### **Tranchess Swap**

## Will Tranchess Swap support other tokens in the future, or just this BTC fund tokens?

In Tranchess 1.0, the Swap will only list Token QUEEN, BISHOP and ROOK. In the future as we issue more funds, you might see Token QUEEN, BISHOP and ROOK become Token QUEEN-BTC, Token BISHOP-BTC, Token ROOK-BTC, and Token QUEEN-ETH, Token BISHOP-ETH, Token ROOK-ETH, etc.

# Why would anyone buy Token QUEEN from an exchange instead of creating it from the primary market?

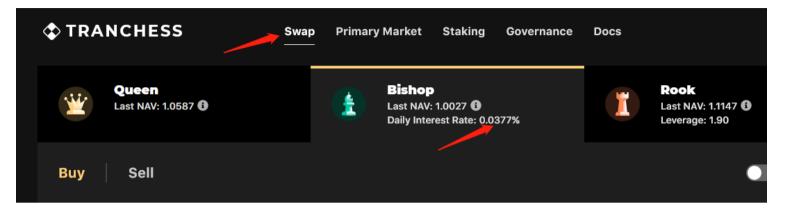
This depends on one's starting point. If you have BTC with you and decide to hold it for a long time, you might want to mint it into Token QUEEN for the extra earning. However, for those without BTC, using USDC to buy Token QUEEN will be a more straightforward method.

### How is QUEEN'S APY determined?

QUEEN's APY is calculated based on the annualized amount of CHESS tokens QUEEN can collect and the price of CHESS.

### Where do I find the daily interest rate of Token BISHOP?

You can find the daily interest rate of Token BISHOP in Token BISHOP's Info page under Tranchess Swap.



### How is BISHOP's interest rate determined?

On a weekly basis, the protocol uses Venus's Borrow rate from the previous week and calculate a weekly average, it then adds a premium on top which is determined by community voting. The total becomes BISHOP's next week's fixed APR.

### How is Rook's leverage rate determined?

The leverage rate is calculated by the following formula:

 $LeverageRatio = (NAV_{BISHOP} + NAV_{ROOK}) \div NAV_{ROOK}$ 

### Why does it take so long (>30) to settle a trade in the Swap?

Tranchess uses a 30-minute TWAP price oracle instead of instant price to prevent price manipulation by oracle attacks.

## What does it mean to set a "premium or discount" when I submit a trade order?

Tranchess Swap adopts a Premium-Discount Orderbook system, which means that the premiums or discounts of a forward-starting 30-minute TWAP (Time Weighted Average Price) are traded. Tranchess defines each 30-minute trading window as one epoch, and users can place orders within each epoch at the premium or discount of the NAV calculated from the TWAP of the next epoch's price. For instance, at 9:45 am, Alice buys token QUEEN from Bob on the order book at +25bps premium. This transaction's reference price will be the NAV for the next 30-min window, i.e., 10 am – 10:30 am, and Alice's final purchasing price will be (the NAV of 10am-10:30am) \* (1+25bps). One bps = 0.01%

### What is an Epoch?

Tranchess defines each 30-minute window as one Epoch.

### Where are oracles used?

For the underlying fixing price, our oracle extends the Open Oracle standard by Compound, accepts price data signed by two Reporters (Coinbase and OKEX) and computes time-weighted average price (TWAP) in every 30-minute epoch.

We also use oracle to obtain the borrow rate of USDC from VENUS and calculate a weekly average for Token BISHOP's interest rate calculation.

#### What is TWAP?

TWAP is short for Time Weighted Average Price. Comparing to using the price of a single timestamp, using the average price over a period of time greatly reduces the chance of price manipulation. In Tranchess, TWAP is used for calculating the NAVs on Tranchess Swap and for calculating the next-week's base interest rate of Token BISHOP.

# Why can't I know the exact amount of tokens when I buy or sell (e.g. when I buy QUEEN tokens)

Because the actual transaction is filled based on a future price, Tranchess can only provide an estimate based on the current market.

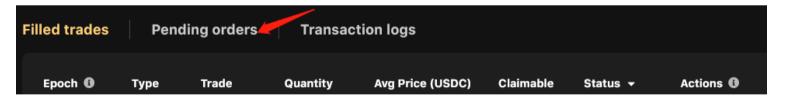
Is there any precautions taken to protect the platform from flash loan attacks/exploits?

Our TWAP oracles, both for interest rates and underlying fixing prices, are designed to prevent short term manipulations from the get-go. The smart contracts on interest rate do not rely on prices from other smart contracts and thus are immune to price manipulation by flash loan. The underlying fixing price oracle uses 30-minute TWAP instead of instant price, in another word, attacker has to manipulate the price oracle for a consecutive 30mins window, making the attack virtually impossible.

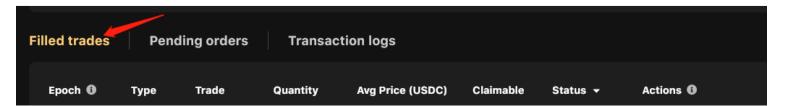
## What difference does it make if I check the Post-Only box before placing orders?



Checking the Post-Only box (make sure to choose "Advanced first!) puts users in "Maker Mode". Orders placed as post-only will enter the order book and list under Pending Orders. It won't be executed immediately. Users cannot place cross trade orders.



When Post-Only is disabled, users enter the "Taker Mode". All orders are filled or cancelled immediately against the existing orders listed on the order book. Completed orders are listed under Filled Trades.



The swap function will be suspended for "takers", i.e. post-only disabled users, everyday from 13:00 UTC to 14:30 UTC. However, users can always place Post-Only Orders.

### What happens if Rebalanced?

If a Rebalance was triggered at 14:00 UTC, the trading function for takers will be suspended until 02:00 UTC on the next day, same as the Primary Market.

Users can continue to place Post-Only orders during this time. All orders placed before the Rebalance will be cleared from the order book and will no longer be filled. Users will find the Status of such orders changed to "Expired" under Pending Orders. Users can cancel the pending orders at anytime.