dFuture Whitepaper v1.0

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1. Introduction

In the traditional trading market, centralized exchanges have long been suspected of foul-play through their control of transaction data and non-transparent operations, including artificial price manipulation and creating fake coins. Decentralized exchanges like Uniswap have solved these problems to a certain extent, however, due to the characteristics of the AMM (Automated Market Maker) mechanism, both trading parties in the transaction still have certain risk exposures. For example, when trading volume is large, traders will face trading slippage far exceeding that of centralized exchanges and liquidity providers (LP) face the risk of impermanent losses. In order to solve this problem, we have proposed a new QCAMM (Quoted Price and Constant Sum Based Automated Market Maker) mechanism.

dFuture is a protocol for automated token transactions on Ethereum. Currently, it only provides leveraged perpetual contract transactions for mainstream coins. The core design of dFuture is zero impermanent loss and zero slippage. It is very friendly to traders and LPs (Liquidity Pools) and provides good liquidity and trading depth.

On dFuture, an LP only needs to deposit a single coin (currently USDT) to provide liquidity. When withdrawing, due to multiple gains from various coins, an LP will get equal to or greater than the deposited amount (currently USDT). A real-time external decentralized exchange price is used to feed the price for traders for the mainstream coin/USDT trading pair, and there is no slippage in the transaction.

The system uses the constant sum formula (X1 + Y1 = Z1, Z1 value is constant) to control the naked position of the platform to 0 as much as possible, so that the risk of the LP is reduced to 0, making it close to a risk-free profit.

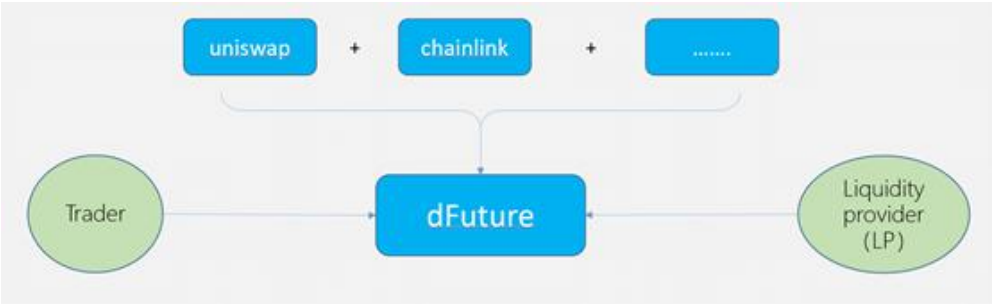
This document outlines the core mechanisms and the technical implementation of dFuture. See the project's Github for the complete source code.

Protocol Website:
dfuture.com
Documentation:
https://github.com/dFuture-finance/dFuture-introduction
Code:
https://github.com/dFuture-finance/

2. QCAMM Protocol Introduction

2.1 QCAMM Overview

QCAMM (Quoted Price and Constant Sum Based Automated Market Maker) is a futures protocol with dynamic trading rates based on external price feeds and a constant sum formula.



The QCAMM protocol obtains a live comprehensive price quotation of each trading asset through multiple external oracles and decentralized exchanges like Chainlink, uniswap, OpenOracle, Mdex, PancakeSwap. The trader directly completes the long or short transaction at the quotation price. There is no slippage, and the transaction depth is proportional to the LP margin amount. LP only needs to add a single coin USDT to the liquidity pool and there is no impermanent loss.

The main features of the QCAMM protocol include:

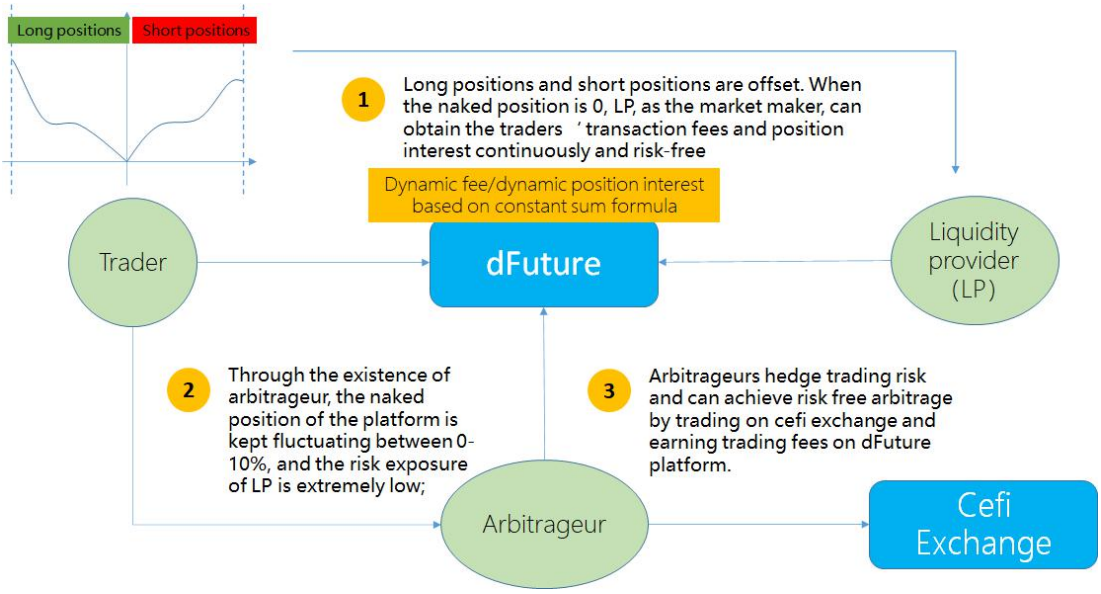
- External price feed: The transaction price is not determined by an algorithm like AMM, but is obtained from multiple external decentralized data sources, including oracles and decentralized exchanges.

- 0 slippage: the trader directly trades at the current quotation within the allowed open position amount on the platform, and there is no price slippage.

- Deep trading depth: The trading depth of the trader only depends on the LP pool amount. If the platform pools 10 million US dollars, the trader can directly trade a long or short order of 10 million US dollars at the current price.

- No impermanent loss: In an AMM, you need to pool a trading pair. For example, in an ETH/USDT trading pair, the LP is required to add both ETH and USDT to the liquidity pool. In QCAMM, an LP only needs to add a single coin, which currently is USDT in dFuture. By only collateralizing the stable coin USDT, there is no impermanent loss in QCAMM.

2.2 QCAMM Risk Control Principles



An important goal of the QCAMM protocol is to control the risk position of the LP exposed on the platform, so as to realize a risk-free profit for the LP on the platform. The QCAMM protocol introduces the role of arbitrageur to actively trade on the platform through the "dynamic trading fee/dynamic position fee" mechanism, thereby forming a dynamic balance of the platform and controlling the risk of the platform to fluctuate at a low level. The specific principles are as follows:

- If the sum of the long position and short position of the platform is equal, (the long position and the short position are offset), and the naked position is 0, then the LP will not have any risk and can continue to obtain the trader's transactions fees and interest to achieve a risk-free profit. Therefore, the problem of controlling LP risk is transformed into how to make naked position zero.

- The QCAMM protocol uses the mechanism of "dynamic trading fee/dynamic position fee based on constant sum formula" to control the naked position to 0. Taking dynamic fee as an example, the constant sum formula means "trading fee for long orders + trading fee for short orders = constant value." When the naked position is small, the platform charges both long and short transaction fees at the same time, and the fee rate is lower than that of centralized exchanges. If the naked position is large towards a long position, you need to pay higher trading fees when opening another long order. On the contrary, the platform will refund you trading fees if you were to open a short order.

· By returning trading fees to the user, there is arbitrage room on the platform, which will attract arbitrageurs to enter the transaction. For example, if the naked position is long, the arbitrageur can place a short order on the platform and place a long order on a Centralized Exchange, such as Huobi, to offset the risk of the position, and at the same time get the platform's trading fee refund to realize a risk-free arbitrage; due to the arbitrageur's transaction, the naked position of this platform will return to zero, and the LP risk exposure will decrease accordingly.

In short, the risk control of the QCAMM protocol will be in a process of dynamic equilibrium for a long time. From a long-term perspective, the risk exposure of the LP will always be maintained at a relatively low level, so as to achieve long-term risk-free profit for LP.

2.3 QCAMM, AMM, and Centralized Exchange Comparisons

Due to fundamental differences in design, QCAMM and AMM and Centralized exchanges (CEFI) have certain differences in functional characteristics:

	CEX	**AMM（uniswap）**	**QCAMM（dFuture）**
Price	Order Book Price	Constant Product	External Quote
Slippage	Based on Depth	Unavoidable slippage based on constant product	No Slippage
Trading Depth	Greater than AMM	Poor	Greater than CEX, linearly correlated to liquidity pool
Impermanent Losses	No	Yes	No
Trading Fees	High and not transparent	Low	Dynamic fees, when platform risk is low, fees are lower than AMM / CEX
Trading Style	Limit Order / Market Order Maker / Taker	Market Price Taker	Market Price Taker
Transparency	Not Transparent	Transparent	Transparent

Liquidity Pool	None	Yes	Yes
Pooled Tokens	None	trading pair	Only one currency in trading pair

2.4 The difference between perpetual contracts based on QCAMM and traditional perpetual contracts

Most of the features of QCAMM perpetual contracts are similar to traditional perpetual contracts. Based on the characteristics of decentralization, there are mainly the following points to note:

Trading mode: In traditional perpetual contract trading, there are mainly two types of trading orders: limit orders and market orders. At the same time, traders can have two roles: taker and maker. In the QCAMM perpetual contract, there is only one transaction type of market order. The market order has no slippage and the maximum depth is 3 times the amount of the LP pool. Traders can only be taker regardless of open or close positions.

Platform price: The platform price is the price obtained from multiple external decentralized data sources, which exists as the benchmark price for transactions and is used to calculate floating profits and floating losses;

Initial and maintenance margin: Traders should be very familiar with initial and maintenance margin, especially maintenance margin. Once the trader's margin is lower than the maintenance margin, the system will force liquidation. It is strongly recommended that traders close positions when the margin ratio is at maintenance to avoid assets lost due to forced liquidation.

Dynamic trading fee: In order to reduce the trading risk brought by naked positions to the platform, we use a "constant sum" formula to ensure that the sum of the fee for opening long and short is always a fixed value. Under this formula, the fee rate for opening a position on the platform will be dynamic and change with the size of the naked position. At the same time, the fee may be positive or negative, positive means traders pay trading fees to the platform, negative means the platform pays trading fees to traders. The trading fee income for the LP is constant.

Dynamic position interest: In order to reduce the trading risk brought by naked positions to the platform, we use the "constant sum" formula to ensure that the sum of the position interest for long and short positions is always a fixed value. Under this

formula, the rate of position interest on the platform will be dynamic and change with the size of the naked position. At the same time, the holding interest may be positive or negative. Positive means the traders pay interest to the platform, while negative means the platform pays interest to traders. The position interest income for LP is constant.

Leverage: Unlike the spot market, the futures market allows traders to trade more than their principal through leverage. As we gain a better understanding of the QCAMM trading model, the leverage ratio will be set higher.

LP pool: The platform has multiple LP pools according to risk levels. In the high-risk pool, traders can use high leverage to trade a variety of digital currency contracts. These digital currency contracts may consist of low-risk low-volatility trading pairs and high-risk high-volatility trading pairs. Both traders and LPs may obtain high returns.

In the low-risk pools, traders can use low leverage to trade multiple digital currency contracts. These digital currency contracts will be mainstream cryptocurrencies with low-risk fluctuations. Both traders and LPs will obtain more stable returns. The LPs can choose different LP pools according to their own risk preference and simply add USDT to the pool to earn income.

Transparent Prices: QCAMM perpetual contracts price only relies on the external price feed, and a specific algorithm is used to prevent the external price feed from being attacked. The platform is fair, transparent, and credible.

Transparent Fees: all fees of QCAMM perpetual contracts have been fixed in the smart contract and are visible to users.

2.5 Further expansion of perpetual futures contracts based on QCAMM

In the dFuture V1 version, the mainstream digital currencies' prices are fed from external sources for futures trading. For the QCAMM protocol, as long as the external quotation can be obtained through a decentralized method, it can be traded under the QCAMM protocol. Therefore, many trading varieties such as stocks and foreign exchange currencies can be traded on dFuture in the future, further expanding dFuture's trading categories and target traders.

3. QCAMM Trading Protocol Introduction

After the LP adds USDT liquidity to the pool, traders can then start trading on USDT related bottom pairs. dFuture currently provides leveraged perpetual contract trading. Traders use the current real-time platform prices to open long or short positions. Traders can adjust initial leverage from 1 to 30 times. After the transaction is confirmed, the trader's margin will be deducted. With each block of Ethereum, dFuture will check the trader's current position in real time. If the holding margin rate is lower than the lowest level of the current currency, the trader’s position will be liquidated. dFuture platform will remind traders whose positions are about to be liquidiated. Traders can add margin to trades to avoid the risk of liquidation.

3.1 Price Quotation System

The transaction price comes from the automatic quotation of multiple oracles and decentralized exchanges. In order to prevent the price of a single exchange from being attacked and causing damage to dFuture traders, we use multiple oracles and decentralized transactions as data sources, as well as implementing weighted average quotations. The formula is: X1*X2+ Y1*Y2+…=price, where X1, Y1 are the prices on decentralized exchanges or oracles from different sources, X2, Y2… are weighted numbers, X2+Y2+…=1. We currently use chainlink、uniswap、OpenOracle、Mdex、PancakeSwap as external sources of quotations. The current weighted composite price of Uniswap and Chainlink is the "platform price" of the dFuture platform.

We also will take some additional protective measures to avoid poor market performance due to interruption in spot market prices or connection problems. These protective measures are as follows:

1. Deviation from a single price source: When the latest price of an exchange deviates from the median price of all price sources by more than 5%, the price weight of the exchange will be set to zero.

2. Deviation from multiple price sources: If the latest price of more than one exchange has a deviation of more than 5%, the median price of all price sources will replace its weighted average and be used as the price index value.

3. Exchange connection issue: If an exchange does not update transaction data within 2 Ethereum blocks, the weight of the exchange will be zero when calculating the weighted average.

When the price is abnormal, the platform will temporarily close the transaction and resume the transaction after the problem is solved. The platform price can be regarded as a fair spot price, and we will use this to calculate the unrealized profit and loss of each contract. Please note that the actual profit and loss of the account is subject to the market price of the transaction when the position is closed. Later, through community governance, more mature decentralized exchanges and oracles can be added to dFuture's quotation system.

3.2 Transaction Price

The transaction price is a fee added on top of the closing position price. The purpose of the transaction price is to avoid frequent opening and closing attacks. Also, this transaction price will enter a risk protection fund to provide asset protection for traders and LPs.

We mark the platform price as P and the transaction price as M. The transaction price of long orders is P1 = P*(1+M), and the transaction price of short orders is P2 = P * (1-M). At the initialization of the dFuture platform, M is set to 0.05%, and there is no transaction fee when opening positions, but will incur a transaction fee when closing positions. The M value can be adjusted subsequently through community governance.

3.3 Dynamic Trading Fees

Traders are required to pay trading fees when trading on the dFuture platform. Unlike traditional trading platforms, in order to control platform trading risks, transaction fees will dynamically change based on the ratio of the platform's current naked position to the LP pool. At present, the platform sets a maximum of 1:1 for naked position and LP pool, so the ratio of naked position to LP pool is in the range of [-1,1], where a negative value means naked position is in shorting direction; a positive value means naked position is in long direction. As the ratio of the naked position to the LP pool slides between -1 and +1, the long and short trading fees will also change. What remains unchanged is that the sum of long and short fees are a constant sum value. The calculation formulas of trading fees are as follows:

D=(Total Long Position-Total Short Position) / Total Amount of LP Pool

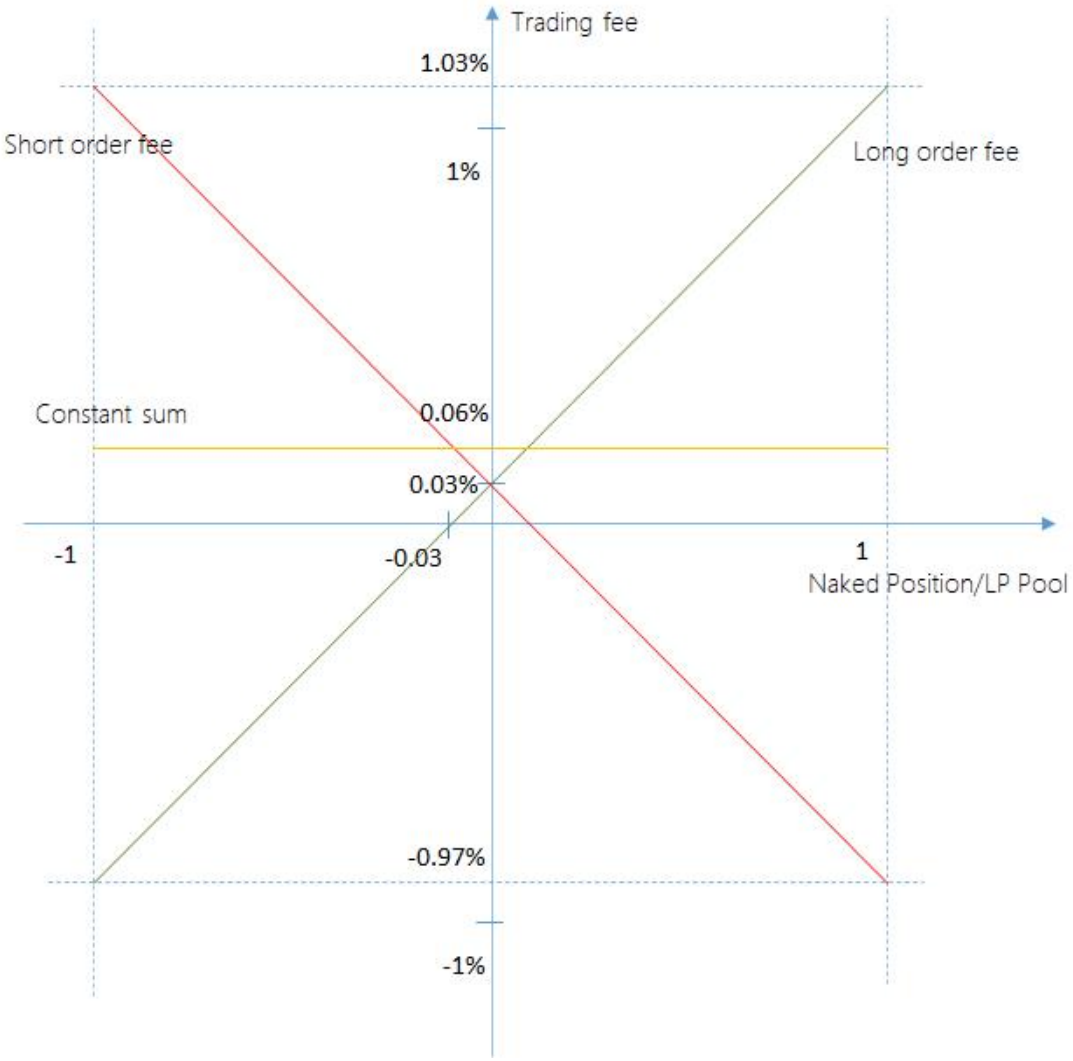
Long order trading fee X1 = N1 + M1 * D;
Short order trading fee Y1 = N1 - M1 * D;
Long order trading fee X1 + Short order trading fee Y1 = 2*N1 (a constant value);
M1 * D = Fee offset from constant value;

Where M1 =1%; N1 = LP fee advantage, here is 0.03% as an example;

List of tradings fee changes with D values:

Total Long Position	Total Short Position	LP Pool Total Amount	Naked Position / LP Pool Total	Long Trading Fees	Short Trading Fees	Constant Sum
0	0	100	0	0.03%	0.03%	0.06%
0	1	100	-0.01	0.02%	0.04%	0.06%
0	3	100	-0.03	0.00%	0.06%	0.06%
0	5	100	-0.05	-0.02%	0.08%	0.06%
0	10	100	-0.1	-0.07%	0.13%	0.06%
0	50	100	-0.5	-0.47%	0.53%	0.06%
0	100	100	-1	-0.97%	1.03%	0.06%
1	0	100	0.01	0.04%	0.02%	0.06%
3	0	100	0.03	0.06%	0.00%	0.06%
5	0	100	0.05	0.08%	-0.02%	0.06%
10	0	100	0.1	0.13%	-0.07%	0.06%
50	0	100	0.5	0.53%	-0.47%	0.06%
100	0	100	1	1.03%	-0.97%	0.06%

The transaction fee changes with the value of D as shown below:



Relationship between trading fees and D value change

For large long or short orders, we will smooth the impact by weighted average processing of the D value before and after the purchase. The specific calculation formula is as follows:

> D=(Total Long Position-Total Short Position) / Total Amount of LP Pool
> Long order trading fee = 0.03% + 1%* (D before the user places the long order + D after the user places the long order) / 2
> Short order trading fee = 0.03%-1%* (D before the user places a short order + D after the user places a short order) / 2

For example, the current total long position is 1.1 million USDT, the total short position is 100,000 USDT, and the total amount of the LP pool is 10 million USDT.

Situation 1: Trader opens a long order of 100,000 USDT

D value before the user places a long order = (110 – 10) / 1000 = 0.1
D value after the user places a long order = (120 – 10)/1000 = 0.11
Long order trading fee = (0.03% + 1% * (0.1 + 0.11) / 2) * 100,000 = 0.135% * 100,000 = 135, meaning the platform charges the trader 135USDT as trading fee;

Situation 2: Trader opens a short order of 100,000 USDT
D value before the user places a short order = (110 – 10) / 1000 = 0.1
D value after the user places a short order = (110-20)/1000 = 0.09
Short order trading fee = (0.03%-1% * (0.1 + 0.09) / 2)*100,000 = -0.065% * 100,000 = -65, meaning the platform will refund trader a trading fee of 65USDT;

Summarizing the above data, it can be clearly found that when a naked position (total long positions-total short positions) accounts for 0%-3% of the total LP pool, the platform charges trading fees from both long and short orders, and the trading fee is slightly higher towards the direction of naked position. When the naked position accounts for more than 3% of the total LP pool, new open positions in the positive direction of the naked position will need to pay a transaction fee, and new positions in the opposite direction of the naked position will be refunded.

Therefore, the system always encourages trading to tilt in the direction of reducing naked positions, and traders can make additional profits by trading against the direction of naked positions. At the same time, in an active trading market, arbitrage with other exchanges will ensure that traders who do reverse naked positions can obtain stable arbitrage returns and hedge their risks.

3.4 Dynamic Position Interest

When a trader conducts a transaction on the dFuture platform, if he has a position, he needs to pay interest on the position. The purpose is to control the platform's transaction risk. Unlike traditional trading platforms, the interest on holding positions will dynamically change based on the ratio of the platform’s current naked position to the LP pool. At present, the platform sets a maximum of 1:1 for naked position and LP pool, so the ratio of naked position to LP pool is in the range of [-1,1], where a negative value means that the naked position is in the short direction; a positive value means that the naked position is in the long direction. As the ratio of the naked position to the LP pool slides between -1 and +1, the interest of the long position and the interest of the short position will also change together. The sum interest of the long position + the short position is a constant value. The calculation formulas for position interest are as follows:

D=(Total Long Position-Total Short Position) / Total Amount of LP Pool

Long position interest X2 = N2 + M2 * D + L;

Short position interest Y2 = N2 – M2 * D - L;

Long position interest X2 + short position interest Y2 = 2*N2 (a constant value);

M2 * D = Interest offset from constant value;

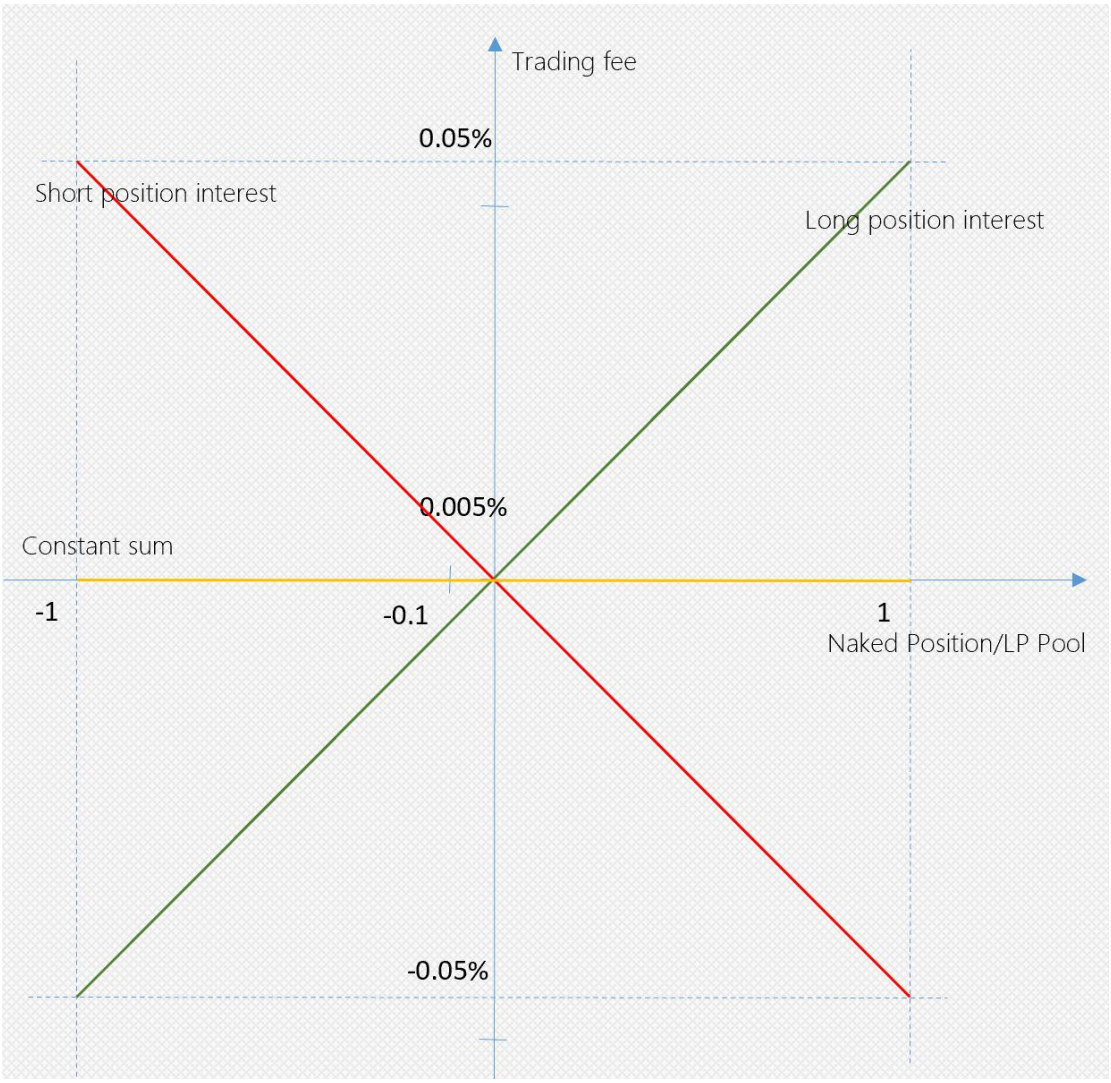
Where M2 = 0.05% ; N2 = 0%; L = 0;

L is the current benchmark rate, which means it is the weighted average of the current funding rate of the perpetual contract on the centralized exchange. It is currently set to 0, and the price will be obtained through a decentralized oracle later;

List of position interest changes with D values:

Total Long Position	Total Short Position	LP Pool Total Amount	Naked Position / LP Total	Long Position Interest	Short Position Interest	Constant Sum
0	0	100	0	0.0000%	0.0000%	0%
0	1	100	-0.01	-0.0005%	0.0005%	0%
0	10	100	-0.1	-0.005%	0.005%	0%
0	50	100	-0.5	-0.0250%	0.0250%	0%
0	100	100	-1	-0.0500%	0.0500%	0%
1	0	100	0.01	0.0005%	-0.0005%	0%
10	0	100	0.1	0.005%	-0.005%	0%
50	0	100	0.5	0.025%	-0.025%	0%
100	0	100	1	0.050%	-0.050%	0%

具体如下图所示：



Holding interest is deducted every 8 hours and is effective immediately. The position interest refund is returned to the trader upon closing the position.

It can be seen that when naked positions (total long positions-total short positions) account for 0%-10% of the total amount of the LP pool, the platform will charge both the long and short positions with position interest, and at the same time, it will charge slightly in the direction of the naked position. When the naked position accounts for more than 10% of the total amount of the LP pool, the position in the direction of the naked position needs to pay interest, and the position in the opposite direction of the naked position will receive an interest refund.

Therefore, the system always encourages positions to tilt in the direction of reducing naked positions, and traders can make additional profits by holding positions against the naked position.

3.5 Competitive Liquidation

dFuture will check a trader's current position in real time. If the holding margin rate is lower than the lowest level of the current currency, the trader’s position will be liquidated. When a trader’s position is liquidated, there are two situations that will arise in the trader’s account: 1. The price fluctuation is not extreme, and the trader’s position still has funds; 2. The price fluctuates too much, and the trader’s margin has no funds left and the loss goes past the margin.

dFuture provides a competitive liquidation mechanism, allowing "data scientists" involved in platform transactions to help the platform complete all the liquidation steps. Competitive liquidation means that when a trader is forced to liquidate, the "data scientist" can actively send a liquidation transaction request to the account that prompted the liquidation. When the position is not closed, the "data scientist" who has successfully closed the transaction can obtain the remaining funds of the position Y, 0 <Y <MIN (X, Y), "X" is the highest fixed value of funds that the "data scientist" can obtain after a successful single closing transaction set by the platform. This value will be modified through community governance in the future, and the remaining funds of the account will be added to the LP liquidation profit pool after deducting Y.

A "data scientist" can get a return of about 5 times of the transaction fee of the Ethereum platform. The risk is that if the order’s margin is completely liquidated, there will be no return. Also, if multiple "data scientists" compete to close the same position, only one "data scientist" can be rewarded, others will lose their fees.

3.6 Risk Protection Fund and Auto Reduce Position

The risk protection fund is designed to make up for the loss caused by traders' account assets being lower than 0. The risk protection fund currently consists of two parts. First, the margin fee from forced liquidation will be injected into the risk protection fund; second, the 0.01% fixed spread change from each closed position will be injected into the risk protection fund. The main purpose of the risk protection fund is to reduce LP's risk from traders' forced liquidation.

In the event of a forced liquidation, that is, after the user is forced to close the position, if there are no remaining funds in the account or it cannot be forced to liquidate, the LP will take over the remaining position on the user's account.In this case, the dFuture platform will use the risk protection fund to perform reverse liquidation. When the risk protection fund is not enough to take over the remaining positions of the liquidated user, the LP will lose money at this time. In the case of a loss occurring in the LP pool, since the system's maximum open position is 3 times the LP pool amount,

if the open position has reached the limit at this time, an automatic position reduction will occur, and the system will reduce the position according to the preset algorithm.

3.7 LP Pool Supports Multiple Pairs

In the same LP pool, as long as the bottom pair of the trading pair is consistent, dFuture supports multiple trading pairs, such as ETH/USDT trading pair, BTC/USDT trading pair, etc. The LP pool is divided by risk levels. In the low-risk LP pool, there will be only mainstream currency trading pairs with large trading volumes, and a lower leverage factor (1-10 times leverage) should be provided. In the high-risk LP pool, besides the mainstream currency trading pairs, there are also smaller currencies with medium risk, and can have a higher leverage (20-50 times leverage).

Traders can choose the LP pool they want to trade in based on their own risk tolerance and preference.

Currently, the low-risk LP pool on the dFuture platform provides BTC/USDT and ETH/USDT trading pairs with up to 30 times leverage. Later, through community governance, more trading pairs and different risk LP pools can be added.

3.8 Multiple Settlement Currency Support

The dFuture platform will support multiple settlement currencies. For the same LP pool, you can only choose one settlement currency based on Ethereum, such as ERC20-USDT, ETH, etc.

At present, the dFuture platform only supports USDT as a single settlement currency. This means that traders use USDT for trading, LP adds USDT to LP pool, and USDT exists as the bottom pair of trading pairs.

Later, through community governance, different LP pools can be added with ETH or other ERC20 tokens as the single settlement currency. For example, an LP pool with ETH as the single settlement currency allows the LP to add ETH to the LP pool, while traders can use ETH for trading, and the bottom pair is based on ETH, such as USDT/ETH, BTC/ETH etc.

4. Platform Liquidity Providers

4.1 Increasing Liquidity

When an LP wants to increase liquidity to the platform, the LP only needs to deposit USDT into the platform's smart contract and obtain the LP Token as a voucher. The platform currently uses USDT as the settlement currency. Later, through community governance, more settlement currencies will be supported such as USDC.

Besides LPs adding liquidity, the following situations can make a change in the Liquidity Pool:

1. The USDT losses from traders' active closing of the position or from forced liquidation will be injected into the liquidity pool, in this case, the USDT in the liquidity pool will increase.

2. When traders close a position with a profit, the liquidity pool will pay USDT to the traders' accounts, in this case, the USDT in the liquidity pool will decrease.

4.2 Liquidity Token

LP adds USDT to the liquidity pool to obtain LP Token. LP Token is used to track the ratio of the liquidity contributed by each LP to the total liquidity pool. LP Token is highly divisible. At the same time, LP can burn LP Token at any time to obtain the USDT previously added to the pool.

The amount of LP Tokens obtained by an LP is depending on how much USDT LP added to the liquidity pool. It can be calculated using the following formula:

LP Token obtained = amount of USDT deposited * total amount of LP Token / total amount of USDT in the platform liquidity pool.

4.3 Liquidity Recovery

LPs can burn LP Token at any time and retrieve their corresponding USDT from the liquidity pool.

During the trading period, all profits and losses will be added to the liquidity pool. Therefore, since the first addition of liquidity, all revenues will be included in the liquidity pool, and the LPs can obtain their own corresponding proportion of income.

LPs obtain their corresponding share of USDT by sending LP Token to the liquidity pool. The amount can be calculated using the following formula:

USDT obtained = total amount of USDT in platform liquidity pool * share of sent LP Token / total share of platform LP Token

In order to avoid LPs frequently add and remove from liquidity pool, the system will charge a 0.5% withdrawal fee when LPs remove assets from the liquidity pool, this fee will be automatically allocated to other LPs that have nsot withdrawn from the liquidity pool.

4.4 LP Pools with Different Volatility Rates

The dFuture platform can support multiple LP pools with different risk volatility rates. There can be multiple different trading pairs in the same LP pool. The naked positions of each trading pair are shared and participate in the dynamic position fee of each trading pair as well as the calculation of dynamic position interest.

Supporting different trading pairs through one LP pool, compared with only one trading pair supported by the LP pool, can flexibly increase the maximum open positions of different trading pairs. This increases the fund utilization rate of the LP pool, which thereby increase the LP rate of return of the pool. At the same time, by integrating low-risk and medium-risk trading pairs in a pool, the risk of the pool is reduced through the low-risk trading pairs, and the trading returns are further improved through the medium-risk trading pairs.

When an LP adds liquidity to the pool, it can choose whether to add to a low-risk pool or a high-risk pool according to its own risk preference, so as to choose to obtain a risk-free stable return or choose a riskier higher return.

4.5 LP Pools Income Composition

After an LP chooses a pool and adds liquidity, LP's income is mainly composed of the following aspects:

1. DFT allocation

After the DFT is accompanied by the block output, 30.4% of the DFT is allocated to the LP that provides liquidity margin for the platform, and each LP obtains 30.4% of the DFT of the proportion according to its margin proportion;

2. Risk protection funds

Risk protection funds including transaction fee for closing positions and liquidation fees, are used to provide certain protections to LPs when traders break through positions.

Transaction fee: When closing a position, the platform will charge a handling fee of 0.01% that enters the risk protection fund, and this part of the fee will be charged in the settlement currency of the pool.

Liquidation fee: The holding margin rate is lower than the lowest level of the current currency, and the maintenance margin rate will be forcibly closed by the system. When forced to close a position, the remaining amount deducted to the data scientist in the position will be used as a liquidation fee and credited to the risk protection fund. This part of the fee will be charged in the settlement currency of the pool; 100% of the transaction fee and liquidation fee will be given to the LPs.

3. Withdrawal fee

When an LP withdraws from the liquidity pool, the system will charge a handling fee of 0.5% of the withdrawal amount, and this handling fee will be automatically allocated to other LPs that have not withdrawn from the liquidity pool.

5.DFT

DFT is the platform token of dFuture platform, and its value support comes from part of the transaction fees of the platform. DFT has many uses on dFuture platform.

5.1 Issuance of DFT

DFT will be issued at the same time when dFuture is officially launched. DFT is issued on Binance Smart Chain BSC and Huobi Ecological Chain Heco at the same time, with a total of 400 million, 200 million for each chain, and will no longer be generated after the output is completed.

5.2 Distribution of DFT

30.4%-Trader's profit
30.4% of the DFT is allocated to traders who complete valid transactions on the platform;

30.4%-LP income
30.4% of the DFT is allocated to the LP that provides liquidity margin for the platform, and the LP obtains 30% of the LP income according to the proportion of the staked DFT;

15.2%-LP Token mining
15.2% is provided to users who provide liquidity for DFT on MDEX and PancakeSwap, that is, LP Token mining;

10%-team
10% of the DFT is used as a team reward for team operations, technology research and development, etc., and will be linearly unlocked 24 months after launch;

10%-private invest
10% as an early investor share, to provide more sufficient and beneficial funds and resources for the development of dFuture, and to unlock linearly within 12 months after launch;

3%-airdrop
In order to further promote the dFuture platform, we will conduct multiple airdrops for traders, members of the Defi community and other potential user groups. The total amount of DFT currently used for airdrops is estimated to be 3%;

1%-community reward
In order to further improve the functions of the platform and reward activists in community activities, we reserve 1% of DFT for rewards for various community activities;

5.3 Functions of DFT

Trading Fees Income

One of the main sources of income for the dFuture platform is trading fees from traders. When the net profit and loss of the fee pool or interest pool increases by 1000 USDT. Platform users can get 40% of the platform trading fees by staking DFT on the platform, the amount of DFT earned is according to the proportion of their own staked DFT to the total DFT staked on the platform, and this part of the fee is paid to users in USDT. The staked DFT can be redeemed after 3 days.

Repurchase and destruction

The dFuture platform will use 25% of the total fee income to repurchase and destroy

DFT.

Transaction discount

After the trader margin the DFT, he can get a discount on the transaction fee. There are currently two levels of margin discounts for traders.

LP Lockup Acceleration

At present, 10% of the DFT is allocated to the LPs that provide liquidity for the platform, and the LPs obtain DFT proportional to their staked USDT amount. LPs who staked USDT to the liquidity pool can also lock up DFT to speed up the process of earning DFT. The current ratio between DFT to USDT is set to 1 : 2, meaning each DFT locked by LP will increase 2 USDT staked to the pool. The staked DFT can be redeemed in one day, but the accelerated amount of USDT cannot exceed the current amount of staked USDT*2.

Example:

The LP has staked 200,000 USDT. At this time, he can stake another 50,000 DFT. Since DFT and USDT have a 1:2 margin relationship, which is equivalent to stake 300,000 USDT, the LP can obtain DFT by staking 300,000 USDT. The staked DFT can be redeemed after T+1 days.

DAO Governance Voting Rights

All staked DFT, including DFT staked for trading fees or DFT staked for LP lock-up acceleration, will get corresponding voting rights. The community can vote to modify and adjust all the parameters of the dFuture platform to meet different traders and LP needs. This can include adding a higher risk volatility LP liquidity pool, adding more trading pairs, adding more base trading pairs such as ETH and USDC, adding more price oracles, etc.

6. Introduction to the platform's global risk parameters and boundary settings

- When the naked position is greater than the LP pool amount, you cannot open a position in the direction of the naked position;

· When the naked position is greater than the LP pool amount, the position can be closed if the closing position is decreasing the amount of the naked position.

· Positions cannot be opened when long + short positions are 3 times the LP pool amount.

7. Platform Fees

7.1 Platform fee distribution structure

Traders need to pay two fees when trading on the platform: trading fees and position interest. According to the constant sum formula, the platform will stably generate trading fees and interest surplus in USDT, and these amounts will be directly distributed to the following platform participants in proportion:

40% is used for airdrops to DFT stakers, and is transparent on the chain;
20% is used to buy back and destroy DFT;
20% is used for the team as operating expenses;
20% is used for third-party dex second pool liquidity mining.

8. Next Steps

8.1 The Design of Balancing the Platform's Income

For a trading platform, the design of trading rules is the most important thing, and the most important trading rule is the design of the transaction fee model. A good transaction fee model must make sure that the distribution of benefits between the trader and the platform LP is fair and reasonable. If the platform's trading rules are biased toward the LPs, where the LPs obtain high rates of return and traders need to pay high transaction fees with high trading risks, traders will be reluctant to trade on the platform, and the LPs will not be able to benefit in the long run. If the platform's trading rules are biased towards traders, so that the LPs' rates of return are very low and yet are exposed to risks for the long-term, the LPs will be unwilling to provide liquidity for the platform, resulting in a substantial decline in both the tradable pairs and trading volume, and also with a bad trading depth. Therefore, a trading platform that wants a long-term and a stable growth needs to find a good balance between the interests of traders and LPs.

We are considering adding a dynamic balance mechanism for incomes in the next version of dFuture. Through decentralized on-chain algorithms, the traders and LPs will be in a dynamic equilibrium game in terms of platform income, so that the platform can take care of both sides' interest.

8.2 The Design of Increasing LP's Incomes

According to the current system design of dynamic trading fees and dynamic position interest, we expect that the ratio of naked positions to the total amount of the LP pool should fluctuate between 0%-10% for the long term, which means that the LP pool only needs to provide 10% for liquidity, and 90% of the LP pool will be treated as deposit funds.

After setting a certain percentage of reserves, we can use the remainder of this fund in a variety of ways to further increase the LP's rate of return, such as:

- Deposit to a platform similar to Curve to increase the rate of return.
- Provide a loan function similar to Compound to increase the rate oof return.

8.3 The Design of Optimizing the Platform's Trading Pairs

dFuture can support a limited number of trading pairs in the same LP pool, which can include mainstream currencies and non-mainstream currencies. We can establish health rating indicators for each trading pair, including daily trading volume, daily number of traders, etc. After a certain trading cycle, such as 3 months, we can remove trading pairs with poor health ratings and add in new trading pairs. In this way, we can always guarantee the trading pairs are active and healthy, which will improve the trading experience for traders, and also improve the utilization of LPs' assets and increase LPs' income.