

# Olympus

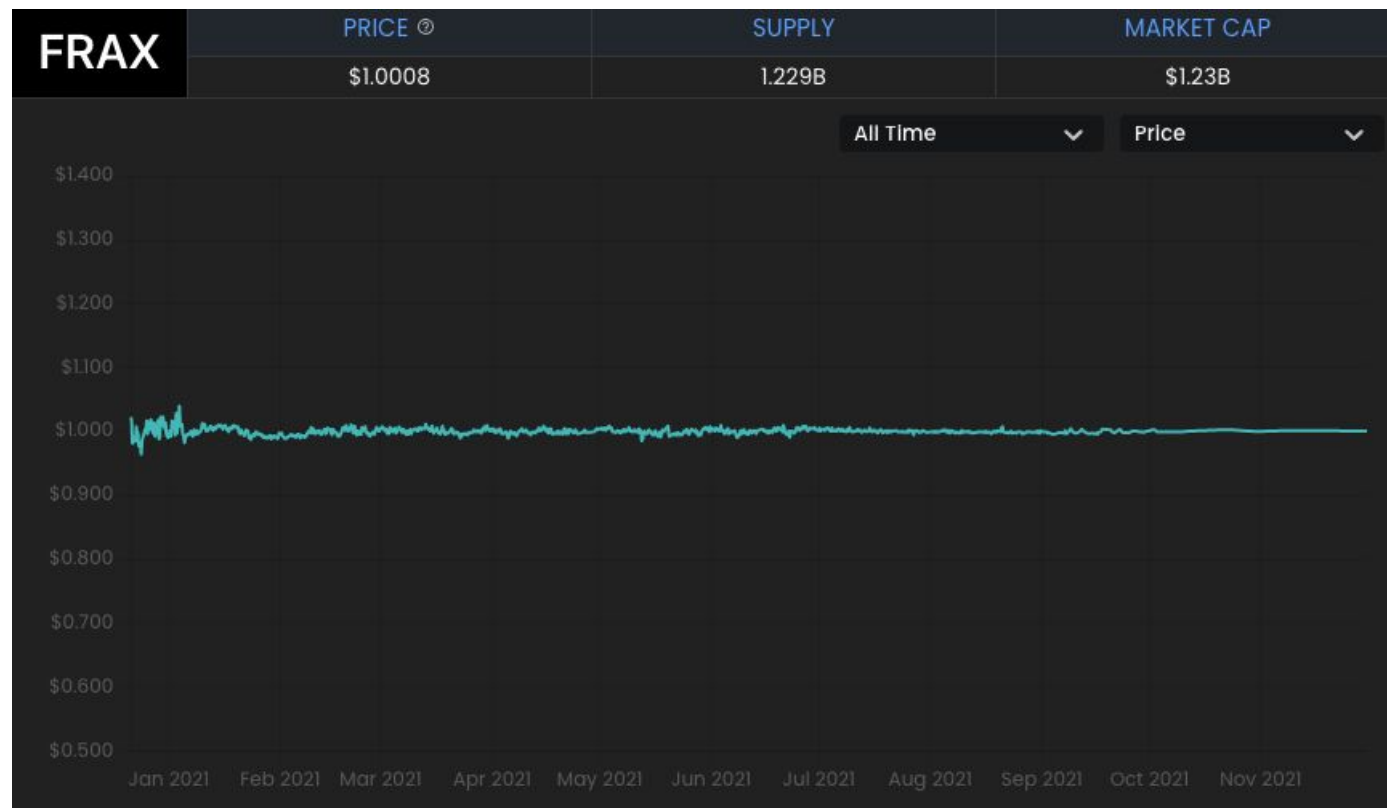
Olympus is a decentralized reserve currency protocol

Each OHM token is **backed** by a basket of assets (e.g. DAI, FRAX) in the Olympus treasury

# Algorithmic Stablecoins

1. ESD/DSD - Bond
2. Basis/MITH - Two Protocol tokens
3. Frax/UST - 1:1 peg
4. Fei - PCV
5. Rai - Control theory

# Frax Peg

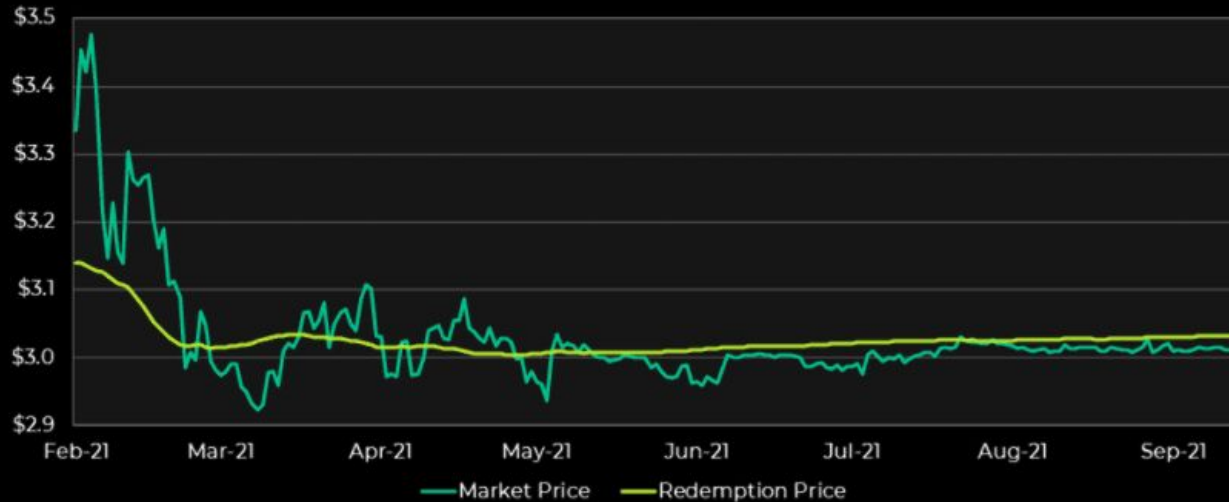


# Rai Stability



## RAI Finds Price Stability, Proving Effective Design

Market Price & Redemption Price of RAI



Data as of September 30<sup>th</sup>, 2021  
Source: Dune Analytics, @hggqX



DELPHI DIGITAL

# So what's next?

1. Perhaps with regulators turning their attention to dollar-pegged stablecoins, the utility and vision of successful algo stablecoins will start to resonate more with the DeFi community - [highly resilient, decentralized](#)
2. Utility value?
  - a. DAI/MIM/LUSD - lending/leverage
  - b. USDT/USDC - spot trading pair/perp/collateral/ramp

# OHM

Borrow a lot from the designs of algo stablecoins

1. Bond
2. PCV

Break a critical rule: 1 OHM is backed but not pegged at \$1 which means:

1. Expansions can be controlled at a reasonable scale (Controlled APY)
2. Do not have target price - decline exception when the price  $> 1$

# OHM Explained

1. Data
2. Workflow
3. Key features
  - a. Staking
  - b. Bonding

# Staking - High APY

Rebase: [OlympusStaking](#), [Distributor](#)

```
/**
 *notice trigger rebase if epoch over
 */
function rebase() public {
    if( epoch.endBlock <= block.number ) {

        IsOHM( sOHM ).rebase( epoch.distribute, epoch.number );

        epoch.endBlock = epoch.endBlock.add( epoch.length );
        epoch.number++;

        if ( distributor != address(0) ) {
            IDistributor( distributor ).distribute();
        }

        uint balance = contractBalance();
        uint staked = IsOHM( sOHM ).circulatingSupply();

        if( balance <= staked ) {
            epoch.distribute = 0;
        } else {
            epoch.distribute = balance.sub( staked );
        }
    }
}
```

```
/* ===== PUBLIC FUNCTIONS ===== */

/**
 *notice send epoch reward to staking contract
 */
function distribute() external returns ( bool ) {
    if ( nextEpochBlock <= block.number ) {
        nextEpochBlock = nextEpochBlock.add( epochLength ); // set next epoch block

        // distribute rewards to each recipient
        for ( uint i = 0; i < info.length; i++ ) {
            if ( info[ i ].rate > 0 ) {
                ITreasury( treasury ).mintRewards( // mint and send from treasury
                    info[ i ].recipient,
                    nextRewardAt( info[ i ].rate )
                );
                adjust( i ); // check for adjustment
            }
        }
        return true;
    } else {
        return false;
    }
}
```



# Staking - APY - x% inflation of total supply per 8 hours

Rebase: [Distributor](#)

```
/* ===== VIEW FUNCTIONS ===== */
```

```
/**
```

```
    @notice view function for next reward at given rate
```

```
    @param _rate uint
```

```
    @return uint
```

```
*/
```

```
function nextRewardAt( uint _rate ) public view returns ( uint ) {
```

```
    return IERC20( OHM ).totalSupply().mul( _rate ).div( 1000000 );
```

```
}
```

```
/**
```

```
    @notice view function for next reward for specified address
```

```
    @param _recipient address
```

```
    @return uint
```

```
*/
```

Transactions

Internal Txns

Contract

Events

Analytics

Comments

Code

Read Contract

Write Contract

Read Contract Information

1. OHM

2. adjustments

3. epochLength

4. info

<input> (uint256)

4

Query

rate uint256, recipient address

[ info(uint256) method Response ]

rate uint256 : 3478

recipient address : 0xFd31c7d00Ca47653c6Ce64Af53c1571f9C36566a

# Staking - APY Calc

1.  $x\% * \text{Total supply} / \text{Staking OHM amount} = \text{apr in every 8 hrs}$
2. How to determine  $x\%$ ? Algo?
3. Why choose this way? Highly controlled numbers - not too high nor too low

# Bonding

1. Buying by liquidity - PCV
  - a. Self controlled liquidity vs Rented liquidity (death spiral) - defi 2.0 (how does protocol acquire liquidity (pool2) )
  - b. Increased reserve fund to back OHM
2. High acquisition cost - users need to buy at a discounted price instead of liquidity mining

# Olympus Pro

Bonding as a service

# OHM IDO - initial discord offering

1. No VC, NO liquidity mining, No airdrop
2. 50,000 OHM at the beginning
  - a. 73% IDO for discord members, price: \$4 for every members - no whales
  - b. 27% for SLP init LP

$$40 * 200 = 8000x$$

# OHM IDO - initial discord offering at 3/23 - [tx](#)

Overview

Internal Txns

Logs (8)

State

Comments

Transaction Hash:

0xd81eb0a45bb80e39929f29e2c63ad8e7a5297db66a39da6fcb8813d04b45586f

Status:

Success

Block:

12092145

1634211 Block Confirmations

Timestamp:

254 days 7 hrs ago (Mar-23-2021 01:29:36 AM +UTC)

Transaction Action:

Swap 150 Ether For 252,398.83824367018260968 DAI On Sushiswap

Swap 252,398.83824367018260968 DAI For 5,416.866432044 OHM On Sushiswap

From:

0xf6a9d3a7f89e5c8bdd18b334f051ad5ef850e48d

Interacted With (To):

Contract 0xfef6e211fc00609ba8d6806c62712044b0872477

TRANSFER 150 Ether From 0x975d22c416025e0da1682c2... To Sushiswap: Ro...

TRANSFER 150 Ether From Sushiswap: Ro... To Wrapped Ether

TRANSFER 20.08 Ether From 0xfef6e211fc00609ba8d6806c6... To zhizhu.top

Tokens Transferred: 3

From Sushiswap: Router To Sushiswap: DAI For 150 (\$686,793.00) Wrapped Ethere... (WETH)

From Sushiswap: DAI To Sushiswap: OHM-... For 252,398.83824367018260968 (\$252,398.84) Dai Stableco... (DAI)

From Sushiswap: OHM-... To 0xdb0dda1b3bf1d3... For 5,416.866432044 (\$4,038,368.68) Olympus (OHM)

Value:

0 Ether (\$0.00)

Transaction Fee:

0 Ether (\$0.00)

Gas Price:

0 Ether (0 Ether)

Ether Price:

\$1,668.69 / ETH

Click to see More