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Lybra Finance

General Background on Protocol

Welcome to the world of Lybra Finance, where decentralized finance (DeFi) intertwines with the exciting frontier of liquid staking. Lybra Finance, a prominent player in the Liquid Staking DeFi (LSDeFi) sector, where Ethereum users secure the network, reap the rewards, and partake in yield-generating strategies. We delve into the foundations of Lybra Finance, its strategic positioning in the market, and the innovative mechanisms that set it apart from the competition.

Lybra Finance operates in the liquid staking decentralized finance (LSDeFI) sector, where users can gain exposure to Ethereum, secure the network for rewards, and participate in yield-generating strategies. Lybra Finance launched on April 24th, 2023, and has since propelled itself to market leadership in collateralized debt positions within its sector. In lieu of market dominance, Lybra has launched V1 and V2, which implements a more comprehensive array of collateral options. Version 1 facilitated onboarding of rebase LSTs while version 2 and future version 3 onramp non-rebase LSTs.

The typical definition of a rebase token fluctuates supply to achieve equilibrium. The liquid staking interpretation of a rebase token is a type of LST whereby staking rewards accrue, and holders gain more LST tokens. Upon accumulating a more significant number of tokens, the future number of tokens compounds off the rebased total. Two examples of rebase LSTs are Lido's stETH and Stakewise's sETH2. An analogy that serves to improve understanding is that a rebase token is equivalent to a stock dividend.

Opposingly, a non-rebase token is likened to a stock buyback. Non-rebase LSTs do not continually mint new tokens. Instead, the token increases in value as staking rewards accrue. Examples are Rocket Pool's rETH, Binance WBETH, and Swell's swETH.

Overall, Lybra has achieved initial product market fit by catering towards rebase and non-rebase LSTs to mint and use its stablecoin.

Macro Factors Impacting Protocol

As investors, observing, orienting, deciding, and acting impartially is our job. It is through this optic we objectively explore Lybra Finance. Keeping the macro environment in mind, it is self-evidently concluded we are in the depths of a bear market where liquidity is thin and desperation for yield is high. With our problem set defined, the search for a solution begins. From a token perspective, the largest narratives in the digital asset industry are stablecoins, real-world assets (RWAs), and liquid staking. Stable coins address market depth but not yield, and RWAs seek to form new commodity markets that indirectly influence liquidity but not yield. We've reduced our last

ETH Stakers
Ordered by Amount Staked

Legend: Lido, Unidentified, Coinbase, Figment, Binance, Rocket Pool, Kraken, Kiln, Staked.us, Bitcoin Suisse, OKX, DARMA Capital, stakefish, Upbit, Frax Finance, Celsius, P2P.org, Stakewise

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ETH Staked & Validators

hope to liquid staking from all three narratives. By freeing up previously illiquid capital while capturing a risk-free rate, liquid staking solves the current absence of liquidity and yield.
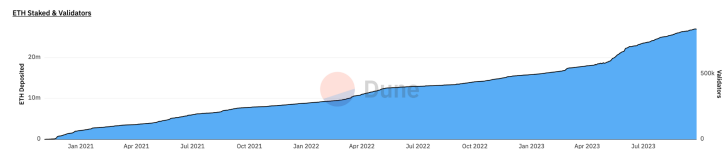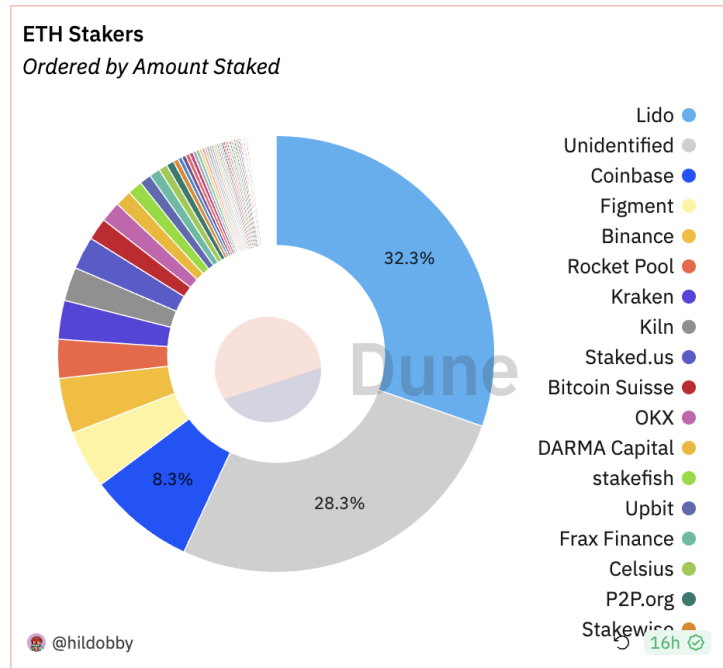
Doubling down on liquid staking, ~22.5% (27 million) of ETHER supply is staked, of which ~32% is delegated to Lido, exposing Ethereum to cartelization, the concept where a minority exploits a majority. Furthermore, of the aggregated ETHER supply, ~8.3% is liquid staked, meaning 10,000,000 million Ethereum. The cognizant reader may express disdain against the power Lido holds and desire it to be quenched. Yet, Ethereum is credibly neutral and is unlikely to enforce retrospective limits against market participants even if network security is endangered. The resulting conclusion: with no oncoming regulation or mitigation against LSTs in sight, current trends will continue. With 8% of ETHER liquid staked, far more room to the upside remains, Lybra is well positioned to capture a portion.

General Auditing Background for Protocol

Audits have been completed by:
Code4rena Audit Report: https://code4rena.com/reports/2023-06-lybra
Consensys Audit Report: https://consensys.io/diligence/audits/2023/08/lybra-finance/
Halborn Audit Report: http://bit.ly/Halborn_Lybra
Immunefi Bug Bounty: https://immunefi.com/bounty/lybrafinance/

Specific on What Protocol Does

The three main types of stablecoins are those backed by fiat, algorithms, or digital assets. Lybra pursues the tertiary method, exhibiting a couple of key differences from other protocols offering collateralized debt positions.

Regarding this strategy of over-collateralization, the protocol is only as sustainable as its liquidation engine is efficient and effective. The product offering needs to be explored to understand how Lybra's liquidation logic functions.

Lybras product offerings are stablecoins called eUSD and pegged eUSD that can be minted in three methods:

- Eth: If ETH is deposited it instantly gets exchanged for a rebase LST and follows the Rebase minting mechanism.
- Rebase: The user locks up 150% of their target eUSD amount. In doing so they agree to sell their rebased LST rewards to redeemers who exchange eUSD in a dutch auction for the rebased LSTs. The exchanged eUSD materializes into interest for the minter/borrower.
- Non-Rebase: The user deposits at least 150% of their target peUSD (pegged eUSD) amount. In doing so they automatically earn interest on their LST without selling rewards to redeemers. As a result, they do not earn interest on peUSD.

For both eUSD and peUSD a 1.5% annual borrow rate is charged and distributed back to esLBR holders (Lybras governance token). The primary reason for peUSD is to offer

consumers an Omnichain Fungible Token compatible with most DeFi protocols. Only users that initially minted eUSD can convert between peUSD and eUSD.

Fundamentally, Lybra protocol addresses the liquidity and yield problems of DeFi while playing into the main narrative of this upcoming cycle, stablecoins. Yet, this is all for nothing if the protocol can't maintain stability.

Protocol solvency is assured through robust overcollateralization, third-party arbitrage, premium suppression mechanisms, stability funds, redemption liquidation, flash loan liquidation, and generalized liquidation modes.

Overcollateralization accounts for market risk in digital assets, whereas third party arbitrage encourages price stability. Both of these mechanisms suppress worries about protocol solvency, hence why they will be found in all collateralized debt positions. Pairing both stability strategies with a premium suppression mechanism that facilitates protocol-operated arbitrage between eUSD against peUSD or USDC sets a foundation for stable building. The rewards from this mechanism are distributed back to esLBR holders. Adding onto the foundation, to earn esLBR emissions, users must provide liquidity to LBR/ETH pool at a minimum of 2.5% of their minted eUSD value. When this drops below the desired ratio, a bounty mechanism is triggered, and all the user's unclaimed esLBR emissions are sold over the counter for eUSD or LBR. The resulting purchase deposits eUSD into the protocol's reserve funds or burns the LBR. In-kind, these four mechanisms for protocol stability are deliberate and well-designed.

But those are just the stability modules; the liquidation module is almost exactly like Maker DAOs. The current minimum safe collateral rate is 150%, while the actual average collateral rate is around 350%. Momentarily, perceive a scenario where a user drops below the safe ratio to 149%. Upon the degradation in the value of the collateral in relational to loan value, three paths can be taken:

Path 1: The user opts into Rigid Redemption services, where someone repays your debt to retrieve a portion of your collateral. In turn, the minimum safe collateral rate will be satisfied once again.

Path 2: If the borrower's LTV is between 125% and 150%, the maximum collateral lost is 50%. A Keeper monitors the state of each borrower and notifies liquidators. Keeper can choose to liquidate a borrower with the capital supplied by the liquidator for 1% commission.

Path 3: If the borrower's LTV is below 125% the protocol permits "overall liquidation mode" where keepers and liquidators liquidate the entirety of the collateral.

All these liquidation methods assume one commonality: a liquidator or redeemer has enough capital to cover the users transgressions. The conclusion is that liquidation costs must be lowered for proper mercenary user alignment. These users seek profit and yield, yet if the amount of collateral is greater than their current capital, a problem ensues. Luckily, Lybra permits flash tooling to solve this.

When a user transfers their eUSD to peUSD for omni-chain functionality, that eUSD is locked. The secured eUSD can be used to create flash loans that assist in liquidation. A flash loan is an undercollateralized and unsecured loan where a liquidator borrows a set amount within a block and pays that back in the same block. If the money isn't paid back, the message(transaction) is not included in the block, and the loan is void.

With a rigid redemption system, flash loans, and standardized liquidation logic paired with a multiplicity of stability mechanisms Lybra Finance maintains a bulwark against insolvency.

Why the Protocol Offering Matters to Consumers

Initially, I wondered why I would want to take my ETH, stake it, overcollateralize it, only to receive a fraction of what I bonded. After despising the idea, I concluded that I'd want to hold a collateralized debt position because I want exposure to my collateral but also would like to use that liquidity. This trade-off between opportunity costs makes a compelling case as to why use an overcollateralized stablecoin. The use case across all stables is exactly that: a user wants to deploy more capital at no or minimal cost to their underlying position.

The last paragraph discussed why stablecoins matter to the broader audience in DeFi, but why does Lybra's eUSD set a new precedent for stablecoins. In this article, it was already decided that the two narratives of this next cycle will be yield and liquidity. Furthermore, those two objects are partially solved by liquid staking tokens. Running with that premise, the stratospheric growth of liquid derivatives shows the market is pointing toward LST expansion. These tokens' relatively strong position and market penetration require developing new use cases. Lybra sets a new precedent

because fully LST-backed stablecoins are entirely novice developments. Lybras current market share of LSDeFi stablecoins (ignoring DAI) is 41% at 26 million dollars. A user would decide to utilize eUSD because it holds a majority of liquidity and aligns with current market trends surrounding the adoption of LSTs.

Protocol Versus Competitors Chart

Now that we have observed the interworking of Lybra and the macro environment, we need to orient ourselves in the present market landscape.

	Stable	Collateral Ratio	LST Collateral	Borrowing Rate	Upfront fee	Real Yield	Real Yield Rate
Lybra	eUSD / peUSD	150%	stETH, wstETH, rETH, BETH, swETH, sETH2	1.5%	X	✓	5.43%
Maker	DAI	150%	wstETH	1% - 9%	X	✓	3.51%
Curve	crvUSD	110% - 170%	wstETH	3% - 5%	X	✓	4%-31%
Raft	R	120% - 150%	wETH, wBTC, swETH, wstETH, rETH, cbETH	0.5% - 3%	X	✓	3.5%
Gravita	GRAI	150%	WETH, rETH, wstETH	X	0.5%	✓	3-4%

Protocol Go To Market Strategy Versus Competitors

After orienting Lybra Finance within the context of its competitors, we find that its borrowing rate is competitive versus the wider whole. When narrowly looking towards collateral options Raft and Lybra give users a greater selection. Additionally, Lybra offers consumers a competitive real yield rate versus

|	Wants	Whys
Borrower	Wants a low minimum collateral ratio	Because of higher capital efficiency
Borrower	Wants a low borrowing rate	Because cheaper to lease capital
Lender	Wants a high minimum collateral ratio	Because they want to be paid back
Lender	Wants a high borrowing rate	Because they are compensated for their risk
Trader	Wants an interoperable stablecoin that is battletested and scalable	Because they want to use their money in DeFi and be assured of its longevity
Trader	Wants a large collateral list	Because they own different digital assets

that of its sister competitor, Raft and Gravita. Lybra is generally well-positioned from a quantitative perspective, but what about a qualitative one?

When the wants are applied, we see that Lybra is untested. At the same time it exhibits caution, greater product offerings, and cheap borrowing rates.

A conjecture to Lybra's eUSD success may be that DAI is a market leader and already accepts stETH, which holds 70% of the LST market, so we should continue to accept their dominance as a stablecoin and withdraw our competition. The same product offerings in the digital asset market do not reach traditional outcomes where both products achieve market fit. With no unique selling proposition, the protocol that wins the title of most liquid is that which achieves

	Collateral Ratio	LST Collateral	Borrowing Rate	Battle Tested
eUSD/ peUSD	High	Large	Low	No
DAI	High	Small	High	Yes
crvUSD	Middle	Small	Middle	No
Raft	Low	Large	Low	No
Gravita	High	Middle	NA	No

PMF while others accomplish the lower bounds of Pareto distribution. For example, look towards Lido's stETH to the closest competitor Binance staked ETH.
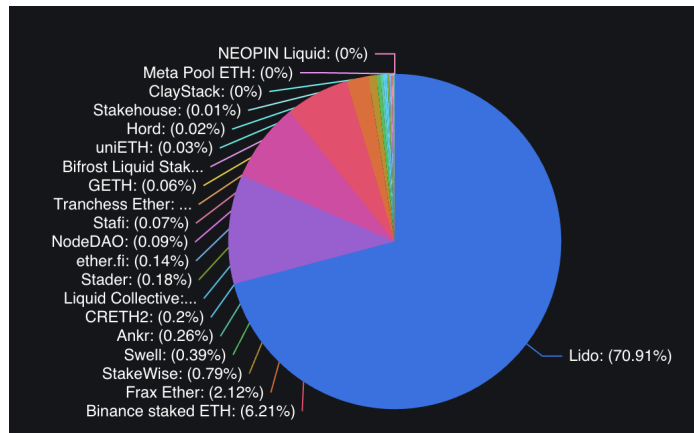
Beginning at protocols that are direct competitors to Lybra, like Raft and Gravita, we've spoken about the disparities between the qualitative and quantitative metrics, but what of the protocol differences? The moat of an overcollateralized stablecoin protocol is longevity; thereby the liquidation engines and stability mechanisms enable competitive advantages.

Lybra, Raft, and Gravita all deploy redemption mechanisms, whereas only Lybra and Raft offer flash loans to liquidate. Opposingly, Lybra and Gravita provide stability pools to backstop solvency. In total Lybra almost exactly mirrors Maker DAO liquidation mechanisms with the only difference being the requirement to earn protocol emissions a user has to participate in liquidity providing. Is this enough?

The answer is sadly no. While Lybra is significantly differentiated from Raft and Gravita it does not succeed compared to Maker DAO's DAI. Facing this reality, we see that the total amount of wstETH as collateral for DAI is roughly 626 million, representing a sizable difference from the 62 million

Lybra, Raft, and Gravita pose with all types of LST collateral. This is expected because Lido comprises a large market share, so allowing other LSTs to mint your stablecoin doesn't cause much of an increase in collateralized value. Currently, the market share of substitutive LSDeFi stable coins make 10% of the aggregate stables market.

Lybra is the first to offer a similar product for LSDeFi to Maker DAO. While it is unlikely to flip the LST collateral of DAI it is well positioned to hold its current market position while the broader liquid staking category continues to develop.

How Token Extracts Value

When looking at tokenomics, we'd like to see sink mechanisms that decrease supply faster than inflationary rewards or real yield emissions. This is where Lybra differentiates itself from its competitors. As an LBR staker, a user receives esLBR as a governance token that authorizes them to receive protocol revenues of 1.5% eUSD/peUSD supply, emissions, and

governance rights over LP incentives, future roadmap, and the treasury.
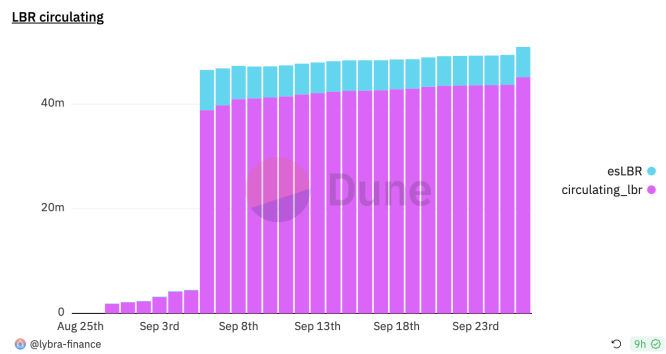
The first sink strategy: The dLP Token Burn Mechanism kicks in when a user's stake falls below the minimum 2.5%. When this happens, that user loses the chance to claim unclaimed esLBR earnings. Meanwhile, a bounty is offered, which is equal to

the earnings the ineligible user would have received. Other users can purchase this bounty at a generous 40% discount in either LBR or eUSD. The LBR used for purchasing the bounty is permanently removed from circulation. This introduces buying pressure on LBR to purchase discounted esLBR while creating a token sink, ultimately increasing the price.
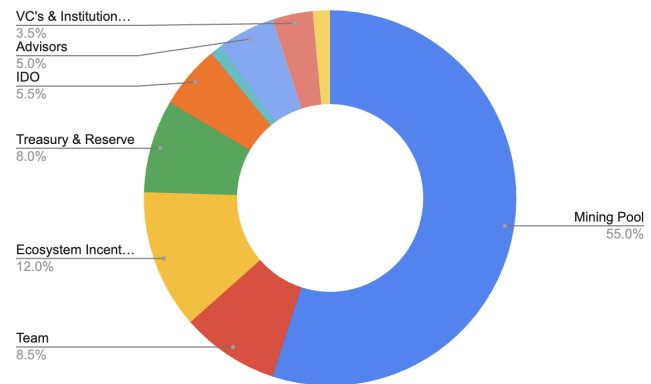
The second sink strategy: While the standard vesting period for converting esLBR to LBR on Lybra V2 is 90 days, users have the flexibility to vest their tokens earlier if they wish. However, there's a catch: each day a user vests earlier than the 90-day norm, they will receive a proportionally reduced amount of LBR. For instance, vesting four days ahead of schedule would result in a 95% penalty on the LBR received. Similar to the dLP mechanism, any tokens forfeited by users who opt for early vesting are offered as a bounty. Other users can buy these tokens at a 40% discount, generating demand for them. And just like before, any LBR used to purchase the Vesting Penalty Bounty is permanently taken out of circulation causing buying pressure on LBR to purchase more governance power.

What is left to be desired here is some sort of burn mechanism for collateral used to mint eUSD. Overall, Lybra Finance is thinking in the right direction on tokenomics. At the same time, the current deflationary strategies don't actively curb the tokens inflation, it is evident in the growth from 39 million to 45 million LBR. Still, it is apparent Lybra understands supply and demand economics, making it hopeful that further sink strategies will be added.

Conclusion

Amid a bear market with limited liquidity and a growing thirst for yield, Lybra Finance stands as a solution by harnessing liquid staking to tackle the dual challenges of liquidity and yield. With a diverse array of collateral options accommodating both rebase and non-rebase liquid staking tokens, Lybra ensures flexibility for users. Lybra's stability and solvency mechanisms establish a strong base

for its stablecoins, eUSD and peUSD. These stablecoins, backed by liquid staking tokens, resonate with the market's demand for yield and liquidity, making them a pioneering addition to the LSDeFi arena. Though facing competition, Lybra distinguishes itself with innovative tokenomics that include sink mechanisms for its governance token, esLBR, creating buying pressure and reducing token supply. In the ever-evolving DeFi landscape, Lybra Finance is primed to secure a significant market share and contribute to the ongoing narrative of yield and liquidity in LSDeFi. Its adaptability, thoughtful tokenomics, and user-centric approach make it a protocol poised for success. In sum, If Lybra maintains a consistent market share that neither decreases or increases while the wider LST economy develops, it poses a great investment.

Fund Recommendation

Purchase Lybra at 0.92 with 2 ETH for roughly 3000 LBR.