$mart Investment Ecology

Background:

Since 2017, due to the gradual popularization of ERC-20 token protocol and smart contracts, various DAPPs in Ethereum have sprung up. Most of them are air coins and garbage coins, but a number of phenomena-level projects have emerged. Encrypted cats, Fomo3D, etc., and later appeared in FCoin trading is mining, BetDice gaming and other popular projects.

Demand:

For the majority of investors, digital currency projects are numerous, how to choose? Good projects are rare, how to get information and invest at the earliest time?

For the project developers, though it is a good project, how to raise the project start-up funds?

Existing solutions:

ICO is the earliest and most widely used investment and financing solution in the currency circle. There are many successful cases, but a large number of scammers and air projects are flooding them. After the fundraising is completed, there are also a few roads running. In view of the large number of risks and chaos, countries have strengthened the control and supervision of ICO, and even directly prohibited.

The investment institution is a professional qualified investor with risk control ability and considerable capital scale, but the threshold of its LP is relatively high, and it is not suitable for the majority of retail investors.

In order to avoid the risk of ICO supervision, many projects are only open to a small number of qualified investors. So there has emerged a proxy service, and the substitute investment has increased the intermediate link, and increased the risk for both the project party and the retail investors. There are countless examples of substitute investing in various pits and even running.

$mart Investment Ecology Solution:

The $mart investment ecosystem consists of a $mart Fund and a number of DAPP projects invested. The $mart fund is a set of smart contracts and tokens running on Ethereum. It is completely decentralized and uses voting to invest DAPP projects with clear profit model in Ethereum, and real-time dividends;

The fund is open, but it limits the speed of purchase and redemption and keeps the fund's continued appreciation.

Democratic decision:

Based on the $FD (staked dividend fund token), 1% can call the smart contract to initiate the investment proposal, other holders can call the smart contract to vote. The voting is valid within 72 hours from the date of initiation, and when the voting is over with support rate exceeds 10% and exceeds opposition rate, the vote will be passed and the smart contract will be automatically triggered to trigger the investment.

From proposal, voting to investment, the whole process is completely decentralized and spontaneously completed automatically, and the same process of divestment or other voting matters.

Investment targets:

The investment targets are all DAPPs based on the Ethereum smart contract, and there must be a clear profit model. For example:

✓ Decentralized exchanges, relying on transaction fees;
✓ Decentralized mining pools, depending on the transaction fee;
✓ Encrypted cat or Fomo3D class blockchain game itself is profitable;
✓ Dice or poker betting DAPP, profitable by probability advantage or pumping;
✓ .....

Real-time dividends:

When the invested project generates revenue, the smart contract immediately transfers it to the $mart fund, and the $mart fund allocates it to the $FD holders in real time, and the amount in the wallet can be seen to continue to grow.

New projects rebate:

For new projects, similar to income is mining, the resulting eth income, return the specified proportion of $FD, the initial 2 times equivalent, reduced by the exponential function, reduced to 1.414 times at cost recovery, and reduced to 1 time when the cost is recovered twice, attracting players to enter the market and helping the new investment projects to start quickly.

The income is recorded in the daily limit of 1% of the reserve, and the excess is automatically queued. Because the fund uses the low reserve bancor protocol, the rebate activity will not lead to losses, and the $FD which is staked, and failure to sell in the short term will not result in a price drop.

Staking and unlock:

The $mart fund can be circulated and staked, and can be circulated and transferred, and can be traded on the exchange; call the smart contract staking operation can be immediately converted into a $FD, and the project can enjoy real-time dividends and vote for investment decisions; call the smart contract unlock operation, gradually convert to tradable, the total unlock amount is 2% reserve per day.

Purchase redemption limit:

In addition to being able to buy and sell in the secondary market (exchange), the $mart fund is open-ended and can also be purchased and redeemed in the primary

market (official website), but part of the fund's reserve is invested, and profit recovery takes time. In order to guarantee the stability of investment, it is necessary to limit the redemption and the limit redemption is 1% of the reserve every day, the excess needs to wait; in order to protect the existing holder's investment return rate and avoid the dilution of the income too fast, the purchase needs to limit, the limit admission is 1% of the reserve every day, the excess is automatically queued, and the order can be canceled.

The price changes are mild:

The $mart fund uses the bancor protocol, the initial reserve ratio is 12.5%, and the fund price is positively related to the reserve balance. Each purchase will result in a slight increase in the unit price of the fund; each project income will also cause the unit price of the fund to rise slightly; each redemption will also result in a slight price drop. Because of the daily limit of purchase, income and redemption, the unit price of fund in the primary market has the highest daily increase of 1.6%, and the highest daily drop of 0.9%.

Invitation priority:

When you purchase the fund, the contract will give you 2 times eth quantity of priority tickets token, you can use it yourself or send it. You can use the priority tickets to cut the queue and enjoy the preemptive right to purchase.

In addition, the inviter can enjoy the invitation incentive, and the invitee also has discounts, incentives and discounts are positively related to the length of the queue. When the queuing purchase amount is equal to 20% of the reserve, the incentive is 5% and the invited discount is 2.5%.

Arbitrage chain:

The new project usually has a rebate activity, which will attract traders to make more transactions to get more profits;

The project flow increased, the income increased, the fund dividend increased, which attracting investors to purchase funds, and the fund price rose, which further stimulating the purchase;

Due to the restriction of the primary market, the primary market price of the fund is lower than the secondary market. After successful purchase in the primary market, you can sell to the secondary market to achieve cross-market arbitrage. If the arbitrage space disappears, the order can be canceled at any time without risk.

Cross-chain planning:

$mart funds can be moved to public chain such as EOS or TRON, and invest in DAPPs on it. And through the oracle protocol, open up a number of public chains for free circulation, so that the value of the units running on different public chains is equal.

Laboratory:

The Intelligent Investment Ecology Lab is a decentralized autonomous

organization (DAO). The core goal is to use the smart contract to achieve a digital currency decentralized investment in the DAPP projects with clear profit model. The democratic vote participates in the investment decision and automatically distributes the project revenue in real time.

It plans to raise up to 20,000 Ethereum sponsorships through investment institutions, of which 50% are used as $mart fund reserves, 20% as development costs, and 30% as promotion and operating expenses. The original fund unit was issued at a scale of 1:10,000 and transferred to the sponsor's Ethereum address.

Appendix: Bancor Potocol

Bancor is an ERC20 Token, and expand on this basis, adopt an innovative strategy to promote price discovery, namely Capital Reserve Ratio(CRR); The price(Price) is calculated based on the current supply of the token(Supply) and the reserve balance (Balance). The formula is as follows:

$$Price = \frac{Balance}{Supply \times CRR}$$

This calculation ensures the ratio between the reserve balance and the market value of the token (ie the capital reserve ratio CRR). The market value of the token is divided by the supply of the token to obtain the token price (denominated in Ethereum). The smart contract pays or liquidates the token based on this price, causing changes in the balance of the reserve and the supply of the token, and thereby affecting the price.

The details are as follows: When the token is paid (use ETH for the purchase), the paid Ethereum will be added to the reserve balance. The smart contract will calculate the price based on the above formula. Based on this price, the new token is transferred to the payer. According to the above formula, if the CRR is less than 100%, the payment of the token (buy the token) will lead to an increase in the price of the token, because although the reserve balance and supply are increased, the latter is multiplied by a score. Similarly, when the token is liquidated (sold), they are subtracted (destroyed) from the supply. Based on the current price, the reserve is transferred to the liquidator (seller). Any liquidation will trigger a price drop if the CRR is less than 100%.

This asynchronous price discovery model balances the amount of payment and the amount of liquidation by constantly adjusting the current price. The price is calculated after each transaction is completed and is "asynchronous". In the classic trading model, the price is determined by two matching orders in real time.

The above formula calculates the "current price" of the token. However, when performing a purchase or liquidation, the actual price is calculated based on a mathematical function of the transaction size. The calculation process can be traced as if each transaction was broken down into infinitesimal increments. Each increment is changing the supply of the token and the reserve balance, thereby changing the price of the $mart token. This ensures that when you purchase the same amount of $mart token, whether you buy them in a single order or multiple times, the total price is the same. In addition, this method ensures that the CRR is unchanged and the reserve tokens will never be exhausted. In fact, for any transaction, the effect of the size of the transaction on the price (because it changes the supply of $mart tokens and the reserve balance) is included in the “real price”.

The function of calculate token price on a per trade basis:

R-Reserve Balance
S-Token supply ($mart Token Supply)
F-Capital Reserve Ratio (CRR)

- T = given R, S and F, the amount of the token for depositing into the E reserves.

$$T = S\left(\left(1 + \frac{E}{R}\right)^{F} - 1\right)$$

- E = given R, S and F, the amount of reserve for liquidation of the amount of T.

$$E = R\left(\sqrt[F]{1 + \frac{T}{S}} - 1\right)$$

Using this approach, the Banco potocol can provide liquidity and asynchronous price discovery for existing standard tokens.