## CLAIMS

1. An apparatus for contract transactions, comprising:

a contract object manager, configured to manage a contract exchange rate Ph between a first asset A and a second asset B;

a margin determiner, configured to allow a transaction user to select one of assets thereof as a transaction margin;

a transaction engine, configured to execute a transaction after receiving a transaction order from the transaction user to the contract exchange rate Ph;

a user position holding adjustment processor, configured to enable the amount of the first asset A, converted into by contract position holdings of the transaction user, to be negatively correlated with the contract exchange rate Ph, and the amount of the second asset B, converted into by the contract position holdings of the transaction user, to be positively correlated with the contract exchange rate Ph in a continuous period of time according to changes of the contract exchange rate Ph;

a transaction data memory, configured to store basic information of the transaction user; and

a liquidation processor, configured to initiate a forced liquidation request to the transaction user at a preset liquidation price.

2. The apparatus of claim 1, further comprising: a spot market processor available to acquire spot prices of the first asset A and the second asset B or a spot exchange rate Px of the first asset A to second asset B by initiating a query request to a spot market server gateway.

3. The apparatus of claim 1, wherein the amount of asset corresponding to a transaction user's margin, converted into by the contract position holdings of the transaction user, is greater than the amount of transaction user's margin.

4. The apparatus of claim 1, wherein the position holding adjustment processor is configured to enable the amount of the first asset A or the second

asset B, converted into by the contract position holdings of the transaction user, to keep as d times of b/(Ph)^c in a continuous period of time according to changes of c power of Ph, wherein 0<|c|<1, b>0, d>0, and b and c are preset constants.

5. The apparatus of claim 1, wherein the apparatus runs on a blockchain, and the continuous period of time is a time longer than that of one block on the blockchain.

6. The apparatus of claim 1, wherein the amount of the contract position holdings of the transaction user is L, and the single size of the contract position holdings of the transaction user is between 0.1 US dollar and 1000 US dollars.

7. The apparatus of any one of claims 1-6, further comprising a asset operational amplifier, wherein an asset amplification rate of the transaction user is a ratio of the value of the contract position holdings of the transaction user to the value of the transaction user's margin, and an initial asset amplification rate of the transaction user is configured as m0, satisfying Pq /P0=((m0-1)/m0)^2, wherein Pq is a first set price, and P0 is a second set price.

8. The apparatus of claim 7, wherein the apparatus is further configured to compute a change of the transaction user's margin converted into the first asset A or the second asset B according to L*(P2^0.5-P1^0.5), wherein P1 is a contract exchange rate of the first asset A to second asset B at a first moment, P2 is a contract exchange rate of the first asset A to the second asset B at a second moment, and L is the amount of the contract position holdings of the transaction user in the apparatus.

9. The apparatus of claim 7, wherein the asset operational amplifier is further configured to set a asset amplification rate of the transaction user at a first price Pn as m=m0*Pn^0.5/(P0^0.5+m0(Pn^0.5-P0^0.5)).

10. The apparatus of claim 7, wherein the amount of the margin of the transaction user at the first price Pn is u= u0*(Pn^0.5-Pq^0.5) /(P0^0.5-Pq^0.5), wherein u0 is the amount of the margin of the transaction user at the second set price P0, and Pq is a liquidation price of the transaction user.

11. The apparatus of any one of claims 1-6, wherein the initial asset amplification rate of the transaction user satisfies:

|((m0-1)/m0)^2 – (m0-2)/m0| <11.11%.

12. The apparatus of claim 1, wherein the apparatus further creates a non-fungible token for the transaction user, and attributes of the non-fungible token at least comprise the amount of the contract position holdings and a contract position holding price of the transaction user.

13. The apparatus of claim 12, wherein the amount of the contract position holdings is an integer.

14. A blockchain system, wherein the blockchain system is configured to participate in or trigger the execution of executable programs in the apparatus of any one of claims 1-6.

15. The blockchain system of claim 14, the executable programs run in at least one of the following: the contract object manager, the margin determiner, the transaction engine, the spot market processor, the user position holding adjustment processor and the liquidation processor.

16. An apparatus for contract transactions, comprising:

a contract object manager, wherein a contract object comprises a contract exchange rate Ph of first asset A to second asset B;

a margin determiner, configured to configured to allow a transaction user to select one of assets thereof as a transaction margin;

an asset pool manager, configured to receive the first asset A and/or the second B to deposit in an asset pool;

a transaction engine, configured to execute a matchmaking transaction between the transaction user and the asset pool after receiving a transaction order from the transaction user to the contract exchange rate Ph;

a spot market processor, available to acquire spot prices of the first asset A and the second asset B or a spot exchange rate Px of the first asset A to the second asset B by initiating a query request to a spot market server gateway;

a user position holding adjustment processor, configured to enable the amount of the first asset A, converted into by contract position holdings of the transaction user, to be negatively correlated with the Ph, and the amount of the second asset B, converted into by the contract position holdings of the transaction user, to be positively correlated with Ph in a continuous period of time according to the changes of the contract exchange rate Ph;

a transaction data memory, configured to store basic information of the transaction user; and

an asset pool position holding adjustment processor, configured to initiate a forced increase or decrease of the contract position holdings when the contract exchange rate reaches a preset value.

17. The apparatus of claim 16, wherein the user position holding adjustment processor is configured to enable the amount of first asset A, converted into by contract position holdings of the transaction user, to keep as d times of b/(Ph)^c in a continuous period of time according to changes of c power of the contract exchange rate Ph, wherein $0<|c|<1$, $b>0$, $d>0$, and b and c are preset constants.

18. The apparatus of claim 16, further comprises a voucher generator, configured to generate a first voucher after the asset pool manager receives a deposit of the first asset A or the second asset B, or generate a second voucher after a transaction is established between the transaction user and the asset pool, wherein the amount of the first voucher is positively correlated

with the amount of the first asset A or the second asset B in the asset pool, the first voucher is configured as a voucher for initiating a withdrawal request to the asset pool, the amount of second voucher is positively correlated with the transaction user's and the asset pool's contract position holdings in a continuous period of time, and the second voucher is configured as a voucher for releasing the transaction user's margin.

19. The apparatus of claim 18, wherein the amount of asset represented by the first voucher converted into the second asset B is greater than or equal to the amount of contract position holdings represented by the second voucher converted into the second asset B.

20. The apparatus of claim 18, further comprises a voucher burner; configured to burn the first voucher or the second voucher after a voucher holder initiates a withdrawal request to the apparatus.