

# SUN V3.0

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## 1 Introduction

SUN.io was founded to foster the growth of TRON's DeFi ecosystem. Thanks to the community and open-source smart contracts, SUN.io has established ties with other DeFi projects on the TRON public chain through decentralized liquidity mining.

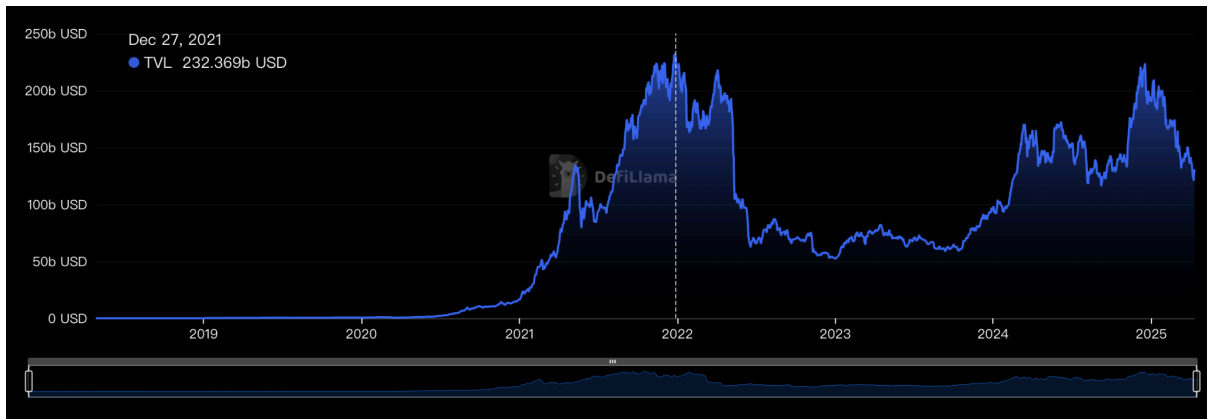
SUN.io has become the largest asset issuance and trading platform on the TRON blockchain and serves as the core of TRON's DeFi ecosystem. The SUN.io platform integrates token swaps, liquidity mining, stablecoin exchange, and governance on the TRON blockchain, with a comprehensive focus on building a TRON DeFi system centered around DEX functionality. To provide a smoother and more secure meme token trading experience and to let users effortlessly enjoy the charm of the meme ecosystem, SUN.io has launched the brand-new SunPump platform. As the first meme token launchpad dedicated to the TRON network, SunPump aims to offer creators a convenient and low-cost way to launch their tokens. As the native token of SUN.io, SUN plays an important role in platform governance, buying back and burning rewards, offering rewards to liquidity providers and other features, and aligns with TRON's aspiration to bring common benefits to all users.

### 1.1 Vision

SUN.io aims to build an integrated DEX ecosystem with a high level of functionality, profitability and security by leveraging multiple transaction protocols. It provides various incentives for participants, including rewards of transaction fees offered to liquidity market makers, liquidity mining of LP Tokens and staking rewards of the SUN token. Meanwhile, the burning mechanism of SUN and the voting rights of SUN holders together form a closed-loop ecosystem.

### 1.2 Market Prospects

DeFi started to rise in popularity in 2020 and gradually takes the main stage in blockchain. It saw continued robust growth in 2021 and has become one of the largest applications of this industry.



*Figure 1 TVL of the DeFi Market*

The overall trend of the total value locked (TVL) directly reflects the development of the DeFi market.

According to the latest data from DeFiLlama (as of April 12, 2025), the total value locked (TVL) in DeFi projects has shown a breakout surge since the beginning of 2021, with the highest TVL reaching \$232.4 billion. A growing number of organisations are promoting greater TVL growth through developing mature and secure protocols. In addition, massive earnings generated by the DeFi sector are encouraging individual investors to migrate from centralized platforms to the DeFi space. Driven by increased adoption among all investors, DeFi is entering a new stage of growth.

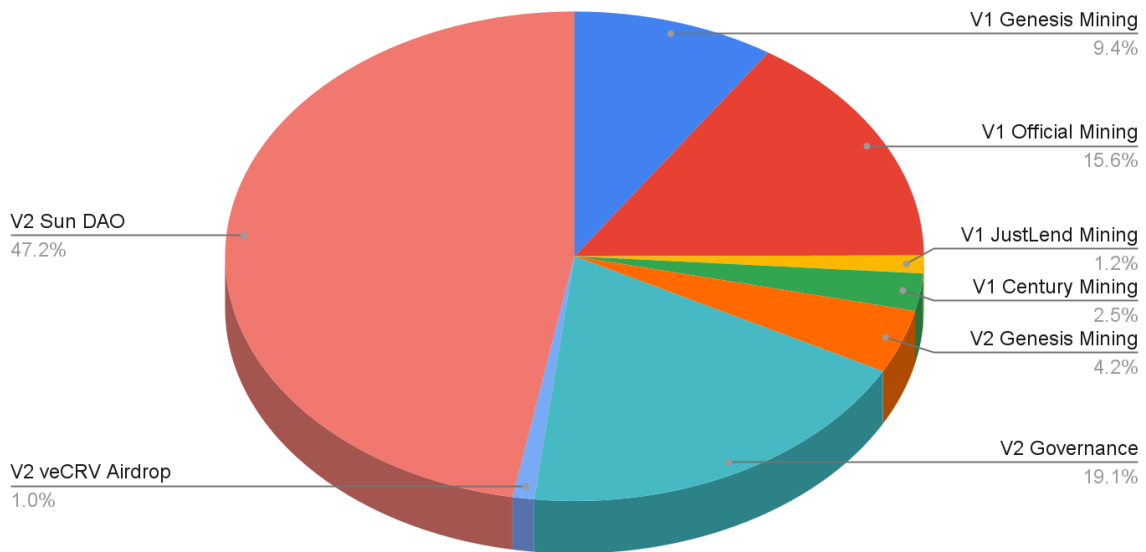
### 1.3 Solutions of SUN

SUN.io, the first platform that integrates on-chain token swaps, liquidity mining, stablecoin swaps and DAO on the TRON public chain, provides users with diversified one-stop services:

- Efficient and secure swaps among any tokens with the best prices— SunSwap
- Efficient swaps among stablecoins with low slippage and fees— Stablecoin pool
- User-governed liquidity mining that can be boosted— Governance mining
- SUN token staking rewards— Rewards from voting rights (veSUN)

## 2 Governance Mechanism

### 2.1 Economic Model



*Figure 2 Distribution of the SUN Token*

There are no pre-mining, tokens reserved for teams, cornerstone investment, or private placement for the SUN token. Instead, various functions and mechanisms of the ecosystem guarantee that the SUN token can be distributed in a fair and sustained way.

The distribution of SUN has gone through two phases— V1 and V2— as follows:

#### **Distribution of SUN tokens (V1):**

- Genesis Mining 9.35%
- Official Mining 15.59%
- JustLend Mining 1.18%
- Century Mining 2.47%

#### **Distribution of SUN tokens (V2):**

- Genesis Mining 4.2%
- Governance Mining 19.05%
- veCRV Airdrop 1.0%
- Sun DAO Governance: 47.16% (Locked for four years with linear vesting)

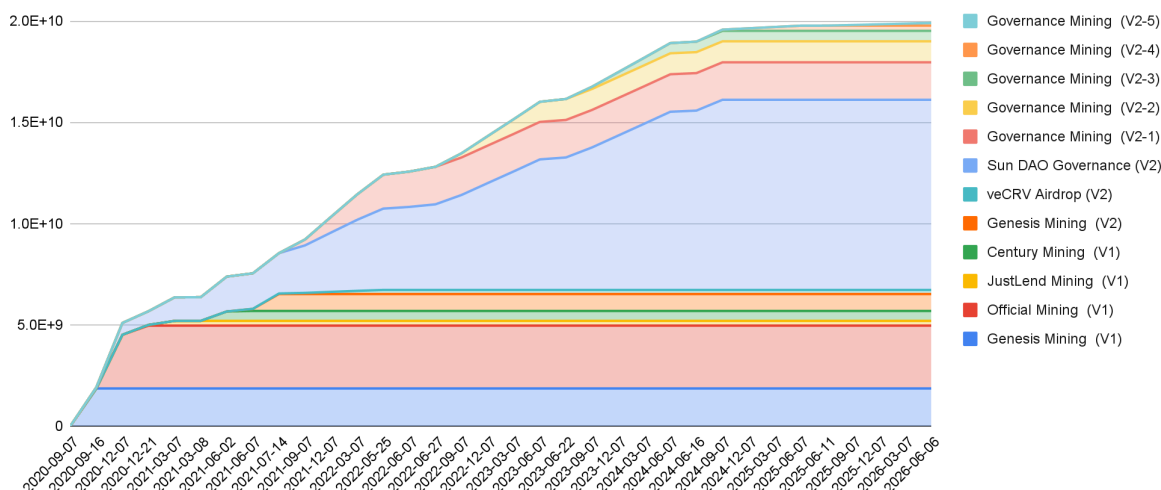


Figure 3 SUN Token Unlock Schedule Chart

Going forward, the SUN platform will take on more features as the ecosystem grows, and the number of use cases for the SUN token will further increase, incentivising users to make a sustained contribution to the growth of the ecosystem.

## 2.2 Burning

The latest SunSwap protocol on the SUN.io platform supports using a portion of DEX trading fees to repurchase and burn SUN tokens.

**Buyback Method:** The SunSwap V2 contract retains 0.05% of each transaction fee in the form of LP Tokens, which are periodically converted to SUN and sent to a designated burn address. Revenue generated by the SunPump contract is retained in TRX and, when needed, converted to SUN and also sent to the burn address.

**Burning Method:** The SUN tokens stored in the above-mentioned address will be burned, by transferring those tokens bought back within a month to the blackhole address of TRON (T9yD14Nj9j7xAB4dbGeiX9h8unkKHxuWwb) each month.

Since December 15, 2021 (Singapore Time), as of April 12, 2025, a total of 494,199,018.90 SUN tokens have been repurchased and burned. Of this, 333,183,948.74 SUN tokens were repurchased and burned using income from SunSwap V2, and 161,015,070.16 SUN tokens were repurchased and burned using income from SunPump.

## 2.3 Incentives

### 2.3.1 SUN Governance Mining

In the market maker mechanism of SunSwap, the depth of the transaction pool mainly comes from liquidity providers (LPs). The swap mechanism in the stablecoin pool also requires users' efforts to provide liquidity so as to maintain stable prices for swaps. As a result, the governance

mining of the SUN platform now supports staking LP Tokens for mining on SunSwap and in the stablecoin pool. In the meantime, users can participate in voting to determine the weight of a mining pool, and stake SUN to get veSUN as a boost multiplier for mining, which can motivate users to hold SUN for a longer term.

The SUN.io platform actively promotes more users to provide liquidity through a variety of ways.

### **2.3.2 SUN Staking Rewards**

The SUN.io platform allows users to stake SUN to obtain veSUN. Based on the amount of veSUN users hold, the platform delivers 50% of the transaction fees generated in the stablecoin pool to veSUN holders.

## **3 SunPump**

### **3.1 Operating Mechanism**

SunPump is the first fair-launch meme token platform on TRON, dedicated to providing creators with a convenient and low-cost way to launch their tokens. All meme token contracts launched on the platform are fully transparent, with no presale and no team allocation. Users can freely browse the platform to discover meme tokens they are interested in and purchase them easily through a Bonding Curve mechanism, enjoying a flexible trading experience. As community participation and token purchases increase, the token's market value is expected to rise steadily until it reaches 100% of the Bonding Curve (Market value is approximately 500,000 \$TRX). Once this target is achieved, the platform will automatically deposit 100,000 TRX and 200 million tokens into SunSwap V2 as liquidity, and simultaneously burn the corresponding assets—empowering the token and boosting market confidence.

### **3.2 Service Fees**

- **Launch Fee:** A creation fee of approximately 20 TRX is required.
- **Trading Fee:** A 1% fee is charged on platform transactions before the project reaches 100% of the Bonding Curve.
- **Liquidity Fee :** When the project reaches 100% of the Bonding Curve, the smart contract will automatically add approximately 100,000 TRX and the remaining 200 million tokens to the SunSwap V2 liquidity pool. Additionally, the smart contract will deduct around 3,000 TRX from the Bonding Curve to cover the liquidity addition fee.

## **4 Underlying Technology**

### **4.1 SunSwap AMM Model**

SunSwap adopts the AMM (Automated Market Maker) model, the most widely-used transaction model in DeFi. Unlike an order book of a traditional exchange, the AMM uses a constant-product mathematical formula to determine the prices of assets, so that transactions can be done in an automatic way and the liquidity of trading pairs can be safeguarded.

A few definitions related to the AMM model are clarified as follows:

- **Liquidity:** the sum of the two tokens in the smart contracts of a trading pair. We can increase (provide) liquidity by staking the two tokens at the same time.
- **Liquidity Pool:** the pool of liquidity, i.e. a collection of assets in the AMM. SunSwap is able to match orders through AMM in the liquidity pool.
- **Liquidity Provider (LP):** users who provide liquidity to the pool.
- **LP Token:** A trading pair itself is a TRC-20 smart contract, whose tokens represent the supply of liquidity and are referred to as LP Tokens. When LPs are offering liquidity, SunSwap will mint tokens and grant them to LPs; it will burn LP Tokens when LPs withdraw liquidity.
- **Liquidity Pool Share (LPS):** the proportion of LP Tokens in circulation held by each LP, showing the contribution rate of each LP to the total liquidity.

#### 4.1.1 Creating Liquidity:

When a liquidity pool is first created, the original amount of the two tokens both stands at 0. In order to make transactions possible, LPs have to stake a certain amount of the two tokens to initiate the liquidity pool. The first LP is the one who sets the original price of liquidity and gains his/her LPS.

The prices of the two tokens in the pool are determined by the relative amount of one token compared to the other. This means that the total amount of the two remains the same, but the amount of each token will change after each transaction, leading to changes in prices as well. The adjustments in prices are based on the formula below:

$$x \times y = k \text{ (k represents a constant)}$$

##### 4.1.1.1 SunSwap V1 & V1.5

$x$  and  $y$  in the formula above refer to the amount of the two tokens respectively. According to the smart contracts of V1 and V1.5, one of the tokens has to be TRX. This is why, in this section (3.1), token X refers to TRX.

If the first LP provides an amount of  $x_0$  and  $y_0$  of the two tokens, and the LP Tokens are  $s_0$ , then:

$$s_0 = x_0$$

e.g. If  $x_0 = 100,000$ ,  $y_0 = 1,000$ , then  $s_0 = 100,000$ , which means that after staking token X (TRX) and token Y, users can get 100,000 LP Tokens, and the total amount of LP Tokens in the liquidity pool is 100,000 as well. Therefore, the first LP holds a 100% LPS. Meanwhile, in the

liquidity pool, the relative price of token Y to token X is:  $1 Y = x_0 / y_0 = 100,000 / 1,000 = 100 X$ .  
For example, if token X is TRX and Y is SUN, then 1 SUN = 100 TRX.

#### 4.1.1.2 SunSwap V2

$x$  and  $y$  represent the amount of two different tokens. If the first LP provides an amount of  $x_0$  and  $y_0$  of the two tokens, and the LP Tokens obtained are  $s_0$ , then:

$$s_0^* = \sqrt{x_0^* * y_0^*} - 1000$$

Notes:

① The mark \* means that the value is the real value without omitting decimal places. For example, if  $s_0 = 10$ , and the decimal places of all LP Tokens are 18, then  $s_0^* = 10^{19}$ .

② To prevent users from completely removing all liquidity, the deducted 1,000 (decimal places omitted). The real value is  $1000/10^{18} = 10^{-15}$  LP Tokens will be deposited into a blackhole address.

e.g. Suppose  $x_0 = 10$  (decimal places: 18),  $y_0 = 10$  (decimal places: 18), we have  $s_0 = 10 - 10^{-15}$ , which means that users can get  $10 - 10^{-15}$  LP Tokens after staking token X and Y. Also, the total liquidity of the liquidity pool is 10 as well, so the first LP holds a 100% LPS (with few tokens deposited into the blackhole address). Meanwhile, in the liquidity pool, the relative price of token Y to token X is:  $1 Y = x_0 / y_0 = 100,000 / 1,000 = 100 X$ . For example, if token X is TRX and Y is SUN, then 1 SUN = 100 TRX.

#### 4.1.1.3 SunSwap V3

SunSwap V3 adopts a concentrated liquidity model based on constant product, introducing the idea of virtual liquidity to SunSwap V2. The formula for this market maker model is the following:

$$(x + x_{\text{virtual}}) * (y + y_{\text{virtual}}) = L^2$$

It is clear from the mechanism of concentrated liquidity that  $x_{\text{virtual}}$  and  $y_{\text{virtual}}$  correlate with  $p_{\text{upper}}$  and  $p_{\text{lower}}$ . The formula for the concentrated liquidity model can then be derived as the following:

$$\left(x + \frac{L}{\sqrt{P_{\text{upper}}}}\right) * \left(y + L * \sqrt{P_{\text{lower}}}\right) = L^2$$

It can be inferred from the formula that V3 allows users to provide liquidity within a certain price range, as illustrated below:

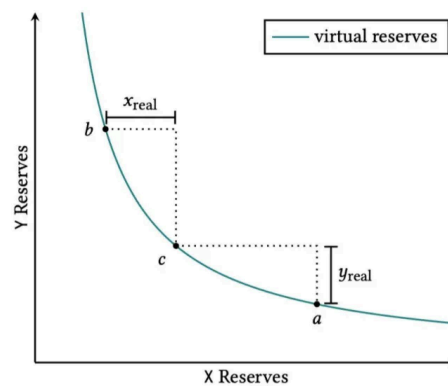


Figure 4 Simulation of real liquidity

SunSwap V3 calculates liquidity based on the formula



$$L = \sqrt{xy}$$

SunSwap V3 calculates prices based on the formula

$$\sqrt{p} = \sqrt{y/x}$$

It can be inferred from the above formulas that

$$\Delta x = \left( \frac{1}{\sqrt{p_c}} - \frac{1}{\sqrt{p_b}} \right) L$$

Note:  $\Delta x$  represents the amount of token0 added;  $p_b$  and  $p_c$  represent the respective price of b and c in Figure 4.

$$\Delta y = \left( \sqrt{p_c} - \sqrt{p_a} \right) L$$

Note:  $\Delta y$  represents the amount of token1 added;  $p_a$  and  $p_c$  represent the respective price of a and c in Figure 4.

Two liquidity formulas can be thereby derived:

$$L = \Delta x \frac{\sqrt{p_b} \sqrt{p_c}}{\sqrt{p_b} - \sqrt{p_c}}$$

$$L = \frac{\Delta y}{\sqrt{p_c} - \sqrt{p_a}}$$

Take the minimum of the two L values as the liquidity obtained.

Example: Add 1 X and 5,000 Y to a spot pool where 1 X = 5,000 Y. Set the lower limit of the price range to 4,545 Y and the upper limit to 5,500 Y. The liquidity obtained is calculated as follows:

$\sqrt{p_c} = \sqrt{5000/1} \approx 70.71$ ,  $\sqrt{p_b} = \sqrt{5500/1} \approx 74.16$ ,  $\sqrt{p_a} = \sqrt{4545/1} \approx 67.42$ .

$$L = \Delta x \frac{\sqrt{p_b} \sqrt{p_c}}{\sqrt{p_b} - \sqrt{p_c}} = 1X * \frac{74.16 * 70.71}{74.16 - 70.71}; \text{ output L in Q64.96 format,}$$

$$L = 1519437308014769733632. L = \frac{\Delta y}{\sqrt{p_c} - \sqrt{p_a}} = \frac{5000Y}{70.71 - 67.42}; \text{ then output L in Q64.96 format,}$$

$L = 1517882343751509868544$ . Take the minimum of the two values, and the liquidity is 1517882343751509868544.

#### 4.1.2 Increasing Liquidity:

When there is existing liquidity in the pool, additional liquidity can be added according to the ratio of the amount of token X to token Y, and LP Tokens will be minted based on this ratio as well.

Suppose the current amount of token X is  $x_{current}$ , that of token Y  $y_{current}$ , and that of LP Tokens  $s_{current}$ ; the newly-added amount of token X is  $x_{add}$  and Y  $y_{add}$  (under common circumstances,

$x_{current}/x_{add} = y_{current}/y_{add}$ , so liquidity is added based on the same ratio), and the amount of new LP Tokens is  $s_{add}$ , then we have:

$$s_{add} = \min\left(\frac{x_{add}}{x_{current}}, \frac{y_{add}}{y_{current}}\right) \times s_{current}$$

E.g. If another user adds 2000 X and 20 Y to the liquidity pool, he/she can get 2000 LP Tokens.

### 4.1.3 Withdrawing Liquidity:

When a user withdraws liquidity, he/she can get X and Y according to the same ratio.

Suppose the current amount of token X is  $x_{current}$ , that of token Y  $y_{current}$ , that of LP Tokens  $s_{current}$ , and the amount of LP Tokens to be removed is  $s_{remove}$ , then the user can get an amount of  $x_{withdraw}$  and  $y_{withdraw}$  of the two tokens respectively, as shown:

$$x_{withdraw} = \frac{s_{remove}}{s_{current}} \times x_{current},$$

$$y_{withdraw} = \frac{s_{remove}}{s_{current}} \times y_{current}$$

### 4.1.4 Swapping

Swapping is also based on the constant product formula, with  $x$  and  $y$  representing the amount of token X and token Y:

$$x \times y = k \text{ (k represents a constant)}$$

If the user wants to swap token X for Y in the liquidity pool, suppose the amount of X to be swapped is  $\Delta x$  and the amount of Y gained  $\Delta y$ , then:

$$(x + \Delta x) \times (y - \Delta y) = k$$

$$\Delta y = y - \frac{k}{x + \Delta x} = \frac{\Delta x \times y}{x + \Delta x}$$

As is shown, the product of the total amount of X and Y always remains the same before and after the transaction. This means that the price of this transaction can be seen as the ratio of the amount of token X to that of Y, given that the amount in this transaction is relatively small compared to the total tokens of the liquidity pool.

$$price_y = \frac{\Delta x}{\Delta y} = \frac{x + \Delta x}{y} \approx \frac{x}{y}$$

During an actual transaction, 0.3% will be deducted as transaction fees, before the following calculation is done based on the constant-product invariant.

E.g. There are 100 X and 1 Y in the liquidity pool. If one wishes to trade 20 X through the swapping mechanism, then the actual amount to be swapped is 19.94 X (0.3% deducted as fees). According to the formula  $x \times y = k$ , we have:

$$(100 + 19.94) \times (1 - \Delta y) = 100$$

$$\Delta y = 0.1662$$

This means one can swap 20 X for 0.1662 Y.

## 4.2 SUN StableSwap Model

The swap for stablecoins on SUN adopts a totally different model from SunSwap: StableSwap. With the development of stablecoins, apart from the mainstream USDT, other stablecoins can also be traded on the TRON public chain, like USDJ, TUSD and USDC. The growing market share and variety of stablecoins have given rise to the massive and multifarious demand from users for swapping stablecoins. The unique StableSwap model, thanks to its low fees and low price slippage, becomes the best choice for users to swap stablecoins.

### 4.2.1 How StableSwap Works (two-token case)

The core of the StableSwap model is to lower price slippage while ensuring that the liquidity pool can provide liquidity at any price. To achieve this end, we combined the constant sum with the constant product formula. Though StableSwap supports multiple-token market making, we will explain how this model works taking two-token market making as an example because it is easier for you to understand.

The **constant sum** formula is as follows:  $x + y = \text{const.}$  (const. refers to a constant)

As the slope of this linear function is invariable, transactions come with zero slippage. If you have two tokens X and Y, selling  $dx$  of coin X will lead to buying  $-dy = dx$  of coin Y, which means the price determined as  $-dx/dy$  is always the same. However, this market maker model has its problem - the exhaustion of liquidity. Suppose  $\text{const.} = 10$ , if a user sells 10 X, then there would be zero Y in the liquidity pool.

On the other hand, the **constant product** function is  $x \times y = \text{const.}$

As the curve of this function extends along the coordinate axes infinitely, the liquidity of any token can never be zero, which means users can always trade one asset for the other asset. However, the slope of this curve is ever-changing, leading to changes in prices. In this way, users can never complete all swaps at a constant price, suffering from slippage instead.

We can take a look at the figure below to better compare the features of the two formulas.

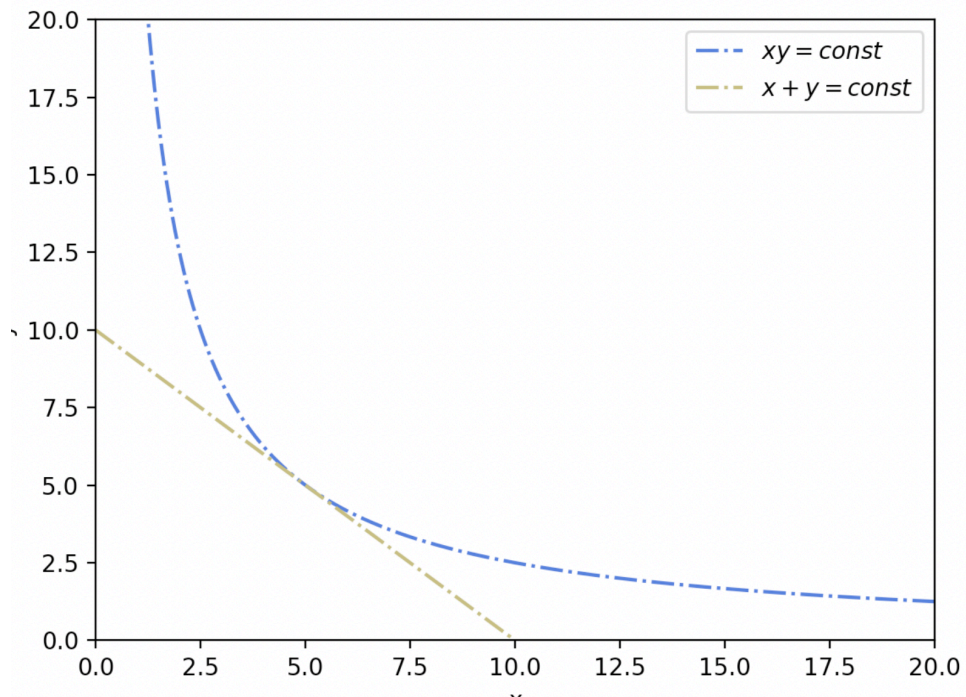


Figure 5 Constant sum and constant product models

To better leverage the advantages of both, StableSwap integrates the two formulas. Thus, we introduced the sum of the constant sum and constant product:  $\alpha(x + y) + \beta(xy) = \text{const}$ . As is shown in Figure 6, this curve stands between the constant sum and the constant product function, like a pan mapped to the two-dimensional surface.

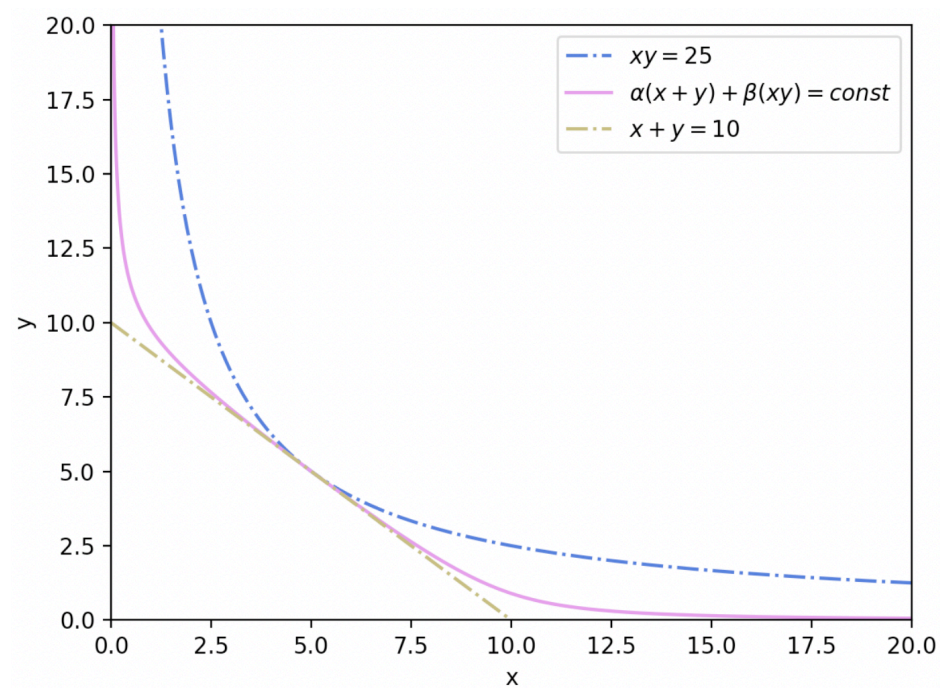


Figure 6 Hybrid constant function model

When trading within the range of the “bottom of the pan”, users get to enjoy relatively stable prices and thus avoid slippage. This also means that the market maker model is not suitable for assets with volatile prices, but only for the swap of stablecoins. For liquidity providers, StableSwap dramatically reduces the risk of impermanent loss, which is greatly lower than the constant product model as long as the prices are within the “bottom of the pan”. Even if the prices move to the two sides of the “pan”, arbitrageurs will quickly engage in arbitrage to pull the prices back to the “bottom”. Meanwhile, the two sides of the “pan” extend along the two axes infinitely, avoiding the exhaustion of liquidity. At any price, no asset will be zero, though there may be high slippage.

#### 4.2.2 How StableSwap Works (multiple-token case)

In this section, we will introduce the model more detailedly on how exactly StableSwap works in the case of multiple tokens. The constant sum function can be generalized for any number of tokens having a linear invariant:

$$x_i = \text{const}$$

The generalization also goes for the constant product invariant:

$$\prod_{i=1}^n x_i^{w_i} = \text{const.}$$

$x_i$  refers to the **reserve** of each asset,  $w_i$  the **weight** of each asset and  $\text{const.}$  a **constant**.

In actual use cases, the formulas are simplified as the two fundamental ones:

$$\sum_{i=1}^n x_i = D \ \& \ \prod_{i=1}^n x_i = \left(\frac{D}{n}\right)^n$$

$D$  represents the total supply of tokens in the liquidity pool when the price (or amount) of all tokens is the same;  $n$  refers to how many types of tokens there are in the pool.

Based on the two formulas, we introduced  $\chi$ , the weight of the constant sum invariant. When  $\chi = 0$ , the formula is the constant product one; when  $\chi \rightarrow \infty$ , it is the constant sum invariant; when  $\chi$  assumes a value in between, it is the combination of the two.

In addition, considering the number of different tokens  $n$  may vary, we multiply the two sides of the equation by  $\chi D^{n-1}$ , then add the constant product function and get the following:

$$\chi D^{n-1} \sum x_i + \prod x_i = \chi D^n + \left(\frac{D}{n}\right)^n$$

In addition, to allow  $\chi$  to be adjusted when the price deviates from 1 by a large margin, we

introduced the constant  $A$  and variable  $\frac{\Pi x_i}{(\frac{D}{n})^n}$ . We can get  $\chi = \frac{A \Pi x_i}{(\frac{D}{n})^n}$ , by multiplying  $A$  and  $\frac{\Pi x_i}{(\frac{D}{n})^n}$ ,

with  $\frac{\Pi x_i}{(\frac{D}{n})^n}$  being the balance level of liquidity in the pool.

When the distribution of tokens in the liquidity pool is completely balanced,  $\frac{\Pi x_i}{(\frac{D}{n})^n} = 1$ ,  $\chi = A$ ;

while  $\frac{\Pi x_i}{(\frac{D}{n})^n}$  and  $\chi$  both are close to zero when the distribution is extremely unbalanced, so the function becomes the constant product one. As the constant sum function only applies to the case when the relative price has no volatility and stands at 1, it does not suit the scenario of extreme unbalanced distribution of tokens in the pool with the price deviating from 1 by a sharp margin.

Substitute  $\chi$  into the equation, and we can get the market maker function in the end:

$$A n^n \sum x_i + D = A D n^n + \frac{D^{n+1}}{n^n \Pi x_i}$$

Based on the function, the swap of tokens can impact on the value of  $x_i$ . Take USDT, USDJ and TUSD in 3pool for example. Let's suppose the supply of the three tokens is  $x_1, x_2, x_3$

respectively. The value of  $x_1$  will become  $x'_1$  when we sell  $(x'_1 - x_1)$  USDT to get USDJ. If we

substitute  $x'_1$  into the equation above, we can calculate  $x'_2$ , and  $x_2 - x'_2$  is the number of USDJ tokens obtained. During this process,  $A$  and  $D$  both remain the same.

But this does not mean  $A$  and  $D$  are always invariable.

When LPs increase or reduce liquidity of the pool,  $D$  will change accordingly. Based on the formula above, the new  $x$  will be used to calculate the new  $D$ .  $D$  will be greater if liquidity rises, and smaller if liquidity narrows.

As is shown in Figure 7, with  $A$  unchanged, higher  $D$  will move the curve upwards, with the "bottom of the pan" larger than before, vice versa.

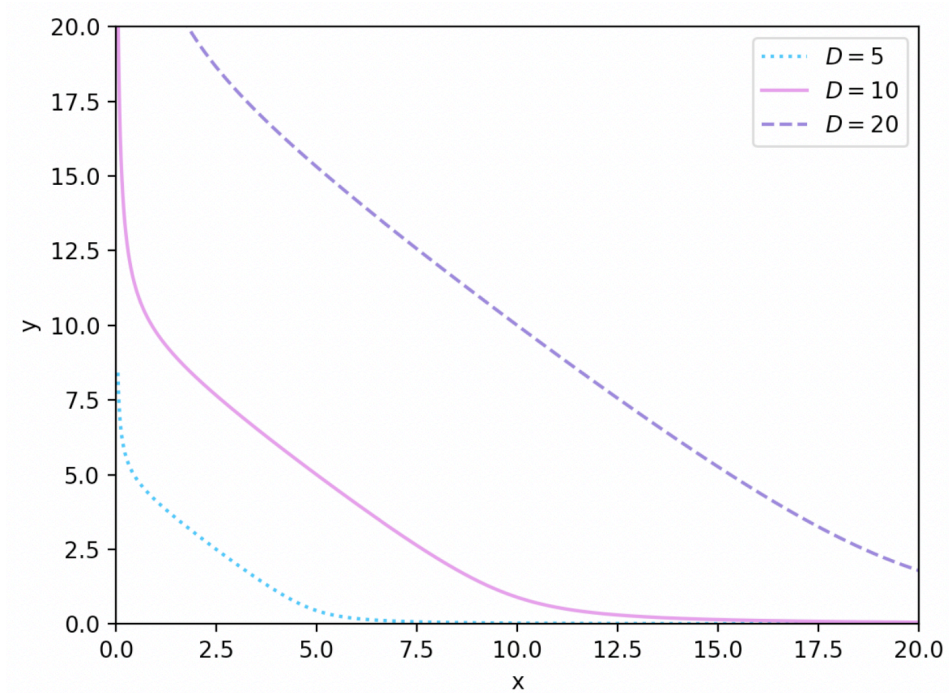


Figure 7 Changes of  $D$

$A$  is an adjustable parameter. When  $D$  remains the same, we can see from Figure 8 how the change of  $A$  influences the market making curve. The greater  $A$  is, the more the curve approaches the constant sum curve, and the larger the area of the "bottom of the pan", otherwise, the closer the curve is to the constant product curve, the smaller the "bottom of the pan" area.

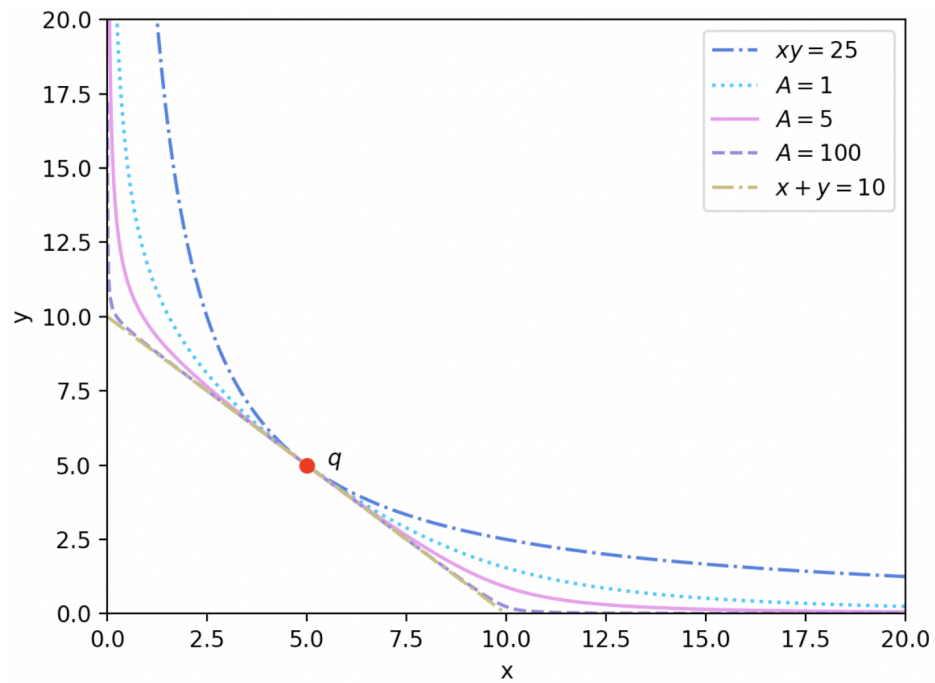


Figure 8 Changes of  $A$

## 4.3 Benefits for veSUN Holders

At present, the SUN.io platform allows users to stake SUN in exchange for veSUN. Users who hold veSUN enjoy the following benefits:

- get rewards from transaction fees in the stablecoin pool
- boost liquidity pool mining
- vote for the weights of liquidity pools

### 4.3.1 How to Get veSUN

Users can get veSUN by staking SUN. The details are as follows:

If SUN is staked for a duration of  $t_1$  ( $t_1 \leq t_{max} = 4$  years), then we have

$$Amount_{veSUN} = Amount_{SUN} \frac{t_1}{t_{max}}$$

This means that veSUN (voting rights) shares a linear relationship with the amount of SUN and the staking duration ( $t_1$ ).  $t_1$  is a real-time value, which means that as time passes,  $t_1$  will decrease, so the amount of veSUN will be smaller accordingly. veSUN will become zero if SUN is unstaked.

### 4.3.2 Get Rewards from Transaction Fees

The platform grants 50% of the transaction fees in all stablecoin pools to veSUN holders in the form of TUSD.

At present, we take multiple snapshots of the amount of veSUN held by users within each round (from Thursday 00:00 to Tuesday 00:00 next week). After the round ends, the weighted TUSD rewards will be calculated and rewarded to users in proportion to their veSUN holdings by triggering smart contracts.

### 4.3.3 Boost Liquidity Pool Mining

Unlike ordinary liquidity mining, the governance mining of SUN.io takes into consideration veSUN and introduces a new concept, virtual balance  $b_u^*$ , to the calculation of the input of users.

The value of  $b_u^*$  is related to the user's real balance  $b_u$ , the total liquidity in the liquidity pool  $S$ , the amount of veSUN held by the user  $Amount_u$  and the amount of veSUN on the whole platform  $AMOUNT$ , as shown:

$$b_u^* = \min(0.4b_u + 0.6S \frac{Amount_u}{AMOUNT}, b_u)$$



Based on this formula, the virtual balance  $b_u^*$  only represents 0.4 times the actual balance  $b_u$  if a user does not hold any veSUN, but if the user holds enough veSUN,  $b_u^*$ , at its maximum can be equal to  $b_u$ .

As the mining rewards are distributed based on the virtual balance, with the same actual balance, veSUN holders can boost their mining speed up to 2.5 times that of non-veSUN holders.

In addition, the value of the amount of veSUN is stored in smart contracts and is only changed when users deposit or withdraw tokens, or claim rewards.

#### **4.3.4 Vote for the Weights of Liquidity Pools**

Users can leverage veSUN to vote for mining of different liquidity pools. Snapshots of the votes will be taken each week to determine the weights of pools for the next week.

With the value of veSUN decreasing all the time, users can vote according to the percentage of veSUN they hold. To prevent users from changing their votes too frequently, they are only allowed to change their votes 10 days after voting in a mining pool.

As this feature only requires the value from the veSUN smart contracts, other use cases for veSUN will not be affected.

## **5 Milestones**

### **5.1 SUN 1.0**

#### **5.1.1 Genesis Mining**

In September 2020, Genesis Mining was initiated, allowing users to stake TRX in smart contracts to get SUNOLD. After this mining stage ended, SUNOLD was delivered to users automatically through smart contracts.

#### **5.1.2 Official Mining**

In the middle of September 2020, official mining offered multiple mining pools including TRX, JST, USDT, SUNOLD, USDJ, WIN, BTT, quality community projects and liquidity mining pools, where users could engage in mining through staking.

#### **5.1.3 JustLend Mining**

In December 2020, the SUN platform supported mining by depositing TRX, JST, USDT, SUNOLD, USDJ, WIN, BTC, ETH and WBTT.

#### **5.1.4 Century Mining**

In March 2021, the Century Mining was initiated, supporting the mining of SUNOLD, TRX, JST, BTT and WIN by staking LP Tokens on JustSwap and depositing jTokens on JustLend.

## **5.2 SUN 2.0**

### **5.2.1 SUN Redenomination Plan**

In May 2021, to lower the threshold for users to hold tokens and promote the SUN ecosystem, the SUN tokens were redenominated at a ratio of 1:1000 and the total supply changed from 19,900,730 to 19,900,730,000, while the market cap of SUN is maintained. To better differentiate the old and new tokens, we refer to the old SUN tokens as SUNOLD and rename the new tokens as SUN, assuming a brand new logo.

### **5.2.2 Platform Upgrading**

In May 2021, the SUN.io platform was upgraded to the first integrated platform of stablecoin swapping, token mining and DAO.

At the preliminary stage of its initiation, SUN introduced the 3pool swap pool, supporting the swap among USDT, USDJ and TUSD. The later upgraded platform enjoys advantages of low transaction fees, slippage and impermanent loss, with higher efficiency and security.

### **5.2.3 Brand-New Mining Model**

In June 2021, SUN.io introduced new mining models of 3pool LP, SUN-TRX LP, SUN Stake and SUN Stake & Lock, with two phases: Genesis Mining and Governance Mining.

During Governance Mining, users could stake SUN to get voting rights (veSUN), and vote to decide the weights of different liquidity pools in mining.

### **5.2.4 New Stablecoin Pool - USDC Pool**

In August 2021, the SUN.io platform launched a new stablecoin pool: USDC Pool (USDC+3SUN). The liquidity mining pool of USDC LP arrived at the same time, where users could stake tokens to participate in governance mining and gain rewards.

### **5.2.5 Second Phase of Governance Mining**

On September 15, 2021, the second phase of SUN Governance Mining went live, during which the role of veSUN (voting rights users obtained by locking SUN) was further exploited on the SUN.io platform.

The main use cases for veSUN are: obtaining TUSD rewards, boosting liquidity pool mining and voting to determine the weights of liquidity pools in mining.

### **5.2.6 Acquisition of JustSwap**

In October 2021, SUN.io completed the acquisition of JustSwap, which marks our brand upgrade and efforts to build the largest decentralized exchange on TRON.

### **5.2.7 Launching SunSwap V3**

On June 28, 2023, SUN.io is launching SunSwap V3. The concentrated liquidity of SunSwap V3 boosts capital efficiency, allowing users to add liquidity by customizing the token pair, fee tier, and price range. As trading fees will be allocated in proportion to the share of each position within the price range.

### **5.2.8 SUN DAO on SUN.io**

On July 31, 2024, SUN.io has officially launched SUN DAO. SUN DAO is a platform aimed at achieving genuine community autonomy and open collaboration through blockchain technology and smart contracts. As a decentralized autonomous organization (DAO), we provide a fair, transparent, and efficient decision-making framework for community members, enabling everyone to equally participate in project development and governance.

## **5.3 SunPump**

### **5.3.1 Launch SunPump**

On August 12, 2024, the SUN.io platform launched the brand-new SunPump platform. As the first meme token launch platform focused on the TRON network, SunPump aims to provide creators with a convenient and low-cost way to launch their tokens.

### **5.3.2 AI Assistant – The First AI Agent on Tron!**

On December 23, 2024, SunPump launched its AI assistant—an innovative feature designed to make token creation faster, easier, and more enjoyable! With the power of AI, users can now generate token details through a simple conversation with our AI agent bot, simplifying the entire process and boosting efficiency.

## **6 Future Plans**

### **6.1 Optimize User Experience**

#### **6.1.1 Improve Asset Utilization Efficiency**

The SUN.io platform will optimize our current AMM program and StableSwap models, enhancing features such as liquidity pooling, orders within certain price ranges, limit orders and providing liquidity for a specific token. Through technological upgrading and business model innovation, we can help users reduce their impermanent loss.

#### **6.1.2 Facilitate Trading Across Chains**

Going forward, SUN.io will connect multiple heterogeneous blockchain networks and realize the cross-chain swap of assets. We will offer users a more convenient, cost-effective and secure way to trade assets across various blockchains.

### **6.1.3 Optimize User Experience**

To cater to users' preferences and enhance interactions, SUN.io will boost user experience by upgrading our product portfolio in terms of their availability, operability and security.

## **6.2 Expand Product Ecosystem**

### **6.2.1 Provide Diverse DEX Products**

Based on current products and user profiles, we will introduce other DEX products like smart routes, orders within certain price ranges, limit orders, market making for a specific token, margin trading and futures trading to provide the SUN.io platform with more diverse use case scenarios and improve the utilization ratio of users' assets.

### **6.2.2 Build a One-Stop DeFi Platform**

Based on current DEX products, the SUN.io platform will provide our users, including market makers, traders and arbitrageurs, with more choices, higher profitability and more convenient one-stop services by way of smart routes, investment plan recommendation and integration of multiple models, combined with other lending and insurance products.

### **6.2.3 Join Hands to Make DeFi Prosper**

Apart from developing proprietary products, we also hope to work with more developers and partners to build a better ecosystem of SUN.io. Through IDO, fund investment and project incubators, we can jointly contribute to the prosperity of DeFi with all-round support of funds, technology and other resources.

## **6.3 Grant Value to Users**

### **6.3.1 Long-Term Mining Program**

To incentivize users participating in the SUN ecosystem, we will continue to launch mining programs, including but not limited to liquidity mining, SUN-staked mining, etc.

### **6.3.2 Promote DAO Program**

The SUN.io platform will advance its decentralized autonomous organization (DAO) program. With SUN as the sole governance token, the platform grants users the right to determine future development paths of all products.

### **6.3.3 Maintain Token Value**

In the future, transaction fees will only account for a fraction of the revenue of the SUN.io platform, while revenue from other products will be bought back, burned and redistributed, along with future R&D, to maintain the value of the SUN token, bringing benefits to users in a sustained way.