Pretium

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Abstract

NFT adoption has skyrocketed in popularity in a variety of industries from collectible art to metaverse assets. The core NFT functionality utilizes the security and transparency of blockchain technology for authenticity. This paradigm shift in asset classes has opened up valuation doubts within the sector. Pretium proposes a dynamically calibrated algorithm for weighing various parameters around price history and sentiment. This systematic process enables an algorithm backed price discovery mechanism and a unique asset scoring system.

1 Introduction

The NFT market is nascent with limitless potential for growth, but currently, the vast majority of NFTs are priced primarily through speculation and use case. Use case though is a loose meaning within the NFT space and is often meant to represent the strength of their community, and how active, engaged, and vocal they are. Stronger communities and engagement correlate to having more liquidity and higher valued NFTs. Pretium will monitor the overall elements of an NFT and its community by identifying organic sentiment and engagement throughout every platform.

> "If a tree falls in a forest, and there's no one around to hear it, does it make a sound?"

The same analogy can be used when it comes to determining the value of any illiquid digital asset:

> "If a transaction occurs and there's no one around to see it, is the value relevant?"

Capital efficiency and creating a standardized unbiased pricing system is at the heart of Pretium and presents not only a new way of price discovery for NFT assets, but enables a new market to emerge. The native tokens will also serve as utility for governance on top of collateralizing and insuring its future NFT lending market - vastly differentiating itself from the rest of NFT and DeFi protocols.

2 Fair Value Determination

Pretium proposes a weighted formula to determine overall risk for its dynamic NFT valuations to be derived. By integrating variables and assigning weights from several origins, we can discover an adequate price value for each NFT collection.

2.1 Social Scoring

The first average can be derived through a sentiment analysis system:

$$\sigma = \sqrt{\frac{1}{N}\sum_{i=1}^{N}(x_i - \mu)^2} \tag{1}$$

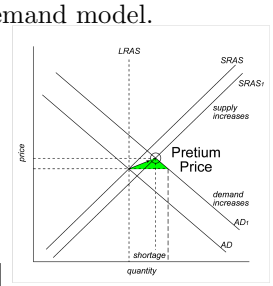
x_i	is an individual value
μ	is the $\frac{I(X)}{T}$
N	is K

Further Ref:

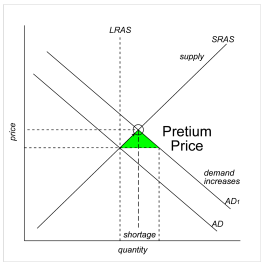
Abnormality Index is	K
Continual Population Analysis is	I
Sentiment Point is	X
Time is	T

2.2 Pretium Pricing Engine

To begin drawing up the social score curve, Pretium requires projections for deriving the Net Present Value of the most common NFT assets. Calculating these values is the job of the Pretium pricing engine, which creates a specific NFT pricing assessment. Specifically, Pretium utilizes a modified supply and demand model.



[a]



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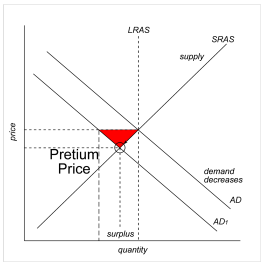

[c]

Examples of Pretium Pricing Engine
[a] New drop of NFT's to a collection creates increase in social demand.
[b] Increase in social demand.
[c] Decrease in social demand.

Short run aggregate supply	SRAS
Long run aggregate supply	LRAS
Aggregate demand	AD

2.3 Reward Pools

PRET rewards are based on staking. Every transaction which is conducted through the platform generates a fee and is distributed amongst stakers based on their proportion of the staking pools. A portion of all transaction fees in certain pools will also be burned to offset downward pressure and ensure economic balance. PRET stakers will also have the choice of committing a time-lock period on their tokens attached to a penalty curve for earning further inflationary rewards. Pretium proposes a modified compound interest model to incentive holding for long term as the rates become much more apparent and appealing further into the stake.
Proposed inflation APY increase can be calculated using the following model:

$$i = p(1+i)^t \tag{2}$$

We obtain the reward rate by analyzing the time factor, dollar amount staked and then solving for i.

3 Token Design

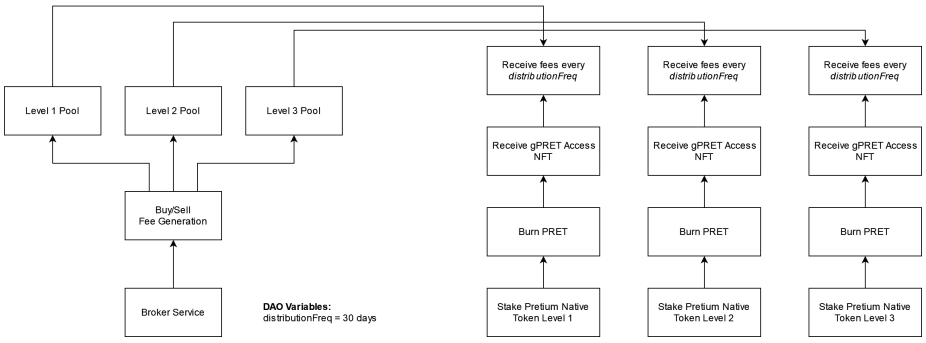

Figure 1: The proposed token flow for PRET

4 Governance

Pret is the native governance token for Pretium and will be required for voting on protocol parameter and feature changes.

- Incentivizing farmers to further stake their PRET
- Allocate voting power to long-term holders of PRET through gPRET
- Further utility for the PRET token while creating a healthy APY for staked PRET

5 Conclusion

Pretium uses sentiment, market analysis and social assessment in conjunction with game theory and traditional economic formulas to build a unique pricing engine never seen before. Pretium's pricing model can be applied to virtually any digital asset. In comparison with traditional pricing protocols, where assets price is determined fully on historical prices. Pretium sees an opportunity to create a global social pricing system to bring much needed pricing transparency to the NFT ecosystem.