# Leverage Finance

Decentralized Lending Market on Canto

### What Is Leverage Finance?

### Decentralized lending market

- Allowing users deposit LPs as collateral
- Leverage LP farming yield 5-10×



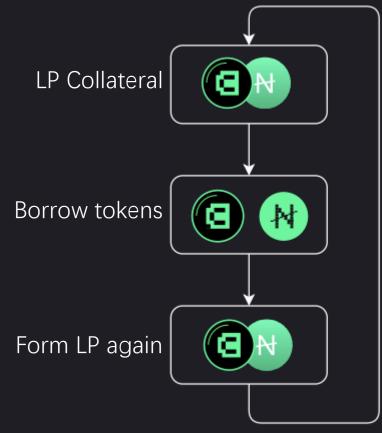


- Borrowing tokens for leveraged yield farming
- Using borrowed tokens to implement an impermanent loss hedging strategy.
- Lending individual tokens to earn yield

## What Is Leveraged Yield Farming?

• Leverage:

 enable borrowers to leverage their LP tokens for enhanced yield farming.



Redeposit as collateral
Repeat multiple times to increase APR

#### Low collateralization

- Other lending protocols: 150%-750% overcollateralization
- Our protocol: 110% collateralized loans

How can we make it?

#### Brand-new collateral model

$$C = \begin{cases} (a_0 \cdot p_0^* \cdot \sqrt{m} + a_1 \cdot p_1^* \cdot \frac{1}{\sqrt{m}}) \cdot (1+l), & \text{if } a_0 \cdot p_0^* \ge a_1 \cdot p_1^* \\ (a_0 \cdot p_0^* \cdot \frac{1}{\sqrt{m}} + a_1 \cdot p_1^* \cdot \sqrt{m}) \cdot (1+l), & \text{otherwise} \end{cases}$$

Borrow tokens

Collateral rate

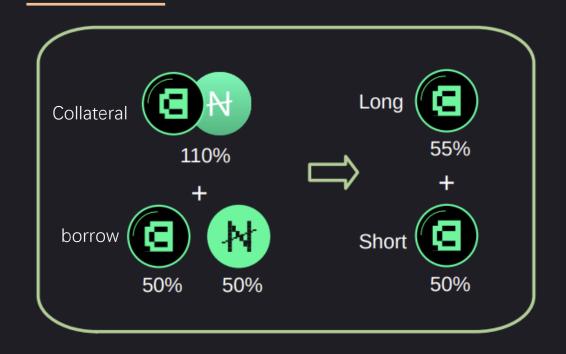


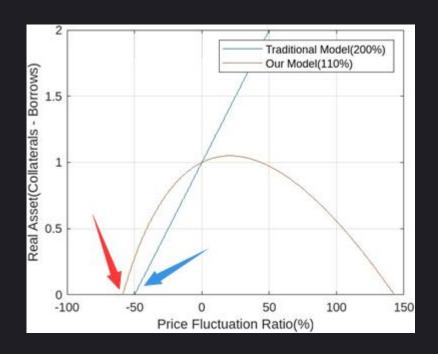
150%



110%

#### Low collateralization - Benefits





delta neutral strategy

## much higher yield for everyone

	APR		APR
© Canto/Note LP	300%	■ LP leveraged 5x	700%
Canto stake	21%	Canto supply	350%
Note stable LP	10%	Note supply	50%

## Contracts



**Price Oracle** 



**Lending Pools** 



permissionless, free public infrastructure

Anyone can add a new token pair to the Leverage Price Oracle with our permission by initializing a Uniswap-like pair.

- 2 safety
  - Fair UNI-V2 LP Pricing
  - Time-Weighted Average Price (TWAP)
- 3 Robustness

Attacking is costly. Hacker needs to take control of the market for more than 20 minutes.

(No flash loan attack)



1 Factory and Deployers

All pools are isolated and anyone can create a pool using the factory contract.

2 1 \* Collateral

Leverage vaults will auto-compound the staked LPs and calculate their value with the price oracle.

3 2 \* Borrowable

An interest-bearing contract for the single token in the token pair. Also auto-compounded.

#### Dynamic kink borrow rate

Auto adapt the supply-borrow market

- Utilization higher than target
  - Higher APR to attract supplier
- Utilization lower than target
  - Lower APR to attract borrower
- Target rate is changeable to fit market

