

Smart Burn Engine Slippage Tolerance

Alias: N/A Parameter Name: want Containing contract: MCD_FLAP Scope: System Technical Docs: N/A

Description

The Smart Burn Engine Slippage Tolerance or want parameter controls the amount of deviation between the oracle price of MKR and the price obtained by the Smart Burn Engine. It is one of the parameters that defined whether or not the Smart Burn Engine can be triggered.

The Smart Burn Engine can be triggered when:

$\text{MKR_Purchased} \geq \text{Oracle_Price} * \text{Smart_Burn_Engine_Lot_Size} * \text{want}$

Example

Smart Burn Engine Lot Size = 10,000 DAI Smart Burn Engine Slippage Tolerance = 0.98 Oracle Price = 1,000 DAI/1 MKR

1. MKR purchase per Oracle should be 10 MKR for 10,000 DAI.
2. Uniswap purchase must result in at least
3. 9.8 MKR being purchased or the transaction will fail.
- 4.

Purpose

The Smart Burn Engine Slippage Tolerance parameter allows Maker Governance to tune the frequency and accessibility of Smart Burn Engine actions in order to achieve better efficiency.

Trade-offs

Increasing the Smart Burn Engine Slippage Tolerance will allow greater slippage when the Smart Burn Engine is activated - this increases the probability of trades executing, but also increases the risk the purchases being frontrun and/or sandwiched and could potentially lead to a poor deal for the Protocol.

Reducing the Smart Burn Engine Slippage Tolerance will reduce the allowed slippage. This means that the price of purchases will be closer to the oracle price, but it may also result in purchases not happening if the Uniswap price deviates from the oracle price too much. If the want is very small, it would be possible to prevent the Smart Burn Engine from making purchases by deliberately moving the price of the pool out of the range of the Smart Burn Engine Slippage Tolerance.

Changes

Adjusting the Smart Burn Engine Slippage Tolerance parameter is a manual process that requires an executive vote. Changes to the Smart Burn Engine Slippage Tolerance are subject to the [GSM Pause Delay](#).

In general the goal when tweaking this parameter is to trade-off of making sure that there is a steady stream of purchases of MKR against the risks of sandwich attacks against the Smart Burn Engine resulting in less efficient purchases.

Why increase this parameter?

The main reason for Maker Governance to increase the Smart Burn Engine Slippage Tolerance is if it is too restrictive and preventing purchases from happening.

Why decrease this parameter?

The main reason for Maker Governance to decrease the Smart Burn Engine Slippage Tolerance is if there is an excessive amount of sandwiching happening. If the parameter is set too high, MEV bots and other participants will be able to abuse the Smart Burn Engine to make risk-free profit at the detriment of the Maker Protocol.

Considerations

As triggering the Smart Burn Engine is permissionless, incorrectly setting the Smart Burn Engine Slippage Tolerance may expose the Protocol to sandwich attacks.

The Smart Burn Engine Slippage Tolerance only applies when the price of MKR in the Uniswap pool is worse than the oracle price. It will not prevent purchases when the pool price is >want % better than the oracle price.

Page last reviewed: 2023-08-01 Next review due: 2024-08-01

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