

Stability Scope Parameter Changes #6

Introduction

This post covers BA Labs' sixth parameter changes proposal as a member of the Stability Advisory Council. Final changes are pending approval by the responsible Stability Facilitators.

For further context, refer to BA Labs' previous Stability Scope Parameter Changes proposals below.

Previous Stability Scope Parameter Change Proposals

- [Decentralized Collateral Scope Parameter Changes #1 - April 2023](#)
- [Stability Scope Parameter Changes #2 & Non-Scope Defined Parameter Changes - May 2023](#)
- [Stability Scope Parameter Changes #3 - June 2023](#)
- [Stability Scope Parameter Changes #4 - July 2023](#)
- [Stability Scope Parameter Changes #5 - August 2023](#)

With this post, BA Labs proposes updated Stability Scope parameters in accordance with the most recent amendments made to MIP104 through [MIP102c2-SP16](#). Each edit and its impact on protocol parameters is explained in further detail in the Analysis

section below. In summary, the analysis section covers:

- Base rate formula changes
- Dai Savings Rate (DSR) formula changes
- Enhanced Dai Savings Rate (EDSR) changes
- Enhanced Dai Savings Rate (ESDR) multiplier changes
- Native Vault Types (specifically ETH-A, ETH-B and ETH-C) now incorporate EDSR instead of DSR for Stability Fee (SF) determination
- WBTC vault types DC-IAM changes
- Proposed RETH-A offboarding plan

Summary Recommended Stability Scope Parameter Changes

(Relevant figures (e.g. Base Rate, DSR, and SFs) have been updated on October 5, 2023. These are the final figures that will be included in the Executive vote).

The proposed parameter changes included in the screenshot below can be directly included in an executive vote by the Stability Scope Responsible Facilitator.

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Source: [#6 Stability Scope Parameter Changes](#)

Yield Benchmark Parameter Changes

- Increase the Yield Collateral Yield Benchmark

by 0.06%, from 5.55% to 5.61%.

- Increase the Stability Collateral Yield Benchmark

by 0.74%, from 1.35% to 2.09%.

Base Rate Changes

- Increase the Base Rate

by 0.50%, from 3.95% to 4.45%.

Dai Savings Rate (DSR) Changes

- Increase the Dai Savings Rate (DSR)

by 0.75%, from 3.45% to 4.20%.

Enhanced Dai Savings Rate (EDSR)

- DSR utilization levels are still in Tier 1. Enhanced Dai Savings Rate (EDSR)

and effective DSR will remain at 5%.

Stability Fee Changes

- Increase the ETH-A

Stability Fee (SF) by 1.55%, from 3.70% to 5.25%.

- Increase the ETH-B

Stability Fee (SF) by 1.55%, from 4.20% to 5.75%.

- Increase the ETH-C

Stability Fee (SF) by 1.55%, from 3.45% to 5.00%.

- Increase the WBTC-A

Stability Fee (SF) by 0.06%, from 5.80% to 5.86%.

- Increase the WBTC-B

Stability Fee (SF) by 0.06%, from 6.30% to 6.36%.

- Increase the WBTC-C

Stability Fee (SF) by 0.06%, from 5.55% to 5.61%.

RETH-A Offboarding Parameters

- Set DC-IAM Line (max DC) to 0 (zero).

To be executed in the same Spell as other parameters in this proposal.

- Set RETH-A LR to 10,000%.

To be executed in a later Spell, explained below.

- Set RETH-A Chop (liquidation penalty) to 0.

To be executed in a later Spell, explained below.

- Set RETH-A Chip & Tip (liquidation incentives) to: TBD

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To be defined and executed in a later Spell, explained below.

Stability Scope Bounded Mutable Alignment Artifact Changes

Assuming that the aforementioned changes are implemented, we also propose to incorporate these figures into the [MIP104: Stability Scope Bounded Mutable Alignment Artifact](#) as follows:

- [3.1.1A](#): The Base Rate is: 4.45%
- [3.2.1A](#): The Dai Savings Rate is: 4.20%
- [14.1.1.1A](#): The Stability Collateral Benchmark Yield is: 2.09%
- [14.1.2.1A](#): The Yield Collateral Benchmark Yield is: 5.61%

DC-IAM Changes (WBTC Vault Types)

DC-IAM parameters are not yet explicitly defined in the Stability Scope and therefore require an onchain poll (see Analysis section below for more information). BA Labs proposes an onchain poll of the following changes on Monday October 2, 2023.

- Reduce the WBTC-A

DC-IAM Gap from 10 million Dai to 2 million Dai

- Reduce the WBTC-B

DC-IAM Gap from 5 million Dai to 2 million Dai

- Reduce the WBTC-C

DC-IAM Gap from 10 million Dai to 2 million Dai

Analysis

Yield Collateral Yield Benchmark

As stated in article [14.1.2](#) in the Stability Scope, the Yield Collateral Yield Benchmark is approximately based on the 3-month US Government Treasury Bill. The 3-month US Government Treasury Bill rate is at the time of writing [5.61%](#).

BA Labs recommends the Stability Facilitators to increase the Yield Collateral Yield Benchmark by 0.06%, from 5.55% to 5.61%.

Stability Collateral Yield Benchmark

According to article [14.1.1](#) in the Stability Scope, the Stability Collateral Yield Benchmark is approximately based on the average yield earned on all Cash Stablecoins. At the time of writing, Cash Stablecoins listed in article [7.2.1.3.1A](#) include:

- USDC - Exposure to USDC in centralized custody solutions is capped at 500 million USDC.
- GUSD - Exposure to GUSD is capped at 110 million GUSD and exposure to GUSD requires that a marketing reward of at least 2% is available.
- USDP - Exposure to USDP is capped at 120 million USDP and exposure to USDP requires that a marketing reward of at least 2% is available.

According to the calculation in the table below, the Stability Collateral Yield Benchmark should at the time of writing be 2.09%.

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BA Labs recommends the Stability Facilitator to increase the Stability Collateral Benchmark Yield by 0.74%, from 1.35% to 2.09%.

Base Rate Changes

With [MIP102c2-SP16](#), the Base Rate formula has been changed from:

$((\text{Yield Collateral Yield Benchmark} - 0.7\%) * 0.78 + \text{Stability Collateral Yield Benchmark} * 0.12)$

to:

$((\text{Yield Collateral Yield Benchmark} - 0.5\%) * 0.78 + \text{Stability Collateral Yield Benchmark} * 0.22).$

Taking into account the changes in the Yield Collateral Yield Benchmark, the Stability Collateral Yield Benchmark, as well as the adjustments to the Base Rate formula, the new Base Rate should be 4.45%.

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BA Labs recommends the Stability Facilitator to increase the Base Rate by 0.50%, from 3.95% to 4.45%.

Dai Savings Rate (DSR)

With [MIP102c2-SP16](#), the DSR formula has been changed from the previous Base Rate - 0.5%

to the new Base Rate - 0.25%

. With the Base Rate at 4.45%, the updated DSR should be:

$4.45\% - 0.25\% = 4.20\%$

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BA Labs recommends the Stability Facilitator to increase the DSR by 0.75%, from 3.45% to 4.20%.

Enhanced Dai Savings Rate (EDSR)

At the time of writing, the DSR utilization rate is approximately [29.5%](#). According to the Stability Scope language, the EDSR should remain at 5.00% up until DSR utilization surpasses 35% for a continuous time period of 24 hours (Tier 2). Once Tier 2 is entered, a new multiplier is applied to the DSR in order to establish a new EDSR. It is worth noting that [MIP102c2-SP16](#) has changed the tier 2 multiplier from 1.3x to 1.15x. If the DSR utilization exceeded 35% today, Tier 2 DSR would result in an EDSR of 4.83%. However, since this is currently not the case, no changes are needed at this point in time.

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The DSR utilization rate is under 35%. No EDSR (and thus effective DSR) changes are needed.

Native Vault Engine Collateral Parameters

[MIP102c2-SP16](#) makes an important change to [3.2.2: Enhanced Dai Savings Rate](#). The previous language stated that crypto-collateralized stability fees were affected by the EDSR, but that ETH-A, ETH-B, and ETH-C were exempt from this, and hence were dependent on the DSR instead. This is no longer the case. In the new Stability Scope language, all Vault Types are affected by the EDSR.

As such, new SF calculations for Native Vault Collateral (ETH-A, ETH-B, ETH-C, WSTETH-A, and WSTETH) are shown in the table below:

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BA Labs recommends the Stability Facilitator to perform the following parameter changes to Native Vault Engine Collateral:

Stability Fee (SF) changes:

- ETH-A: Increase SF by 1.55%, from 3.70% to 5.25%

- ETH-B: Increase SF by 1.55%, from 4.20% to 5.75%
- ETH-C: Increase SF by 1.55%, from 3.45% to 5.00%

Non-Native Vault Engine Collateral Parameters

The SF of Non-Native Vault Engine Collateral (WBTC-A, WBTC-B, and WBTC-C), on the other hand, are dependent on the Yield Collateral Yield Benchmark instead of the DSR/EDSR. The table below illustrates their relationship with the Yield Collateral Yield Benchmark:

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BA Labs recommends the Stability Facilitator to perform the following parameter changes to Non-Native Vault Engine Collateral:

Stability Fee (SF) changes:

- WBTC-A: Increase SF by 0.06%, from 5.80% to 5.86%
- WBTC-B: Increase SF by 0.06%, from 6.30% to 6.36%
- WBTC-C: Increase SF by 0.06%, from 5.55% to 5.61%

DC-IAM Changes (WBTC-A, WBTC-B & WBTC-C)

Over the past several months, WBTC minting activity has been relatively low. Excluding a short period of elevated, inorganic activity caused by the 8% EDSR in early August, maximum daily net minting from WBTC vaults has been far below the current DC-IAM Gap parameters. This indicates that Gaps are higher than necessary to support organic user activity, and create unnecessary risk for the protocol.

Over the past 2 months, excluding the period when EDSR was at 8% (6 August to 20 August), the highest daily net increase in exposure for WBTC vault types are as follows:

- WBTC-A: ~1,015,000 Dai on 2 August
- WBTC-B: ~1,510,000 Dai on 29 August
- WBTC-C: ~1,090,000 Dai on 9 September

We have also seen that large net increases in exposure for WBTC vault types are typically not correlated, so users may be able to substitute different vault types if their preferred option becomes temporarily unavailable due to large mints.

Reducing the Gap parameters for these vault types will limit Maker's maximum potential losses in a case where WBTC collateral faces impairment (for example if Bitgo is hacked or is forced to freeze funds). Currently, Maker could take on up to 50-75 million Dai in additional WBTC backed debt exposure in the 2-3 day period before governance proposals could be enacted, while under the proposed parameters this maximum exposure growth would fall to 12-18 million Dai (a 76% reduction).

BA Labs recommends the following changes to WBTC Vault Type DC-IAM parameters:

- WBTC-A: Reduce Gap from 10 million Dai to 2 million Dai
- WBTC-B: Reduce Gap from 5 million Dai to 2 million Dai
- WBTC-C: Reduce Gap from 10 million to 2 million Dai

Please note that until DC-IAM Gap parameters are explicitly defined in the Stability Scope, it is required to poll these changes. We therefore recommend for these changes to be polled onchain next Monday the 2nd of October. BA Labs is currently actively working on a MIP104 amendment which will offer methodology and define how these specific parameters should be altered. Once the DC-IAM parameters are explicitly defined in the Stability Scope, no Governance poll will be required for future DC-IAM changes.

RETH-A Offboarding (Context & Offboarding Parameters)

Context

Article [14.3.13](#) in the Stability Scope states that for RETH-A specifically, at least a proportional share of revenue compared to wstETH vault types, measured by market capitalization, must be achieved by the end of Q3 2023. If this is not achieved, RETH-A must be removed from [14.3](#), and thereby be offboarded from Maker Core.

RETH-A

At the time of writing, RETH-A consists of 59 open positions totaling [26.1 million](#) Dai debt. With a 5.25% SF, RETH-A annualized revenue is approximately \$1.37 million. The rETH market capitalization, according to [CoinGecko data](#), is approximately \$931 million.

WSTETH-A & WSTETH-B

The market capitalization of stETH, on the other hand, is according to [CoinGecko data](#) circa \$14.15 billion. The combined debt of WSTETH-A and WSTETH-B is approximately 592 million Dai ([1](#), [2](#)). With a SF of 5% for WSTETH-A, and 5.25% for WSTETH-B, the combined revenue for these vault types is circa \$30.6 million.

RETH-A vs. WSTETH-A & WSTETH-B

The table below summarizes the market capitalization, debt, SF, and annualized revenue of RETH-A, WSTETH-A, and WSTETH-B.

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rETH market capitalization is approximately 6.58% that of the stETH market capitalization while the RETH-A revenue is approximately 4.47% that of the combined revenue of WSTETH-A and WSTETH-B. For rETH to meet the requirements set out in article [14.3.13](#), an exposure of \$38.39 million is needed.

In other words, RETH-A is currently 12.29 million below the minimum required amount of DAI debt needed to produce a proportional share of revenue to wstETH vault types measured by market capitalization. RETH-A debt would need to increase 47.11% for it to meet the minimum requirements set out in [14.3.13](#).

As such, RETH-A should be offboarded unless there is a sudden increase in rETH exposure.

RETH-A Offboarding Parameters

RETH-A currently consists of [59 open positions](#) totaling [26.1 million](#) in Dai debt. It is worth noting that there is a large number of vaults with low debt exposures. For example, as illustrated in the chart below, there are 37 vaults (62.7% of all vaults) with 100k Dai debt or lower. These vaults are problematic in the case of an offboarding since the likelihood of Keepers wanting to kick these is lower if tip & chip are set to 0.

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Source: [Maker Risk Dashboard - Block Analytica](#)

If the Stability Facilitators considers it appropriate to initiate the RETH-A offboarding, BA Labs believes that the offboarding should be performed in two parts:

Part 1:

Set the RETH-A DC-IAM Line (max DC) to 0 in the October 11, 2023 Spell.

This change should be included in the same Spell which will execute all other Stability Scope defined parameter changes included in this post (Stability Scope Parameter Changes #6

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Part 2:

At a later date, perform the remaining offboarding parameter changes:

1. Set RETH-A LR to 10,000%.

This should be executed at the later date as explained below.

1. Set RETH-A Chop (liquidation penalty) to 0.

This should be executed at the later date as explained below.

1. Set RETH-A Chip & Tip to: TBD

The tip & chip parameters would in this case be defined one week before the final offboarding parameter changes. The tip & chip values will depend on the amount of vaults and the size of the remaining vaults at that point in time. If, for example, there is a small number of large vaults left, a tip & chip value of 0 would be appropriate. If, on the other hand, there is still a large number of vaults with low exposure left, Maker would probably need to leave tip & chip parameters as is. Otherwise, there is a possibility that liquidations would not be triggered.

Assuming all requirements in the [MIP62](#) are fulfilled, the second part of the offboarding (chop, tip, chip, and LR parameter changes) should ideally be postponed until a later date, at the earliest in the October 25, 2023 Spell. BA Labs recommends an even later date, since current RETH-A positions do not present any immediate risk and are generating revenue for the protocol. Reducing the DC-IAM Line (max DC) will prevent further debt minting. Postponing the remaining parameters changes, (which once changed, will trigger liquidation conditions) will offer more time for users to unwind and close their positions voluntarily. This method will minimize damage to the users and potential negative PR towards Maker.

Finally, there is a small probability that the conditions set out in [14.3.13](#) will be met before the October 11, 2023 Spell (when the max DC is reduced to 0). In which case we would recommend canceling the RETH-A offboarding. We understand that article [14.3.13](#) states that the due date is at the end of Q3. However, we believe that a short extension due to this, albeit unlikely outcome, is appropriate.

Spark rETH Supply Cap Increase

If the offboarding of RETH-A from Maker Core takes place, it may be suitable for Spark Lend to increase its supply caps correspondingly. However, we believe that there should be a condition set that Spark Lend rETH Supply Cap is only increased in case RETH-A is offboarded from Maker Core. In other words, if RETH-A is not offboarded from Maker Core, then no supply cap changes will be needed. The main reason for this condition is that we want to limit any potential overexposure of rETH in both Maker Core and Spark Lend at the same time.

We have communicated the idea of increasing the Spark Lend rETH supply cap to the Phoenix Labs team. For reference, the recommended increase of the supply cap is 40k rETH. This means that the new total supply cap at Spark Lend would be 60k rETH. This would allow for all of the current RETH-A Maker Core positions to migrate and also offer a bit of additional space for new potential exposure. The proposal can be seen [here](#).