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Summary

This ARC proposes to disable new MKR borrowing, adjust the MKR interest rate model, and increase MKR reserve factor on the Aave v2 Ethereum protocol.

Motivation

This proposal is primarily motivated by a desire to reduce the risk of governance attack against MakerDAO and corresponding collateral damage to other defi infrastructure. At the same time, the proposal is structured to minimize impacts on Aave usability and reserve growth.

Maker governance is resilient against most forms of governance attack due to a two day timelock delay on proposal execution, and the ability to cancel malicious proposals in the timelock with sufficient voting power. But Maker's emergency shutdown mechanism can be triggered without any delay, and this presents a potential risk that a well capitalized attacker would be able to accumulate the 150,000 MKR required to shut down the protocol. A hypothetical attacker could be motivated by profit (potentially able to profit through short positions on MKR, other defi tokens, or large cap crypto assets) or other goals such as causing damage to defi infrastructure for political reasons.

MKR liquidity on exchanges is fairly low, which means it would be prohibitively expensive (and potentially not even possible) to purchase a sufficient stake to trigger shutdown over short time periods. But lending protocols such as Aave and Compound provide a much more efficient means of acquiring MKR for an attacker; borrowing tokens does not incur any slippage or market impact, and an attacker's final net cost may be significantly reduced if they could repurchase MKR at a lower price after triggering shutdown.

Specification

Implement the following changes to the Aave MKR market on Ethereum:

- Disable MKR borrowing

- Modify MKR interest rate model

- Change base interest rate at 0% utilization from 0% to 3%

- Change optimal interest rate from 7% to 20%

- Change interest rate at 100% utilization from 307% to 320%

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- Change optimal interest rate from 7% to 20%

- Change interest rate at 100% utilization from 307% to 320%

- Disable stable borrowing and shift any existing stable borrow positions to variable interest rate

- Increase reserve factor from 20% to 50%

Projected Impact

Based on the current status of the Aave MKR market (~35% utilization, 8,200 MKR borrowed), this would result in the following impacts for users and the Aave protocol:

- No additional MKR could be borrowed

- Any stable borrow positions would be shifted to variable borrow rate

- Borrow interest rate on outstanding MKR positions would increase from 5.45% to 17.9%

- Deposit interest rate on MKR positions would increase from 1.5% to 3.1%

- Annualized growth of MKR reserves would increase from 145 MKR to 1,035 MKR

See the below figure for current and updated interest rate models based on utilization rate. Data is includedhere.

There changes to the MKR market parameters could have second order effects over time, including:

- Likely reduction in outstanding MKR loans due to increased borrowing costs, as well as disabling ability to open new borrow positions

- Possible increase in total MKR deposited due to higher deposit rate

- Possible increase in total MKR deposited to be used as collateral, due to lower concerns about governance attack risk

- Unclear net impact on equilibrium borrow rate, deposit rate, and reserve growth

Finally, these changes would have the following impact on risk and cost of emergency shutdown attack against MakerDAO governance:

- Increasing required tokens to be acquired from other sources by between 16,000 to 24,000 MKR

- Raising estimated cost of attack by at least $10,000,000, up to potentially over $100,000,000 or greater (due to greater market impact on purchasing MKR vs borrowing, as well as reduced capacity to short MKR as part of attack strategy)

Next Steps

This ARC will be left open for community discussion for at least 7 days. Any suggestions or strong community opposition may result in modification of the proposal specification; if the specification is modified it will be reposted to the forum with an additional discussion period of at least 7 days.

Following community discussion, the proposal will be posted to Aave's Snapshot space for an initial, non-binding poll poll.

The relevant Snapshot link will be posted in this forum thread once available.

Assuming the poll vote resolves favorably, the proposal will be submitted as a full AIP to the Aave governance forum, followed by an on-chain vote to implement the proposed changes.

Once Aave v3 is available on Ethereum, Aave governance will have the capability to set asset specific borrowing limits. At that time, author will pursue an additional proposal to re-enable MKR borrowing with a 5,000 MKR token borrow limit similar to the existing limit in place on Compound. This will allow Aave to continue to provide borrowable liquidity to users and earn MKR reserves, while mitigating risk of governance attack against MakerDAO.

License and Disclaimers

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