The Benefits of Fungibility

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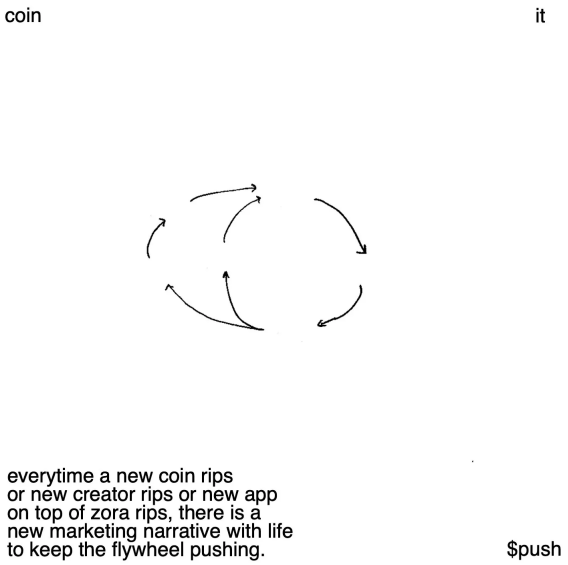

Figure 1: Marketing Push by foda

1 Introduction

Non-fungible tokens (NFTs) were an early expression of internet-native value where provenance was bundled with the creation of the asset itself. Historically, the provenance of art pieces has become a key issue in the art trade, due to looting and counterfeits. The ownership history of an asset clearly has value when solving coordination games. Art buyers want to know the history of the ownership of the piece to ensure they are receiving the real piece. Now, users increasingly ascribe value to provenance when exploring digital realms such as NFTs, content coins, or projects.

With NFTs, artists and creators are able to bundle digital property rights with the representation of the asset itself, creating a programmatic chain of custody that is trivially provable at any time. This allows the asset to inherit security from the chain that it is issued on. However, just because something is scarce, does not mean it is valuable.

Additionally, NFTs are typically built on top of a standard similar to ERC-20 tokens called ERC-721s. This token standard creates assets which are composable, interoperable, and programmable.

Indeed, many online marketplaces exist built around this standard such as OpenSea, Blur, and Magic Eden, creating functioning online markets for these internet-native economies on their platforms.

NFTs also enable programmatic features built into the piece itself, allowing unique forms of programmatic expression. Some creators utilized these properties to create interesting experiments like Loot and Finiliars. For context, Loot was a programmatic adventure game where users improved upon their gear to go on adventures. Finiliars were sprites that changed animations in response to market movements of their associated coin, all enabled onchain.

Many NFT communities are still active, popular, and valuable. Some like Pudgy Penguins have transcended the digital realm and have made their way into physical merchandise in Walmart. Others stay as profile pictures to signal association with a community. However, many see NFTs as past their time, pointing to their collapse of trading volumes and overall value.

2 A Potential Rebirth

We argue that a significant reason for the collapse in volume of NFTs comes from their abysmal market structure. The largest NFT trading platforms by volume are peer-to-peer (P2P) trading venues, requiring both users to execute an order to settle a trade, similar to an orderbook. This is in stark contrast to automated market makers (AMM) markets which are peer-to-pool, making them a one-sided market instead of two. This requires far less complexity to match orders and form functioning markets. These orderbooks were made even more complex by the creation of asset-specific programmatic orders, enabling users to buy only certain traits or specific sets of NFTs, further adding complexity to traders.

Functioning orderbooks require active management from a sophisticated counterparty like a market maker. Without market makers actively trading in the system, there is a toxic negative liquidity spiral, as the orderbook becomes less functioning, leading to market makers pulling out, collapsing the market if not rectified. This problem is generally mitigated by literal legal requirements to post bids in traditional financial exchanges. Finally, market makers have historically been less willing to take on the risk of holding inventory of NFTs compared to other assets.

This leads to a significant number of NFTs being practically priceless, despite the possibility of a functioning market. There exists no active liquidity providers and the bid-ask spread between the buyers and sellers could have a truck driven through it. Some functioning market could be created, but it is unlikely one will be. There is no party incentivized or skilled enough to fix the problem, as fixing it likely requires the party to take on an incredible amount of toxic flow to price the assets.

There is another market that historically suffered from this same problem, which is long-tail and/or small-cap assets. Trading costs on these markets were historically so high that users just didn't trade in them or were forced to utilize over-the-counter trading. To circumvent these problems, long-tail assets, generally referred to as memecoins or long-tail coins, bundled together liquidity provision with issuance utilizing AMMs to remove the reliance of traditional market making firms. This created an explosion of new asset types, new markets, and new users interacting with markets.

The token project is uniquely incentivized to bootstrap and maintain its own liquid market, as the toxic flow the markets undertake (which is a cost to market makers) is actually incredibly valuable as price discovery to the project. This gets around the problem of no individual being incentivized to take on liquidity provision risk, as the project as a whole is happy to amortize this cost for price discovery. Without a functioning market price, the project's markets are likely to fail.

3 Dual Nature Tokens

To this end, we argue that NFTs would benefit from guaranteed programmatic liquidity, which is well-serviced by the Dual Nature Token Pair of ERC-7631. By programmatically enshrining this dual token pair, users can self-select the best market model for their specific asset.

The liquidity within the AMM functions as floor liquidity, as one set of tokens backing an NFT is made fungible for any other. This is useful for traders who want to access instant liquidity for their NFT while disregarding any potential additive value from traits or rarity. Additionally, this floor liquidity provided by the project itself provides an additional potential revenue from the LP fees generated by pool. On the other hand, users who want to sell above the floor price due to the specifics of their assets are able to utilize the existing peer-to-peer models provided by existing NFT markets without additional overhead. Additionally, the pricing information from the floor pool helps lower the cost to trading higher value assets based on traits.

The dual nature of the tokens allows for dual markets, improving price discovery, enabling new market behaviors, and helping solve a key issue in an interesting internet-native market.

4 Conclusion

Many assets live and die by the markets that are set up to exchange them. By taking an opinionated stance during asset creation, creators can supercharge the adoption of their assets by intentionally creating a better structure for trading and price discovery. With new assets comes new opportunities and new ways for creators to monetize and distribute their assets.

At Whetstone Research, we believe that bundling customized markets for assets with the asset issuance itself creates better outcomes for users, creators, and projects. Before the advent of customized markets, creators had to hope that existing infrastructure would work for them. Now they can outsource this complexity to the Protocol while taking advantage of all its benefits.