DBR Replenishment Rate Reduction Risk Assessment (Apr ‘23)

Background

The current DBR replenishment rate stands at 1,000% APR, acting as a significant deterrent for borrowers who may run out of DBR. However, feedback from C2TP, founder of Convex Finance, has suggested that this rate may be too high, renewing earlier concerns that this might be discouraging larger borrowers from using the platform, as their daily costs would be significant if they were to enter the replenishment zone.

This risk assessment evaluates the potential reduction of the DBR replenishment rate. A lowered rate should still serve as a deterrent but would be less off-putting for potential borrowers, particularly larger ones. It is essential to strike a balance between deterring users from running out of DBR and not hindering the adoption of FiRM. Reducing the rate should be done with caution and only if there is enough evidence to suggest that it is a major obstacle for users.

Considerations for reducing the replenishment rate

A reduction in the replenishment rate should balance the need for a deterrent while not hindering the adoption of the FiRM platform. Key factors to consider include:

a. Deterring users from running out of DBR: A lower replenishment rate could still act as a deterrent, provided it remains sufficiently high to discourage users from entering the replenishment zone.
b. Encouraging platform adoption: A more moderate replenishment rate could be more attractive to potential borrowers, particularly larger ones, who might be deterred by the high daily costs associated with the current 1,000% APR rate.
c. Impact on platform stability: Lowering the replenishment rate could potentially affect the platform's stability if it becomes less effective as a deterrent. However, this risk can be mitigated by carefully selecting a new rate that still discourages users from running out of DBR while not being overly punitive.
d. Gaming the system: Lowering the replenishment rate to a low enough value could lead to users gaming the system by self-replenishing and receiving a 50% refund on the cost (as replenisher fee currently set to 50%). This could effectively reduce the APR cost for borrowers and should be considered when determining an optimal rate.
e. Revenue generation: Replenishment fees have the potential to generate significant revenue at scale. Reducing the rate should be done with caution and only if there is enough evidence to suggest that it is a major obstacle for users.

Addressing self-replenishment concerns

In the context of self-replenishment and potential gaming, it's important to consider the interplay between users and MEV searchers, as well as the costs associated with each strategy. If a user attempts to self-replenish before it becomes profitable for an MEV searcher to do so, they will end up paying more than the replenishment price due to the combined cost of DBR and gas fees. On the other hand, if the user waits until the replenishment becomes profitable, an MEV searcher is likely to step in and execute the transaction, effectively replenishing the user's DBR balance.

This dynamic creates a competitive environment where users are forced to carefully consider the costs and benefits of self-replenishment, and MEV searchers act as a natural check against gaming the system. In this context, reducing the DBR replenishment rate is a viable strategy, as the interplay between users and MEV searchers can help maintain the balance between deterrence and adoption. However, it's crucial to closely monitor the behavior of both user groups and the impact of their actions on the platform's overall performance. The Risk Team should maintain a proactive approach in identifying potential gaming patterns and any negative consequences that may arise from reducing the replenishment rate.

Risk mitigation and monitoring

Reducing the replenishment rate should be accompanied by risk mitigation measures and ongoing monitoring:

a. Monitor user behavior: Regularly assess user behavior, particularly with regards to self-replenishment, to identify potential gaming and evaluate the effectiveness of the chosen rate.
b. Adjust the replenishment rate as needed: Be prepared to adjust the rate based on performance metrics. If users continue to run out of DBR or gaming becomes prevalent, consider revising the rate.
c. Enhance platform communication: Ensure that users are well-informed about the potential risks and costs associated with entering the replenishment zone. This includes providing clear documentation and creating automated alerts to notify users when they are approaching the zone.
d. Collaborate with the community: Engage with the community to gather feedback and insights on their experiences with the platform, particularly concerning the replenishment rate. Utilize this information to improve the platform and address potential issues.
e. Analyze market conditions: Continuously monitor market conditions and trends that could impact the FiRM platform's performance. Consider external factors that may influence user behavior or the platform's attractiveness to borrowers, such as interest rates, economic conditions, and competitor offerings.

Risk Team's recommendation

Considering all of the above and the need to balance deterrent effects, adoption, gaming potential, and revenue generation, the Risk Team recommends setting the DBR replenishment rate at 54.75% APR, or more conventionally 0.15% per day. This rate provides a balance between deterring users from running out of DBR and encouraging adoption while also maintaining a reasonable potential for revenue generation.

Implementing the risk mitigation measures and monitoring activities outlined above will further help address potential risks associated with reducing the replenishment rate. If the Risk Team observes that self-replenishment becomes a prevalent issue despite the presence of MEV searchers, they may need to re-evaluate the replenishment rate or consider implementing additional measures to discourage this behavior.

It is essential to remain flexible and responsive to user feedback and market developments, making further adjustments to the replenishment rate as needed to ensure the platform's ongoing success.