

Ormi Protocol TL;DR

Victor Fei, vfei93@gmail.com

1. What is Ormi Protocol?

- a. Undercollateralized lending/decentralized credit protocol. User can borrow crypto assets with less than 100% collateralization ratio (CR).
- b. Essentially, Aave without overcollateralization.
- c. Multi-chain architecture. Ethereum, Eth L2 (Polygon), Avalanche, Solana, etc.

2. Who are the borrowers?

Anyone. No KYC required. Not necessarily institution.

3. How does Ormi reduces default risk?

- a. Adoption & network effects of Ormi decentralized identifier (DID) & Verifiable Credential (VCs) to build on-chain reputation when interacting with Ormi.
- b. A User/DID starts with 100% collateralization ratio, after each complete loan repayment or favorable loan activity, CR gradually and linearly reduces to 90%, 80% ... 30%, etc.
- c. Each loan activity (e.g. close a loan, default) a VC is issued and chained with previous act as credit history and encrypted stored on IPFS.
- d. Loan with CR 50%+, no time limitation, as long as collateralization after accrued interest is above the allowed CR. If falls below allowed CR, liquidation occurs and unfavorable VC is issued. Note: 50% collateral threshold is a rough guess, exact CR needs to be found out via experimentation.
- e. Loan with CR < 50%, fixed time period loans. Any time loan falls below allowed CR or past allowed time period, liquidation occurs and unfavorable VC is issued.
- f. In the event of liquidation or defaults, a DID's collateralization ratio requirement increases.
- g. A User/DID's CR decreases linearly upon favorable behavior and increases exponentially upon unfavorable behavior.
- h. [Under consideration] Run SybilRank type of algorithm & analysis on user's crypto addresses at time of onboarding to determine credit-worthiness and prevent Sybil attack.
- i. [Under consideration] If a user continuously misbehaves or defaults without ever paying back, a blacklist is published openly on the web with information such as associated crypto addresses/social graph. Onboarding with blacklisted crypto addresses will not be allowed. A user can be redeemed from the list by paying back the loan + accrued interest. Ormi DAO can also decide who to remove/add to blacklist.
- j. [Under consideration] Social media/government documents validation as a form of Sybil control but never KYC.

4. How does Ormi restructure debt?

- a. Interest from loan payment go into Ormi treasury which is used to recapitalize lending pool to make up for the default amount.
- b. Third-party insurance contract to protect lending pool and/or individual lenders.
 - o [Under consideration] Third-party credit default swap (CDS) integration.
 - o [Under consideration] Ormi's in-house insurance or CDS contract.
- c. Minting and auctioning Ormi governance token to recapitalize lending pool.

5. How does Ormi ensure liquidity?

- a. Same as Aave, kinked dynamic interest rate model to incentivize liquidity. The interest rate rises sharply at some defined threshold as a function of utilization rate to incentivize more liquidity supply from lenders, as an effort to decrease utilization rate and increase reserve ratio.
- b. Bank run scenario. It's ultimately prevented by the reputation of the protocol. Aave and Compound are not bank run proof.

6. Ormi tokenomics & governance

- a. Ormi governance token's model follows that of Maker (MKR) token. i.e. generally deflationary to maximize governance token's value.
- b. If debt defaults cannot be restructured via Ormi treasury or insurance, Ormi token will be automatically minted and auctioned to cover defaults.
- c. Ormi governance token holders set monetary policies for the protocol (type of assets as collateral, base interest rate, default risk parameter, etc). Ormi governors at all time aim to make policies to reduce system wide default. Punishment for bad monetary policies/governance is automated minting/inflating of Ormi governance tokens to recover liquidity loss from defaults, whereby devaluing governance token's value.

7. Additional features under consideration

- a. Flash loans
- b. Stable rate loans
- c. NFT based collaterals
- d. PID controller based monetary policies

8. Values that the Ormi team will always uphold

Decentralization, censorship-resilience, self-sovereignty, experimentation, innovation and contribution to decentralized protocols and infrastructure.

9. Ormi long term vision

- a. Issue undercollateralized stable-coins.
- b. To be the identity provider for web 3.
- c. To be the insurance provider for web 3.
- d. Ormi may release web 3 native social media platform in the long term.

10. What is behind the name "Ormi"?

Idea originated on Ormidale Street in Vancouver, Canada during Covid lockdown.