

Emerging Stablecoins: Latest Developments

August 2023

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Key Takeaways

- ◆ Stablecoins play a critical role in the crypto ecosystem, with widespread use across trading, lending, asset management, and numerous other functions. With a market capitalization of US\$124.4B, stablecoins make up 8.5% of the entire crypto market capitalization, a testament to their importance in the space.
- ◆ While centralized, fiat-backed stablecoins dominate the space and will likely remain so for the foreseeable future, the competition has heated up in recent months as new players enter the market.
- ◆ The emergence of collateralized debt position (“CDP”) stablecoins, stablecoins backed by liquid staking tokens (“LSTs”), and other centralized stablecoins has come at a time when interest in stablecoins is on the rise and as projects try to compete for a piece of the market.
- ◆ In this report, we examined projects such as Aave’s GHO, Curve’s crvUSD, Lybra’s eUSD, Raft’s R, Paypal’s PYUSD, and First Digital’s FDUSD to get a sense of the mechanics and adoption of some of the recently launched stablecoins.
- ◆ Considering the fluidity of the market, we have also highlighted some recent developments and observations, which include MakerDAO’s Enhanced DAI Savings Rate, the integration of real-world assets, and the adoption of LSTs by an increased number of projects.

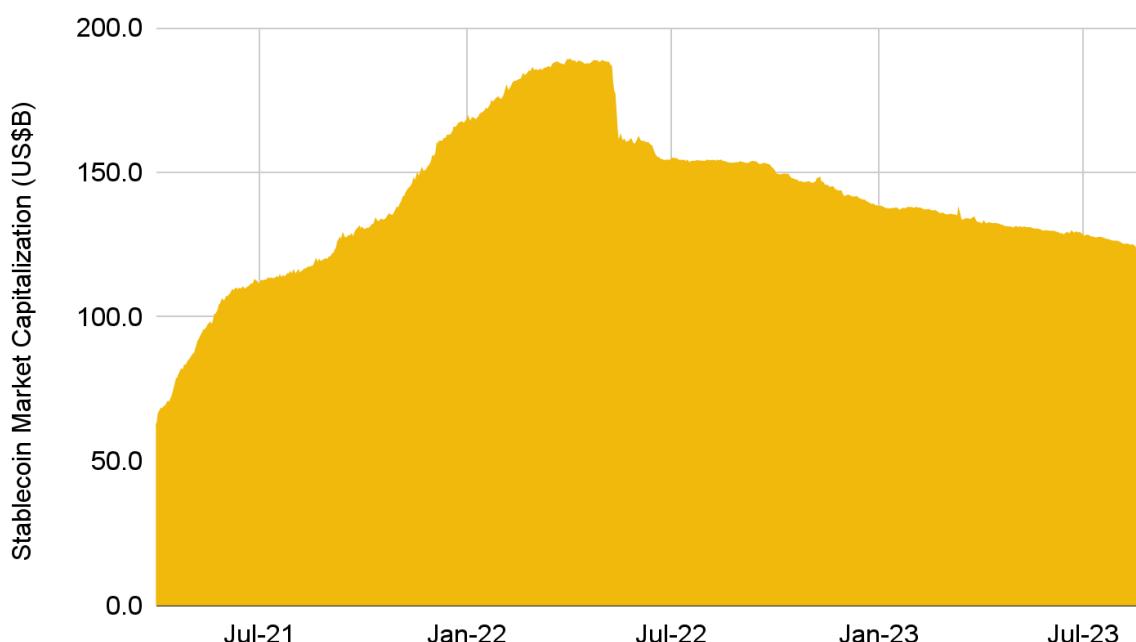
Market Landscape

Stablecoins play a critical role in the crypto ecosystem, with widespread use across trading, lending, asset management, and numerous other functions. By maintaining their peg to an external asset (most commonly the U.S. dollar), stablecoins are subjected to lower volatility as compared to other cryptocurrencies, making them a popular medium of exchange and unit of account.

The importance of stablecoins is undeniable, especially when considering that they form the building blocks of many decentralized finance (“DeFi”) protocols by functioning as a liquidity source in trading and by enabling stablecoin loans in lending markets.

While the stablecoin market has contracted noticeably as compared to its peak prior to the collapse of TerraUSD in May 2022, stablecoins continue to play a fundamental role in the crypto ecosystem. **The total market capitalization of stablecoins today is US\$124.4B, which represents around 8.5% of the entire crypto market capitalization**, a testament to the importance of stablecoins.

Figure 1: Stablecoin market capitalization is US\$124.4B today



Source: DeFi Llama, as of August 22, 2023

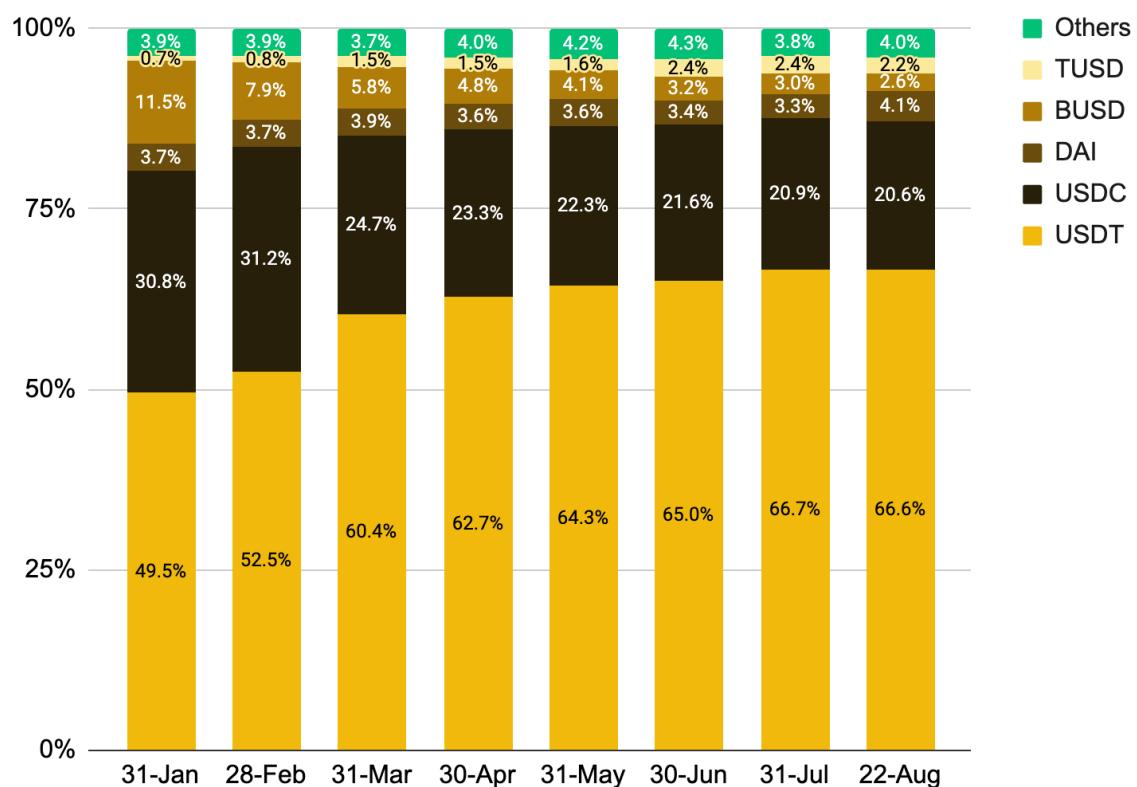
2.1

Centralized Stablecoins Lead

Top centralized stablecoins such as USDT, USDC, BUSD, and TUSD make up approximately 92% of the overall stablecoin market. Notably, Tether's USDT has been steadily gaining ground and is the clear market leader with over 66% of the market share. This is despite a depegging event in June 2023 when USDT experienced a slight depeg of 0.4% and an imbalance in Curve's [3pool](#), with USDT making up more than 70% of the pool at one point.

USDT's dominance has come at the expense of other stablecoins, which have shown steady declines in market share. USDC has failed to regain traction after its depegging event in March 2023, and BUSD's market share has steadily fallen following the cessation of its issuance in February.

Figure 2: Centralized stablecoins have approximately 92% of the market share



Source: DeFi Llama, as of August 22, 2023

3

Emerging Stablecoins

While centralized stablecoins dominate the space and will likely remain so for the foreseeable future, the competition has heated up in recent months as new players enter the market. In particular, we have seen the emergence of new collateralized debt position (“CDP”) stablecoins, stablecoins backed by liquid staking tokens (“LSTs”), and a centralized stablecoin launched by a prominent Web2 company. The launches have come at a time when interest in stablecoins has been on the rise and as projects compete to establish their foothold in the space.

Figure 3: Summary table of stablecoins that have launched in recent months

	Curve Finance (crvUSD)	Aave (GHO)	Lybra Finance (eUSD)	Raft (R)	Paypal (PYUSD)	First Digital (FDUSD)
Type of Stablecoin	CDP	CDP	CDP - LST	CDP - LST	Fiat-backed	Fiat-backed
Launch Date	May 4, 2023	July 15, 2023	April 24, 2023	June 5, 2023	August 7, 2023	June 1, 2023
Collateral Accepted	WBTC, WETH, sfrxETH, wstETH	Aave V3 Collateral Assets	ETH, stETH	stETH, wstETH, rETH	Cash and Cash Equivalents	Cash and Cash Equivalents
Market Cap	US\$105M	US\$23M	US\$170M	US\$25M	-	US\$312M
Stablecoin Holders	560	501	827	661	Not available	Not available
Stablecoin 24hr Trading Volume	US\$8.4M	US\$1.2M	US\$220K	US\$600K	\$433K	US\$16.7M
52W Trading Range	\$0.9775-\$1.05	\$0.9474-\$1.00	\$0.9608-\$1.34	\$0.9753-\$1.05	\$0.988-\$1.01	\$0.912-\$1.06
Compatible Networks	Ethereum	Ethereum	Ethereum	Ethereum	Ethereum	Ethereum, BNB Chain
Major CEXes/DEXes Available to Trade	Curve, Uniswap	Balancer, Curve, Uniswap	Curve, Uniswap	Balancer, Maverick, Uniswap	Kraken, Uniswap	Binance

Source: Binance Research, Coinmarketcap, DeFi Llama, as of August 23, 2023

CDP Stablecoins

CDP stablecoins refer to loan agreements based on smart contracts whereby users deposit assets (e.g., ETH) as collateral and receive a stablecoin-denominated loan in return. This was first introduced by the MakerDAO team and is how the DAI stablecoin works. Such a mechanism allows users to unlock liquidity in their crypto assets without selling them. Once the stablecoin loan is repaid, the collateral is released back to the user.

Curve's crvUSD

Curve Finance launched its stablecoin, crvUSD, a few months ago, in May. As one of the leading decentralized exchanges and the 7th largest DeFi protocol, Curve's entrance into the stablecoin market introduced another heavyweight into the competitive landscape.

crvUSD is pegged to the U.S. dollar and is minted by posting collateral and opening a loan in Curve.

Mechanics

A simplified process to obtain and repay a crvUSD loan entails the following steps:

1. Supply collateral
2. Borrow crvUSD
3. Repay crvUSD and accrued interest

A unique differentiating factor of crvUSD is a novel liquidation mechanism called the Lending Liquidation AMM Algorithm (“LLAMMA”). As compared to the typical liquidation process whereby a borrower’s collateral is liquidated instantaneously when a threshold is breached, LLAMMA employs what it terms “soft liquidations.” In this process, **a borrower’s collateral is spread over a range of liquidation prices, enabling liquidation to happen in a continuous manner** as the collateral value falls rather than an instantaneous liquidation.

Additionally, crvUSD utilizes smart contracts called “Peg Keepers” that can mint and absorb debt with the purpose of enabling the stablecoin to trade near the peg. When crvUSD trades above US\$1, Peg Keepers can mint crvUSD and deposit them into the stableswap pool. If crvUSD trades below US\$1, it is withdrawn from the stableswap pool and burned.

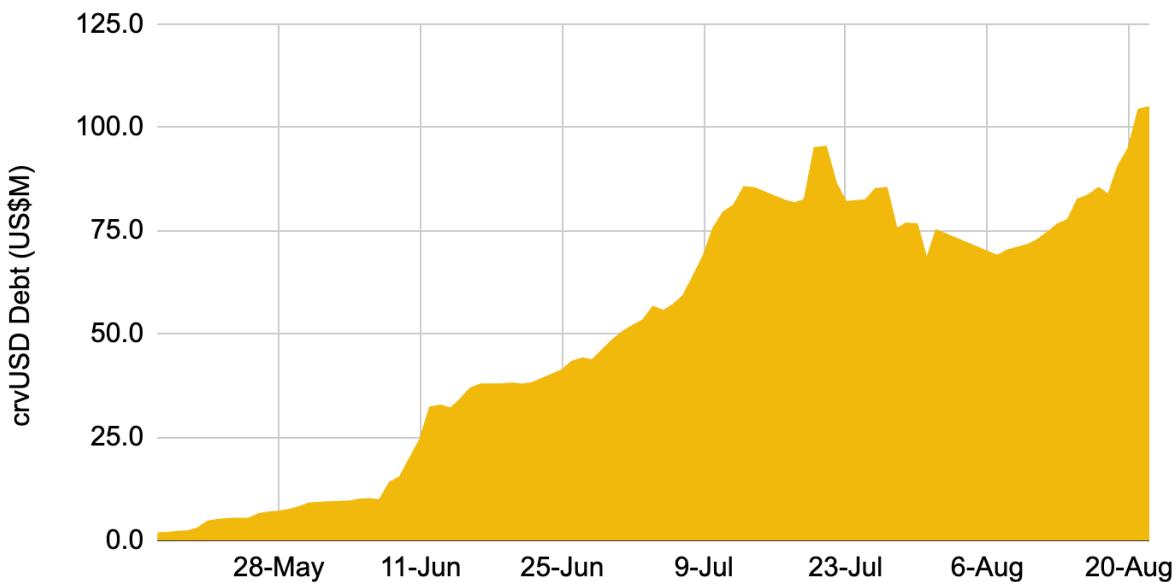
Adoption and Activity

Adoption of crvUSD rose exponentially in June, driven by the support of new collateral types. wstETH was added as collateral on June 8; WBTC on June 18; and WETH on June

20. wstETH and WBTC currently make up the largest share of collateral at 44% and 32%, respectively.

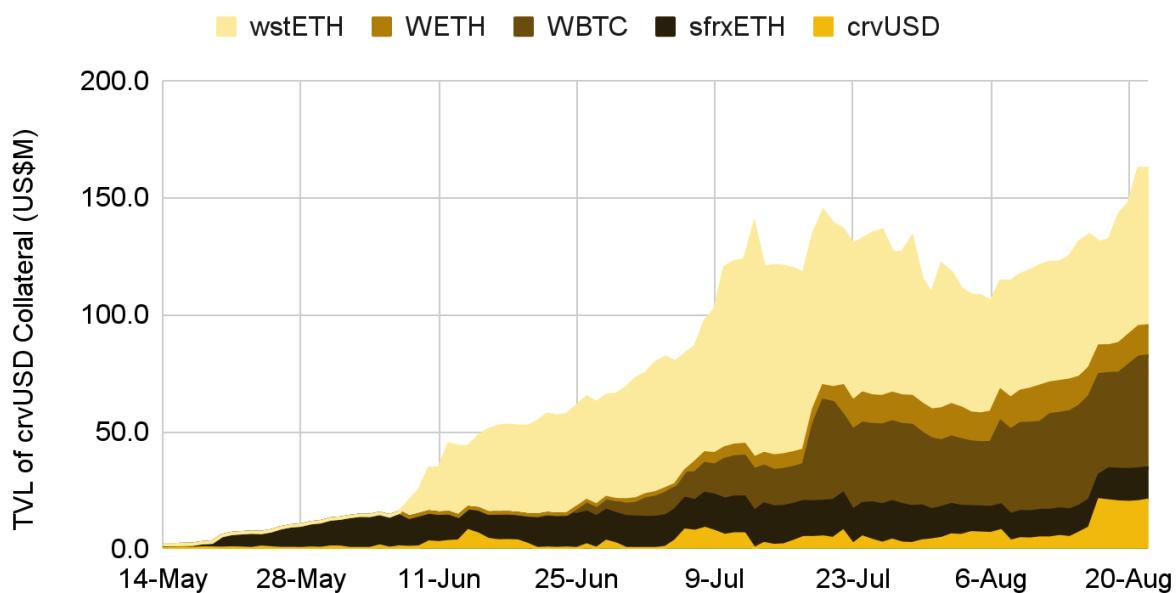
Following a decline in activity likely attributable to a [reentrancy vulnerability](#) at the end of July, metrics such as the crvUSD debt and TVL have since resumed their upward climb and recorded highs of US\$104.8M and US\$162.4M, respectively.

Figure 4: crvUSD debt has continued to rise



Source: Dune Analytics (@Marcov), as of August 23, 2023

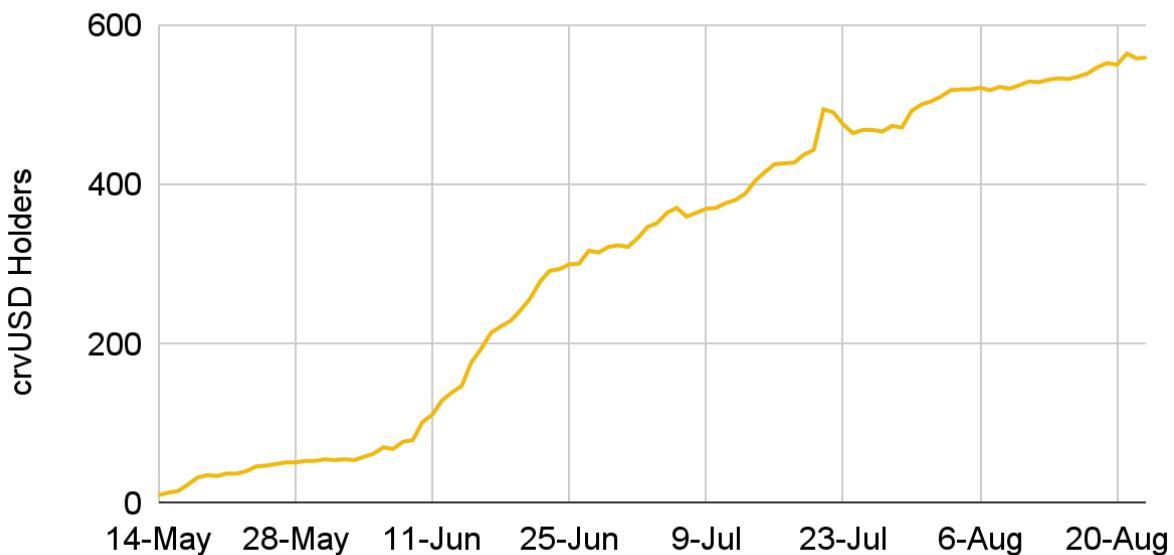
Figure 5: TVL of crvUSD collateral has also recorded a new high



Source: Dune Analytics (@Marcov), as of August 23, 2023

Alongside the growth in debt and TVL, the number of crvUSD holders has also increased over time, with 560 crvUSD holders today. This translates to an average crvUSD debt per holder of around US\$187K. Considering that the holder base is relatively small compared to the overall debt, this indicates that crvUSD is largely used by larger players or DeFi power users.

Figure 6: There are 560 crvUSD holders today



Source: Dune Analytics (@Marcov), as of August 23, 2023

Outlook and Risks

crvUSD differentiates itself from other stablecoins in the market through its unique LLAMMA model that could appeal to users who seek a smoother liquidation process. From the protocol's perspective, **crvUSD adds to the product suite of Curve and could have a positive flywheel impact on protocol activity**. Specifically, LLAMMA's mechanism which entails constant rebalancing of collateral could attract more liquidity providers, boost trading volume in Curve's pools, and generate fees for the protocol and vote-escrowed CRV ("veCRV") holders.

On the flipside, **holders of crvUSD debt should be aware that once their position enters a soft liquidation mode, they can no longer withdraw or add collateral to the position**. Holders can only repay the loan with crvUSD or to self-liquidate. Additionally, the risk of instantaneous liquidation and thereby large losses, is still possible in the LLAMMA model (although decreased significantly) if the price of the collateral drops sharply over a short time interval.

Aave's GHO

As the largest lending protocol with US\$4.5B in total value locked (“TVL”), Aave’s entrance into the stablecoin space is notable. GHO is a decentralized stablecoin that is overcollateralized. Borrowers and suppliers can mint GHO using assets they have supplied to Aave V3 as collateral.

Mechanics

A simplified process to obtain and repay a GHO loan entails the following steps:

1. Supply collateral
2. Borrow GHO
3. Repay GHO and accrued interest
4. Repaid interest will be redirected to the DAO, contributing to the DAO treasury

The Aave DAO will manage GHO by setting the permitted supply of GHO, determining the interest rate, minting caps, and approving “facilitators.” Facilitators are entities that can burn or mint GHO under predetermined conditions laid out by the DAO.

A unique feature of GHO is that the collateral deposited into the Aave V3 protocol remains productive, consistently generating yield. This helps lower the cost of borrowing for users with a GHO loan.

Adoption and Activity

Adoption of GHO has been steadily growing. More than a month after its launch, there are now more than 23.4M units of GHO in circulation. This places GHO as the 34th largest stablecoin based on circulating supply.

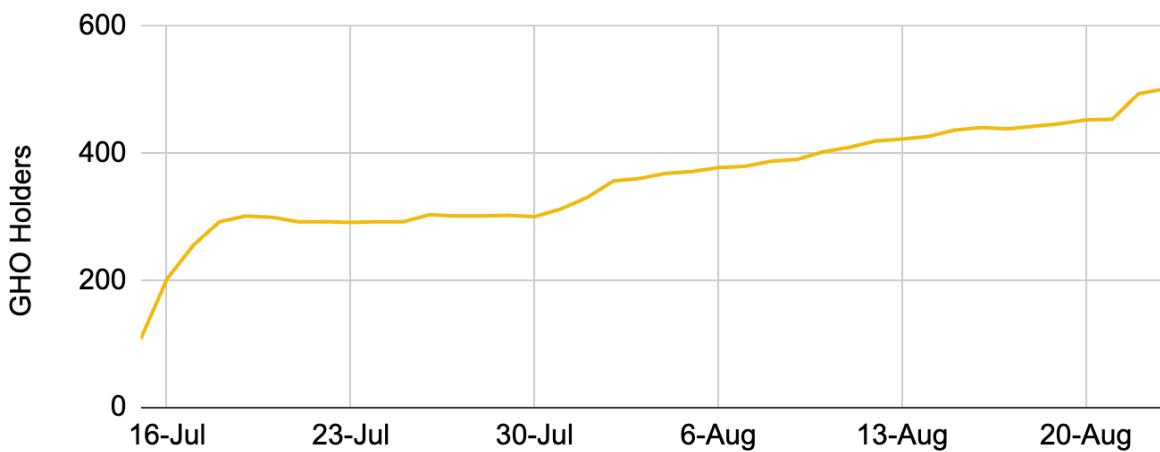
Figure 7: GHO has a total supply of 23.4M



Source: Dune Analytics (@aave_companies), as of August 23, 2023

There are currently 501 GHO holders. Considering that there are more than 8.6K unique users on Aave V3, this represents a user penetration of just below 6%. This indicates significant headroom for growth, even just targeting the existing user base⁽¹⁾.

Figure 8: There are 501 GHO holders



Source: Dune Analytics (@aave_companies), as of August 23, 2023

Outlook and Risks

Overall, the rollout of GHO has been broadly supported by the community and is a strategic next step for the largest lending protocol. The Aave DAO benefits from the additional revenue stream created by GHO; stkAAVE holders gain the ability to obtain a discount on the GHO borrow rate; and Aave can increase its reach further by broadening its ecosystem.

Nonetheless, considering the competitiveness of the stablecoin landscape, it is undoubtedly challenging to scale the ranks and upend the status quo. **What may work for GHO are its existing network effects, user base, and brand equity.** In particular, GHO's market capitalization is only a small fraction of Aave's TVL (US\$23M vs. US\$4.5B), representing potential for growth given the untapped user base.

It is worth noting that the **GHO interest rate is currently set by governance rather than being market-driven**, where the latter is a more neutral mechanism that factors in organic demand and supply. The borrowing cost is currently fixed at 1.51%, which is lower than other stablecoins on Aave with borrowing costs upwards of 3.50%. According to Stani Kulechov, CEO at Aave Companies, the rationale for a lower rate stems from encouraging “growth and utility for borrowers to convert to the Aave-native asset at a lower cost and encourage liquidity.”⁽²⁾

GHO has also been trading below its peg most of the time since its launch a month ago. A “GHO Stability Module” has been proposed to allow users to convert between GHO and governance-accepted stablecoins at a predetermined rate. If launched, this should help provide some reassurance to GHO holders and allow market forces to step in if there are large deviations from the peg.

LST-Backed Stablecoins

The successful transition of Ethereum to Proof-of-Stake (“PoS”) and the introduction of staked ETH withdrawals have contributed to the rapid growth of liquid staking tokens (“LSTs”) such as stETH, rETH, WBETH, and more. Alongside the growing interest in LSTs and [LSTfi](#), we have also witnessed the emergence of LST-backed stablecoins.

LST-backed stablecoins are overcollateralized by liquid staking tokens, providing holders with the ability to earn yields intrinsically while preserving the key attributes of stablecoins.

Note that the following LST-backed stablecoins also employ the CDP model, but we have chosen to dedicate a separate section in this report to highlight the emergence of LST-backed stablecoins.

Lybra's eUSD



Lybra is a DeFi protocol that facilitates the minting of its interest-bearing stablecoin, eUSD. Users can mint eUSD by depositing ETH or stETH as collateral, and there are plans to support more LSTs in the future.

eUSD is pegged to the U.S. dollar, and its unique feature is its interest-bearing nature. eUSD holders are estimated to earn a base annual percentage yield (“APY”) of about 7-8%⁽³⁾. This provides an interesting opportunity for investors seeking a steady income stream while maintaining exposure to the underlying crypto collateral.

Mechanics

A simplified process to obtain and repay an eUSD loan entails the following steps:

1. Deposit ETH or stETH as collateral
2. Mint or borrow eUSD against the collateral
3. Hold eUSD to receive interest or use it in other DeFi protocols
4. eUSD debt can be repaid at anytime as long as the collateral rate is above 150%

So, how does eUSD allow holders to earn yield just by holding it? This is enabled by the LST collateral. **When a user mints eUSD, Lybra converts the staking yield from the underlying LST back to eUSD and distributes it proportionally to eUSD holders.**

Specifically, 98.5% of the staking rewards generated by the LST collateral are converted to eUSD and distributed proportionally to eUSD holders. The remaining 1.5% goes towards escrowed LBR (“esLBR”) holders.

The stability of eUSD is maintained through a combination of the following:

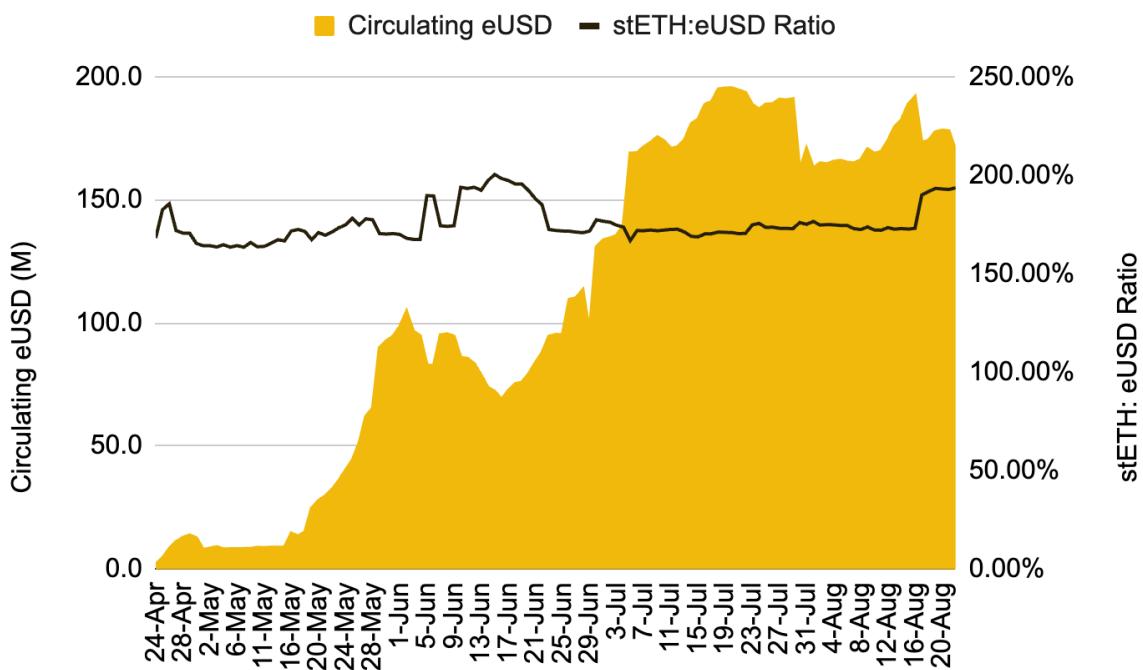
- ◆ **Overcollateralization:** Each unit of eUSD is backed by at least US\$1.5 worth of stETH as collateral.
- ◆ **Liquidation mechanism:** If a user's collateral rate falls below the safe collateral rate, any user can volunteer to be a liquidator and buy the liquidated portion of collateralized stETH.
- ◆ **Arbitrage opportunities:** Users can take advantage of instances when the eUSD price deviates from its peg to make a profit and help restore the eUSD price to its intended value.

Adoption and Activity

eUSD experienced significant growth in circulating supply during the initial stages of launch, particularly in May and June. This could perhaps be contributed by early adopters as well as a surge in interest in LSTfi around the same period. The current circulating supply has been range-bound since early July; there are currently 170M units of eUSD in circulation.

The collateral ratio, as represented by the stETH to eUSD ratio, has also maintained a relatively healthy level of around 190%. In other words, each eUSD is overcollateralized and backed by around US\$1.9 of stETH.

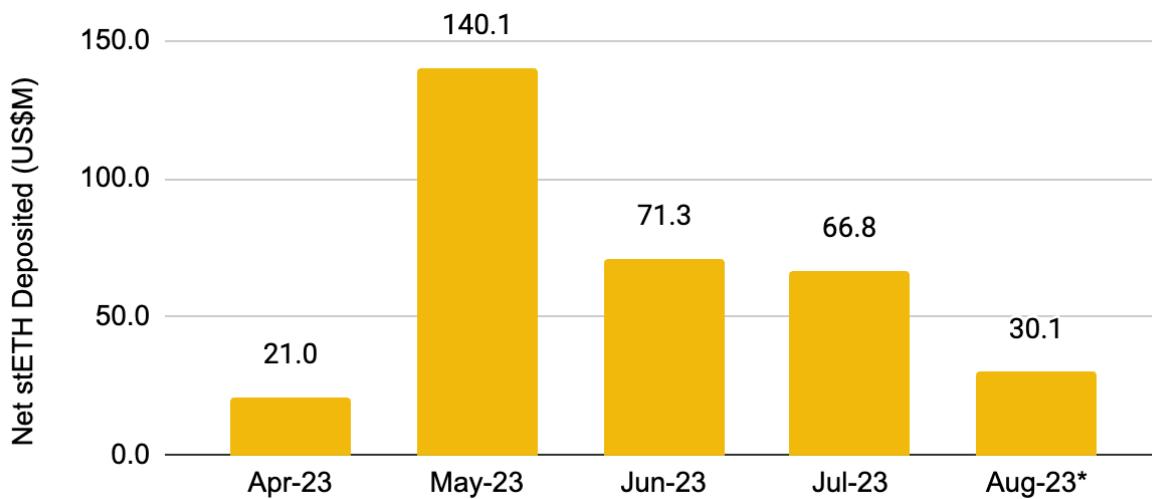
Figure 9: There are 170M units of eUSD in circulation



Source: Dune Analytics (@defimochi), as of August 23, 2023

The protocol saw a monthly high of US\$140.1M worth of stETH deposited as eUSD collateral in May 2023. Since then, monthly net deposits have slowed down and averaged around US\$70M+ in June and July.

Figure 10: Monthly net deposits peaked in May 2023

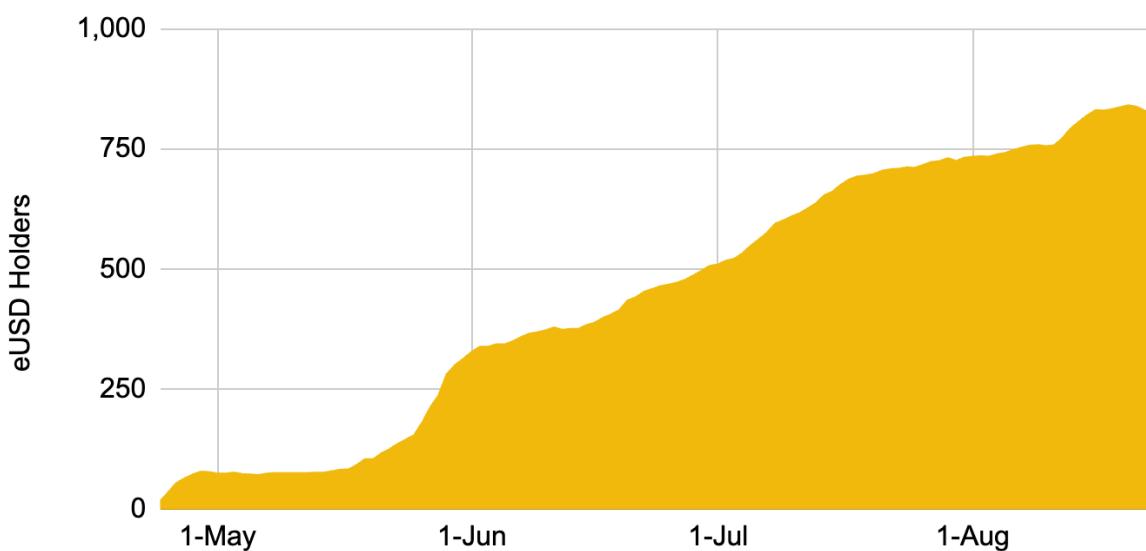


Source: Dune Analytics (@defimochi), as of August 23, 2023.

*Note: Not full month data for August.

Holder metrics paint a positive picture of adoption. The number of eUSD holders has increased steadily since launch, with 827 eUSD holders today. On average, each eUSD holder has more than US\$206K worth of eUSD, indicating that eUSD is more widely adopted by DeFi power users.

Figure 11: There are 827 eUSD holders



Source: Dune Analytics (@lybra-finance), as of August 23, 2023.

Outlook and Risks

As an interest-bearing stablecoin, eUSD may appeal to income-seeking investors by offering them the ability to harvest a base level of yield solely by holding the stablecoin. This is unlike other non-LST-backed stablecoins, where holders need to take additional steps to participate in the DeFi market (e.g., stake or lend) to earn yield.

The growth of ETH staking serves as a tailwind for the space and for Lybra. As the amount of ETH staked increases, the total addressable market correspondingly rises. That said, it is key for greater integration of eUSD across the DeFi ecosystem, as well as the acceptance of more forms of LST collateral besides stETH, to drive further adoption of eUSD.

Holders should note that the eUSD yield is dependent on the amount of staking rewards derived from the underlying LST collateral. As such, **yields will change with any fluctuation in ETH staking yield** and could directly impact the attractiveness of holding eUSD.

Raft's R

Raft allows users to generate its stablecoin, R, by depositing LSTs as collateral. R is an overcollateralized, LST-backed stablecoin that aims to be pegged to the U.S. dollar. Currently, stETH and rETH are supported as LST collaterals to mint R. Holders of R are able to use R in the crypto ecosystem while maintaining staking rewards.

Mechanics

A simplified process to obtain and repay a R loan entails the following steps:

1. Deposit stETH or rETH
2. Mint R, with a collateralization ratio of at least 120%
3. Repay R debt to receive underlying LSTs

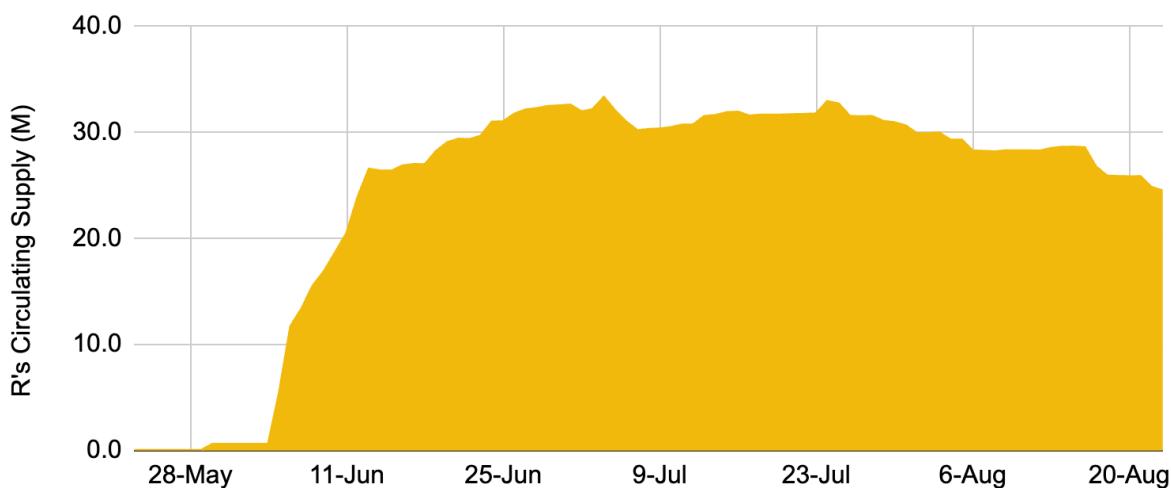
In order to maintain its peg, R uses a combination of “hard peg” and “soft peg” mechanisms.

- ◆ **Hard peg:** Arbitrage opportunities play a part in maintaining the peg. When R exceeds US\$1.2, users can deposit US\$1.2 worth of LSTs, mint 1 R, and sell it in the market for a profit. Previously, redemptions helped maintain peg stability when R fell below US\$1. This feature has been disabled, and details of a peg-keeper module will be announced soon⁽⁴⁾.
- ◆ **Soft peg:** This refers to the ability of a stablecoin’s design to incentivize users to act based on the expectation that the peg will be maintained. For example, when R falls below US\$1, borrowers are incentivized to repay their position, thereby reducing the supply of R in the market and driving prices back to the peg.

Adoption and Activity

R saw a burgeoning in its circulating supply in its initial stages of launch, crossing 20M R barely a week after its official mainnet launch on June 5, 2023. This was contributed by a small group of less than 100 holders, with an average of more than 200K R per wallet. Since then, the circulating supply of R has plateaued and declined slightly, hovering around the 24M mark as the average holding per wallet declined.

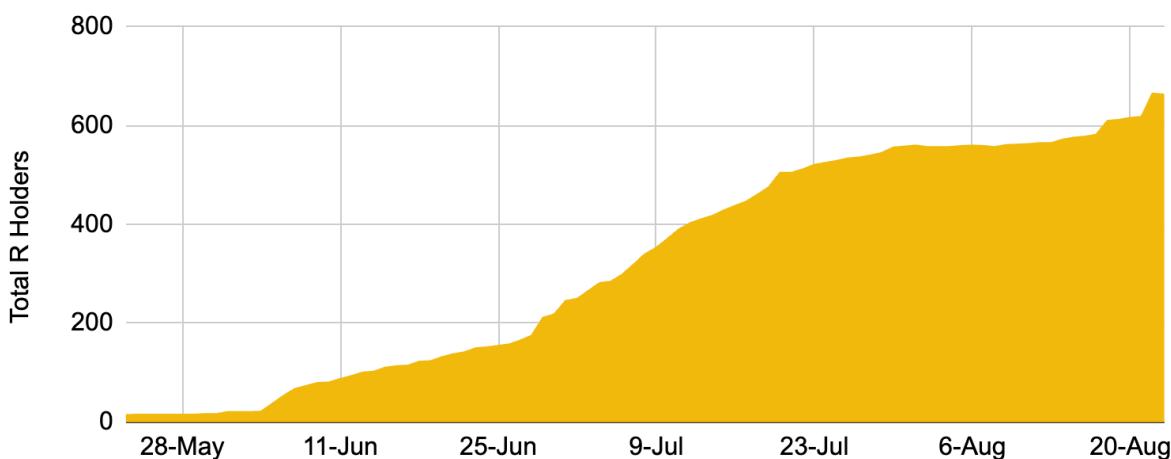
Figure 12: There are 24.5M R in circulation



Source: Dune Analytics (@dcfpascal), as of August 23, 2023

Nonetheless, the growing holder base is indicative of broadening demand across a wider group of users and is a positive sign. A growing holder base has also been critical in bolstering the circulating supply of R and maintaining it at elevated levels, even while large whales reduce their average R holdings.

Figure 13: The number of R holders has been increasing and has reached 661



Source: Dune Analytics (@dcfpascal), as of August 23, 2023

Outlook and Risks

Similar to other LSTfi projects, **R benefits from the tailwinds of the growth of liquid staking tokens.** By allowing LST holders to mint R using their LST as collateral, holders can continue to accrue staking rewards while having the ability and flexibility to utilize R in other parts of the DeFi ecosystem.

A key point to note is that R is in the middle of a transition; **the redemption functionality has been disabled while it is looking to launch a peg-keeper module.** In the meantime, users should be aware that the peg stability of R is dependent on other mechanisms, such as the soft peg. As R is currently trading slightly below the peg, several proposals have been introduced recently to address this. Specifically, a [single-sided DAI liquidity incentive](#) program and an [R savings module](#) have been proposed.

3.3

Centralized Stablecoins

Centralized stablecoins, as the name suggests, are stablecoins issued by centralized entities. These are generally backed by fiat currencies in an off-chain bank account. The leading stablecoins in the market, such as USDT and USDC, are prime examples of centralized stablecoins.

Paypal's PYUSD

As one of the biggest names in the Web2 space, Paypal's launch of its own native stablecoin was particularly notable. Apart from lending credibility to the crypto ecosystem, Paypal's entrance into the stablecoin market could potentially usher in new users given the wide reach of their consumer base.

PYUSD is a stablecoin that is fully backed by U.S. dollar deposits, U.S. Treasuries, and similar cash equivalents. It is issued by Paxos Trust Company and is an ERC-20 token. PYUSD will be available to eligible U.S. PayPal balance accounts⁽⁵⁾.

Use Cases of PYUSD:

- ◆ **Transfer** PayPal USD between PayPal and compatible external wallets
- ◆ Send person-to-person **payments** using PYUSD
- ◆ Fund **purchases** with PayPal USD by selecting it at checkout
- ◆ **Convert** any of PayPal's supported cryptocurrencies to and from PayPal U.S.

Outlook and Risks

The wide reach of Paypal is a competitive advantage for the stablecoin. Paypal had more than 431 million active accounts globally as of the end of Q2 2023⁽⁶⁾. While PYUSD is

currently only available to eligible U.S. accounts and the corresponding number of active accounts is smaller, **Paypal's foothold in the payments space is helpful for the distribution and adoption of PYUSD**. Additionally, Paypal may be able to onboard non-crypto users by making the process of using stablecoins more seamless for its users, benefiting the crypto ecosystem as a whole.

There have been worries related to centralization risks as the crypto community highlights the ability of Paxos to suspend PYUSD's authorization and transfer functions in any event that may require them. This means that **Paxos would be able to freeze or seize the assets of individual wallets**. Note that these risks generally apply to any centralized stablecoin (e.g., USDT, USDC, etc.), given that centralized entities may need to invoke certain functions in certain instances to comply with regulatory requirements, though the frequency of occurrence should be relatively low.

Overall, worries relating to centralization, coupled with the lack of differentiation compared to other centralized stablecoins, make it difficult for PYUSD to gain the adoption of crypto natives who have no real incentive to switch to PYUSD. However, the wide reach of Paypal could help its appeal to non-crypto native users and allow PYUSD to carve out a niche in the space.

First Digital's FDUSD

First Digital USD (“FDUSD”) is a stablecoin issued by FD121 Limited in Hong Kong, operating under the brand name of First Digital Labs. The stablecoin was first introduced in June 2023 and is intended to be fully backed by cash and cash-equivalent assets.

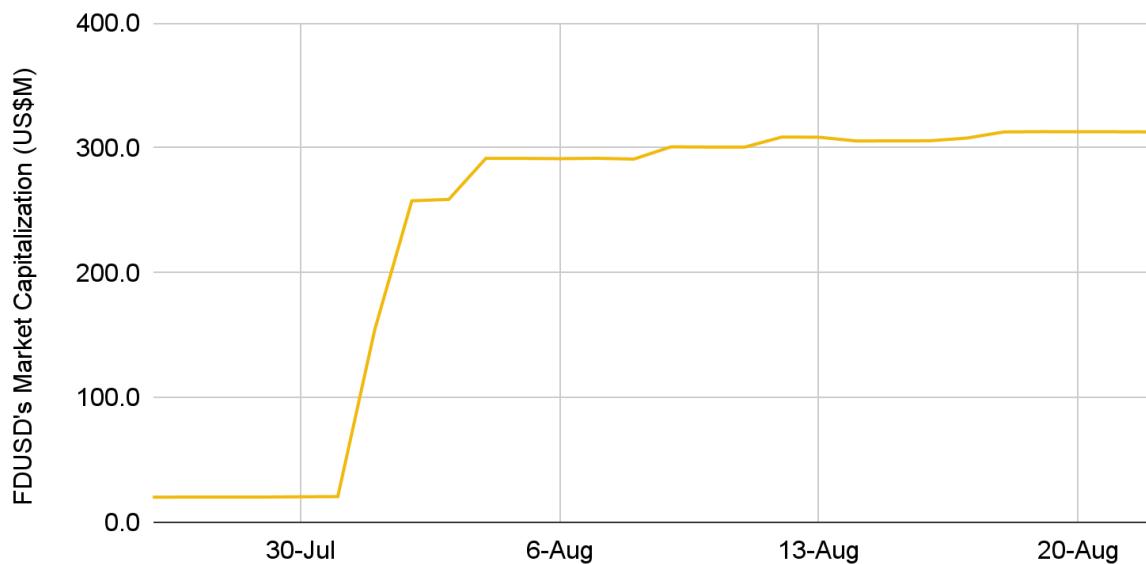
FDUSD is available on Ethereum and BNB Chain, with planned support for an increasing number of blockchains.

Recent Developments

The market capitalization of FDUSD surged in early August following an [announcement](#) by Binance that users would enjoy zero maker and taker fees on the BTC/FDUSD spot and margin trading pairs for a limited time.

Specifically, FDUSD market capitalization increased more than tenfold, from approximately US\$20M in early August to more than \$312M today. Daily trading volume has also surged significantly, from a 24-hour trading volume prior to the announcement that typically ranged in the hundreds of thousands of dollars to more than US\$15M today⁽⁷⁾.

Figure 14: The market capitalization of FDUSD surged more than 10 times in August



Source: Coinmarketcap, Binance Research, as of August 23, 2023

Outlook and Risks

The listing of FDUSD on Binance, coupled with zero trading fees on certain FDUSD trading pairs, has helped drive the growth of FDUSD. Nonetheless, it remains to be seen whether FDUSD will be able to continue on this growth trajectory when the zero-fee incentives are phased out. Importantly, it will be key to observe broader market adoption, such as integration by other centralized exchanges or increased DeFi usage.

As with any new stablecoin, the stability of FDUSD's peg needs to be monitored over time to understand its volatility. As a collateralized stablecoin, the safety and liquidity of its reserves are key to FDUSD's stability. Users may find it helpful to refer to the [attestation reports](#) for FDUSD to get an indication of collateral reserve composition and health. Other risks include operational risks, regulatory risks, and counterparty risks, which are elaborated in FDUSD's [whitepaper](#).

Market Developments

Incentivizing DAI Adoption

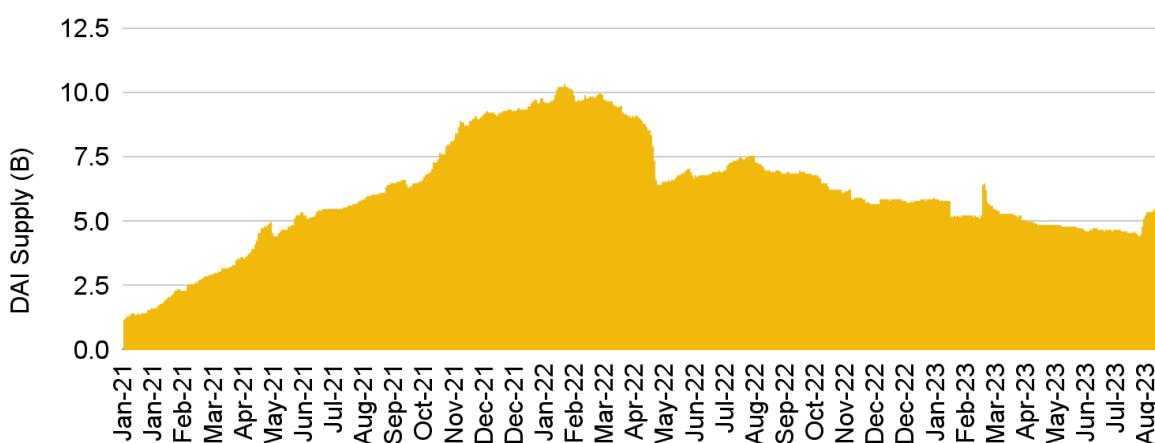
MakerDAO initiated the Enhanced DAI Savings Rate (“EDSR”) on August 7, 2023, which is a mechanism that temporarily increases the DAI Savings Rate (“DSR”) available to users through a multiplier. The multiplier is determined by the utilization of the DAI Savings Rate contract (i.e., the amount of DAI in the DAI Savings Contract relative to total DAI supply).

The DSR was initially raised from 3.19% to 8% to stimulate the growth of DAI by increasing its demand. This serves to incentivize holders to deposit DAI into the DSR contract, which reduces the circulating supply. DAI effectively became the highest-yielding stablecoin, increasing its competitiveness.

A new [proposal](#) has recently passed to reduce the DSR from 8% to 5% to “ensure that the EDSR benefits regular DAI holders rather than disproportionately benefit(ing) ETH whales.” Specifically, many large players have benefited from “borrow arbitrage” by borrowing DAI at 3.19% and receiving 8% yields in EDSR.

Just before the launch of EDSR, DAI’s supply fell below 4.5B in August for the first time since May 2021. This is a stark decline from its peak of 10.3B in February 2022. However, the initiation of EDSR has been instrumental in turning things around as demand for DAI picked up. While still a far cry from its bull market peak, DAI supply has increased by about 16% from the bottom, and there are about 5.2B units of DAI today.

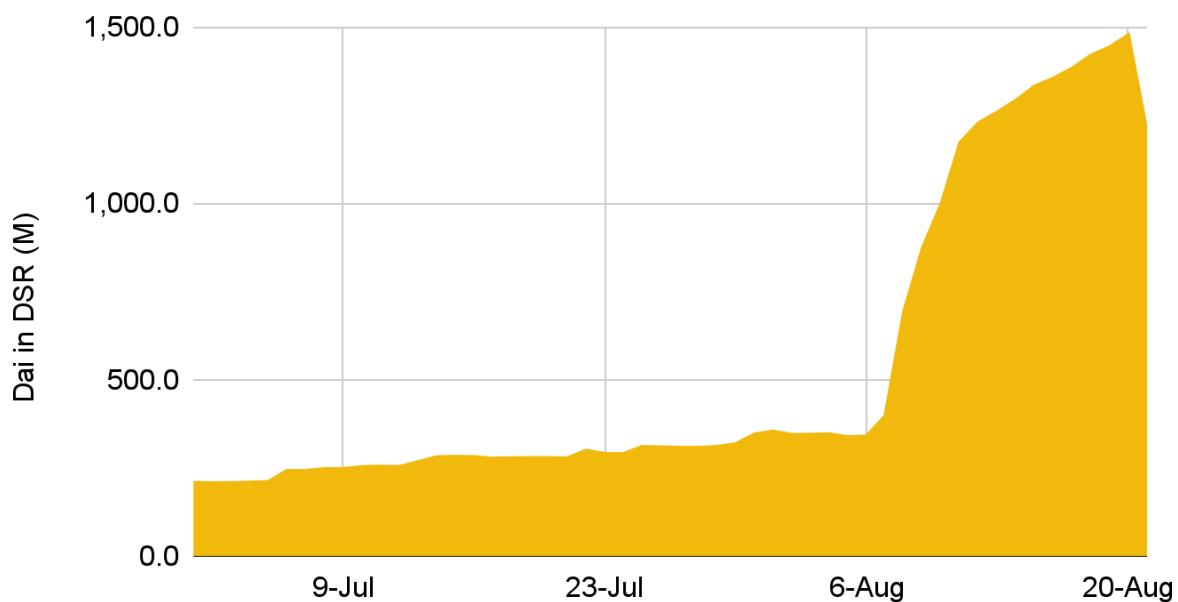
Figure 15: DAI supply has declined over the past year but has picked up slightly



Source: Makerburn, as of August 20, 2023

The greatest impact is observable in the growth of DAI in the DSR, with a nearly threefold increase in DAI from less than 400M to approximately 1.2B today. The decline seen in the past few days was a result of withdrawals from the DSR contract following the reduction in the DSR from 8% to 5%.

Figure 16: DAI in the DSR surged following the initiation of the EDSR



Source: Makerburn, as of August 20, 2023

Increasing the DSR offers an attractive on-chain alternative when compared to U.S. Treasury bills, thereby helping boost demand for DAI as well as increasing adoption of Maker's [Spark](#) lending protocol. On the flip side, it is worth noting that the increase in the DSR has direct financial implications for MakerDAO. This can be seen as the customer acquisition cost for the protocol. **Based on current estimates and parameters, the DSR is expected to cost MakerDAO US\$56.3M annually⁽⁸⁾.**

Given that the DSR will adjust based on utilization, it will be interesting to see how usage trends when the interest rate normalizes. Our guess is that the DSR will likely maintain a rate that is at least in line with the yields of other stablecoins to remain competitive.

4.2

Integrating Real-World Assets

Against the backdrop of rising interest rates, U.S. Treasury yields have steadily inched higher and now comfortably exceed DeFi yields today. To maintain competitiveness and take advantage of yields in traditional financial ("TradFi") markets, stablecoin issuers have allocated parts of their reserves to invest in TradFi instruments. This is observable from the

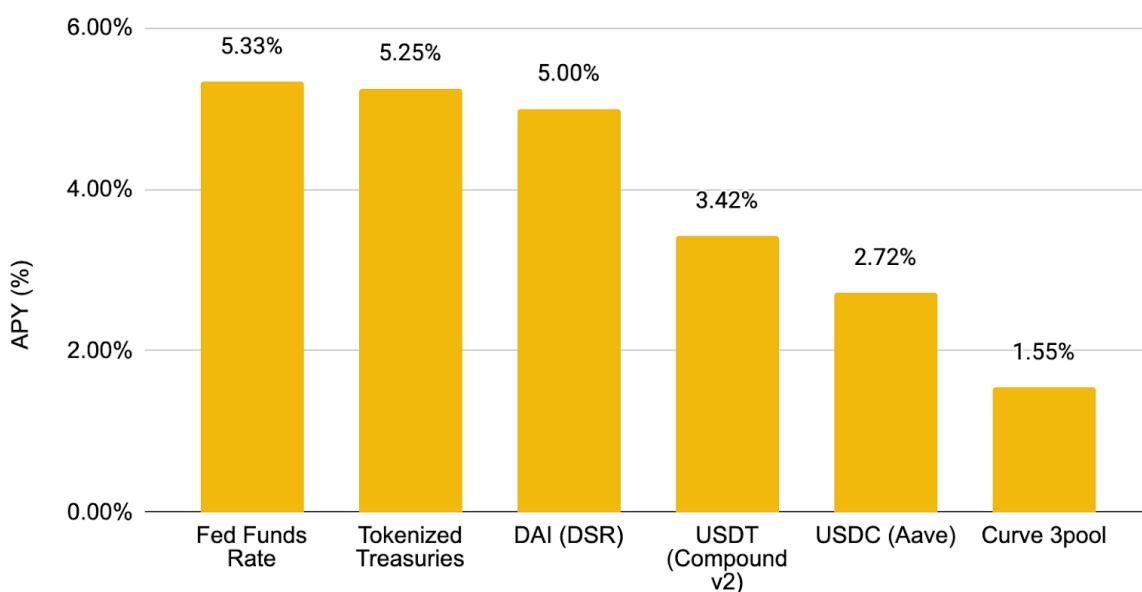
attestation reports of centralized issuers such as [Tether](#) and [Circle](#), as well as the balance sheet of [MakerDAO](#).

Notably, MakerDAO has been at the forefront of the tokenization of real-world assets (“RWAs”), and its treasury has benefited from the rise in yields of the asset class. Today, MakerDAO has over US\$2.4B in RWA exposure, contributing a sizable 58% of its revenue⁽⁹⁾.

Considering that DeFi yields are nowhere close to those of TradFi yields, it will not be surprising to see more stablecoin protocols explore the integration of RWAs to boost the revenue of their treasury and potentially pass them on to stablecoin holders to increase the attractiveness of their stablecoins.

For more information on the RWA landscape, check out our prior report, “[Real-World Assets: State of the Market](#).”

Figure 17: TradFi yields exceed DeFi stablecoin yields



Source: Federal Reserve Bank of New York, rwa.xyz, Spark, Compound, Aave, Curve, Binance Research, as of August 22, 2023

4.3

Adopting LSTs

As the LST market grew, we witnessed an increase in the diversity and size of the LSTfi ecosystem. More projects have come or are coming onto the market to take advantage of the growth of the industry. In this regard, we have seen an increase in the number of LST-backed stablecoins that have launched or are coming onto the market, in addition to those we cited in the [earlier section](#).

Some examples include:

- ◆ **Gravita's GRAI:** Gravita Protocol is a borrowing protocol that allows users to mint GRAI, an over-collateralized debt token secured by both LSTs and its Stability Pool⁽¹⁰⁾.
- ◆ **Prisma's mkUSD:** Prisma enables users to mint a stablecoin, mkUSD, that is fully collateralized by liquid staking tokens⁽¹¹⁾.
- ◆ **Ethena's USDe:** Ethena enables users to deposit either USD, ETH, or LSTs as collateral to create USDe⁽¹²⁾.

Notably, we have also witnessed mature stablecoin-related DeFi projects capitalizing on the growth of LSTs by taking steps to gain exposure to the space. Specifically, several projects have diversified their collateral exposure to include LSTs.

These include:

- ◆ **Curve:** Curve's crvUSD stablecoin can be minted by using Frax's sfrxETH or Lido's wstETH as collateral. wstETH currently makes up the largest share of crvUSD's collateral at 44%.
- ◆ **MakerDAO:** LST collateral in the form of wstETH (Lido's wrapped staked ETH) has grown significantly in MakerDAO's vaults, from less than 12% of MakerDAO's collateral to over 40% today⁽¹³⁾.
- ◆ **Frax Finance:** Frax Finance, the issuer behind the Frax stablecoin, has exposure to LSTs directly through its liquid staking solution. Frax Ether (frxETH) acts as a stablecoin loosely pegged to ETH⁽¹⁴⁾.

Closing Thoughts

Stablecoins play a critical role in the crypto ecosystem by providing price stability, enabling seamless transactions, and bridging the gap between TradFi and the crypto world by offering a stable value that is familiar to users. The importance and relevance of stablecoins will likely continue growing as the crypto ecosystem matures.

While the competitive landscape is currently dominated by centralized, fiat-backed stablecoins such as USDT and USDC, demand for decentralized alternatives means that the race is far from over. The entrance of new stablecoins over the past few months, each with their own differentiating features, signals that project teams remain interested in building in the space and challenging the status quo.

Achieving market leadership would not be an easy feat, considering the scale, resources, and liquidity commanded by current leading stablecoins. Nevertheless, we look forward to seeing a more diverse competitive landscape and new players securing a piece of the pie.

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Jie Xuan Chua, CFA

Macro Researcher

Jie Xuan (“JX”) is currently working for Binance as a Macro Researcher. Prior to joining Binance, he worked as a Global Investment Specialist with J.P. Morgan and had prior Equity Research experience at various fund houses. JX is a CFA charterholder. He has been involved in the cryptocurrency space since 2017.

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