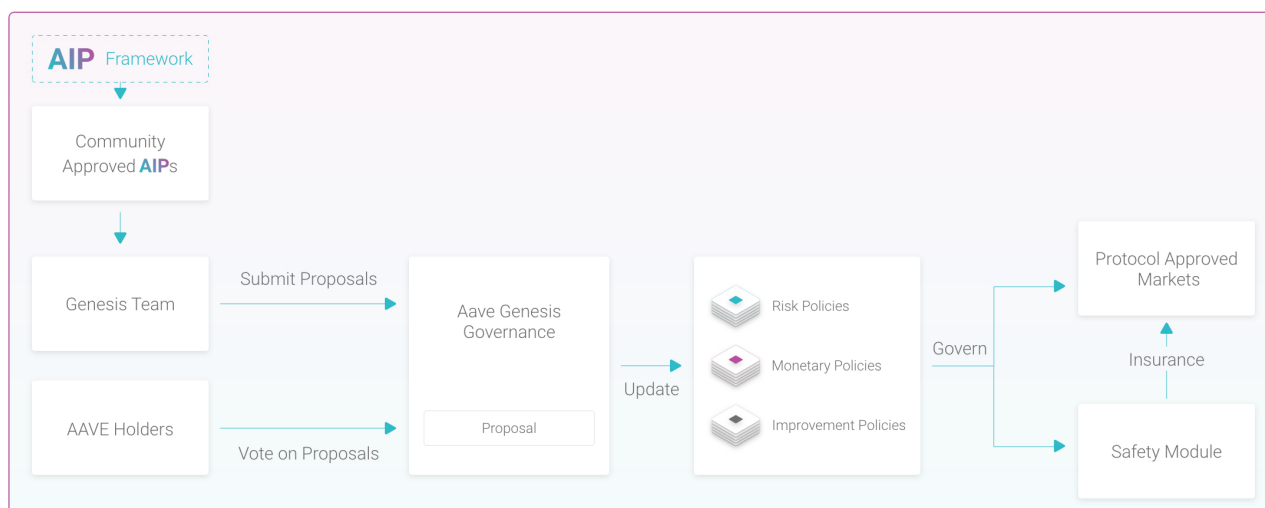
Protocol Governance Architecture 1/2



Protocol Governance Architecture 2/2



The below diagram shows the architecture of the Aave Governance.



## Market Specific Governance

As described in the [Policies section](#), the Policies of the Aave ecosystem affect all markets, therefore, control over them resides in the AAVE token. These market-wide parameters are just constraints; they define the ranges for which specific configurations of markets can be defined. The importance of providing constraints to the market parameters by using protocol policies materializes in the protection guaranteed by the [Safety Module](#). This results in markets that adhere to the Policies automatic protection from [Shortfall Events](#).

Market specific parameters defined in the Protocol Policies can be adjusted to the use case of the market and/or interests of the parties involved in it (market creators, liquidity providers, borrowers, liquidators etc.).

The different components of the protocol include capabilities to quantify the involvement of the different participants within a market, with metrics like the interest earned over time by liquidity providers for an asset, the interest repaid by a borrower or the amounts liquidated, amongst others.

# Safety Module

## Summary

The primary mechanism for securing the Aave Protocol is the incentivization of **AAVE** holders to lock tokens into a Smart Contract-based component called the Safety Module (**SM**). The locked AAVE will be used as a mitigation tool in case of a **Shortfall Event** within the money markets that belong to the Aave ecosystem. A Shortfall Event occurs when there is a deficit. The interpretation for the occurrence of a Shortfall Event is subject to the Protocol Governance vote, detailed in **Governance**.

In the instance of a Shortfall Event, part of the locked AAVE are auctioned on the market to be sold against the assets needed to mitigate the occurred deficit. The SM includes a built-in backstop mechanism to prevent excess flow of AAVE into the open market that would further reduce the value of AAVE itself. Participants' decision to lock AAVE into the SM assumes the acceptance of a potential Shortfall Event as they secure the protocol in return for receiving rewards, in the form of **Safety Incentives (SI)** and fee distributions.

To contribute to the safety of the protocol and receive incentives, AAVE holders will deposit their tokens into the SM. In return, they will receive a tokenized position that can be freely moved within the underlying network. The holder of the tokenized position can redeem their share from the SM at any time, triggering a cooldown period of one week (which can be further extended by the governance).

SI rewards are subject to a cooldown period where tokens are unclaimable. The cooldown period is set to seven days. However, fees generated by the protocol are continuously allocated to the users participating in the SM and can be withdrawn. Fees generated from the protocol are redistributed to the SI participants. The reward plan for the SI is designed to incentivize participants contributing to the safety of the protocol in its early stages. The SI emission will be controlled by the governance and adjusted to the protocol's needs. All fees distributions mechanisms are only potential until they go through AIP process and governance vote.

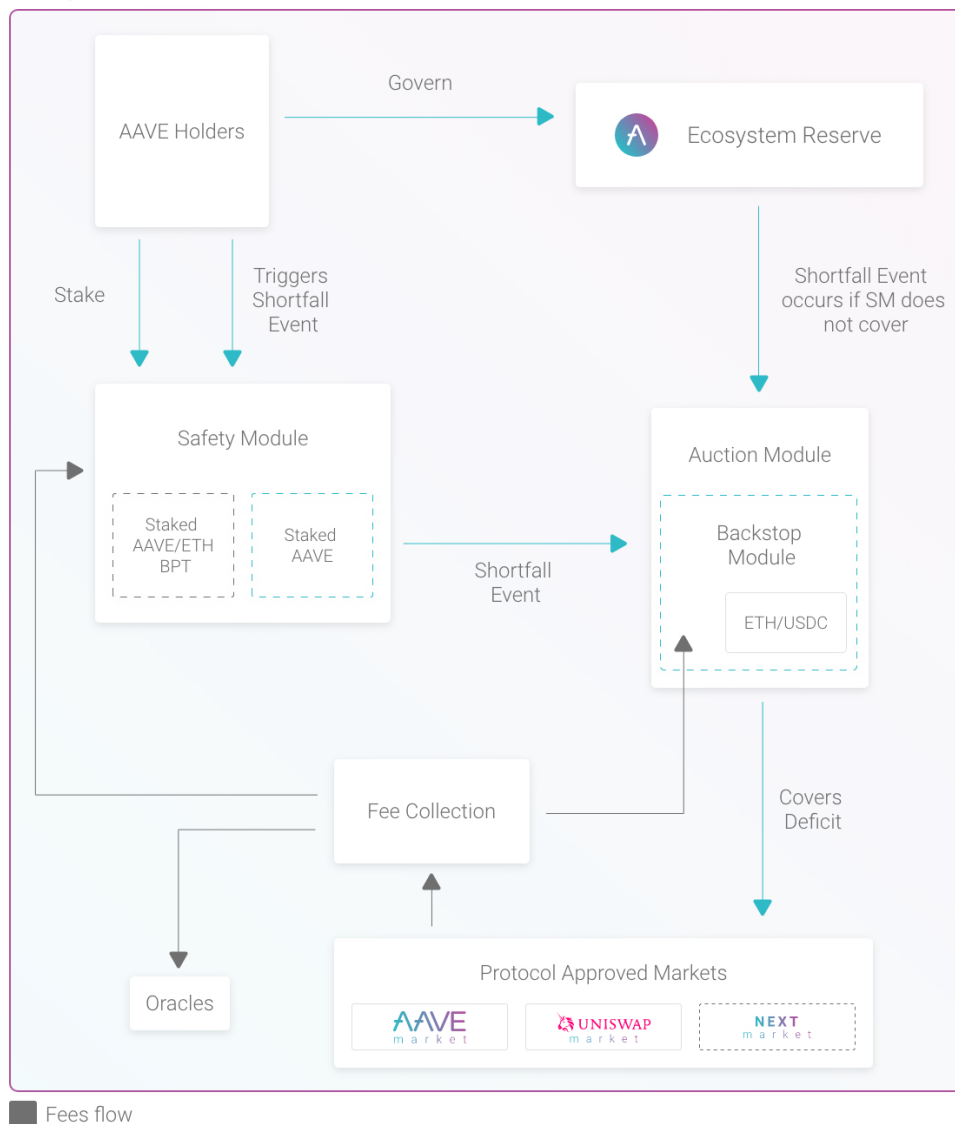
In case the SM is not able to cover all of the deficit incurred, the Protocol Governance can trigger an ad-hoc **Recovery Issuance** event. In such a scenario, new AAVE is issued and sold in an open auction for market price prioritizing the **Backstop Module**.

The issuance of AAVE in case of a **Shortfall Event** is mitigated by the existence of the SM. Prior to any issuance, the deficit of the protocol is first covered by the SM reserves.

## Architecture

The Safety Module is defined by the following components:

Safety Module Architecture



### Staking Module

The main component of the architecture, where users lock their AAVE tokens to protect the Aave Protocol in the instance of a **Shortfall Event**.



The Safety Module is built on top of existing AMM technologies. An 80% AAVE/20% ETH liquidity pool using Balancer will be used to provide benefits in terms of market depth for the AAVE token and earnings from locking AAVE. This also extends to BAL tokens and trading fees on top of the SI and protocol fees, while reducing the impact of a Shortfall Event on the AAVE token itself.

### **Auction Module**

Auctioning system associated with the SM Module. Auctions are triggered upon the occurrence of a Shortfall Event.

### **Backstop Module**

Part of the Auction module, contains the ETH and stablecoins pre-deposited that have a priority position on the auction in the case of a Shortfall Event occurrence. The backstop is explained more extensively in [Safety Module](#).

### **Ecosystem Reserve**

Component receiving and managing the distribution of fees from the different Aave Markets.

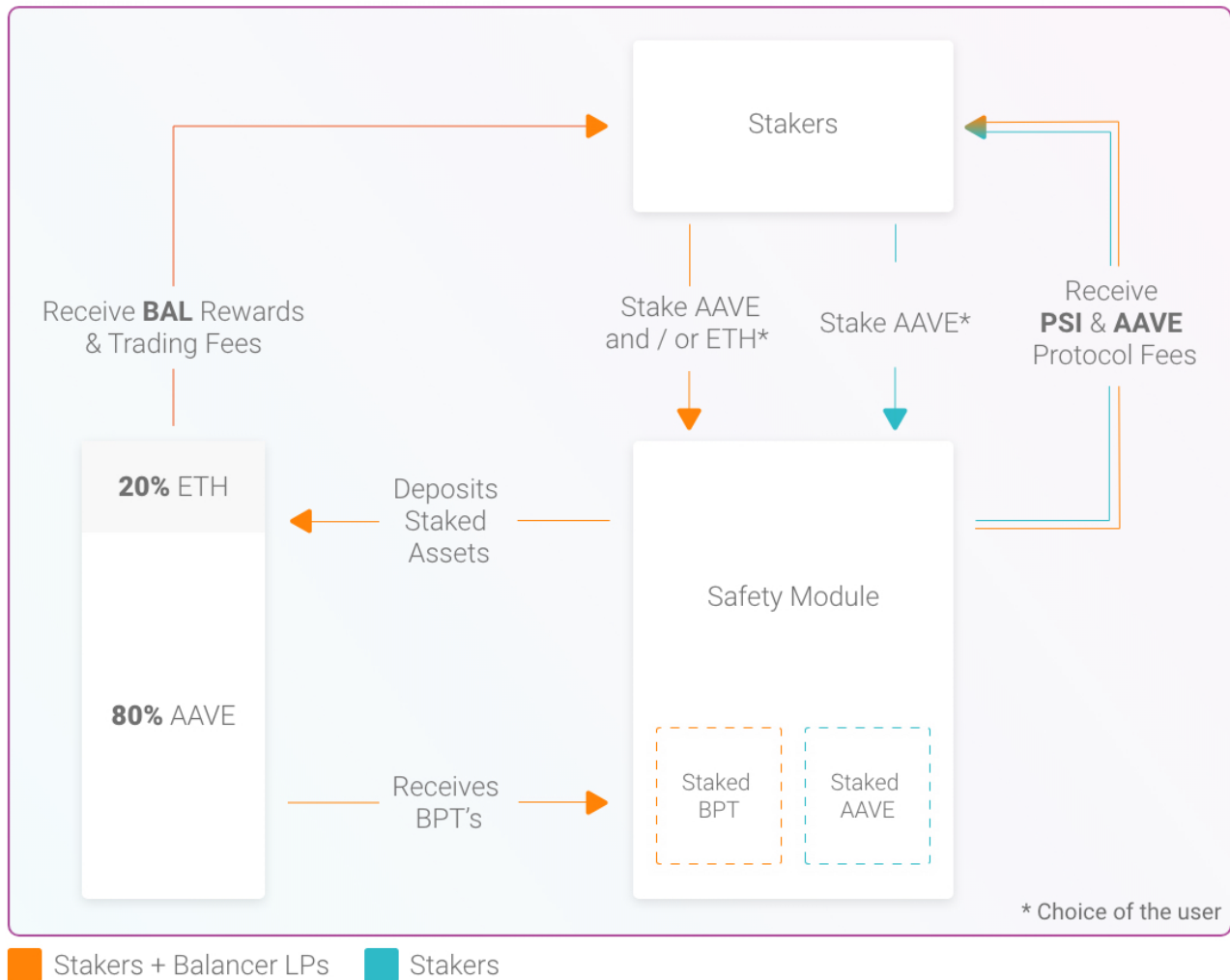
### **Oracles**

The Aave Protocol Oracle System leverages oracles provided by Chainlink and backed by Aave, with an emergency backup oracle run by Aave. The decentralization process will consider providing adequate incentives for oracle providers.

---

## **Safety Module In Detail**

## Safety Module



## Safety Module

Users interact with the Safety Module by locking AAVE and/or ETH into the Safety Module contract. The interaction with the SM is facilitated by a UI that clearly explains the SM dynamics, its purpose within the Aave ecosystem and the risks involved. Users will have the choice of locking AAVE directly or providing liquidity shares from the 80/20 AAVE/ETH Balancer Pool.



**The Safety Module solves the issues with traditional staking systems and market liquidity:** Tokens with locking/reward schemes tend to suffer from low market liquidity and extreme volatility when high percentages of the total supply are being locked. With the ability of contributing to the SM not only by locking AAVE, but also by contributing with liquidity into an AMM, stakers create a

trustless and decentralized market with deep liquidity for trading AAVE against ETH.

The advantage of using Balancer against other AMM solutions is clear when we factor in the possibility of dynamically adjusting the weighting towards AAVE. This allows for the creation of a market and the provision of liquidity whilst maintaining exposure to AAVE. Holding AAVE/ETH liquidity with uneven weights is very close to simply holding AAVE, with the benefits of earning trading fees on top of it.

The Aave Governance will retain the ability to update the weights in the Balancer pool to better suit the protocol and stakers needs as the market evolves.

Since Balancer Labs is distributing BAL governance tokens to liquidity providers, having the SM liquidity in Balancer enables the **users to receive BAL tokens on top of trading fees, protocol fees and SI rewards.**

By also allowing users to simply lock AAVE, we free up less advanced users from the burden of providing two different assets to participate in staking. The SM will support weighted incentives to attract liquidity in case of AMM imbalance.

The primary (Safety Module) and secondary (**Recovery Issuance**) safety mechanisms are reinforced with a built-in **Backstop Module**. This module is a smart contract-based deposit pool to allow the Aave Community to deposit stablecoins and ETH acting as a buy order for the AAVE token at a price agreed-on by the protocol governance in the case of a Shortfall Event, to act as a buyer of last resort.

Back-stoppers are incentivized to have liquidity in the Backstop, as protocol fees are shared with them. In case of backstop buy back occurrence, the AAVE purchased by the backstop is distributed proportionally to backstop LPs, or they can directly deposit back their newly acquired AAVE in the staking module.

---

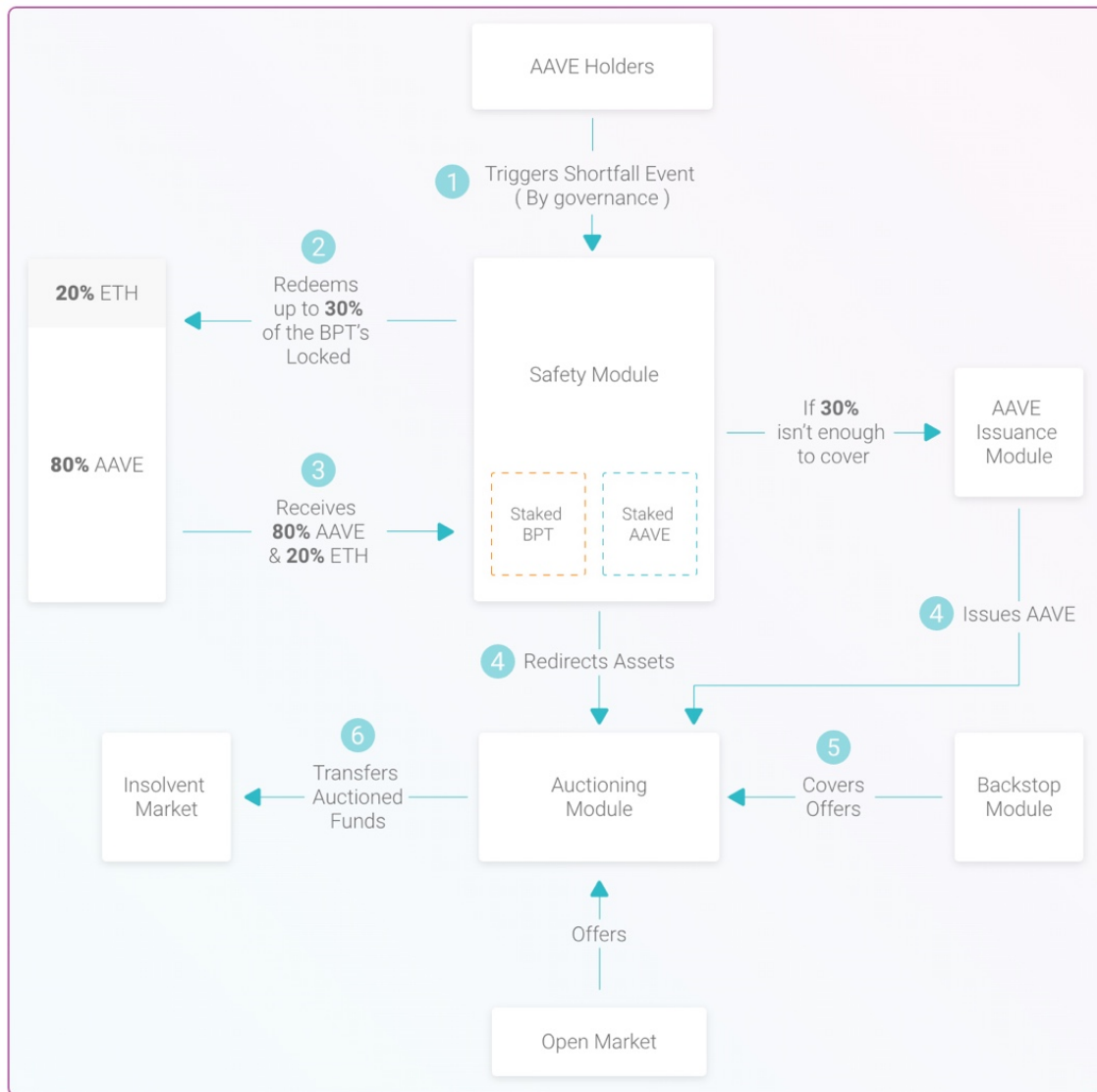
## Shortfall Events

The main role of the Safety Module is to protect the protocol against unexpected loss of funds stemming from:

- **Smart contract risk:** Risk of a bug, design flaw or potential attack surfaces on the smart contract layer.
- **Liquidation risk:** Risk of failure of an asset that is being used as collateral on Aave; risk of liquidators not capturing liquidation opportunities in a timely manner, or low market liquidity of the principal asset to be repaid.
- **Oracle failure risk:** Risk of the Oracle system not properly updating the prices in case of extreme market downturn and network congestion; risk of the Oracle system not properly submitting prices, causing improper liquidations.

In case of loss of capital, the SM uses up to 30% of the assets locked to cover the deficit. If the amount seized from the SM is not enough to cover the whole debt, an ad-hoc AAVE issuance event is triggered called Recovery Issuance. The issued AAVE are used, together with the amount drawn from the SM, to cover the deficit.

## Shortfall Event



The auction module oversees the market emission of the seized funds. The Auction module follows a Dutch auction scheme, where the AAVE and the ETH collected from the SM are auctioned in lots, with their size depending on the deficit to be covered. The **Backstop Module** triggers whenever a lot is about to be sold at a price that is below the backstop price.

## Shortfall Event and Governance

A Shortfall Event has certain governance implications. Users with locked liquidity in the Safety Module will still be able to vote on that matter using their tokenized version of their locked assets. Conceptually, AAVE holders participating in the SM will have to vote to safeguard the integrity of the protocol. Their choice to seize their own funds will need to take into account the long-term stability of the protocol and the future value of AAVE.


This poses certain limitations on the amount of funds that can be seized in the case of a Shortfall Event. A percentage that is too high might bring conflicting sentiment in the AAVE holders participating in the SM, potentially compromising the long-term stability of the ecosystem. The protocol governance will always need to consider these implications whenever proposal discussing the SM funds management are submitted.

# Incentives Policy & AAVE Reserve

Protocols are competing for liquidity by incentivizing depositors through the means of **protocol tokens issuance**. The Aave Protocol will also incentivize its users through a scheduled distribution to benefit liquidity providers and users through the Protocol Ecosystem Incentives from the Aave Reserve.

---

## AAVE Reserve

 The total supply of AAVE is 16M, of which 13M are redeemable by LEND holders with a ratio of 100 LEND per 1 AAVE.

The remaining 3M will be allocated to the Aave Reserve and controlled by the AAVE token holders, to incentivize the Aave Ecosystem growth and development.

## Initial Proposal of Aave Reserve Usage

Over the upcoming month, multiple **AIPs** will be submitted to organize the initial distribution of the AAVE Token to the ecosystem and will be voted on by AAVE holders, they will notably include :

- AAVE Safety Incentives,
- AAVE Liquidity Incentives.

This initial allocation of AAVE through the **Ecosystem Incentives** and **Safety Incentives** is the most direct way to distribute governance power to the users while bootstrapping the liquidity and safety of the protocol.

## Initial Insurance Deposit

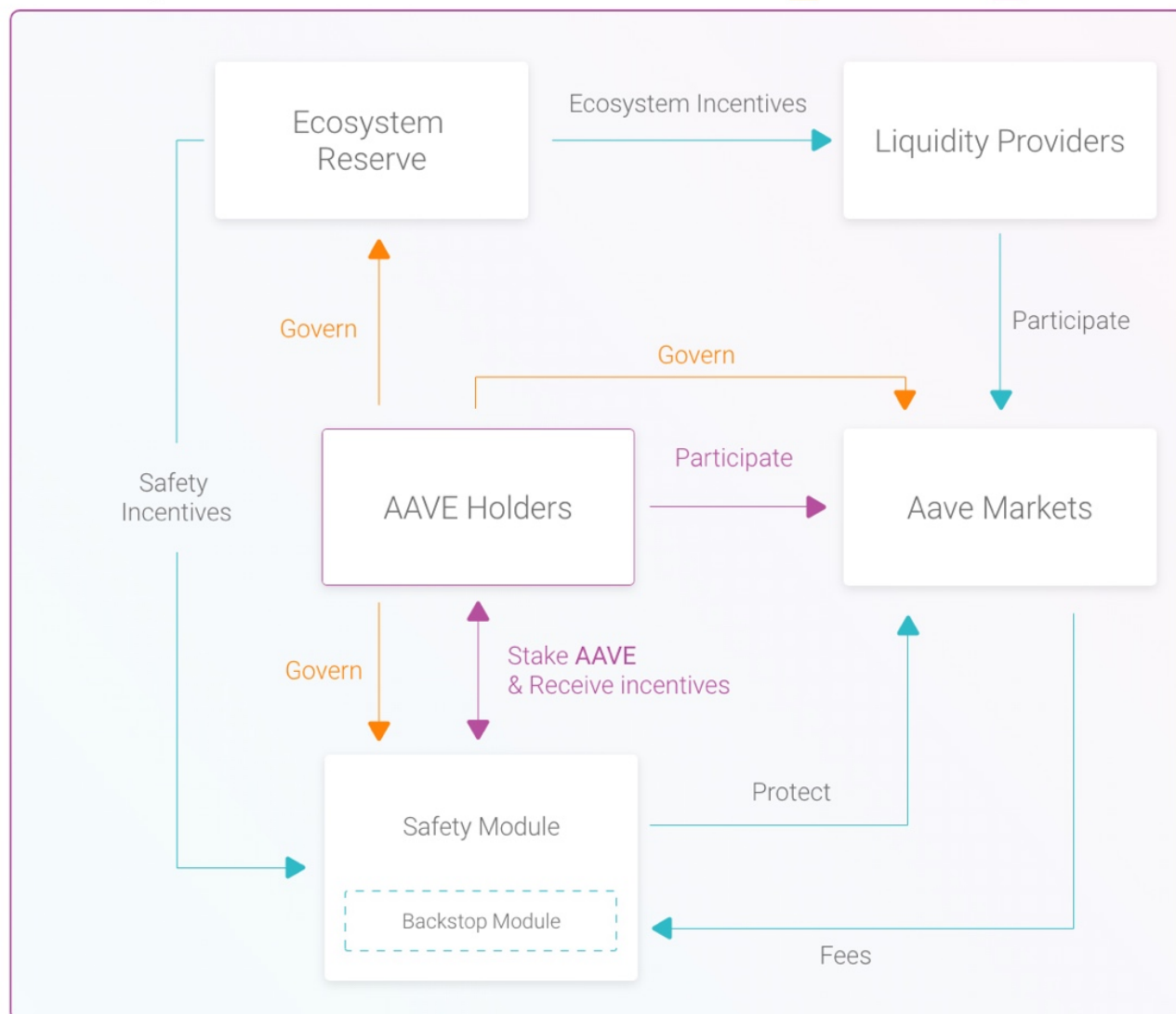
An initial deposit of AAVE Token from the Aave Reserve to the **Safety Module** will also be proposed for the protocol to sponsor its own safety and bootstrap the AMM liquidity.



# Flashpaper

## Key Summary

- Aavenomics present a governance framework to grant key decision making to AAVE tokenholders.
- LEND will migrate to AAVE, via a **Genesis Governance** vote, at a rate of 100 LEND per 1 AAVE.
- The total supply of AAVE will be 16M tokens.
- 13M AAVE tokens will be redeemed by LEND token holders.
- 3M AAVE tokens will be allocated to the Aave Ecosystem Reserve.
- Aave will launch a **Safety Module** (SM) for staked AAVE to act as collateral of last resort.
- Aave will introduce **safety** and **ecosystem** incentives to reward protocol growth.
- Aavenomics introduces **Aave Improvement Proposals** (AIPs) for future protocol upgrades.
- Governance defines a set of **Policies** by which the Aave Protocol and Money Markets abide by.



## Introduction

This Flash Paper is a synthesis of Aavenomics - a formalized path to the decentralization and autonomy of the Aave Protocol.

Acting as a catalyst for growth, Aavenomics introduces a future-proof framework leveraging financial incentives and multilevel governance to prioritize the safety and sustainability of Aave.

This website is the formal documentation detailing the specific inner workings of the topics.

# AAVE Token Migration

The migration to AAVE marks the first step in transitioning governance power from the Aave core team to AAVE token holders.

LEND will migrate to AAVE at a rate of 100 LEND per 1 AAVE, with the supply changing from 1.3B LEND to 16M AAVE. Of the 16M AAVE being issued, 13M AAVE tokens will be redeemed by LEND holders and 3M AAVE tokens will be held in an Aave Ecosystem Reserve for protocol incentives.

To start the migration, LEND will be used to vote on the [Genesis Governance](#) poll to deploy the smart contracts responsible for converting LEND to AAVE.

---

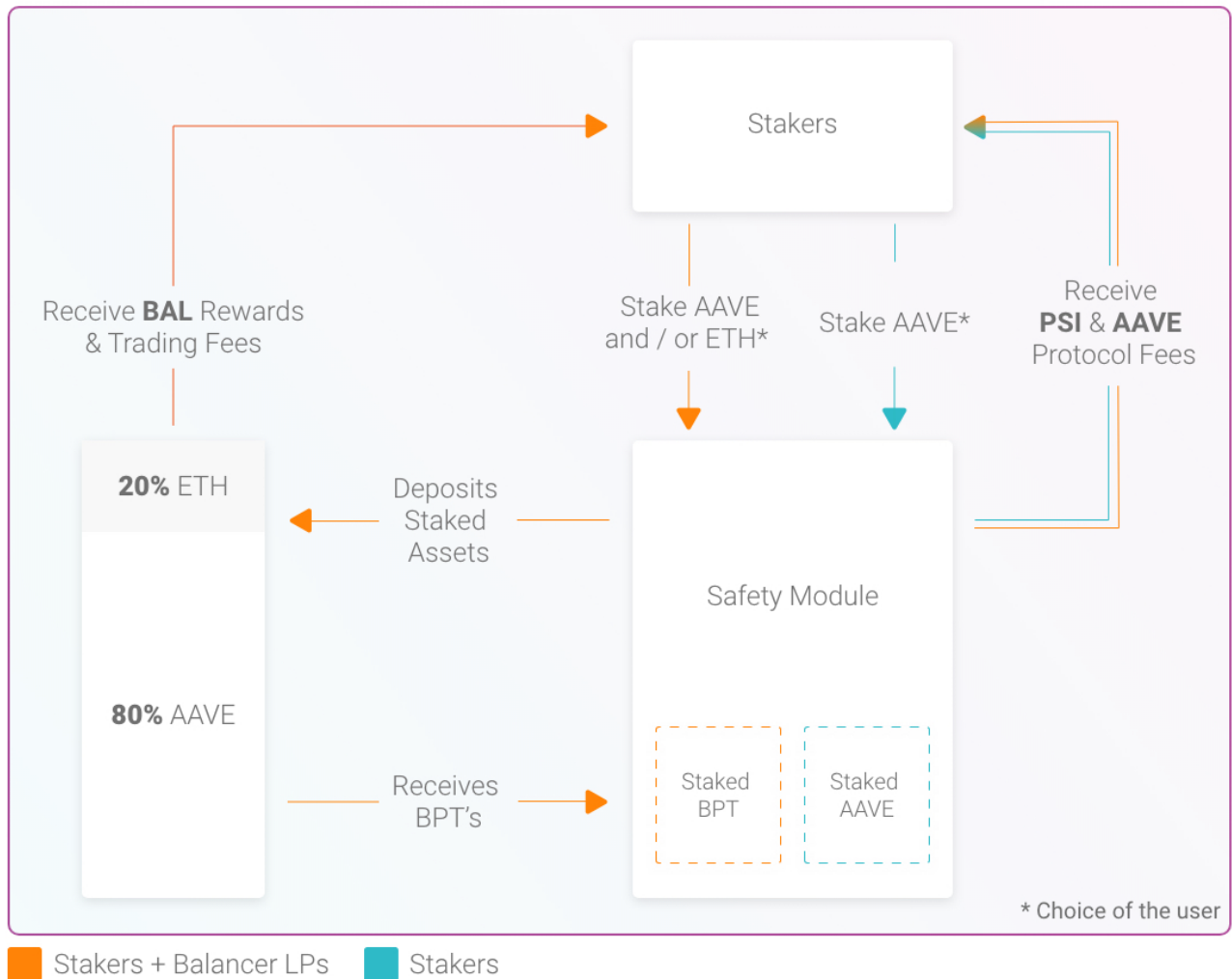
## AAVE Staking

Aave will be secured by a [Safety Module](#) (SM), a staking mechanism for AAVE tokens to act as insurance against [Shortfall Events](#). Stakers earn AAVE as [Safety Incentives](#) (SI) along with a percentage of protocol fees.

Staking will feature plain AAVE alongside an AAVE/ETH pair. The latter will leverage Balancer to incentivize market liquidity and earn BAL along with trading fees.

Staked AAVE will be freely tradable after a cooldown period. All rewards accrue in real-time and are distributed as AAVE is withdrawn or transferred from the Safety Module.

## Safety Module



## AAVE Incentives

The Aave Protocol will be able to distribute **Ecosystem Incentives** (EI) for supplying and borrowing assets from the protocol.

The community may also decide to allocate rewards to applications built on top of the Aave ecosystem. The decision to integrate new incentives will be performed through decentralized governance.

## Aave Protocol Governance

Aavenomics are fuelled by governance forums at [governance.aave.com](https://governance.aave.com) and ratified through on-chain **Aave Improvement Proposals** (AIPs) using **AAVE**. This process looks to ensure extensive discussion is had on proposals prior to being pushed on-chain. Both AAVE held in cold storage and AAVE staked via the Safety Module can be used to vote on AIPs or be delegated to Aave protocol politicians to vote on your behalf.

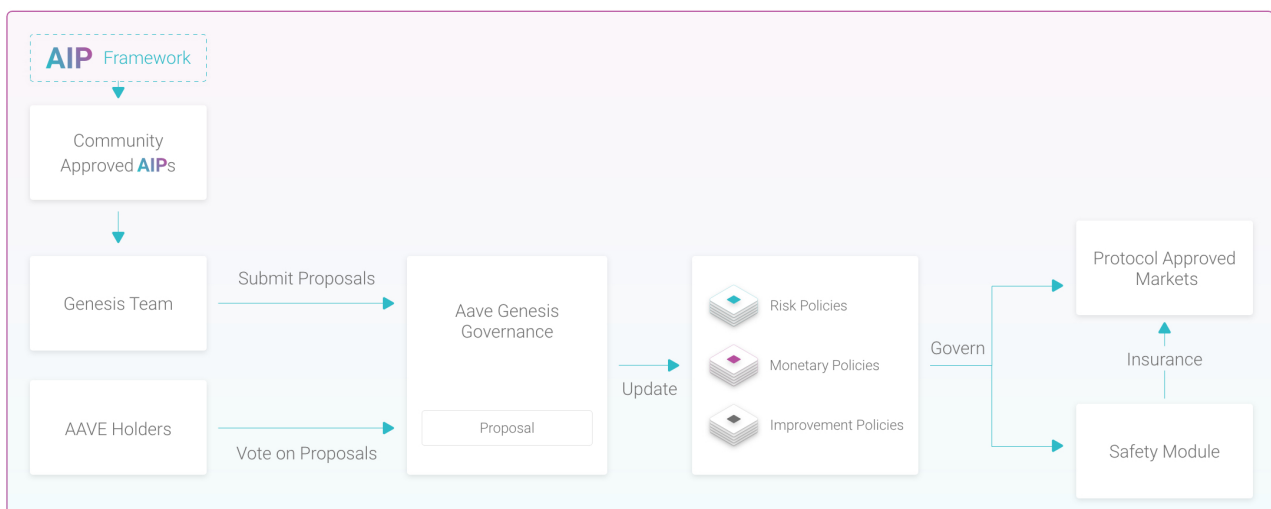
#### Governance Process



## Aave Policies

**Policies** are governance-defined rules that control the protocol and its individual markets. Markets are free to define their own policies so long as they comply with Protocol Policies.

Protocol Policies govern the overall behavior of Aave including risks, improvements and incentives. Market Policies define the context of each market within the Aave protocol, including supported assets, LTV ratios, and interest rate models.



## Shifting Power Dynamics

Aavenomics reward those bearing the most risk with the highest incentives. Aavenomics describes the process in which AAVE stakers bear any deficits along with detailed examples and explanations of protocol policies and governance interactions.

# Terminology

## **AAVE**

The native asset of the Aave ecosystem, which constitutes the foundation of governance and safety for the Aave Protocol (everywhere LEND is used, it may refer to the post migration token, AAVE).

## **Aave Protocol (“Aave” “Aave Protocol” or “the Protocol”)**

Decentralized protocol providing permissionless access to pooled money markets for cryptographic assets.

## **Aave Genesis Governance**

The first iteration of the Aave Governance. Also see [Genesis Governance section](#).

## **Aave Governance Module**

The governance smart contract where proposals are submitted and AAVE holders express their voting preference. Also see [Governance Module](#).

## **Aave Improvement Proposals (AIP)**

The framework that formalizes the community intent of improving the Aave Protocol, either in terms of configuration or new functionalities.

## **Backstop**

Component of the Aavenomics infrastructure that maintains an ongoing incentivized bid for minted or slashed AAVE to recapitalize the protocol in case of Shortfall Event. Also see [Safety Module In Detail](#).

## **Ecosystem Incentives (EI)**

Represents the part of the periodic issuance of AAVE (AI) used to incentivise liquidity providers, software developers and integrators to build value within the Aave ecosystem. Also see [Policies section](#).

## **Ecosystem Reserve (ER)**

The component holding the incentive reserve of AAVE and managing the distribution to the Safety Incentives and Ecosystem Incentives and the overall ecosystem. Also see [Incentives Policy & AAVE Reserve section](#).

## **Recovery Issuance (RI)**

The Recovery Issuance can be triggered whenever the Safety Module is not enough to cover the complete recovery of the protocol followed by a critical loss of funds. Also see [Safety Module section](#).

## **Shortfall Event (SE)**

Event in the Aave Protocol causing a state of deficit for the liquidity providers. Also see [Shortfall Events](#) section.

## **Safety Incentives (SI)**

Represents the part of the periodic issuance of AAVE used to incentivize users to stake AAVE in the Safety Module (SM). Also see [Policies section](#).

## **Safety Module (SM)**

Also known as the Protocol Safety Module. Component in charge of shielding the protocol from insolvency, protecting the liquidity providers from risks resulting in loss of funds, such as liquidation and smart contract risk. Also see the [Safety Module section](#).



# References

1. Andrei Shleifer, Robert W. Vishny, A Survey of Corporate Governance, 1997, the American Finance Association
2. Jean Tirole, Corporate Governance, The Econometric Society, 2001
3. O'Mahony, Siobhán, and Fabrizio Ferraro. "The Emergence of Governance in an Open Source Community." *The Academy of Management Journal*, vol. 50, no. 5, 2007, pp. 1079–1106. JSTOR, [www.jstor.org/stable/20159914](http://www.jstor.org/stable/20159914) accessed 24/07/20
4. Lloyd Gruber. *Ruling the World: Power Politics and the Rise of Supranational Institutions*. Princeton University Press, 2000. JSTOR, [www.jstor.org/stable/j.ctt7s8w1](http://www.jstor.org/stable/j.ctt7s8w1) 24/07/20
5. Joel Monegro, 22/05/2020, Placeholder.vc  
<https://www.placeholder.vc/blog/2020/5/22/proof-of-liquidity> 24/07/20
6. Gartzke, Erik; Quan, Li; Boehmer, Charles (2001). "Investing in the Peace: Economic Interdependence and International Conflict". *International Organization*. 55 (2): 391–438. doi:10.1162/00208180151140612. JSTOR 3078636.)
7. Steurer, Reinhard. "Disentangling Governance: a Synoptic View of Regulation by Government, Business and Civil Society." *Policy Sciences*, vol. 46, no. 4, 2013, pp. 387–410. JSTOR, [www.jstor.org/stable/42637288](http://www.jstor.org/stable/42637288) 24/07/20
8. Sabatier, Paul A. "Top-down and Bottom-up Approaches to Implementation Research: A Critical Analysis and Suggested Synthesis." *Journal of Public Policy*, vol. 6, no. 1, 1986, pp. 21–48. JSTOR, [www.jstor.org/stable/3998354](http://www.jstor.org/stable/3998354) accessed 24/07/20
9. Power after Lukes: An overview of theories of power since Lukes and their application to development, Jonathan Gaventa
10. Hayward, Clarissa Rile (2000) *De-facing Power*, Cambridge: Cambridge University Press
11. *Organizational Behavior and Human Decision Processes* Volume 61, Issue 3, March 1995, Pages 250-261 A Model of Financial Incentive Effects in Decision Making Stone, Dan N., Ziebart, David A
12. Simon Burgess and Marisa Ratto. "The Role of Incentives in the Public Sector: Issues and Evidence." *Oxford Review of Economic Policy*, vol. 19, no. 2, 2003, pp. 285–300. JSTOR, [www.jstor.org/stable/23606768](http://www.jstor.org/stable/23606768) accessed 24/07/20
13. Gailmard, Sean, and John W. Patty. "Slackers and Zealots: Civil Service, Policy Discretion, and Bureaucratic Expertise." *American Journal of Political Science*, vol. 51, no. 4, 2007, pp. 873–889. JSTOR, [www.jstor.org/stable/4620105](http://www.jstor.org/stable/4620105) accessed 24/07/20