Greetings Aave! Sam from the MakerDAO smart contracts team here. I am pleased to introduce the proposed Maker Direct Deposit Dai Module (D3M) in [cooperation with the Aave team](). This module will allow the Maker protocol to enforce a maximum variable borrow rate for the DAI market on Aave. It does this by calculating how much DAI supply is required to drop the interest rate down to the desired level and then minting that amount against the returned aDAI. All of this is performed by a fully automated vault with a target interest rate specified by Maker governance.

Why is this useful?

As I'm sure you all know, one of the biggest problems for Aave's users is the unpredictability of the stablecoin borrow rate. Due to the volatile nature of DeFi, the interest rates can surge to double digits and remain there for weeks. By enforcing a maximum borrow rate, users will be able to take on leverage without fear of being stuck paying high interest rates. In exchange, Maker will be able to earn interest on the demand surges.

How this works

The D3M is deployed like a special aDAI vault with a specific target borrow interest rate - say 4%. Whenever the variable borrow rate on Aave DAI goes above 4% anyone can call the vault's exec()

function to re-adjust the amount of DAI in the pool. In this case it will calculate the amount of DAI needed to be minted to hit the target interest rate and put that into the Aave's lending pool. This will continue to add DAI until either the debt ceiling is reached or the 4% target is hit.

[

direct-deposit

2780×1373 83.3 KB

](https://europe1.discourse-cdn.com/business20/uploads/aave/original/1X/fa67109378ea8e0d24398c62d9d5d72a05e42f00.png)

In the reverse direction, when the variable borrow is under 4% and we have previously added liquidity, the exec()

function will calculate how much liquidity to remove to bring the target interest rate back up to 4%. It will continue to remove liquidity until either the vault debt is fully paid back or the pool runs out of liquidity. In the event the pool runs out of DAI liquidity the module will wait until it fills up again and continue to unwind.

To the end user this will all be performed in the background. They will just magically get the benefit of predictable interest rates.

Code

For the technically inclined, I have submitted a [Maker Improvement Proposal]() (MIP) for inclusion in May's governance cycle. You can read about the MIPs process [here]().

Aave / Maker Alignment

Beyond the immediate benefit of having a stable borrow rate, I feel this is a great first step for both protocols to join together in future collaboration. Aave and Maker are currently dominating their respective market segments. By joining together we can become an unstoppable force securing the future of DeFi. I invite you all to join us over on the Maker forum.