The Financialization of NFTs

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Key Takeaways

❖ The NFT space has enjoyed renewed growth and interest since 2022 as new protocols seek to explore the financial layer of the market to extract more value from these digital assets. Widely known as NFTFi, these projects effectively seek to act as a bridge between the DeFi and NFT worlds by introducing unique models to unlock liquidity for NFTs.

❖ NFT marketplaces, which have been largely dominated by the incumbents such as OpenSea, have witnessed a paradigm change with the rise of emerging projects such as nftperp and SudoSwap. They introduce the notions of leveraged trading and Automated Market Makers ("AMMs"), respectively. We shed insights into their mechanism, alongside key statistics, to evaluate their relevance.

❖ Another vertical, NFT lending, has also seen massive developments in the space and it can be largely segregated into 3 categories - Peer to Peer ("P2P"), Peer to Pool ("P2Pool"), and Peer to Protocol ("P2Protocol"). Notably, P2Pool projects such as BendDAO have visibly outshone their competitors. Yet, NFT lending has also faced its fair share of challenges along the way, as it is an uphill battle for capital markets to effectively fix a fair value to these rather unconventional assets.

❖ As we enter this next phase of maturity, we posit that the industry is ripe for growth and will require new financial primitives to draw interest and volume from institutions. We conclude with some factors of consideration and closing thoughts to ensure sustainable growth.

Introduction

The NFT industry has witnessed prolific growth in volume and adoption in recent years, reaching billions of dollars in monthly sales today. Its technology continues to evolve and embrace new use cases and collaborations in industries such as Gaming, Entertainment, Fashion, Arts, and Collectibles. This ushered in a wave of new projects to expand the financial layer, with its origins in 2021 - when Metapurse (who had bought 20 Beeple NFTs) launched B20. It was an ERC20 token for anyone to gain fractionalized ownership of its NFTs, lowering barriers to entry for users to gain exposure to these price movements without having to own the NFT in its entirety. It was also around then that the term "NFT Financialization", also known as "NFTFi", gained traction with the introduction of new markets which seek to connect the NFT and DeFi worlds.

Figure 1: Overview of the NFTFi Ecosystem
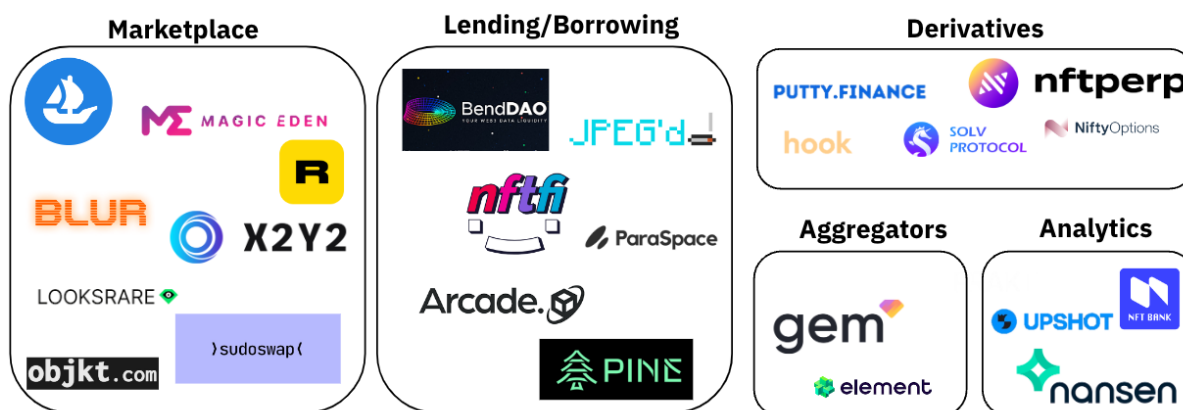
Note: The diagram is not an exhaustive list of projects in the industry. Projects showcased are mapped according to their primary use cases. The mention of specific projects does not constitute endorsement or recommendation by Binance.

Source: Binance Research

In particular, within this ecosystem, the landscape has changed with new protocols that seek to introduce and unlock liquidity in these digital assets through NFT lending, AMMs, and NFT perpetual contracts. Against the backdrop of a maturing NFT sector and ongoing developments in NFT financialization, we highlight the competitive landscape, market developments, and trends in this report.

NFT Marketplaces

NFT marketplaces are platforms to connect buyers and sellers, enabling them to trade NFTs. OpenSea has largely dominated the sector with its 2 basic models:

- ❖ Auction model - buyers can bid for NFTs that the holders are selling.
- ❖ Marketplace model - holders list and buyers decide whether to buy at that price.

Since then, new marketplace models have emerged, and more information on recent market developments can be found in our previous report on "The State of NFT Marketplaces". For this section, we will dive into the latest models adopted today - namely Leveraged Trading and AMMs.

Leveraged Trading

Leveraged trading through perpetual future contracts enables users to adopt long and short exposures to NFTs without actually owning them. This presents an alternative to pre-existing solutions, especially for users who may not be able to directly trade blue-chip NFT collections due to their high floor prices. Therefore, these new innovations afford users a way to access and express their views on NFT collections.

Case Study: nftperp

nftperp is a decentralized perpetual exchange built on Arbitrum that allows any user to adopt a leveraged position of up to 10x on either long or short exposures to collections (e.g., BAYC, Moonbirds) without using the underlying NFTs as collateral. Specific to leveraged trading, users can increase their exposure to these NFTs with minimal capital outlay.

Leveraged trading on nftperp

For instance, a user buys a perpetual contract for the BAYC collection with 10x leverage. If the price of BAYC goes up by 5%, the profit will be 50% (5% x 10). However, if the price of BAYC falls by 5%, a loss of 50% will be incurred. As such, users need to be cognizant of the amplified impact on profits and losses.

In terms of market impact, leveraged trading allows for the creation of more liquidity in the market which can lead to larger trading volumes and attract more participants with the increased opportunities to trade on market inefficiencies.

Depending on the collection, there are various criteria for leverage allowance and the maintenance margin requirement for traders. At the moment, users can either try the "Paper Trading" version to perform test trades or join their private beta and trade with real assets.

As with any perpetual trading platform, nftperp utilizes the concept of a **funding rate** to provide stability for these contracts. The mechanism works by incentivizing traders to buy perpetual contracts when the price is low and sell when the price is high relative to the index. With a funding rate, perpetual contract traders of these NFTs can adopt complex positions, such as being **delta neutral**:

❖ Holding an NFT equates to longing it with a delta of +1.
❖ Creating a short leveraged position (e.g., delta -1) protects the holder on the downside.
❖ If the funding rate is positive, holders can even earn on the funding payments.

This provides NFT owners with a more advanced way to trade NFTs, enabling a greater range of trading strategies to hedge against price volatility and minimize the directional bias of their portfolio.

As of today, while the protocol still remains in the beta phase, it has generated significant interest with a high daily trading volume that is consistently above 1,000 ETH.

Figure 2: nftperp Daily Volume (ETH)
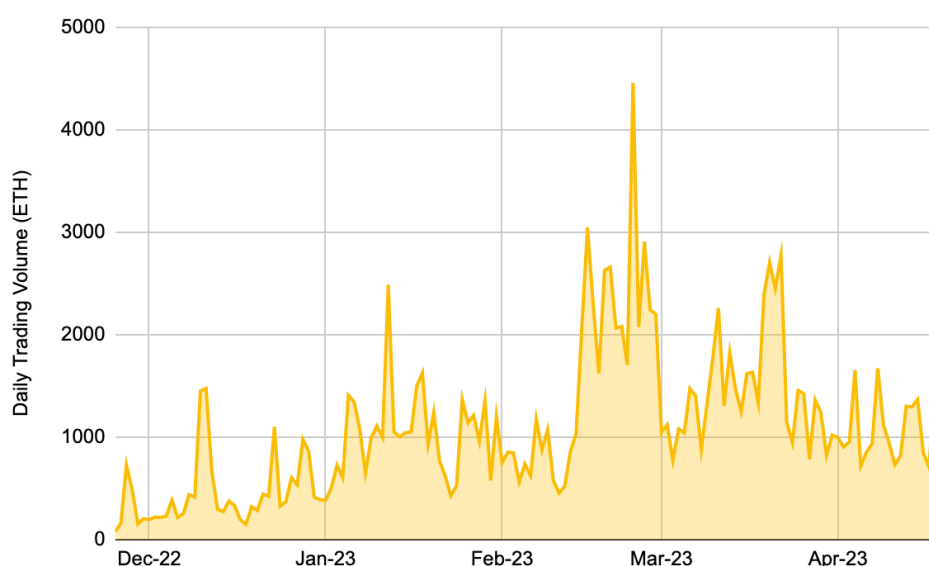
Source: Dune Analytics (@conelohan)
As of 19 Apr 2023

Building a more mature NFT trading space

The inclusion of funding rates for NFT collections provides an innovative way for the community to express their sentiments regarding the market. Generally, positive funding rates represent bullish sentiment, while negative funding rates indicate bearish sentiment. Since NFTs can have a high degree of volatility with fluctuations in price and demand, these funding rates can also help to balance the market in these situations by incentivizing traders to take the opposite positions to extract funding payments.

For example, during a sudden spike in demand for an NFT collection, the funding rate becomes positive as there are more long traders than short traders. These users with short positions are then incentivized to hold on since they can receive funding payment which can be a profitable strategy. This balances the market by preventing the market from becoming too heavily skewed toward one dominant position, which may lead to severe bubbles or crashes. Henceforth, such a mechanism helps to create a more stable and efficient trading environment for NFTs.

Robust pricing: nftperp's True Floor Price oracle

However, we do recognize that given the infancy of this project, a key challenge would be finding ways to expand the number of markets on the protocol to support a variety of NFT collections, beyond the blue-chip collections. Unlike the blue chips, smaller cap collections are generally thinly traded, and hence, these derivatives may be more prone to price fluctuations should large actors buy or sell large volumes, which significantly impact the prices, causing **oracle drifts**. This causes the settlement price of a contract to be different based on inaccurate data, causing traders to be unfairly liquidated due to unexpected market movements.

As a result, nftperp has implemented its in-house **"True Floor Price" oracle** that is resistant to tampering. The computation method involves:

1. Collecting and parsing on-chain/off-chain NFT transaction events on top NFT marketplaces.
2. Determine data eligibility based on transaction event type, token IDs, and wash trade detection.
3. Filtering extreme outliers and probable outliers using statistical methodologies and volatility scoring.
4. Time Weighted Average Price ("TWAP") True Floor Price.

This price index methodology aims to accurately reflect a fair and accurate market price of the underlying NFT, addressing the potential issues of price manipulation.

Given the strong uptake in the perpetual contract space on centralized exchanges, we are optimistic about the outlook for decentralized perpetual trading. Such protocols open windows of opportunities for NFT holders, retail investors, and even market makers to trade on collections in ways previously not possible through conventional spot trading.

Pooled liquidity

Popularized by Uniswap's introduction of the AMM model, users can now trade NFTs using on-chain liquidity pools rather than off-chain order books, as seen in traditional NFT marketplaces. Traders can benefit from low slippage swaps between NFTs and tokens, while liquidity providers can better manage the price ranges in these pools. This creates a continuous liquidity pool for NFT trading, offering another alternative for users to buy and sell NFTs.

Case Study: SudoSwap

SudoSwap was introduced with a focus on providing better liquidity to NFT markets and enabling NFT-structured products. It empowers NFT holders to deposit a number of different NFTs from a single collection on the protocol and create an on-chain liquidity pool. The creator of the liquidity pool earns trading fees as traders use the pool to swap NFTs for ETH or ETH for NFTs.

How does SudoSwap facilitate NFT trading on its AMM Model?

Native to NFTs, SudoSwap adopts the novel feature of a bonding curve. In this case, the bonding curve algorithmically determines the relationship between price and supply. It mimics a Uniswap v2 pool by using virtual token reserves and a constant product invariant. On top of that, holders (more specifically, liquidity providers) can configure the 'Concentration' parameter - effectively controlling the pool's depth and slippage. A higher concentration will indicate a tighter price range. This empowers NFT owners since they can create their own trading pools and control the behavior of the price changes within.

Furthermore, 3 types of pools also exist for traders to interact with the platform:

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Figure 3: Types of Pools on SudoSwap
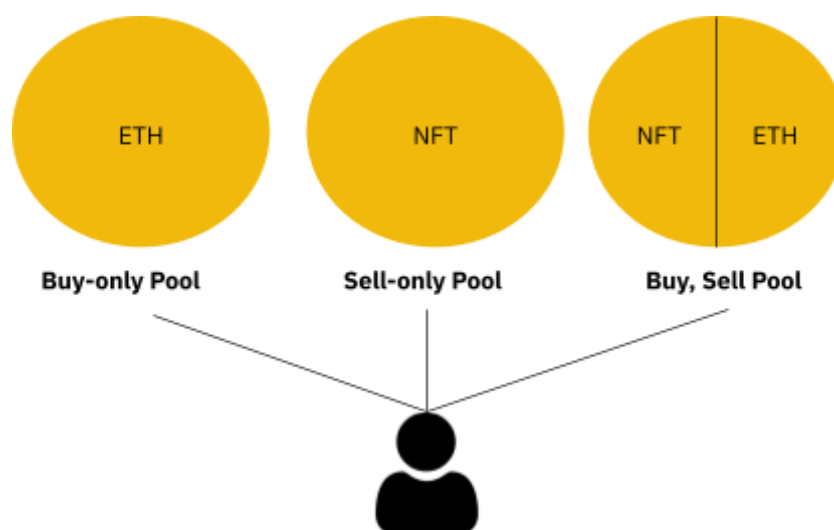
- ❖ **Buy-only Pool:** Deposit ETH in the pool to buy NFTs from other pools.
- ❖ **Sell-only Pool:** Deposit NFTs in the pool to exchange for ETH from other pools.
- ❖ **Buy and Sell Pool (Trade Pool)**: Deposit both NFTs and tokens to earn trading fees from traders interacting with the pools.

Why does SudoSwap require different types of pools?

Through this segregation, it creates multiple underlying pools with different parameters for a single NFT collection. When aggregated together, this forms the AMM model, where liquidity is concentrated at different price points. Henceforth, through these customizable pricing options, users can now create individual ETH/NFT pairs, improving the liquidity provisioning experience and enhancing capital efficiency. This is akin to creating limit orders since holders have the option to instantly sell their NFTs at the desired price points on these pools. It presents an alternative to listing their NFTs individually on the market with a huge discount to offload their NFTs quickly just to unlock liquidity.

Benefits of a tighter price range

In fact, when compared to traditional NFT marketplaces with the order book system, we have observed several pools on SudoSwap that provide superior pricing compared to OpenSea and LooksRare. For instance, the NFT collection Webaverse Genesis Pass has tighter liquidity with a more competitive floor price based on NFTs traded daily on Sudoswap. This is plausibly because liquidity providers are incentivized to keep their liquidity within a range of active trading to earn fees. It ensures a more concentrated liquidity at certain price ranges, reducing slippages of trades.

**Signs of waning activity amidst strong competition**

However, it appears that the protocol has yet to see much traction amongst the NFT community in embracing these alternative pooled liquidity models. Possible reasons include competition from other marketplaces, such as Blur, which recently incentivized users to trade on their platform to be eligible for the airdrops. Although SudoSwap did launch its $SUDO airdrop in January this year, the lack of hype surrounding it likely led to diminished publicity and interest in the project. Referring to Figure 5, apart from the initial hype in July 2022 when it officially launched, the reduced user activity coincided with the fall in daily transactions and volume on the platform.

Figure 4: SudoSwap Daily Trading Volume (USD) has plunged since July 2022

Source: Dune Analytics (@0xRob)
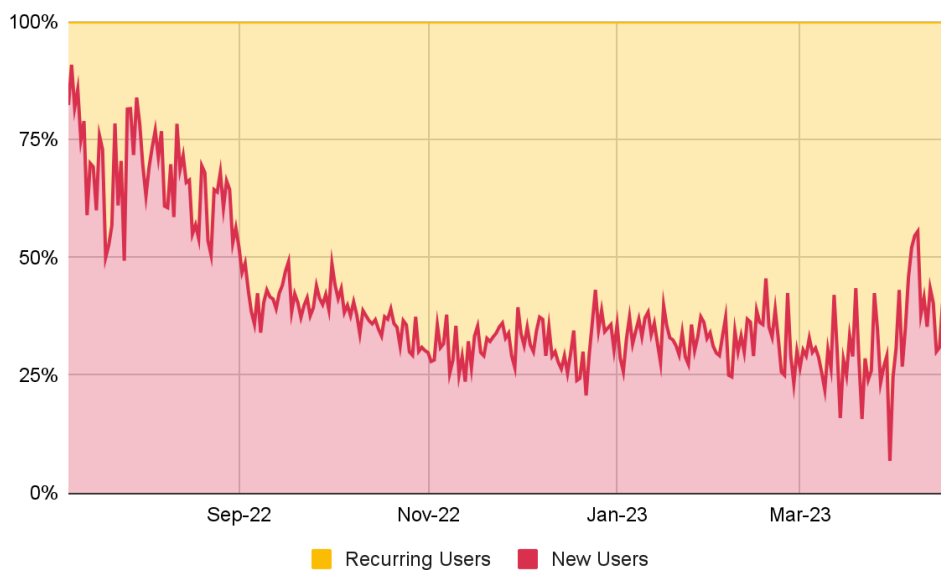*As of 19 Apr 2023*

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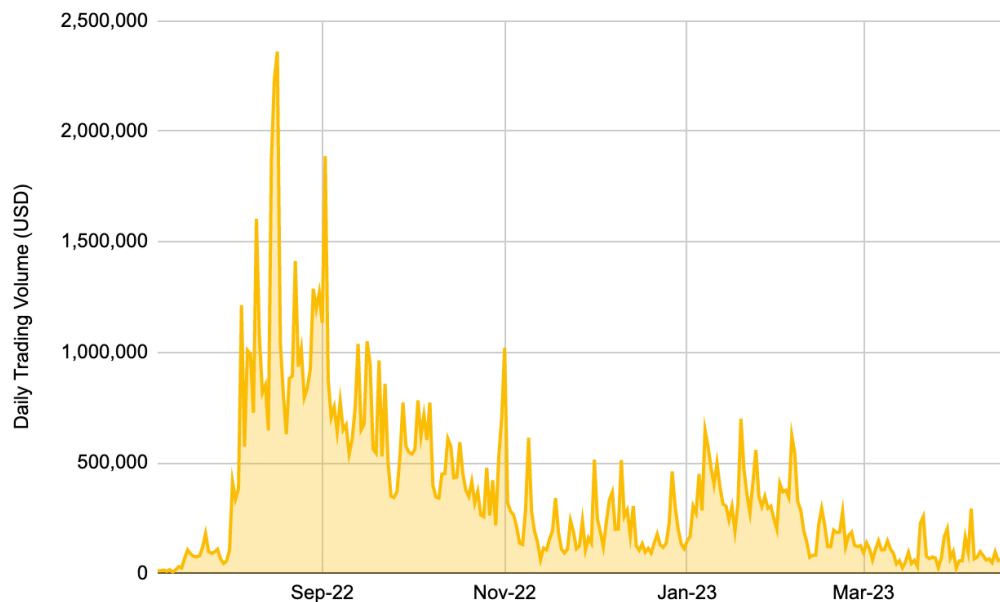
Figure 5: Similarly, SudoSwap Daily Active Users and Daily Trades have declined substantially
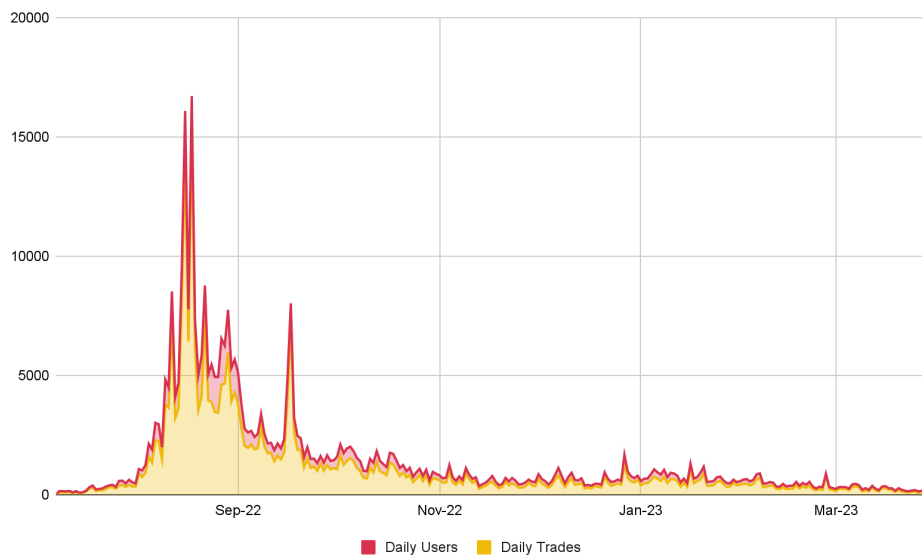
Source: Dune Analytics (@0xRob)
As of 19 Apr 2023

Yet, we do witness some form of platform loyalty and user stickiness, as recurring users make up over 70% of daily active users on the platform. This could possibly be contributed by bots that arbitrage price differences between marketplaces.

Figure 6: SudoSwap User base - The majority are recurring users

Source: Dune Analytics (@0xRob)
As of 19 Apr 2023

What is next for SudoSwap?

Overall, SudoSwap's NFT AMM model has caught the attention of the community in its launch. However, external market conditions such as general trading volumes and competition from platforms such as Blur and incumbent OpenSea with its "OpenSea Pro" version create a challenging environment for the protocol to navigate. Nonetheless, there are definitely certain benefits to the AMM model, as highlighted above, although it is unclear how the market environment will evolve.

Perhaps where SudoSwap can find a good product-market fit would be its **enhanced price discovery process** through AMMs and with a market positioning to target early-stage NFT projects. Its novel liquidity pool structure enables the possibility of self-driven organic growth for early stage NFT projects to attract liquidity in the long run rather than awaiting a list of bids in traditional marketplaces.

NFT Lending

NFT Lending is a form of asset lending that enables NFT holders to access liquidity by securing loans using their NFTs as collateral. This is then paid back with interest over a specific period. In this case, it adopts the use of smart contracts, which automate the lending and borrowing processes while giving users complete control over their funds.

Figure 7: Overview of the NFT Lending Space

|	**Peer to Peer**	**Peer to Pool**	**Peer to Protocol**
Loan Terms	Fixed between lender and borrower.	Determined algorithmically by the amount of ETH in liquidity pools.	Determined by governance.
NFT Collections Supported	Any depending on the borrower (NFT holders).	Any but limited by risk parameters such as the daily trading volume (to ensure a healthy exchange of liquidity and activity). Added through governance. E.g., BendDAO (9 collections) List of Collections supported	Any but limited by the same risk parameters as P2Pool. Currently restricted and only the team decides which to add. E.g., 13 (JPEG'd) List of Collections supported
Examples	NFTFi	BendDAO, Paraspace, Pine, Drops	JPEG'd

Source: Binance Research

In fact, the space has recently witnessed a resurgence in interest since the start of the year, coinciding with the boom in NFT markets from the Blur airdrop. Specifically, the number of users as well as loan volumes have hit new highs, exceeding the prior peaks in mid-2022.

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Figure 8: Growth in daily active users on NFT Lending platforms
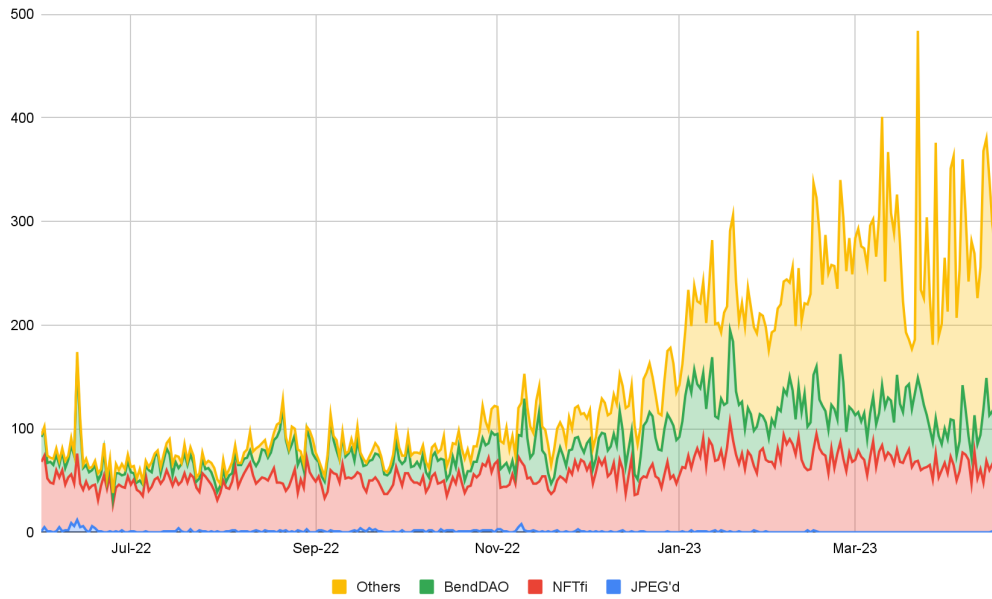
Source: Dune Analytics (@ahkek)
As of 19 Apr 2023

*Figure 9: Rising Borrowing Volumes, lead by BendDAO*
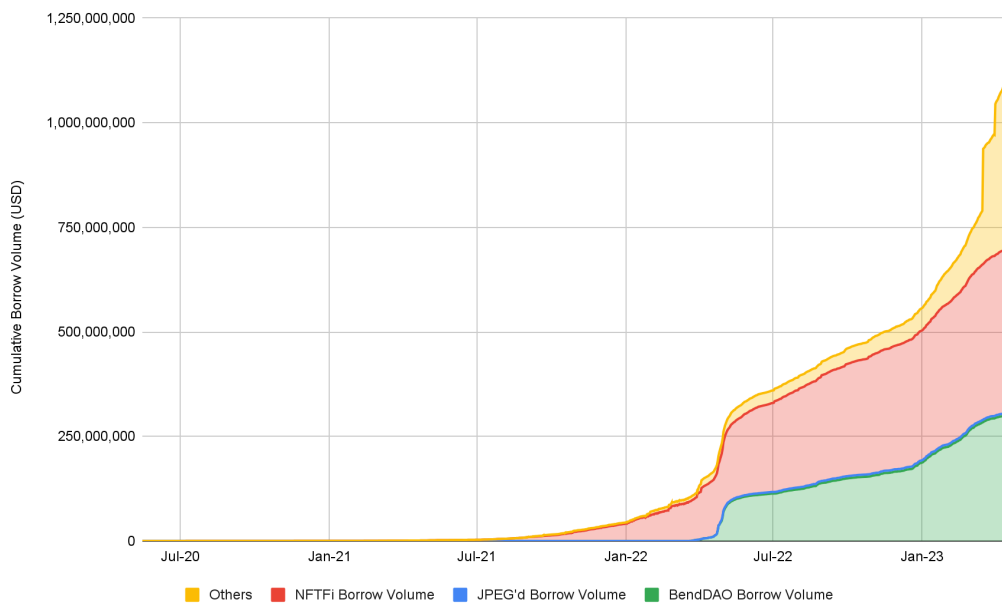
Source: Dune Analytics (@ahkek)
As of 19 Apr 2023

Models of NFT Lending

Peer to Peer

In P2P NFT lending, transactions are executed directly between borrowers and lenders. NFT holders pledge their NFTs as collateral on the platform, which is then matched against bids from lenders who offer competitive loan terms (e.g., loan amount, duration, and interest rate). Once the borrower has accepted an offer, the NFT will be transferred to an escrow smart contract and will automatically receive the loan from the lender. The NFT is returned when the borrower fulfills all conditions in the loan agreement. Otherwise, the NFT ownership will be transferred to the lenders.

Figure 10: P2P Mechanism
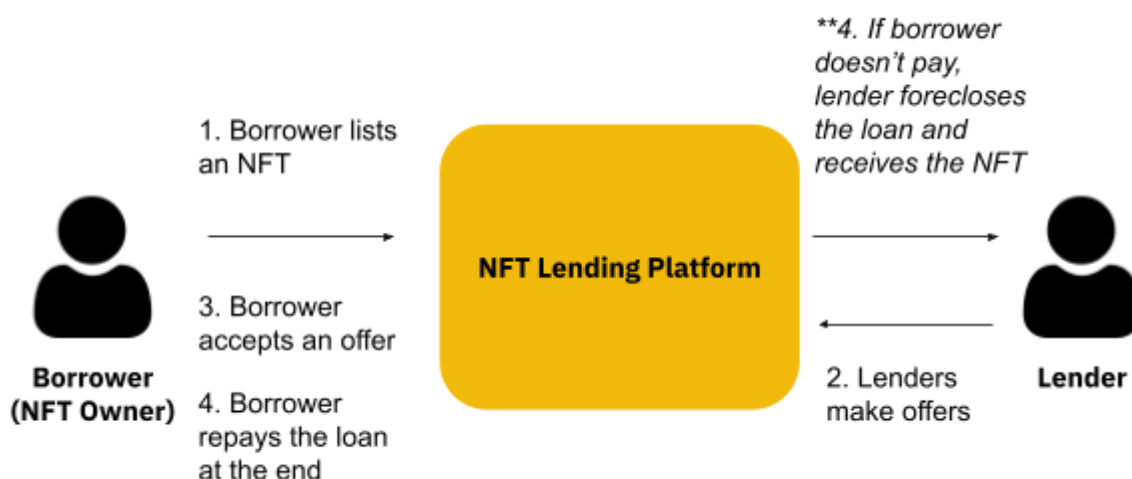
Source: nftfi, Binance Research.

Case Study: NFTFi

Since May 2020, NFTFi has largely dominated this space with a P2P model where it allows holders to borrow wETH, USDC, and DAI by collateralizing their NFTs in exchange for fixed term loans which are mutually agreed by both borrowers and creditors. This is one of the earliest models for NFT lending and has consistently printed a high monthly loan volume, exhibiting good user adoption.

*Figure 11: Consistently High Monthly Loan Volumes by NFTFi*
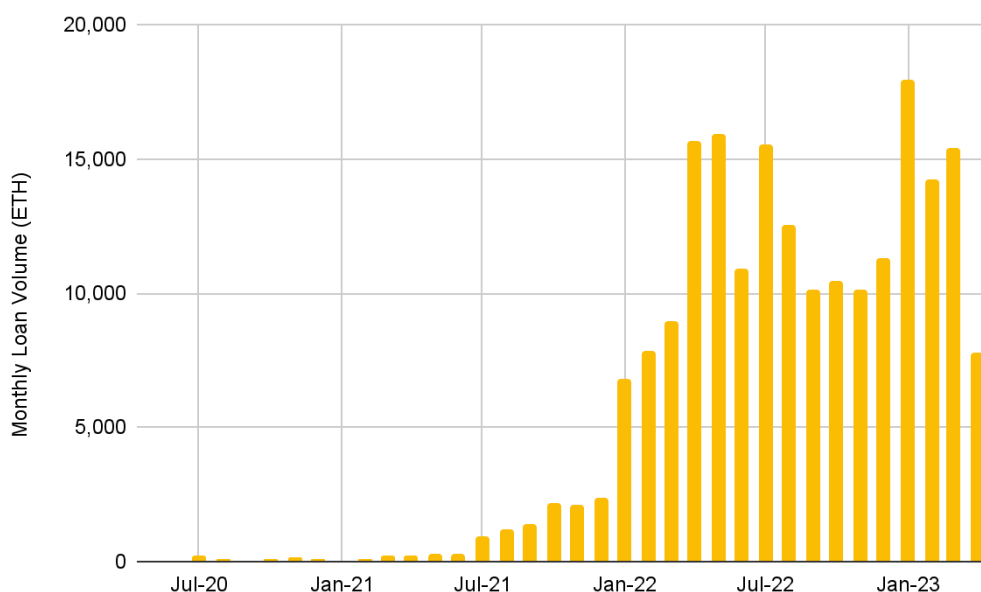
This traditional model relies on a matching process where holders wait for lenders to bid and accept the most ideal one. As a result, the relatively long waiting duration and low success rate make it difficult for P2P platforms to scale liquidity within a short period of time. However, on the positive side, NFTFi is easily implementable across any NFT collection as it is not dependent on exogenous price oracles. As such, the platform is less exposed to major market fluctuations and doesn't bear any counterparty risks. This can be clearly witnessed from its long history of facilitating NFT lending transactions, proving to be a tried-and-tested reliable operandi for the community.

Peer to Pool

Similar to AMM models popularized by DeFi protocols, a P2Pool model pools liquidity from various lenders for each NFT collection. Borrowers can then access the liquidity in these pools based on the floor price of the collection after locking their NFTs in a smart contract. The pool's variable interest rate automatically adjusts based on the amount of liquidity given.

As a result, the platform is able to access a larger pool of available liquidity through its interest rate model, creating more borrowing opportunities. Furthermore, it encourages flexibility of the loan term as borrowers can simply top up their collateral to avoid liquidation without adhering to fixed-term loans.

Figure 12: P2Pool Mechanism
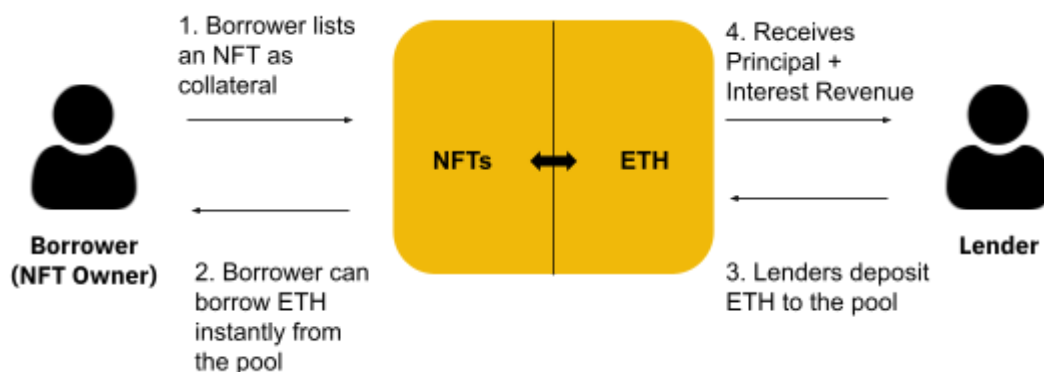
Case Study: BendDAO

A project utilizing the P2Pool model is BendDAO. In this case, NFT holders pledge their NFT as collateral to borrow ETH from the borrowing pool, while lenders deposit ETH to earn interest and $BEND as a reward. The platform has witnessed a spike in growth in daily volume and active users in recent months, with increased adoption.

BendDAO's liquidation mechanism

BendDAO uses a unique liquidation mechanism where the NFT collateral automatically enters an auction process in the case of a liquidation. Based on the previous parameters (prior to the liquidity crisis, which we will elaborate on later), if the borrower fails to repay the loan and liquidation penalty within 2 days, the top bidder repays the loan and receives the NFT as collateral instead. However, the NFT owner can choose to repay the amount during this time period to reclaim their NFT.

History of BendDAO's liquidity crisis (bad debt)

It is important to note that a P2Pool model requires the protocol to accurately set key parameters such as the loan-to-value ratio to avoid the accumulation of bad debt. Bad debt occurs due to a mismatch in the lender's collateral and borrowed amount, when the debt exceeds the collateral pledged. Let's illustrate this with a case study that happened in August 2022 when the value of several NFT collections, such as the Bored Ape Yacht Club ("BAYC") and Mutant Ape Yacht Club ("MAYC"), plunged.

1. As the floor price of BAYCs and MAYCs fell sharply, borrowers that had pledged these NFTs had to pay off their loans or else face liquidation. At that time, based on the protocol's parameters, 45 of the platform's 272 BAYC NFTs were on the brink of liquidation, sparking fear in the community.

2. Liquidators who bid on the auctioned NFTs then resell them at the floor price, causing bidders to further lower their bid price, leading to a downward spiral.

3. Consequently, this resulted in a liquidity crisis as the reserves dropped from over 10,000 ETH to just 5 ETH. Coupled with the low price of BAYCs and a condition where auctions will not be carried out on a 5% loss, these factors created a dangerously low reserve, and depositors were unable to withdraw their ETH. As a result, BendDAO was left with the prospect of holding these NFTs instead of the ETH it needed.

Figure 13: Tweet by @punk9059, who first identified the liquidity crisis

Source: Twitter (@punk9059)

Re-designing Risk Parameter Frameworks

Fortunately, the crisis was quickly averted with the implementation of community proposals BIP #9 and #10 where some of its notable features include:

Figure 14: Overview of BIP #9 and #10 to Enhance BendDAO's Risk Parameters

|	New Proposals	Implications
Liquidation Threshold	Adjusting the liquidation threshold from 95% to 70%.	This reduces the likelihood of cascading liquidations through this stop-gap measure.

		However, this delay tactic awaits for a more depressed market value of the NFT before liquidation occurs. It potentially creates greater market fear should a liquidation occur, given the smaller pool of loans backing it up during the period.
Auction Period	Change the auction period from 2 days to 5 hours.	This shortens the auction process such that liquidity can be quickly replenished. Nonetheless, this will require borrowers to actively monitor the price of their NFTs to ensure that it is in the 'Healthy zone' since there is a shorter time frame to respond.
Interest Rates	Increasing interest rates to incentivize more ETH deposits.	Attracting more deposits aims to prevent a similar liquidity crisis from happening again. Though this possibly comes at the expense of NFT lenders as they are required to pay back the loan.

Source: Binance Research

These improvements highlight the swift response from the team in addressing the issues previously faced as the protocol continues to function with proper risk management frameworks, enjoying a rising wave of adoption. Evidently, these are key parameters that should be constantly revisited to ensure healthy liquidation activities on the platform.

Room to improve capital efficiency

A limitation of liquidity pools is the lack of optimization, which results in capital inefficiencies. On the one hand, the overutilization of liquidity is not desirable as there will be insufficient funds available to extend more loans. However, referring to Figure 15, the underutilization of liquidity, such as in BendDAO, would also mean that the funds by lenders are not being used to their full potential, resulting in lower returns on investment. It can also make it more difficult for them to withdraw funds from the pool as there may not be enough liquidity available.

Figure 15: Utilization Rate of BendDAO Liquidity Pools
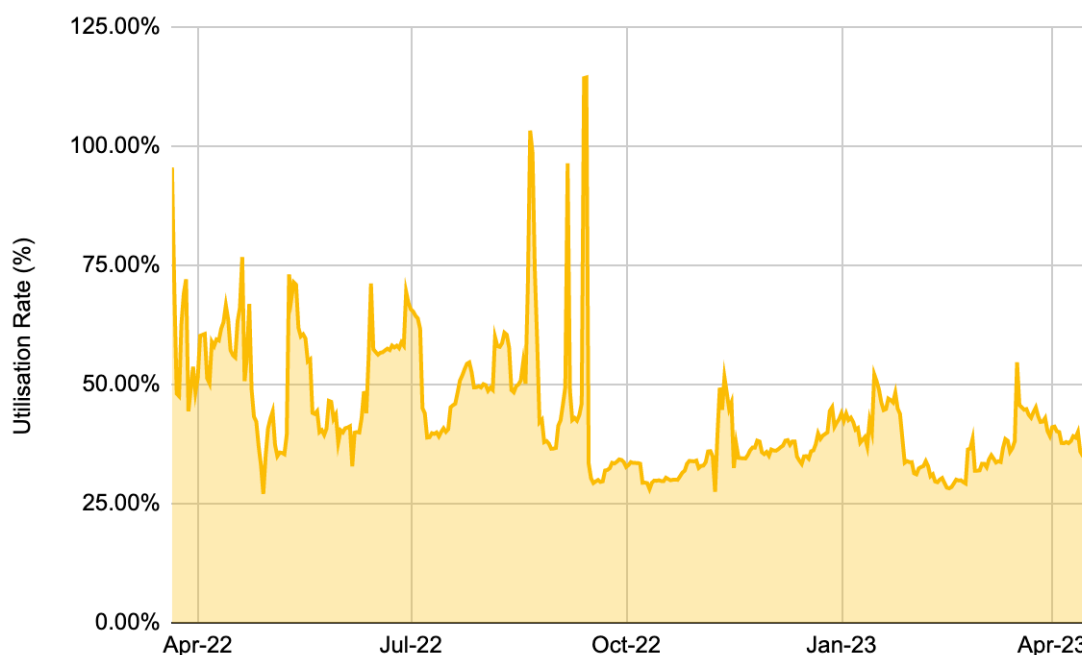
In this case, a balance has to be sought to tackle the trade-off in lending vs borrowing rates to ensure a healthy equilibrium. For instance, rather than implementing a one-size-fits-all interest rate model across all the NFT collections, tiered rates based on the volatility of these assets can be adopted to encourage borrowing for specific NFTs. A blue-chip collection with consistently high daily volumes and trading activity can warrant a lower interest rate for their NFTs, relative to less-traded collections. This will encourage more borrowers to lend their NFTs to the platform, enabling lenders to earn more interest on their funds with the ETH provided.

Promising Future with AMMs

Ultimately, the P2Pool NFT lending model is an innovative way to increase liquidity in the market by introducing Defi-native AMMs. Evidently, BendDAO has been leading the lending space in key areas such as daily users and volume, with its intuitive design that can immediately unlock liquidity for many NFT holders. While risk management frameworks and parameter risks are critical areas of consideration, it is heartening to witness that the protocol's core team and community have been actively working together to discuss and overcome these issues.

Peer to Protocol

Inspired by MakerDAO's collateralized debt position ("CDP") mechanism, borrowers place their NFTs as collateral in the protocol in a P2Protocol model. The contract then mints a corresponding amount of synthetic assets (e.g., stablecoins) based on the collateralization ratio defined. The borrower must repay the interest on these borrowed assets and can choose to repay them at any time to retrieve the locked-up NFT collateral. However, if the value of the NFT falls below the collateralization ratio, they will be required to top up an additional amount within the liquidation period, else the contract may automatically liquidate the collateral to pay off the borrowed assets. As such, this ensures that lenders are always protected in events where there is a significant fall in the value of the collateral.

Case Study: JPEG'd

Figure 16: JPEG'd Protocol Design
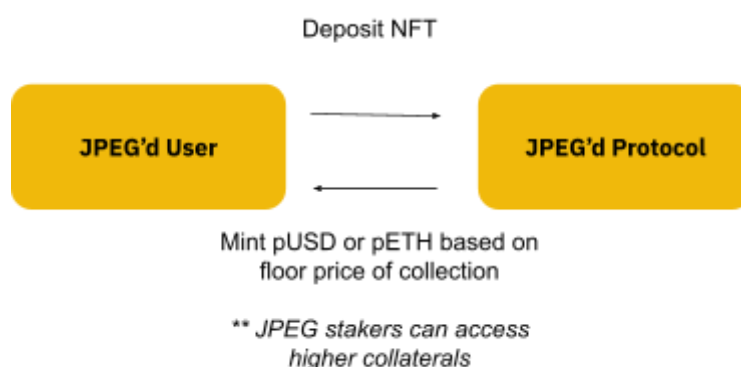
Source: Binance Research

JPEG'd pioneered the implementation of this DeFi primitive - the non-fungible debt position ("NFDP"), where borrowers interface directly with the protocol as the counterparty. The protocol presently whitelists blue-chip NFT collections where holders can deposit them into the platform as collateral and borrow against it. It then mints a synthetic stablecoin, $pUSD, or synthetic ETH, $pETH commensurate to the loan amount, and then sends the $pUSD /$pETH to the user. To close off this loan, the borrower would repay the principal along with the interest accumulated and retrieve their NFT from the JPEG'd vault. The synthetic tokens are then burnt along with each successful repayment.

As with protocols that adopt CDP mechanisms, a key determinant of the long-term success of JPEG'd is the utility of both coins outside of the protocol's ecosystem. The protocol will need to be able to scale and bootstrap liquidity across different assets to ensure that borrowers can convert it into other widely-used tokens (e.g., stablecoins). Otherwise, it inherently limits a borrower's borrowing power and dilutes the true market value of their

NFT. In particular, maintaining a stable peg to its underlying asset (i.e., $pUSD - USD, $pETH - ETH) is crucial to maintain a user's borrowing power. In this aspect, $pUSD has largely traded between a range of $0.9 - $1.1 but has exhibited a few instances of large volatility and prolonged depegs.
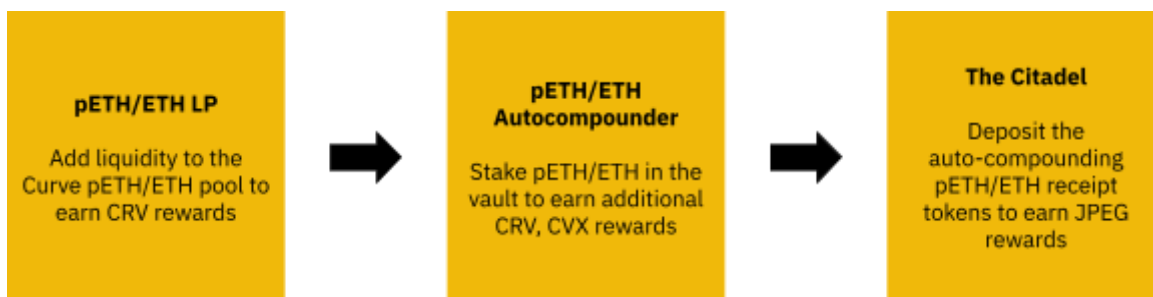
Figure 17: Price of $pUSD

Source: Coingecko

Bootstrapping More Liquidity on Curve

Recognizing these issues, JPEG'd has taken steps to integrate its native coins into the wider DeFi ecosystem. It has looked to build an infrastructure that creates a reflexive flywheel effect with the Curve AMM protocol.

Figure 18: JPEG'd ecosystem to enhance liquidity

Source: JPEG'd, Binance Research.

Currently, its pETH/ETH pools are heavily incentivized on Convex Finance, where liquidity providers are drawn to add liquidity and earn rewards. It also comes with another pETH/ETH auto-compounder where these LP tokens can be added to a vault and generate additional CRV and CVX rewards. Subsequently, these auto-compounding tokens can be added to the 'Citadel' to earn the protocol's token - JPEG rewards. There has been some traction on this front as the TVL for the pETH/ETH pool on Curve has grown to over US$21M as of April 5, 2023.

Potential for take-off

Protocols with the CDP mechanism introduce a novel model by creating their internal mint and burn to ensure that their protocol-backed assets remain sufficiently collateralized. However, a key challenge would be ensuring mass adoption of these assets to accord their value in the greater ecosystem.

For instance, MakerDAO's DAI is similarly collateralized by a basket of assets such as USDC and ETH. The protocol took lengthy measures to ensure DAI's stability and accessibility by expanding its usage across lending and trading platforms such as AAVE and Uniswap, making it the de-facto decentralized stablecoin of choice.

Likewise, JPEG'd has looked into strengthening its presence in the Curve ecosystem by pro-actively using its treasury and devising new strategies to direct gauge votes to its own pools, incentivizing liquidity provision. Looking ahead, it remains to be seen how developments will unfold. It will be key to observe innovation and steps taken by the protocol to lead the pack and create decentralized assets backed by NFTs.

Future Opportunities and Areas of Development

These new financial models reveal signs of maturity in a relatively nascent NFT market. In particular, the notions of better price discovery and capital efficiency are common themes from both verticals - trading and lending. By providing and unlocking more liquidity to the market through trading and lending, respectively, the number of buyers and sellers increase, improving the price discovery process to determine a fair price for an NFT. As DeFi-native models such as AMMs permeate the space, the NFT market can effectively serve as a bridge to integrate these novel features into the wider industry. Given the nascency of the space, we have identified future opportunities and areas of development.

Improved Pricing Methods

For one, compared to the traditional P2P systems such as NFTFi, P2Pool, and P2Protocol models generally have a lower breadth of collections and are more focused on established blue-chip NFT collections because their risk management frameworks are designed in an automated fashion based on the price of these assets. Therefore, focusing on these top collections reduces the likelihood of losses and defaults, protecting both lenders and borrowers. Furthermore, these established collections enjoy strong network effects with a large and active community of collectors and enthusiasts, ensuring a healthy exchange of liquidity.

However, the current frameworks come at the expense of customizability. This is because protocols currently value these NFT collections at floor prices to manage the risk of sudden price drops and to protect investors' assets. While this is an intuitive approach, it disregards the unique characteristics and rarity of individual NFTs. For instance, some NFTs may have certain rare traits, making them more valuable than other NFTs in the same collection.

To address this issue, additional tools (such as grouping NFTs based on rarity) may be necessary. This approach could help to provide a more accurate market value for individual NFTs and prevent more valuable NFTs from being undervalued. For instance, JPEG'd outlined its valuation framework with CryptoPunks, where distinctly notable traits like "CryptoPunks Aliens" and "CryptoPunks Apes" are valued at a higher price relative to the collection. This tiered pricing allows users to customize their investments in a more granular way, leading to more diverse liquidity pools reflective of fair prices.

Enhanced Security

NFT Financing is still at a nascent stage, and risks are undoubtedly prevalent to some extent. For one, smart contract risks need to be taken into consideration as this introduces possible security vulnerabilities which have to be adequately mitigated by project teams. For instance, a P2Protocol NFT lending platform ParaSpace recently experienced an attempted exploit on March 17, 2023. This was due to a 'flawed logic' in its contract, enabling the attacker to borrow assets with fewer NFTs than required as collateral, effectively draining the liquidity protocol.

Figure 19: Tweet by BlockSec, who first identified the security vulnerability

Fortunately, this was prevented with the help of security firm, BlockSec. While the industry may still be in its early stages with possible security flaws within these protocols, firms such as BlockSec, Slowmist, and CertiK have proactively audited and addressed vulnerabilities, seeking to secure the network. As such, projects should consider having their smart contracts audited to protect against potential hacks and reduce security risks.

Robust Risk Management Processes

Recent market events have exhibited the importance of risk management, and this is no different for lending protocols. Particularly, one aspect relates to the issue of liquidity management, which is key for lending protocols in general. In times of market volatility, black swan events resulting in capital flight may cause liquidity concerns when these 2 conditions arise:

❖ Lack of liquidity providers to provide as a counterparty to NFT holders who lend and for traders who execute trades in the system.

❖ Imbalance in asset prices, especially for volatile NFT assets.

Fundamentally, DeFi protocols rely on user economics to maintain lucrative rates for trading or lending to achieve an internal equilibrium. A slight imbalance may possibly dampen confidence and result in downward spirals. As such, BendDAO provides a great example of how the team and community should proactively manage these parameters in an efficient and quick manner to resolve these situations. This highlights the importance for protocols to continuously revisit and strengthen its risk management frameworks.

Looking Ahead

Overall, as the total addressable market ("TAM") grows with rising daily active users and volume, the community will likely be increasingly comfortable and familiar with these new models. The future for NFT trading and lending proves promising with the development of the perpetual markets and the integration of AMMs and CDPs. Together, these developments enable users to unlock and expand the liquidity in this sector.

As we have observed, the development of the NFT Financialization space shares a strong synergy with the wider ecosystem – robust price data feeds to ensure a fair value, proper appraisals to determine fair collateral terms for the loans, and even machine learning to track on-chain credit scores for these holders. As such, we will likely see more NFT verticals flourish with the adoption of these platforms, creating an increasingly mature market.

Moving forward, NFT Financialization provides an opportunity for commercialization to help the asset class attract more capital and unlock value flows for existing and new market players. Especially with the tokenization of real-world assets, there exists great potential for this market to grow and for these new innovations to enhance price discovery and liquidity for these assets.

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