

USR Design

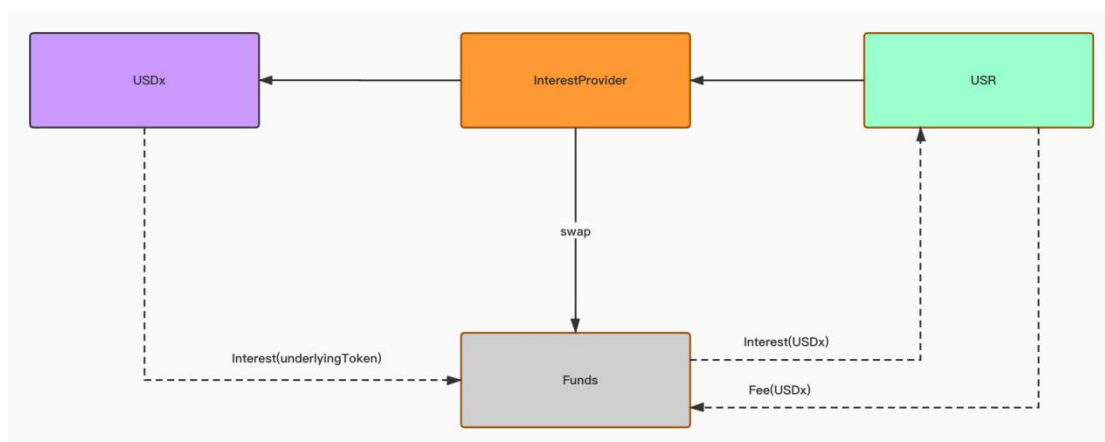
❖ Revision History

Date	Version	Author	Remarks
Aug 27, 2020	v1.0	Snow	USR2.0 first version
Sep 1, 2020	v1.1	Snow	Revision

❖ Summary

USDx is an indexed stablecoin backed by multiple constituent stablecoins as reserves. Constituents of USDx will be converted to dTokens (dToken is a yield aggregator launched by dForce) to earn interest across yielding protocols. Interest earned will be allocated to those who deposited USDx into the USR Contract (i.e. USR token holders). Users only need to deposit USDx into the USR (USDx Saving Rate) contract which will generate 'USR Token' and distributed to users automatically (aka subscription receipt). The exchange rate between USR token and USDx will grow over time in response to annualized interest. Instant redemption of USDx principal and accrued interest from the USR contract supported.

❖ Contract Structure



- **USR Contract:** implement Mint/Redeem/RedeemUnderlying/exchangeRate functions.
- **InterestProvider Contract:** implement two functions including 1) check on the amount of interests contributed by constituents of USDx to USR; and 2) claim of interest.
- **Chargeable Contract:** implement fee schedule for specific functions.
- **Funds Contract:** implement the 1:1 conversion of any constituent stablecoin into USDx.

❖ Mint and Redeem

Mint

When a user deposits USDx into the USR contract, pro rata USR token will be distributed based on real-time exchange rate. For example, depositing 100,00 USDx with real-time exchange rate of 1:1.001, will receive 9,990.01 USR token.

Redeem

When a user withdraws USDx from the USR contract, pro rata USDx will be calculated and taken out from the USR contract based on real-time exchange rate and returned to the user. Simultaneously corresponding USR token will be burned.

Exchange Rate

Indicates how much USDx can be exchanged for a USR Token, which is calculated from $(\text{USDx principal} + \text{USDx interest}) / \text{USR.TotalSupply}$. When TotalSupply of USR equals 0, the default value is 1:1.

USDx interest is contributed by underlying constituents of USDx, which can be acquired through the interface of InterestProvide (on the assumption that, interest of the constituent stablecoins support 1:1 conversion to USDx, which is implemented by the Funds contract).

