Rebalance

What is Rebalance?

Rebalance is the action of resetting the NAVs of Token QUEEN, BISHOP and ROOK back to 1. The amount of these three tokens under each address might also change to reflect the adjustment. Rebalance is triggered when NAV_{Rook}/NAV_{Bishop} is below 0.5 or over 2.

Why Rebalance?

Rebalance is designed for the following reasons:

- During extreme events when market drops drastically, the earnings of BISHOP might be threatened. To protect the earning of BISHOP, Rebalance is triggered.
- During extreme events when market drops drastically, ROOK's NAV would experience an expedited drop as the leverage ratio increases sharply. To stop the sharp depreciation of ROOK and restore the proper leverage ratio, Rebalance is triggered.
- When the market price of the underlying asset rises, the leverage ratio of ROOK decreases. To restore a proper leverage rate for ROOK, Rebalance is triggered.

What happens during Rebalance?

- The NAVs of Token QUEEN, BISHOP and ROOK will be reset to 1.
- The amount of tokens under users' accounts might change to reflect the Rebalance. Specific calculations explained below and in the Whitepaper.

How exactly will the amounts of my tokens change?

Rebalance might affect the number of QUEEN/BISHOP/ROOK tokens shown in your account. However, the total values of the three tokens would not be affected.

Specifically:

When $NAV_{Rook}/NAV_{Bishop} < 0.5$ **,** NAVs of QUEEN, BISHOP and ROOK are adjusted to 1. (To understand the relationship between the underlying asset price movement and NAV changes, please refer to *this FAQ*)

- For QUEEN holders, the number of QUEEN tokens decreases.
- For ROOK holders, the number of ROOK tokens decreases.
- For BISHOP holders, the number of BISHOP tokens decreases. This is to maintain the 1:1 ratio of BISHOP & ROOK's tranche size .

To make sure that BISHOP holders' total asset value remains unchanged, **BISHOP holders will also receive QUEEN tokens in their accounts after rebalance.** Therefore, for BISHOP holders:

$$(TokenAmount_{BISHOP} + TokenAmount_{QUEEN})_{post-Rebalance} = (TokenAmount_{BISHOP} * NAV_{BISHOP})_{pre-Rebalance}$$

You will find the specific formulas in the Whitepaper, but here's a simple hypothetical illustration of what would happen during a Rebalance:

Assuming that Alice has 1000 QUEEN, Bob has 1000 BISHOP and Carol has 1000 ROOK. By 2pm UTC on a particular day, NAV_{QUEEN} = 0.75, NAV_{BISHOP} = 1.04, NAV_{ROOK} = 0.5. Rebalance is triggered. Here's how each account would be adjusted:

Before Rebalance				
Account	Token	Amount	NAVpre-Rebalance	Total Asset Value
Alice	QUEEN	1000	0.75	750
Bob	BISHOP	1000	1.04	1040
Carol	ROOK	1000	0.5	500
After Rebalance				
Account	Token	Amount	NAVpost-Rebalance	Total Asset Value
Alice	QUEEN	750	1	750
Bob	BISHOP	500	1	1040
	Extra QUEEN	540	1	
Carol	ROOK	500	1	500

Since Rebalance is executed during Primary Market's settlement, under extreme market volatility, it is possible for NAV_{ROOK} to go down to 0. When NAV_{ROOK} = 0, the actual total asset value in ROOK holders' accounts is also 0, therefore, there will be 0 token in ROOK holders' accounts after Rebalance. As for BISHOP holders, to maintain the 1:1 ratio on tranche size for BISHOP and ROOK, BISHOP tokens will be substituted with QUEEN tokens, guaranteeing the equal asset value in the accounts.

When $NAV_{Rook}/NAV_{Bishop} > 2$, NAVs of QUEEN, BISHOP and ROOK are adjusted to 1.

- For QUEEN holders, the number of QUEEN tokens increases.
- For ROOK holders, the number of ROOK tokens remains unchanged, and to match the total asset value before Rebalance, **ROOK holders receives extra QUEEN.**
- For BISHOP holders, the number of BISHOP tokens remains unchanged, and to match the total asset value before Rebalance, **BISHOP holders will also receive extra QUEEN tokens** in their accounts after Rebalance.

Again, you will find the specific formulas in the **Whitepaper**.

Let's bring back Alice, Bob and Carol for a detailed demonstration, starting with the same amount of tokens, but different NAVs.

Assuming that Alice has 1000 QUEEN, Bob has 1000 BISHOP and Carol has 1000 ROOK. By 2pm UTC on a particular day, NAV_{QUEEN} = 1.57, NAV_{BISHOP} = 1.04, NAV_{ROOK} = 2.14. Rebalance is triggered. Here's how each account would be adjusted:

Before Rebalance				
Account	Token	Amount	NAVpre-Rebalance	Total Asset Value
Alice	QUEEN	1000	1.57	1570
Bob	BISHOP	1000	1.04	1040
Carol	ROOK	1000	2.14	2140
After Rebalance				
Account	Token	Amount	NAVpost-Rebalance	Total Asset Value
Alice	QUEEN	1570	1	1570
Bob	BISHOP	1000	1	1040
	Extra QUEEN	40	1	
Carol	ROOK	1000	1	2140
	Extra QUEEN	1140	1	

Will Rebalance change the amount of CHESS tokens in my account?

No. The CHESS tokens in your wallet will not be affected by Rebalance.

History Rebalance Record

N/A