

# WOOTRADE LITEPAPER v5

## INTRODUCTION

Wootrade is a darkpool trading platform that offers significantly above-average liquidity, tighter spreads than the major exchanges, and zero (or even negative!) fees. It is the beginning of a reinvention in cryptocurrency trading which will finally create an efficient and high-performance marketplace.

While cryptocurrency trading has matured quickly over the last decade, liquidity is still segmented amongst disparate liquidity pools, transaction costs remain high, and manipulative trading practices are seemingly ubiquitous. This is in contrast to established stock and futures markets where trading costs are in a race to the bottom -- for fees, spreads, and all other hidden costs.

Wootrade solves the liquidity, cost, and adverse selection issues of cryptocurrency trading for exchanges, institutions, and (eventually) retail traders through the use of redesigned incentive mechanics. We understand that efficient markets are built on an equilibrium of economic incentives and have designed a system in which both sides of the trade are mutually better off.

By leveraging the platform's native token **woo**, we incentivize liquidity providers to compete on prices and spreads, improving the economics and experience for traders. Rather than placing an importance on volume, we aim to make "execution quality" our principal benchmark.

We understand that a trading platform's success is built on liquidity, but endures through trust. Wootrade is incubated by one of the largest cryptocurrency trading firms, Kronos Research, and will be seeded with liquidity from this parent firm in the short term. Projecting forward, we will be creating an ecosystem in which neither Wootrade's employees nor Kronos Research will have any innate advantages. In the long term, we plan to decentralize the governance of Wootrade and create a platform that uses blockchain technology to be both transparent and fair in its treatment of all participants.

# Overview

## Wootrade

- Founded in June 2019 and completed seed funding with Hashkey Capital, Fenbushi Capital, SNZ & DFund
- January 2020 - Fully functional darkpool servicing exchanges and institutional trading clients via API
- August 2020 - Finished private sale and equity funding with Wootrade clients, global trading communities and top VCs including Dragonfly Capital and Three Arrows Capital.
- Now - for the BTC/USDT pair, WATS offers roughly 10 BTC of depth within \$2 USD & 100+ BTC within \$10 USD
- Now - 65,000+ end users from B2B partners, executing roughly \$4-5M USD per day at ZERO Fees through WATS. 2021 target is \$50-100M USD/day
- October 2020 - Zero Trading Fee Trading Platform with the flexibility & features active traders crave

Figure 1:

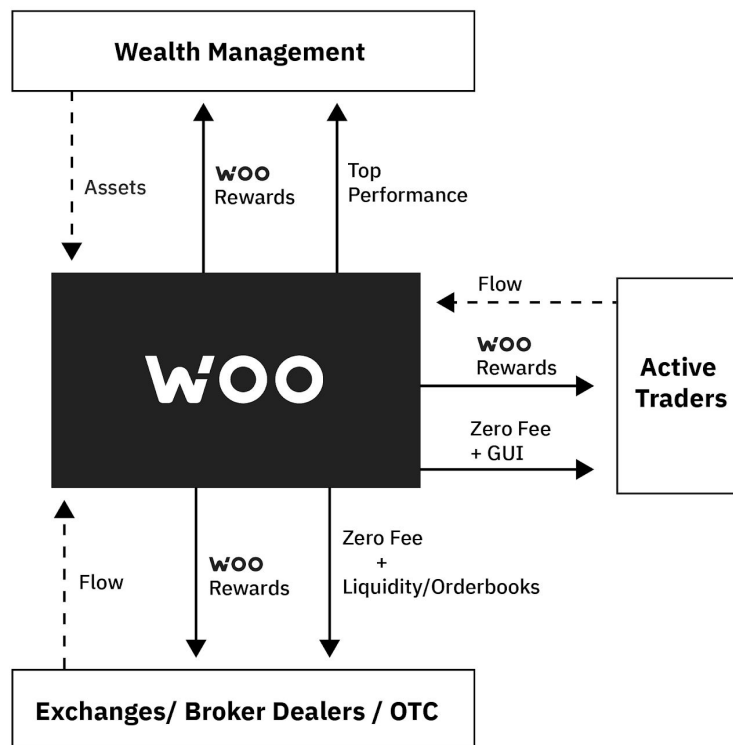


## ***Kronos Research (initial liquidity provider to Wootrade)***

- Founded June 2018
- Trading volume roughly \$45 BILLION USD/month
- Flagship fund +50% since inception March 2019 w 100% positive months
- Designated Market Maker (DMM) for Binance, Huobi, OKEX and others

**WOO** is a native platform token which unites liquidity providers and seekers into a mutually beneficial economy that allows for zero-fee trading at the best execution prices globally. Traders, exchanges and those with asset management needs will directly benefit in a virtuous and self-reinforcing manner:

**Figure 2:**



## **Background of ATS / Dark pools in Traditional Finance**

While Wootrade is intended for the distinct challenges of cryptocurrency trading & investing, it is carefully modeled after the evolution of the world's financial markets to ensure it has a strong business foundation. It is imperative to understand how both traditional and cryptocurrency markets operate to understand how Wootrade works and why it occupies an essential niche in the industry.

Wootrade is a “dark pool” or Alternative Trading System (ATS), an oft-confused term that masks a very straightforward concept: a dark pool is like an exchange but one where traders can interact privately, away from the eyes of the visible, or “lit”, exchanges.

Dark pools are a necessary addition to trading infrastructure because being able to work with your counterparty in private immensely improves pricing and liquidity. In fact, dark pools represent a return to how humanity has transacted for most of human history – that is, until the computerization of exchanges—which is face to face, directly from one party to another. Markets participants quickly realized that the identity and reputation of your trading partner is actually an important trading signal in and of itself.

For example, if a trader becomes renowned for their trading acumen—perhaps from often possessing advanced knowledge of news and other events—then they would quickly find a dearth of counterparties. Just like professional gamblers are shunned from amateur games, skilled traders would find that no one would want to trade with him at the same price as everyone else. Offers would quickly adjust away in response to his bids.

Conversely, if a counterparty is known to trade at her schedule without a correlation to future prices, she would easily find a willing buyer for every posted sale. There may even be traders willing to offer discounts in her favor.

The defining property in this arrangement is the notion of toxicity. A counterparty's orders – commonly referred to as order flow – is non-toxic if they have no predictive accuracy over a certain time period, commonly a short term one (i.e. two to thirty minutes). Investors who are looking to hold an equity asset for months or years at a time are typically non-toxic because they are not looking to optimize what will happen in the minutes or hours after their investment. Since most high-volume traders, like market makers, focus on short term returns, this means that investors' flow is benign to trade against.

In traditional markets, dark pools were instituted as a way for non-toxic traders to execute large trades – called “block trades” for their size—in a way that would not impact the market price of the asset being traded. This works well for both the block trader and the market maker: the

block trader would avoid impacting the cost of a large trader, and the market maker could obtain inventory for cheap. Since this is such a favorable trade for both parties, dark pool volumes have steadily increased over the last two decades and now account for almost 65% of all U.S. equity trading volume.

Since the economics of executing with non-toxic order flow is very different from toxic flow, market makers are willing to heavily subsidize it. Retail order flow in particular is extremely non-toxic and desirable for market makers. Often market makers will pay brokers for the right to trade with their retail order flow in an arrangement called payment for order flow.

## **Overview of Current Digital Asset Trading Venues**

While the gap between trading services in cryptocurrency markets and traditional financial asset markets are closing, cryptocurrency markets must still resolve serious operational issues. The issues are compounded by the global reach that exchanges have and the lack of a consistent global regulatory system. While certain countries have regulations in place that are designed to protect users from unscrupulous activity, exchanges are largely able to bypass this by domiciling in a country with the most accommodating regulatory environment while continuing to provide services to users based in the most stringent countries. Exploitative behavior that would be curtailed by proper regulations remains rampant.

Unlike traditional exchanges, cryptocurrency exchanges manage the entire trading business vertical, which includes customer acquisition, fund custody, order matching and trade settlement. This is an incredibly difficult challenge that is further amplified by the large number of competitors. As such, the exchange business environment remains intensely cutthroat with the average exchange lifespan lasting only a few years. Total trading volumes continue to remain the most important metric for exchanges because higher trading volumes attract traders to trade on a platform. The push for higher trading volumes by exchanges has led to the continuous reporting of inflated trading volumes, which have been an issue among both large and small exchanges. Unfortunately, when traders arrive on the platform, one cursory look at the order books would make clear that the exchange's volume and liquidity are faked. In their efforts to boost total trading volumes, exchanges will also resort to offering higher risk products that go well beyond their execution capabilities to gain additional market share.

Traders are also faced with platform instability caused by weaknesses in an exchange's backend infrastructure and connectivity. It is not uncommon for orders to fail to execute due to a technical issue in the system. What makes the technical issues even more serious in crypto is the severe volatility largely caused by the exchange's very thin trading liquidity. A technical issue in the middle of a huge price swing that prevents an order from executing properly can mean losses of staggering sums of money for both exchanges and traders.

While traditional exchanges have seen a wave of consolidation over the last few decades, M&A activity among crypto exchanges remains low. The high fragmentation combined with the

minimal cooperation that occurs between exchanges results in constant asset mispricings. It is often up to arbitrageurs to align prices even though they must assume significant exchange risks associated with trading on all exchanges. The current situation also presents serious issues for market makers as they are tasked with carrying the risk of arbitraging. Inaccurate or fraudulent price information further exacerbates these issues. These problems, however, can be resolved immediately with proper regulation. In the US equity market for example, regulators have instituted the concept of a “national best bid & offer” (NBBO), ensuring that orders need to be executed at the price of the best exchange, regardless of where it originated.

These issues all collectively result in higher overall trading costs because it remains difficult for investors/traders to identify the best source of liquidity for a given asset. All of these issues also significantly damage trader confidence, preventing larger-scale adoption amongst less sophisticated retail customers. Most importantly is that this ultimately results in the high overall risk profile of crypto, preventing wider institutional adoption and hindering crypto from obtaining legitimacy as an asset class.

There will be numerous beneficiaries from a strong Wootrade ecosystem. We summarize below the specific pain points we hope to solve for each of our initial target audience:

#### **Exchanges & trading platforms:**

- 1) Inability to attract professional market-makers and retail: Exchange liquidity is a classic chicken and egg problem. Without strong liquidity, traders won't come and without traders, it's hard to incentivize MMs to provide liquidity in the first place. Smaller exchanges use a variety of incentives to attract MMs but generally fail to achieve traction. It is difficult to know which MMs are reliable and even harder to motivate the top MMs to fully support the exchange. Therefore, it is generally not economical for established MMs to spend time and human capital to connect to a new or small exchange
- 2) Lack of differentiating products: In an ultra-competitive environment, a unique offering for clients is essential. However, these exchanges have enough trouble providing the basic necessities such as a good trading interface, stability and liquidity. They do not have the experience nor resources to launch, maintain and improve unique and attractive financial products

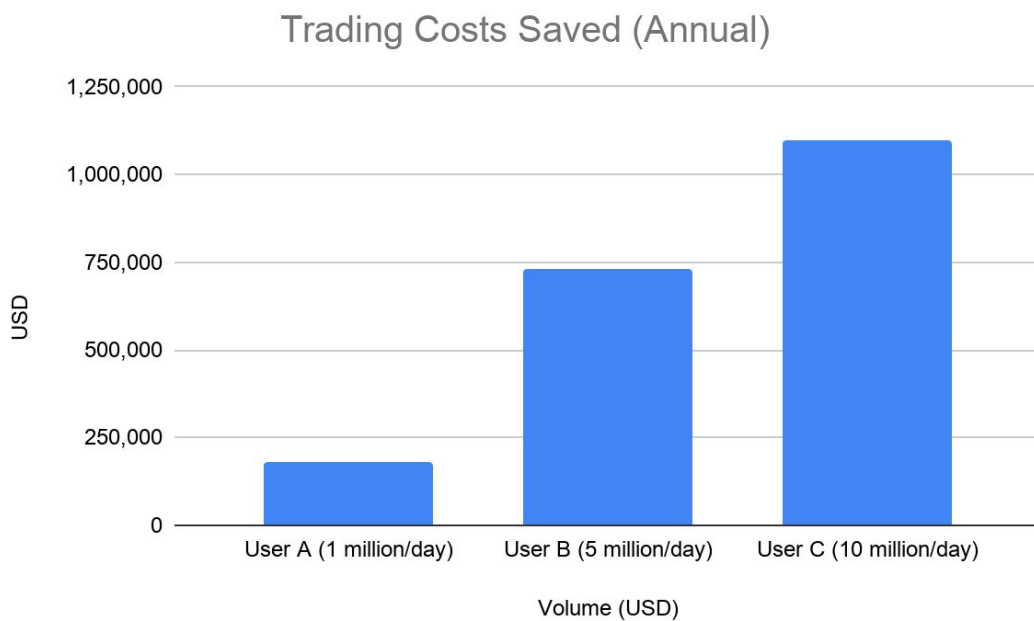
#### **Large traders/OTC desks**

- 1) High slippage/execution costs: Price-conscious retail and all institutions are actively looking for more efficient ways to gain and offload exposures quickly at the lowest possible slippage. Being able to execute large orders at superior prices via ATS's away from the public exchanges is a crucial need

- 2) Trading GUI/Interface: Professional traders and investors demand robust and customizable execution systems complete with algorithms to help decrease slippage and increase profits

Wootrade's suite of solutions will dramatically transform the rules of the game and seek to resoundingly put these issues to rest.

**Figure 3: Cost Benefit comparison of using Wootrade vs leading exchanges**



**Assumptions:**

- 1) traders pay average of Binance and Huobi spot fees based on volume traded
- 2) traders hold relevant platform tokens to reduce trading fees

**Wootrade ATS {The Liquidity Standard}**

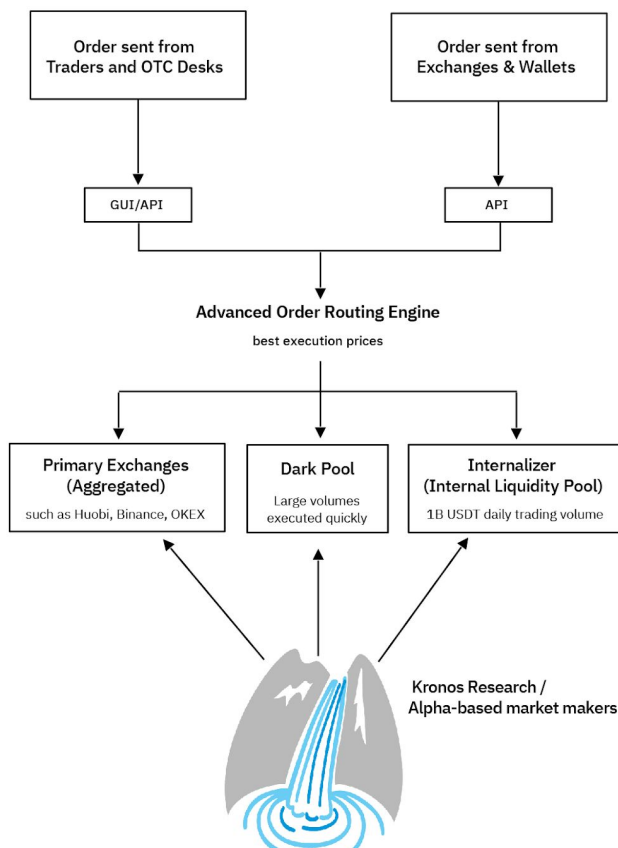
WATS is an Alternative Trading System with backing from Kronos Research, a top crypto quantitative fund that currently trades roughly \$45 billion per month and is a leading liquidity provider on the largest digital assets exchanges. Kronos Research can use its expertise in price prediction, risk handling, and inventory management to uniquely bootstrap Wootrade's order book size and depth of WATS. Combining this with Wootrade's unique system of incentivizing execution quality results in a pool of liquidity that is superior to the liquidity provided by the cumulative order books of established exchanges.

While cryptocurrency trading has significantly improved its level of services and order execution quality in a few short years, it remains well behind the standard level in traditional financial markets. In equities markets, traders that trade through a dark pool are charged zero transaction fees, experience minimal slippage, and have access to an order book depth and a thin bid-ask spread that is often better than traditional exchanges.

The WATS dark pool is designed to provide crypto traders with the same level of benefits. The smaller exchanges, which still collectively handle a significant portion of trading volume, are stuck trying to simultaneously build out their internal market-making systems while attracting a core user base. With Wootrade, the smaller exchanges now have the option of delegating the market making duties to the WATS platform and focus entirely on what they do best. Smaller exchanges can turn to Wootrade for full order book support or just to use as a hedging venue.

WATS encourages high-quality liquidity through the use of pricing segmentation. Instead of one order book for all participants like in a public exchange, each type of LFP will actually have its own dark pool and order book. This ensures that MMs can price the risk coming from the order flows of a particular LFP correctly. Less toxic LFPs will be highly sought after, and will receive very competitive quotes; toxic LFPs will be offered quotes which are consistent with external exchanges and no better.

**Figure 4: ATS**



Market participants can access Wootrade directly via websocket/REST APIs, via one of our certified vendor partners or through our ultra-intuitive user interface.

Through the value that Wootrade creates for its core users, we are confident that the platform will become an important part of crypto's trading infrastructure and also play a central role in crypto's advancement as an asset class.



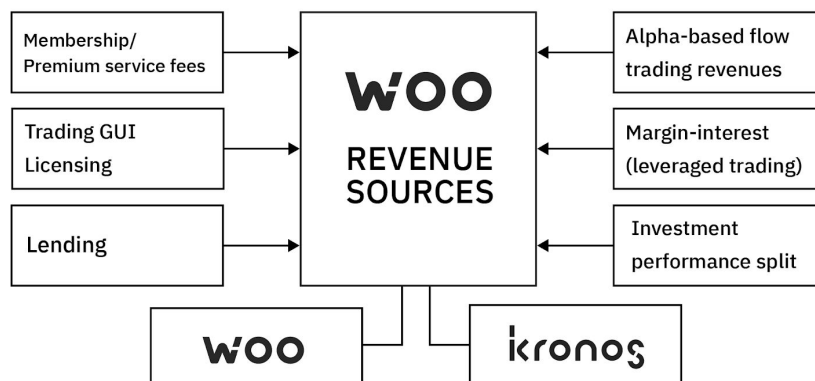
## WATS Business Model

WATS is structured to incentivize participation from two groups of traders:

- Liquidity Flow providers (LFPs) who possess order flow that they wish to execute. LFPs are typically exchanges, wallets, or proprietary trading teams. LFPs care most about executing their trades at the best average price possible, the measure of which is called execution quality
- Market makers (MMs) who look to be a ready buyer for every seller, and a ready seller for every buyer. Market makers aim to make small profits on a large volume of trades by providing liquidity.
- Staking - those who wish to provide more liquidity to the system may do so via staking mechanisms. Participants simply choose which token they wish to stake and will be rewarded in that token depending on a number of factors.

In traditional U.S. equity markets, established LFPs will direct their order flows to large MMs in return for execution quality. These market making firms will offer deep liquidity and much better prices than what LFPs can get on the open market – and often with no fees. However, there is a downside: due to a combination of strict regulations and significant customer acquisition costs, it can be difficult for new LFPs or MMs to get started.

**Figure 5: Revenue Sources**



WATS is designed to mimic and improve upon the tested paradigm of traditional markets, but in a way that prioritizes the concepts of critical mass and network effects. The success of the Wootrade ecosystem is dependent on gaining a critical mass of users, service providers and eventually developers to achieve a self-sustaining cycle of growth and innovation. As we have seen with many of the trading platforms created over the past few years, there exists a so-called 'chicken-and-egg' problem where traders refuse to commit to a platform without

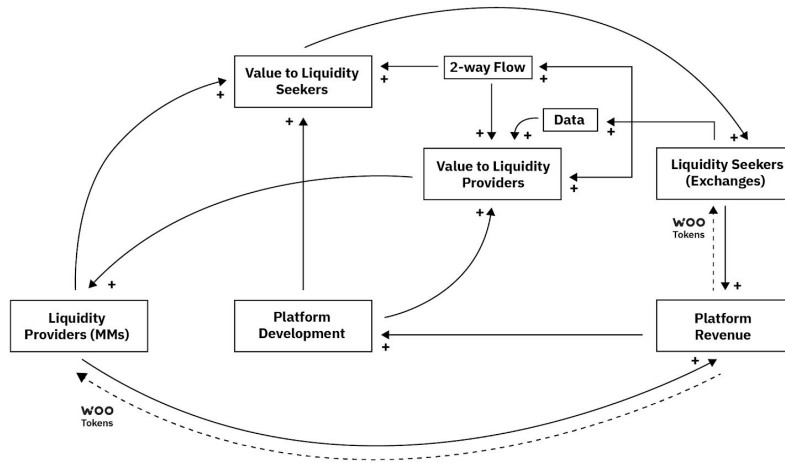
sufficient liquidity and yet liquidity providers refuse to commit their time to a platform without users. To resolve this issue, Wootrade has the backing of Kronos Research which has a vested interest and the ability to ensure that the liquidity and trading fees are the most competitive in the world.

So to achieve critical mass, Wootrade must allocate resources in a more centralized manner and experiment flexibly with a variety of incentive dynamics that would not be possible in a decentralized manner. What ultimately separates platforms with critical mass from others is the network effects created by the platform. In the case of multi-sided platforms such as Wootrade, both direct and cross-side network effects are important to consider. Direct network effect for example is a networking platform like Instagram which becomes more valuable as more of the same type of users join. Cross-side network effects would be like LinkedIn in which more benefit is derived when those searching for employment and those searching for talent both increase.

- a) **Direct network effect** - more traders/end users results in more two-way flow which by itself would create more efficient markets for the end-users
- b) **Cross-network effect** - there are a couple of these embedded in our design, but the most obvious would involve liquidity flow providers (LFPs) and liquidity providers (MMs). the more flow that is driven to the platform, the more attractive participation becomes for MMs.

Another dynamic to consider here is that WATS is free and open to all flow providers such as OTC desks, exchanges and traders to use. Third-party platforms/exchanges can achieve superior liquidity just by connecting to WATS and their ability to utilize this advantage to gain more customers will magnify the network effects of Wootrade. We have partnered with both centralized and decentralized exchanges in this regard. In summary, the platform creator must subsidize at least one side of the market to have a chance at achieving critical-mass adoption.

**Figure 6: Network effect flywheel**



For the main participants of the ecosystem to continuously iterate towards the desired actions and results, we introduce our native currency called **woo**. The token in our view is actually a powerful network magnifier to attract and retain key participants and to guide desired behavior. The classic use case of WOO is similar to other platform tokens - from collateral to fee-reduction/rebate mechanisms.

**At its simplest, the token must help to maximize non-toxic flow while minimizing toxic flow and at the same time maximize liquidity.**

More novel use cases involve staking into market-making pools that utilize Kronos Research's ability in trading, governance functions, targeted reward mechanisms for contributors to the platform - such as rewarding flow providers (nodes) with tokens. More details below on our token use cases.

### **Plan for the future: a self-sustainable & more decentralized ecosystem**

The strength of blockchain is in decentralization, and Wootrade is not foreign to this vision. For example, Wootrade's ability to attract and work with leading market makers can provide many unique opportunities that other competing decentralized networks cannot.

One proposed idea is to improve the ability of market makers by allowing them to utilize decentralized price prediction oracles supplied by existing trading experts. These price predictions are usually the result of sophisticated models generated by sophisticated quantitative researchers for use in their own trading strategies. In fostering a decentralized woo-token powered economy around the publishing and subscription of price predictions,

researchers can profit from allowing others to subscribe to their predictions, and market makers can adjust their quotes more quickly to changing markets.

Further, we plan to eventually launch Wootrade into a platform that is free from any centralized point of failure. This includes technological deficiencies like hardware issues, power grid failures, or DDOS attacks. It also includes regulatory risk from specific jurisdictions making decisions on what can be traded and by whom. Ultimately, we believe that the power and freedom of trading should lie with traders.

The details of this approach will be circulated in the future, but the highlights are as follows:

- a) There are three parties in this system: traders, routing agents, and matching engine nodes. Wootrade will be circulated as a piece of software which will allow these parties to interact with each other.
- b) Traders will be able to send messages to matching engine nodes by encrypting their messages and passing them to routing nodes. Each message will contain the address of one or more routing nodes, and the payload is encrypted multiple times by the public key of each routing node in a TOR-like algorithm. Each routing node will know where the message is being directed to, but not its final destination nor its original sender.
- c) Matching engines will take turns handling the matching for a variety of “symbols”, but will not know what symbol it is matching until after the matching is complete. Trading will transition to a type of trading that has better periodic auction-style mechanism
- d) The platform payment detailed at the bottom of section 2.a. will go to a new party, the “matching engine” node. The matching engine node is tasked with matching orders from traders.

## **Governance & the WOO token**

Below is a short discussion of Wootrade’s governance system. The system, it’s parameters and rules are subject to change.

One of the most exciting things about working in the blockchain industry is the ability to experiment with novel business, economic and management models. There have been many attempts in the past at decentralizing exchanges and protocol governance, but significant improvements can be made. Up to now, governance models in crypto resemble naïve democratic systems that have proven to be ineffective at best and disastrous at worst. Combine this with the need for an autonomous and decentralized tech stack that is supposed to endure the test of time and you end up with unmet expectations.

To achieve an ecosystem that is widely adopted, useful, and permanent, governance cannot remain centralized. However, if we decentralize too fast, there could be serious consequences. We’ve seen a few high profile defi projects get gamed and lose significant value due to even slight oversights in incentive mechanisms or issues with smart contract code.

Therefore, a Governing Council carefully selected from core team members, shareholders, community participants and business partners will be managing the ecosystem using an off-chain governance model initially likely involving TCR. We will decentralize gradually with high probability adjustments one at a time and only after careful simulations and experimentation at a smaller scale.

In this off-chain governance model, participants communicate outside of the Wootrade network. The main functions of governance participants will be to create proposals or challenges and vote on them. Proposals can be created by any member, but only the proposals with sufficient points are then discussed and voted upon.

Only **woo** tokens can be staked to earn voting points – based on amount and duration staked - that the staker can then use to vote on proposals. The points are not tokenized by Wootrade so at least initially, they cannot be transferred, bought or sold.

The process to add new members to WATS could also involve voting. If an exchange would like to use WATS, they would apply by depositing tokens which would open a “registration window.” If there’s no challenge during this time period, then they are approved and the tokens would be distributed amongst the nodes. Others may challenge the new entrant by also depositing tokens. If the community votes for the challenger, then the applicant’s tokens are taken and given to the challenger. If the challenger loses, then their tokens would be distributed to the nodes. This is just one example of many governance use cases once we are ready to hand over operations to the community.

**WOO** tokens enable more decentralized and transparent governance which should increase inclusion from all participants large and small. Anyone can participate in creating proposals and play a key role in the evolution of the ecosystem. Some of the initial decision-making aspects open to proposals and voting include:

- \* minimum staking amount for node application
- \* minimum and maximum duration for staking
- \* voting points accrual mechanism
- \* product or token development listings & features
- \* fee models/rebates/revenue waterfall (value capture voting)
- \* token distribution rates and dynamics based on various forms of mining

These basic but important governance functions will provide our partners, investors and community unprecedented ability to help shape and evolve Wootrade continuously.

**The WOO token unifies participants of Wootrade into self-reinforcing network**

The Wootrade native token, **woo**, has a cap set at 3,000,000,000 tokens. 20% of the tokens are sold in the private and public sales. 20% are team tokens and 5% are advisor tokens, both of which are locked for 4 years. 50% of tokens are ecosystem tokens earmarked for various mining / staking rewards. The remaining 5% is for liquidity management.

Certain factors will determine the initial reward rates which are inversely correlated with the percentage of tokens staked. Initially determined by the Governing Council, this rate may be changed by community vote in the future.

The **WOO** Token serves the following four critical functions on the platform:

**Collateral:** **WOO** may be used as trading collateral

**Mining:** Earn **WOO** for bringing quality order flow to the platform as a node

**Staking:** Stake **WOO** in market-making fund or to accrue voting points

**Payment:** Pay less in margin and wealth management fees with **WOO**

Use, stake, vote - these are done differently on Wootrade. With these slight but important adjustments, we should be able to find a good balance between those who want to stake and those who want to use **WOO** tokens inside the ecosystem. A few crucial tenets the token is built on are below:

- 1) duration matters - should those who are more loyal to the platform be rewarded more than those who are more transient in their contributions? We believe so and will be accruing voting points and **WOO** rewards faster to those who hold for longer periods of time
- 2) governance/voting record - we will actively design mechanisms that rewards those who consistently make optimal decisions or submit novel and valuable proposals with more influence and tokens
- 3) dynamic equilibrium - mining reward rates for staking, flow and even trading fees shall be adjusted dynamically. If only a small percentage of tokens are staked, then the reward rates shall be higher and will decrease as more tokens are staked. Similarly, rebate rate for flow will increase if flow quality is high and demand for this flow is increasing

We believe that by adopting decentralization gradually will give the greatest flexibility while giving the highest probability of achieving the eventual goal of a self-sufficient system which standardizes liquidity and provides for inclusive wealth management.

In this paper, we have discussed the background of the parallel traditional financial markets and why Wootrade exists - specifically addressing the most pressing issues in digital asset trading and investing. On its own, Wootrade will set the standard for crypto liquidity and investing, but

tied with the **WOO** token, we introduce important use cases of governance, revenue sharing, mining and staking mechanisms which should increase platform adoption rates and inclusion.

**Figure 7: WOO Rewards & Buyback Pool Estimation**

| Wootrade Daily Volume (USD)                    | 500,000,000        | 100,000,000        | 10,000,000        |
|--|--------------------|--------------------|-------------------|
| Annualized WOO Token Reward Pool (USD)         | 5,625,000          | 2,250,000          | 450,000           |
| <b>WOO Reward Pool in WOO Tokens</b>           | <b>281,250,000</b> | <b>112,500,000</b> | <b>22,500,000</b> |
| Flow Rewards (75% of Pool) in WOO Tokens       | 210,937,500        | 84,375,000         | 16,875,000        |
| Staking Rewards (25% of Pool) in WOO Tokens    | 70,312,500         | 28,125,000         | 5,625,000         |
| <b>WOO Buyback Pool (50% of Total Rev) USD</b> | <b>11,250,000</b>  | <b>4,500,000</b>   | <b>900,000</b>    |
| Annual WOO Buyback # of WOO                    | 562,500,000        | 225,000,000        | 45,000,000        |
| Annual WOO Buyback %age of Circulating         | 125.00%            | 50.00%             | 10.00%            |

Every single token holder can-- and we hope, will -- contribute to the evolution of Wootrade. This is the ambitious timeline we are executing against and we hope you will join us on this exciting journey.

**Timeline:**

July 2019

Wootrade ATS (WATS) founded & seed round completed

December 2019

WATS 1.0 launches for initial clients

June 2020

CTO onboarded + 2 senior backend engineers

July 2020

WATS 2.0 replaces WATS 1.0 - higher scalability & reliability

August 2020

Private sale and equity round completed

September 2020

Leveraged spot trading, Woo.trade new website launch

October/November 2020  
Token sale/Token Genesis  
Token use cases live for WATS

Q1 2021  
Trading platform launch

Q2 2021  
Futures trading launch

Q3 2021  
Decentralized Wealth Management Platform Launch  
Series A Funding

2022  
Decentralized operations / ownership phase