



# GLOBAL JOURNAL OF MANAGEMENT AND BUSINESS RESEARCH: C FINANCE

Volume 23 Issue 2 Version 1.0 Year 2023

Type: Double Blind Peer Reviewed International Research Journal

Publisher: Global Journals

Online ISSN: 2249-4588 & Print ISSN: 0975-5853

## Reputation as Capital

By Wulf Kaal

*University of St. Thomas School of Law*

**Abstract-** Decentralized Autonomous Organizations (DAOs) have the potential to upgrade finance. This paper evaluates the design of and system requirements for a decentralized cryptocurrency venture capital investment club that is operating as a DAO (DAOIC). The design of the proposed DAOIC enables investors to substitute capital commitments by way of reputation token staking on proposed portfolio companies. The proposed design has the potential to lower capital requirements and free up liquidity for decentralized smart contract coordinated investment vehicles.

**Keywords:** *decentralized autonomous organization, venture capital, reputation, non-fungible tokens, fungible tokens, capital, venture funding, finance, token models, cryptocurrencies, feedback effects, emerging technology, tokens, blockchain, distributed ledger technology.*

**GJMBC Classification:** *JEL Code: K20, K23, K32, L43, L5, O31, O32*



*Strictly as per the compliance and regulations of:*



# Reputation as Capital

## How DAOs Upgrade Finance

Wulf Kaal

**Abstract-** Decentralized Autonomous Organizations (DAOs) have the potential to upgrade finance. This paper evaluates the design of and system requirements for a decentralized cryptocurrency venture capital investment club that is operating as a DAO (DAOIC). The design of the proposed DAOIC enables investors to substitute capital commitments by way of reputation token staking on proposed portfolio companies. The proposed design has the potential to lower capital requirements and free up liquidity for decentralized smart contract coordinated investment vehicles.

**Keywords:** decentralized autonomous organization, venture capital, reputation, non-fungible tokens, fungible tokens, capital, venture funding, finance, token models, cryptocurrencies, feedback effects, emerging technology, tokens, blockchain, distributed ledger technology.

### I. INTRODUCTION

Decentralized investment designs have significant advantages over traditional finance. The need for capital is taken as a basic requirement of traditional finance. All investment decisions revolve, on some level, around the existence of investment capital. Derivatives and margin trading, among other financial designs in legacy finance, provided a first step towards the removal of capital in financial transactions. Decentralized systems can take the removal of investment capital from deals to the next level.

In the existing markets, decentralized investment solutions and associated vehicles are subject to significant downsides that make them less competitive than traditional financial investment solutions. Primary among the downsides is the legal uncertainty that is typically affecting decentralized investments and investment platforms. Legal solutions for decentralized funding vehicles are naturally evolving with a delay after innovative new funding vehicles emerged.<sup>1</sup>

*Author: Professor of Law, University of St. Thomas School of Law, Minneapolis. The author is grateful for many discussions with Craig Calcaterra & Kaal on the uses of reputation systems for the evolution of decentralized governance and DAOs. e-mail: wulf@wulfkaal.com*

<sup>1</sup> The design proposed herein is technologically possible in 2021. The author recognizes that many jurisdictions will treat the design proposed herein less favorably. However, the author takes no position on legal issues and possible solutions in any jurisdiction that may be associated with the design proposed in this article. Legal solutions are under development in many jurisdictions in 2021. In the United States, the Wyoming DAO is only one example that provides a temporary legal solution that is subject to experimentation. The author believes that

Decentralized markets are overcollateralized, giving traditional markets a fundamental advantage. To enable a decentralized financial transaction, such as a loan or insurance policy, decentralized products typically need to be backed with 100% collateral. In the case of secondary layers, such as MakerDAO, 200% collateralization is required. This would be an unthinkable obstacle to liquidity in traditional markets. However, in digital asset markets the lack of alternatives mandates such levels of collateralization.

With the evolution of decentralized infrastructure, decentralized investment designs are increasingly equipped to outperform traditional finance. For example, once secure and meaningful reputation is incorporated into the Web 3 environment, the imbalance between decentralized and traditional finance can be reversed. Reputation tokens that are utilized in decentralized finance are more meaningful than traditional identity verification metrics, and much easier to value. Accordingly, decentralized protocols that use reputation metrics will require less collateralization than in traditional protocols. Given these advantages, the decentralized economy that will be powered by new and innovative designs, such as the one proposed herein, are likely to be more competitive and may eventually gain the upper hand over traditional centralized financial institutions. For example, locking users reputation tokens instead of your fungible assets would be a strong leap in efficiency, giving a powerful economic advantage over traditional finance. This requires a coherent system which securely tracks the value of a reputation token.

### II. BASIC CONCEPT

#### a) Reputation Replaces Capital

The basic concept introduced in this article revolves around the core mantra of "reputation as capital." In essence, once meaningful decentralized reputation is established, reputation can be used to remove the need for capital base and/or capital requirements. In the DAOIC model, the members of the DAOIC wean off the need for capital in order to participate in DAOIC deals. Instead of capital commitments, DAOIC members stake RNFTs on newly proposed incoming deals. The public market funds the

legal designs will develop lockstep with a time delay to decentralized DAO governance in finance.

DAOIC approved deals and the DAOIC members get paid via the 20% public ROP minting to fungible reputation token.

If members still wish to commit capital on particular deals they can get into deals on the public market side, based on the same conditions. But, they would in essence be paying themselves with the 20% of ROP.

Because DAOIC members are sharing in the ROP of the market with 20%, which may be much more in the aggregate than the individual DAOIC members' ROP, the model amplifies the DAOIC member returns. DAOIC members get paid in fungible reputation tokens. The long-term effect here is that the market replaces the need for capital commitments by DAOIC members. The members still continue to benefit from their staking work without the need to contribute capital. Over time, the reputation effect grows and the uncoupling from capital increases.

Not only are members sharing in the ROP of the market with 20%, which may be much more in the aggregate than the individual DAOIC members' ROP, the model also amplifies the DAOIC member returns because only DAOIC members get paid in fungible reputation tokens. Public investors get paid their 80% ROP via DAOIpro rata.

Such tokens are themselves a significant value proposition because the fungible reputation token is based on the deal pipeline upvoted by DAOIC members via RNFT. The fungible reputation token is:

1. A tokenized instantiation of the collective wisdom of the DAOIC members, which may be valued by the market as such, and
2. A representation of the total ROP (100% DAOIC Member ROP PLUS 20% Public ROP) on each deal upvoted by DAOIC members via RNFT.

The combined effect of these factors will likely cause the public perception and corresponding market valuation of the fungible reputation tokens to be favorable.

#### b) *Liquidity*

The most efficient and most liquid markets display high levels of transaction rates of highly diverse goods exchanging between a multiplicity of small market participants. This market decentralization is most efficient and provides the most reliable and accurate (price) information, which, in turn, enables the highest levels of truth discovery in the market.

The basic mantra of reputation as capital is that it makes business more efficient and more liquid as it frees resources for further use. Reputation frees up capital. As capital is replaced by reputation it no longer has to be tied to a given asset. Reputation is encumbered and tied to an asset instead of capital. The more reputation replaces capital the less capital has to be allocated, tied, and encumbered. In turn, the ratio of

capital becoming unencumbered through reputation increases the deployment of capital ratio, e.g. a higher proportion of unencumbered capital can be newly encumbered. Therefore, reputation increases the degree, speed, and overall ability of an individual or firm to purchase or sell an asset. In turn, reputation increases the availability of liquid assets to a company or market.

The liquidity function of reputation as capital can theoretically be extended to tokenized assets. Reputation can be used to underwrite tokenized assets and provide immutable guarantees for tokenized assets. With reputation staked guarantees on tokenized assets such tokenized assets can, over time, exist like real assets. Reputation allows tokenized assets to be used in business because, just like underwriting, someone is taking on the risk of losing reputation and associated cashflow streams if such tokenized asset should in reality not exist. Insurance could serve a similar function but is much less efficient as it requires the allocation of capital for holding reserves to pay out claims etc. Reputation removes the need to deploy capital for reserves etc. Accordingly, can facilitate unprecedented levels of liquidity. It removes the need for encumbering capital for tokenized assets and at the same time through the guarantees it provides for tokenized assets makes those tokenized assets real for commerce. The combination of replacing capital with reputation for tokenization creates the ideal environment for liquidity. Tokenization itself provides unprecedented liquidity of real assets. Combining tokenization with reputation underwriting further enhances the liquidity effects of tokenization. Again, the benefits for liquidity can only materialize if reputation is meaningful and secure.

In the case of the DAOIC, the replacement of capital with reputation increases liquidity for DAOIC members. In the DAOIC model, because reputation takes over part of the role of capital it frees up otherwise locked capital for DAOIC members. DAOIC members can increase their ability to deploy capital because RNFT staking on deals does not require the deployment of capital while still generating returns, here through the 20% ROP participation on the public side of a deal, that would otherwise only be possible through the deployment of capital.

The replacement of capital with reputation gives the DAOIC members a permanent option and right of first refusal on deals. DAOIC members can merely stake RNFT on a deal without participating in the purchase commitment for such a deal. But, RNFT staking involves two phases, loosely coupled and tightly coupled votes (as described in Calcaterra & Kaal et al (2019)). The information revealed during the loosely coupled voting engagement should, in most cases, make it clear to each DAOIC member what deal parameters are at stake. At the same time, the delayed voting outcomes and associated feedback effects enabled by the transition from loosely coupled to tightly coupled

voting enable DAOIC members to triangulate their own internal liquidity with deal feasibility. If a DAOIC member suffers a liquidity crisis, such member still participates in the fungible reputation salary payouts.

The removal of capital through RNFT staking also makes capital calls and other liquidity-limiting measures less relevant. There are no ex post capital commitments associated with an RNFT staking participation. DAOIC members will commit capital if they can but during a liquidity squeeze they can opt out of the public side of a given deal while still participating through the RNFT staking and associated fungible token salary.

Because a public secondary market exists for the fungible reputation tokens, DAOIC members not only improve their liquidity by replacing capital with reputation, their liquidity is also ensured after the conversion of capital to reputation. The public market supplements liquidity in fungible reputation tokens if DAOIC members decide they need to convert fungible reputation tokens back to capital. This can help supplement their capital-driven engagements as a liquidity pool.

The removal of capital creates a high level of flexibility for DAOIC members. It allows the DAOIC members to invest if they so choose but it does not force them to invest if they disagree with the collective decision on a given deal.

DAOIC members can decide which deals are so good that it would be worth paying themselves the 20% of ROP on the public side as a fungible token salary. However, the nature of the publicly listed fungible reputation token is a better value proposition for the DAOIC members, especially in the long run.

Liquidity can also be significantly improved in the DAOIC design through the selling of RNFT to the open market. For example, if the DAOIC should not have enough capital to cover the staked token commitment in firm commitment underwriting, it may be able to overcome the shortfall immediately by selling RNFT, which is in effect selling future cashflow rights associated with the RNFT.

Individual members should have a stable way to exit the system by selling their reputation tokens for a fair market valuation of the future expected value of their reputational salary. This is more problematic for reputation than for most other cryptocurrency tokens, since reputation is less fungible because a token's value is tied to the post in which the reputation was created and subject to separate review. But in principle it could be algorithmically valued.

This situation of selling RNFTs via the OTC market only arises in ICD firm commitment underwriting deals that did not sell out on the public portion. In order to satisfy the capital call that results from the inability to sell out the public portion of the firm commitment deal, the respective RNFT member is forced to sell RNFT on

the OTC market only if the respective ICD member cannot satisfy his or her pro rata capital requirement with liquid capital held by the ICD member. In that case, RNFT may be sold to cover the lacking liquidity. It is very likely that the other RNFT holders who still have liquid assets will wish to purchase the RNFT on the OTC market as it gives them a larger share of the future cash flows via FRT/GT.

The other relevant situation for selling RNFT via the OTC market and with it the right to all future cash flows that derive from the RNFT, is retirement of an ICD member. Should an ICD member wish to retire from the ICD permanently, the respective ICD member can sell her RNFT.

### c) *Risk Optimization*

Running a DAOIC is subject to several risk factors, including but not limited to the following:

- Limited token opportunities
- High level of uncertainty in digital asset market
- Only 1 in 100 of token opportunities returns 100x, 30x, 10x
- Regulatory uncertainty - investigations
- Gaining access to industry expertise in digital assets creates challenges
- Difficult to distinguish core expertise in digital assets
- Since its inception, the digital asset industry has evolved in silos of information and expertise, making it more difficult for early-stage investors to gain access to a broad spectrum of engineering and technology insights.
- Early stage investing in digital assets is a relationships business. It is key for early-stage investors in digital assets to be part of a core network of early-stage experts in the industry.
- Without access to a network of core expertise, early-stage investments in the digital asset industry are rarely successful
- Without access to experienced decentralized system architects, legacy investors and venture capitalists struggle navigating the market for digital assets. During the early days of the digital asset evolution a very limited amount of people had relevant experience with the technical and market aspects of digital assets. Very few were able to build cryptocurrencies that attempted to solve incentive issues and create tokens that were compatible with the incentives design in order to enable participants in the network to act non-opportunistically and align their utility and economic incentives in systems with anonymous actors.
- The anonymity in decentralized networks requires a special skill set for system architects who know how to navigate the limitations in system design that is associated with anonymity.

- Only very few architects have figured out how to create system solutions in ways that overcome the challenges of anonymous and autonomous systems. That skill set is still very rare in the early 2020s.
- Venture capitalists and crypto hedge funds require key expertise in helping their portfolio companies on the operating side.
- Limited amount of qualified technical talent: A key skill that contributes to portfolio companies' success is the ability to hire engineers and run technical teams. The most successful digital asset investors are able to use their network to help their portfolio companies successfully hire technical talent.
- Venture companies that do not have a strong background in community building can be disadvantaged in the digital asset market. In the digital asset space generally, and more specifically in the context of ICOs and token design, it is essential to have some expertise in open-source software and the associated community building. Incentive designs for open-source software contributions can also play a larger role.
- Technical decentralized designs take a long time to reach maturity. Because of the community building aspect and the built-in experimentation with design features, decentralized network design can take much longer than other technical network designs.
- The cryptocurrency market in the early 2020s is still afflicted with questionable designs, as well as legal and ethical issues. Many top projects in 2020 are still afflicted by technical issues that have not been ironed out.
- Because the market has been so hype driven, technical experience has not added significantly to overall market development and maturity. Yet, several indicia suggest that this can change over time.

The mantra of "Reputation as Capital" has built-in multiple levels of risk mitigation for the network participants. Through meaningful reputation in a business network, network participants are incentivized to cooperate without performing the extra due-diligence analysis on counterparties in the network and possible agents of the network.

Reputation removes the need for monitoring cost. It lowers transaction costs in orders of magnitude. Through reputation in the interaction between principals and agents, both are incentivized to watch out for each other and further each other's profit. It is simply good business to do so as it extends the opportunities for future frictionless business opportunities. Because reputation is at stake in each interaction, parties to the network as well as principals and agents are incentivized to go significantly beyond the key parameters of their respective contractual obligations to

maintain, extend and protect each their respective reputation.

Reputation is not only the gateway to future revenues and business opportunities but also becomes a currency with its own value proposition. Removing readily available and fungible cash and emphasizing reputation in the network disperses power fairly. Participants in the network with equivalent talent are equally acceptable as they are most likely to help protect the reputation of the collective and each other's reputation at the same time. Accordingly, anyone available with similar talents can be given opportunities. In the case of the DAOIC, the collective wisdom of DAOIC members helps hedge against purchase risk. The applicable decentralized reputation staking governance mechanisms (Calcaterra & Kaal et al (2019))<sup>2</sup> provide an optimal incentive design to coordinate collective decision making. Improved collective decision making in the DAOIC further mitigates purchaser risk.

Similarly, RNFT staking by DAOIC members removes counterparty risk. The desire to preserve and increase RNFT scores predominates the DAOIC decision making. Therefore, bad actors are less likely to occur in the system as their reputation would inevitably suffer.

Moreover, because the applicable decentralized reputation staking governance mechanisms (Calcaterra & Kaal et al (2019)) with loosely and tightly coupled votes will very likely make all tightly coupled votes unanimous. Accordingly, DAOIC members are less likely to lose RNFTs and continue to receive the stream of fungible reputation tokens.

Liquidity risk is addressed because the fungible reputation tokens can be sold on the secondary market as needed by DAOIC members.

#### d) *Decentralized Underwriting*

The DAOIC form of underwriting can be distinguished from traditional underwriting where underwriters are typically gatekeepers and create barriers to entry. In the tradition underwriting market, underwriters serve as gatekeepers for the purpose of screening offerings for investors. Underwriters with a good reputation can charge issuers of traditional securities higher rates, giving underwriters a financial incentive to screen. However, in the traditional underwriting market, investors can fail to distinguish underwriters based on reputation. As a result, free-riding on other's reputation may occur. Once free riding occurs, traditional underwriters will likely stop investing in their

<sup>2</sup> Calcaterra, Craig and Kaal, Wulf A. and Andrei, Vlad, Blockchain Infrastructure for Measuring Domain Specific Reputation in Autonomous Decentralized and Anonymous Systems (February 18, 2018). U of St. Thomas (Minnesota) Legal Studies Research Paper No. 18-11, Available at SSRN: <https://ssrn.com/abstract=3125822> or <http://dx.doi.org/10.2139/ssrn.3125822>

screening and instead attempt to free ride on others. This creates what is known as a lemons problem in the law and economics literature. Moreover, individual agents within an underwriter may decide to sacrifice the underwriter's overall reputation for personal gain. For example, it is possible that an agent may put out a fraudulent offering on behalf of the underwriter for personal gain, such as additional business for the agent etc.

The DAOIC's adoption of decentralized reputation staking governance mechanisms (Calcaterra & Kaal et al (2019)) addresses these shortcomings of traditional underwriting. In this theoretical model, the entire incentive design of decentralized governance aligns the interests of the individual with the interest of the group. In other words, the incentives of the principal, e.g. the group, and the individual are aligned so much that the agent cannot gain personally at the expense of the principal.

As the DAOIC reputation proliferates, in the model, the DAOIC may become the initial starting point for a public token offering. The DAOIC can, over time, provide essential services for token opportunity teams, including but not limited to: source of contact for large institutional investors, and as a source of financing, e.g. infirm commitment offerings.

In the DAOIC model, best efforts underwriting via RNFT staking can be distinguished from firm commitment underwriting via RNFT staking. Best efforts underwriting is synonymous with the smart contract accountability system in the DAOIC that allows each DAOIC member to make a given capital commitment that is encumbered in the smart contract as a deposit. Such deposit will only be released and directly transferred to the token opportunity when the RNFT staking pool has made a decision on the token opportunity. Funding only happens in the case of a majority upvote. Only then will the smart contract release the funds from the DAOIC member to the token opportunity.

This can be contrasted with DAOIC firm commitment underwriting. In a firm commitment RNFT staking engagement, the DAOIC does not commit any capital at all, except for the portion of the token opportunity that does not sell out to the public. In other words, the DAOIC has to be confident in its ability to translate its reputation in deal analysis, e.g. RNFT staking on a token opportunity, into a co-purchase engagement by the public. Should the public fail to purchase the capped amount of the token opportunity, the DAOIC will have to sacrifice its own liquidity and commit to buy the remaining part of the token opportunity sale.

Having to commit liquidity if the DAOIC's collective wisdom is wrong incentivizes the DAOIC community. After all, its "Reputation as Capital" mantra is largely motivated by the increased liquidity that is

enabled by it. Getting the public commitment part on a firm underwriting engagement wrong would neutralize the prior gained liquidity from RNFT staking.

While firm commitment underwriting may be seen as antithetical to decentralization, it in fact further enhances the level of decentralization. A firm commitment underwriting by the DAOIC member collective provides the DAOIC more leverage to increase the decentralized governance in the token opportunity. Enhanced decentralized governance of token opportunities, in turn, improves the level of decentralization in the system overall. Moreover, in a firm commitment underwriting of a token opportunity DAOIC internal governance and the RNFT staking with the collective wisdom of the DAOIC members enable an offset of the potentially liquidity lowering capital commitment that may result from a collective misassessment of the public's interest in a token opportunity.

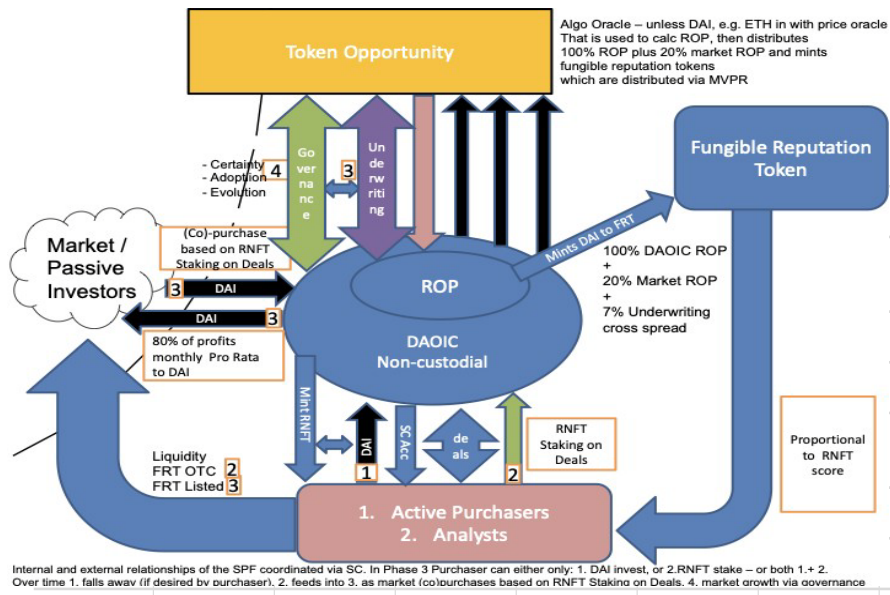


Figure 1: Non-Custodial DAOIC Model with Smart Contracts.

### III. TOY MODEL

Figure 1 illustrates the non-custodial DAO Investment Club (DAOIC) model with smart contracts. In this model, the entirety of the ROP is minted into fungible reputation tokens that get paid as reputation salaries following the decentralized reputation staking governance mechanisms (Calcaterra & Kaal et al (2019)). This model provides enhanced incentive alignment for DAOIC members with the highest potential return for all involved.

Table 1: Roadmap & Overview – Minimum Viable protocol requirements (MVPR) Describes the Need for Instantiation of Decentralized Governance Designs.

#### Roadmap & Overview Legend

	DOIC Members	Deals	C/R Ratio	Returns	Liquidity	Growth	Risk Mitigation	Underwriting	Decentralization	Publicity	Transparency	Accountability	Governance	Reg Scrutiny
<b>Phase 1 - Priming</b>	N/A	N/A	N/A	Market/Dex in GT	Market/Dex in GT	Market/Dex in GT	N/A	N/A	GT Dex Listing	GT Dex Listing	GT Dex Listing	N/A	N/A	N/A
<b>Phase 2 - Capital Allocation</b>	<=5 Active Investors and Analysts	Quality: High Quantity: Low	100% Capital	DAOIC: ROP 80% Pro Rata to Capital 20% Pro Rata to RNFT as FRT. Public: N/A	100% Capital	Low	DAOIC collective decision making hedges against purchase risk	N/A	SC coordinates, no custody, yet small DAOIC member group, less information from edge	N/A	N/A No DAOIC UI	Smart Contracts coalesce with MVPR DAOIC internally	MVPR Internally	N/A
<b>Phase 3 - Reputation Building</b>	>5, MVPR	Quality: High Quantity: Medium	50% Capital 50% Reputation	DAOIC: ROP 100% Pro Rata to RNFT as FRT Public: N/A	FRT OTC secondary market	Increasing	DAOIC Collective decision making hedges RNFT staking risk, MVPR reduce risk of loss	Best efforts underwriting - DAOIC RNFT staking - public visibility	increasing MVPR governance, more information from the edges, shift from capital to reputation	PR begins	DAOIC tightly coupled RNFT voting disclosed via UI	Smart Contracts coalesce with MVPR DAOIC internally	voluntary MVPR for token opportunity	Low
<b>Phase 4 - Reputation as Capital</b>	MVPR	Quality: High Quantity: Higher	DAOIC Member Discretion	DAOIC: ROP 100% Pro Rata to RNFT as FRT + 20% Public ROP to DAOIC as FRT + 7% cross spread as FRT	FRT Listed	Scaling through public access to deals - 20% Public ROP shared via FRT + 7% cross spread	DAOIC crowd wisdom for market participants, RNFT staking follows MVPR, token opportunities use MVPR	RNFT firm commitment underwriting - DAOIC capital covers missing public purchases - DAOIC underwriting fee 7% cross spread	Higher degree of reputation, RNFT staking offsets firm commitment of capital, DOIC underwriting increases leverage for MVPR governance of token opportunities	PR budget increase	DAOIC loosely coupled RNFT voting disclosed PLUS DAOIC tightly coupled RNFT voting	Smart Contracts coalesce with MVPR DAOIC internally and in Public portion of a capital commitment	Mandatory MVPR for token opportunity	Investigations
<b>Phase 5 - Growth Through Market Evolution</b>	MVPR	Quality: High Quantity: Scaling	DAOIC Member Discretion	DAOIC: ROP 100% Pro Rata to RNFT as FRT + >20% Public ROP to DAOIC as FRT + 7% cross spread as FRT	Mainstream adoption, Market proliferation	Governance increases: Certainty, Adoption, Evolution of Digital Assets	Self regulation via MVPR lowers risk for participating market segment	TBD - Market terms evolving as C/R ratio increases	High degree as market proliferates through decentralized governance	N/A	MVPR Protocols and Derivatives become part of public domain and proliferate	Smart Contracts enforce governance in Public Market via MVPR	Mandatory MVPR for token opportunities and entire markets/segments	N/A, Low - decentralized regulation more comprehensive

Table 1 shows the life cycle of the DAOIC which involves different phases that serve different purposes in order to fulfil the ultimate purpose of the DAOIC. Each phase serves a particular purpose.

Four different phases can be distinguished with different purposes. Generally speaking phase 1 is concerned with priming the pump and institutional setups, phase 2 is concerned capital allocation, phase 3 is concerned with reputation building, phase 4 is concerned with reputation replacing the need for capital allocation, and finally phase 5 deals with market evolution.

Phase 5 is the growth phase that results from phases 1-3 and is further extended by mandating decentralized governance via decentralized reputation staking governance mechanisms (Calcaterra & Kaal et al (2019)) in digital asset market segments. Enhanced decentralized governance helps increase certainty in the digital asset market which enables increasing mainstream adoption and ultimately leads to market proliferation.

### 1. Phase 1 - Priming the Pump

Phase 1 is concerned with core functionality setup of operations in the DAOIC model. The DAO team has to make certain decision during phase, including but not limited to: determining the total supply of its governance token, listing the token on a DEX, open the token to short list of investors, ensuring the free flow of the token on the market, among several other core setup functions.

The Capital to Reputation ratio of the DAOIC is at 100% capital during phase 1 as this is the initiation phase and reputation capital has not been built yet. Using the decentralized reputation staking governance mechanisms (Calcaterra & Kaal et al (2019)), the DAOIC mints RNFT in proportion to the capital commitments. Capital commitments are flexible as both active purchasers and talented analysts are onboarded. RNFT tokens get minted proportional to capital commitment, e.g. US\$2 million equals 200 RNFTs, or to another metric for talented analysts.

The DAOIC members share returns on purchases (ROP) 80% pro rata to capital commitment and 20% pro rata to RNFT score. The 20% of ROP is minted into a fungible reputation token (FRT). The FRT is not liquid in phase 1. The FRT is not listed and cannot be sold in the OTC secondary market. Accordingly, liquidity facilitated to DAOIC is low as 100% of capital is committed and DAOIC members have no liquidity in the FRT salary as the FRT is not OTC traded and not listed. The overall growth is low in the initial startup phase 1.

The degree of decentralization is still low in phase 1. Smart contracts coordinate the DAOIC purchases and interaction with the token opportunity directly for each DAOIC member. Individual smart contract engagements remove the need for institutional

custody and associated points of centralization. However, because the group of DAOIC members is still small, less information comes from the edges of the system. The DAOIC member group is also presumably homogenous, dissent will be small in the RFNT-based decision-making processes. Accordingly, the benefits from decentralization are still relatively small in phase 1.

During phase 1 risk mitigation for DAOIC members is minimal because reputation has only marginally entered the system. Yet, the DAOIC members hedge their individual purchase risk and risk of loss of capital through the decentralized governance-driven collective reasoning process. During the loosely coupled voting (staked RFNT vote does not count but is set back to 0 afterwards) on proposed deals, DAOIC members can see each other's reasoning and engage in an open deliberation process to come to the best choice for each DAOIC member. Yet, no DAOIC user interface (UI) is available during phase 1 to help coordinate the voting. It is possible to clone the decentralized reputation staking governance mechanisms (Calcaterra & Kaal et al (2019)). UI during phase 1 which may help the DAOIC members to internally coordinate. However, the UI should not be publicly visible and only serves the DAOIC members's internal matters. Publicity and PR expenses are not needed during Phase 1. However, DAOIC members should start evaluating what level of publicity is desirable in phase 2 and prepare their outgoing communications for phase 2.

Transparency is very low during phase 1. DAOIC token purchases are not publicly visible as the DAOIC is still in the internal coordination phase. However, accountability for DAOIC members is high because smart contracts coalesce the decentralized reputation staking governance mechanisms (Calcaterra & Kaal et al (2019)) RNFT staking with the respective token capital allocation. Accordingly, internal accountability is facilitated through smart contracting.

DAOIC internal governance during phase 1 is facilitated through cloning the decentralized reputation staking governance mechanisms (Calcaterra & Kaal et al (2019)), which ensures optimal incentivization and internal policing. Regulatory scrutiny during phase 1 is low because token purchases are facilitated directly from the purchaser to the token opportunity via smart contract. The smart contract releases the deposit automatically to the token opportunity after the DAOIC upvote on the purchase proposal.

### 2. Phase 2 - Capital Allocation

Capital allocation is the primary objective in phase 2. In the DAOIC design, capital allocation to token opportunities in phase 2 also sets up the DAOICs "reputation as governance" mantra. It is also during phase 2 that capital allocation is used for reputation non-fungible token (RNFT) minting. RNFTs, in turn, establish the internal governance of the DAOIC.



Overall, Phase 2 is the governance setup phase where the DAOIC establishes its own internal governance, forms the founders group, identifies potential token opportunities internally, and starts proposing deals. Phase 2 is also the phase where new members are being introduced and onboarded with their respective deal proposals via decentralized reputation staking governance mechanisms (Calcaterra & Kaal et al (2019)).

In phase 2 of the model, the DAOIC brings in members with their deals and mints RNFT in proportion to incoming capital. The number of DAOIC members is presumably below 5 but could be higher and is subject to the onboarding procedures in the decentralized reputation staking governance mechanisms (Calcaterra & Kaal et al (2019)). The quality of deals brought in by new members or the DAOIC is high but the quantity remains low as only the most select and most promising decentralized infrastructure projects will be selected. Token opportunity selection follows the voting procedures of the decentralized reputation staking governance mechanisms (Calcaterra & Kaal et al (2019)). All DAOIC members stake RNFT tokens on identified token opportunities, either up or down.

In phase 2, the DAOIC member group increases as more people start appreciating the benefits of "Reputation as Capital" and its instantiation in the DAOIC. The incoming deal quality remains high because all DAOIC members are incentivized via decentralized governance to scrutinize incoming deal proposals. The quantity of incoming deals is increasing in phase 2 as compared to phase 1.

Importantly, in phase 2 the ratio of capital commitment to reputation (RNFT) commitment (C/R ratio) starts shifting from 100% capital (phase 1) to less than 100% capital. Phase 2 makes it possible to incrementally move the C/R ratio to around 50/50, depending on DAOIC individual member preferences.

In light of the shifting C/R ratio, the DAOIC policy for the ROP to FRT minting ratio is adjusted to move from phase 1 (ROP 80% pro rata to capital, e.g. ROP to DAI, and 20% pro rata to RNFT as FRT, e.g. ROP to FRT) to phase 2 (ROP 100% pro rata to RNFT as FRT, e.g. ROP to FRT). The effect of this change in policy is significant. All ROP is minted into FRT which, in turn, is paid out proportional to RNFT holdings. This instantiates the important shift from capital to reputation and shifts the incentives away from capital to reputation and can be seen as a form of best efforts underwriting on a token opportunity.

The shift away from capital to reputation starts incrementally. DAOIC members may still need to commit capital in phases 1 and 2. However, the move away from capital commitments is already possible. For example, in phases 1 and 2, if the market co-purchases at 50% of capital commitment of a given deal and 20% of the corresponding ROP on such deal is allocated to the

fungible reputation token minting pool, which is shared only by the DAOIC members, then the DAOIC members would in the aggregate be better off keeping their own ROP at 100% (which is proportional to their capital commitment) combined with the 20% of ROP from public/market capital commitments in the fungible reputation token, which is paid out proportionally to RNFT score. This is especially true considering that the fungible reputation token is itself an investment proposition that amplifies the DAOIC members' initial capital commitment.

Liquidity of DAOIC members receives a major boost in phase 2 because of the shift from capital to reputation. The liquidity enhancement is arguably directly proportional to the changes in the C/R ratio. Liquidity is further significantly enhanced because the FRT can be traded OTC in a secondary market. This allows the DAOIC members to use the fungible reputation token for their own liquidity needs. However, full liquidity is not yet achieved in the FRT as it is not yet traded on public exchanges.

Risk mitigation is enhanced during phase 2 because the DAOIC collective decision making on incoming deal proposals hedges against counterparty risk, RNFT staking risk, and risk of capital loss.

The degree of decentralization is increasing in phase 2 as reputation is being built by DAOIC members. The cloning of decentralized reputation staking governance mechanisms (Calcaterra & Kaal et al (2019)) provides a key point of decentralization to the DAOIC. Decentralized governance allows the DAOIC to coordinate its internal governance in a fully decentralized and incentive optimized fashion. As the DAOIC membership grows, information flow becomes more diverse and more information enters the system from the edges. Key increase in the level of decentralization is possible because 100% of the ROP gets minted into FRT which, in turn, enables a shift in focus from capital to reputation. Increased liquidity in phase 2 supports the expansion of decentralization as DAOIC members can increasingly make diverse decisions in the system.

Transparency and public awareness and interest in the DAOIC increases during phase 2 as publicity is increased and public relations begin. Transparency is significantly advanced during phase 2 largely because of the user interface (UI) goes online. The UI is the public registry of the DAOIC deal priorities, updated monthly. The UI also publishes the RNFT staking outcomes. While phase 3 enables full transparency, e.g. the loosely coupled votes and the tightly coupled votes are disclosed as well as all incoming deal proposals, in phase 2, the UI does not disclose the reasoning process and the discourse during loosely coupled votes. In phase 2, the UI only discloses the outcomes of the RNFT staking pools, e.g. the final results of the collective reasoning process of the DAOIC on a given deal. This incomplete transparency is needed

during phase 2 to ensure the DAOIC can experiment with policy adjustments without fear of public market impact.

Accountability during phase 2, as in phase 1, is ensured through smart contract coordination of individual DAOIC member's purchase commitments. The smart contract does not release encumbered deposits, intended for a particular token opportunity, until the RNFT staking pool has decided on the funding of a token opportunity. Assets are not pooled but purchases take place individually through each individual DAOIC member via smart contract with the token opportunity.

Governance of the DAOIC in phase 2 still revolves around the decentralized reputation staking governance mechanisms (Calcaterra & Kaal et al (2019)) and is used for the DAOIC internal governance. Yet, in phase 2 the DAOIC may start to offer the benefits of decentralized governance to token opportunities.

Regulatory scrutiny in phase 2 is low because the DAOIC engages in very little publicity and still does mostly internally generated deals which are governed by smart contracts entirely.

### 3. Phase 3 - Reputation Building

"Reputation Building" summarizes the core function of phase 3 which is a core necessity for the "Reputation as Capital" mantra that will be introduced in phase 4. Reputation building begins for each DAOIC member and incoming DAOIC members by staking RNFT on incoming deals.

Reputation staking in phase 3 serves multiple purposes. First, it establishes the need to gain and maintain reputation to be able to participate financially in the DAOIC. This is largely an educational function because reputation as capital has not been possible via token economics before and takes a period of education and adjustment for many individuals. Second, reputation staking establishes the governance metrics that enable the DAOIC to create superior returns for the DAOIC community while at the same time policing itself. Third, reputation staking instills the notion that reputation in the long-term is more important and more valuable than capital. It also establishes the notion that one can benefit individually while at the same time benefiting the group of DAOIC members.

The C/R ratio, the key indicator of reputation replacing capital in the DAOIC, shifts higher in phase 3. It is in phase 3 that DAOIC members can exercise their discretion as to whether they wish to participate in an undertaking, other than a firm commitment undertaking that did not result in a fully subscribed public deal (see more details under firm commitment underwriting).

Phase 3 is also a major growth phase for the DAOIC. In phase 3, the DAOIC engages in a form of RNFT firm commitment underwriting. Should the public not purchase the entire token commitment, only then the DAOIC is liable to commit capital for the outstanding portion of the public sale. That firm commitment

underwriting allows a fee of 7% of the cross spread for the given token opportunity.

While phase 3 enables full transparency, e.g. the loosely coupled votes and the tightly coupled votes are disclosed as well as all incoming deal proposals.

### 4. Phase 4 - Reputation as Capital

Phase 4 is key for the DAOIC as it is during phase 4 that the majority of the benefits of the DAOIC design materialize. DAOIC members are onboarded following decentralized reputation staking governance mechanisms (Calcaterra & Kaal et al (2019)) only for new members who bring in deals that benefit the DAOIC ecosystem. Deal quality is consistently high to protect the RNFT scores of the existing members. Yet, because of the increasing publicity of the benefits of the DAOIC model the onboarding of new members with high quality deals increases and the quantity of deals increases accordingly.

Phase 4 enables a consolidation of the shift away from capital. In phase 3, if the market purchases 100% of capital commitment of a given deal, based on DAOIC member staking on the deal, and 20% of the corresponding ROP on such deal is allocated to the fungible reputation token minting pool, which is shared only by the DAO investment club members, then the DAOIC members would in the aggregate be better off keeping their own ROP at 100% (which is proportional to their capital commitment) combined with the 20% of ROP from public/market capital commitments in the fungible reputation token, which is paid out proportionally to RNFT score. DAOIC can still invest on the public side if they so choose.

In the model, key for phase 4 is the returns for DAOIC members increase to 100% ROP + 20% ROP from the public market + 7% cross spread from firm commitment RNFT underwriting of token opportunities. In other words, through the move from capital to reputation in phase 3, the DAOIC is able to amplify its returns on both the public purchase side but also on the token opportunity side of the deals. During phase 3, the public co-purchases deals based on the RNFT staking on deals by the DAOIC members. The public receives their ROP pro rata to capital commitment in DAI.

It is during phase 4 that the full breadth of liquidity that is generated by the DAOIC design materializes. Most importantly, the FRT is listed on a public exchange. This gives DAOIC not only a strong profitability opportunity but also liquidity in public markets. It should be assumed that demand for FRT is strong (see further under FRT economics). The fungible reputation token may only be a public secondary market. E.g. the fungible reputation token is available only to DAOIC members who may sell the token on a public exchange if they so choose to create liquidity.

### 5. Phase 5 – Growth Through Market Evolution

Phase 5 introduces the long-term effects of the DAOIC model on the overall market. During phase 5, the DAOIC model suggests that the DAOIC may have the opportunity to help token projects incorporate decentralized governance for the greater good of the overall ecosystem. Phase 5 also marks the period when the “reputation as capital” mantra of the model may prove to truly unfold as more and more capital heavy businesses may start to appreciate the benefits of reputation as capital. This, in turn, may result in increasing adoption of the DAOIC model in different implementations. During phase 5, the DAOIC may be engaging in long-term policy optimization. The policy considerations are further discussed below.

## IV. POLICY CONSIDERATIONS

The DAOIC design has the potential to upgrade financial structures and financial designs. Given this potential, several long-term policy implications seem inevitable. The DAOIC has the potential to provide standards for governance in finance, using its influence for good, and increase accountability in finance.

### a) Standard Setting

Proper governance enables long-term growth. The DAOIC can use its market power for good. The DAOIC is internally governed by decentralized reputation staking governance mechanisms (Calcaterra & Kaal et al (2019)). The decentralized reputation staking governance mechanisms (Calcaterra & Kaal et al (2019)) ensure incentive optimized fully transparent internal governance. Moreover, through the use of decentralized governance, the DAOIC can help improve the governance of the digital asset market.

It is conceivable that the DAOIC, over time, once its position in the market has been solidified, mandates the adoption of decentralized governance mechanisms (Calcaterra & Kaal et al (2019) for the governance of each token opportunity, before it begins the RNFT staking process on a given token opportunity. At a minimum, it is conceivable that the DAOIC encourages the incorporation of decentralized governance mechanisms for purposes of the particular token opportunity purchase, both for the DAOIC RNFT staking portion and the following market purchase of the token opportunity. In essence, the DAOIC would use its market power for good by mandating governance reform for DAOIC RNFT staking in a given token opportunity. This enhancement of decentralized governance provides long-term benefits for the DAOIC as its own oversight of its investments is becoming easier across different market segments.

The decentralized reputation staking governance mechanisms (Calcaterra & Kaal et al (2019)) provide a higher form of decentralized governance than most legal standards in a given

jurisdiction. Using the decentralized governance for self-governance instills the highest forms of ethics in the token opportunity which over time can reform the market into a fully decentralized form of ethics and governance. It is possible that the DAOIC may be perceived as using its influence to inappropriately force governance solutions on token opportunities. Yet, the use of decentralized governance will help the digital asset space mature quicker.

As an advocate for digital asset standards, the DAOIC helps upgrade the digital asset space to become ready for mass adoption. Without standards for digital assets, it will be very difficult to increase regulatory certainty in the digital asset space and coordinate market activity. Without regulatory certainty the market for digital assets is less likely to evolve.

In addition to the commercial benefits of being perceived as a standard setter and governance optimizer for the digital asset space, the DAOIC advocacy for digital asset governance and standards of governance could make it a beacon of self-regulatory upgrades for the digital asset space.

Creating a self-regulated protective environment for digital asset markets participants may be seen by regulators as favorable which, in turn, could help the DAOIC to cooperate with regulators. Cooperation with regulators is in the long-term interest of the DAOIC and the self-regulated digital asset space.

The DAOIC smart contract and reputation engine (following decentralized reputation staking governance mechanisms (Calcaterra & Kaal et al (2019)) provides enhanced transparency and accountability. A basic smart contract coordinates the deposits of DAOIC purchases and the release of such deposits after a DAOIC RNFT staked upvote on a token opportunity. Said smart contract will likely be fully transparent, even without the access to the Casper network via a specific user interface.

In order to facilitate public access and review of the DAOIC RNFT staking, a workable UI may be needed. The UI creates the needed level of transparency but is also potentially a legal liability (needs to be further evaluated with lawyers).

It is conceivable that the public will already begin to react with interest to a token purchase opportunity after observing the loosely coupled vote of the DAOIC. One would need to consider what level of publicity the smart contract should entail in order to protect the public and minimize legal risk. Perhaps a workable compromise could involve only putting the final DAOIC RNFT staking vote on a given deal in the tightly coupled format on the UI/webpage.

Transparency of the RNFT staking by DAOIC members also ensures the adequate management of potential conflicts of interest. For example, DAOIC members who stake RNFT on a given deal but also participate in the public portion of the purchase

commitment may have a conflict of interest in the sense that they may be perceived by the market as having prior knowledge of a particular deal and could potentially use that to their advantage, by approaching the token opportunity team in advance, among other nefarious practices. However, such practices are rather limited because of the transparent nature of the loosely coupled RNFT voting on a particular deal and the transition to tightly coupled voting. The public may not see the debate about deal priorities before they are published but the public will see the particular loosely coupled voting on a particular deal that is at issue. Accordingly, potential DAOIC member conflicts of interest deriving from participation on the public side of a deal commitment are minimized.

#### b) *Accountability*

In the DAOIC model, the smart contract transparency is accompanied by enhanced accountability. Each transaction and purchase after a RNFT staked upvote can be easily tracked. Each DAOIC member transaction can be traced via wallets. This accountability in combination with enhanced transparency of the smart contract transactions increases overall counterparty risk reporting, if any.

Because the smart contracts automate the purchase of the token opportunity by each DAOIC member and coordinates the payouts to the token opportunity, both parties are entirely accountable to each other. Funds do not get released until there is an upvote by the DAOIC members. Timing of the upvote follows the decentralized reputation staking governance mechanisms (Calcaterra & Kaal et al (2019)) and is thus also entirely public and transparent.

Similarly, a smart contract can coordinate how the ROP can be minted into fungible reputation tokens. The ratio of ROP to fungible reputation token minting can be adjusted over time. This process is also entirely transparent to the DAOIC members.

#### c) *Market Power*

The relationship between the token opportunity, aka investment project, and the DAOIC has several dimensions that have long-term policy implications. It is conceivable that the DAOIC could gain substantial influence over the deal terms with token opportunities. This influence brings responsibility to the DAOIC members.

In order to protect the DAOIC interests, it is conceivable to make it a condition for DAOIC purchases to bifurcate the DAOIC investment portion and co-purchase of the public market for each deal. In other words, the DAOIC would only purchase a token opportunity if the token opportunity team agrees to some of the terms below. Moreover, the DAOIC may have a reasonable expectation that the token opportunity creates favorable conditions for the DAOIC because the DAOIC RNFT staking sets the token

opportunity up for success in the public sale portion of their token sale, both in the DAOIC portion of the public sale and any public sales thereafter. Accordingly, it may be reasonable to consider some of the following terms:

1. The total amount of DAOIC purchase commitment. Token opportunity should agree to give DAOIC a percentage of the token opportunity as a right of first refusal before the public market gets access to said token opportunity
2. The corresponding public market portion of the DAOIC engagement
3. The timing of other public market purchases that materialize after the DAOIC purchase.
4. Token opportunity should give the DAOIC most favorable terms for token purchases among any purchasers, e.g. timing, price, caps etc.
5. Because the DAOIC creates a public market backlog effect because of its transparency, the token opportunity may be required to give the DAOIC preferred terms over any other early round with another VC fund/institutional investor.

Contrasting the above evaluation as to the relationship between the DAOIC and the token opportunity, it is also conceivable that the token opportunity should treat the DAOIC and the market the same and the DAOIC should insist on equal terms for the DAOIC and the overall market.

Several arguments in favor of market neutrality could justify this approach:

1. The DAOIC should not take a position that in any way can be seen or construed as moving or manipulating the market in a token opportunity. It is in the long-term interest of the DAOIC to be a market neutral player in digital assets. Market neutrality ensures long-term independence and lessens regulatory pressure. An overall DAOIC policy of market neutrality could help ensure that the DAOIC is, once it proliferates, not perceived as a bad actor by the market, counterparties, and regulators. Should the DAOIC be perceived as having a market impact, it could significantly increase corruptive influences coming from other market players. This, in turn, increases the likelihood of regulatory interventions.
2. The DAOIC may insist that the token opportunity randomize its purchaser selection criteria post RNFT staking by the DAOIC on said token opportunity. Randomization can help ensure neutrality.
3. The DAOIC may insist that the token opportunity anonymize its purchaser selection criteria post RNFT staking by the DAOIC on said token opportunity. This may run afoul of AML and KYC compliance requirements in several jurisdictions. Yet, it would instill market confidence into a fair allocation of token purchase opportunities, which

would in the long run help the DAOIC because it makes it more likely for the DAOIC to be perceived as a neutral market oracle.

#### d) *Decentralized Coordination*

The DAOIC presents a core form of decentralized management. It does not feature any centralized form of management in the traditional sense. It is a true investment club in the sense that all decisions are made via RNFT staking, following the decentralized reputation staking governance mechanisms (Calcaterra & Kaal et al (2019)). All decisions are made independently by each DAOIC investor individually and without coordination. The smart contract only holds the purchase amount as a deposit until the RNFT validation pool has approved an investment. Once the investment has been approved by the validation pool, the smart contract releases the deposit directly to the project. No pooling of assets takes place.

The ROP from each deal is also not pooled but rather paid out pro rata to the DAOIC members in proportion to their RNFT holdings.

For the 20% of ROP that is coming in from the public and minted into fungible reputation tokens, pooling here only pertains to the portion that is considered an "access to information fee." In other words, the 20% of ROP coming from the public is paid as a fee to the DAOIC in exchange for the ability to find out about the DAOIC deals that are upvoted via RNFT staking by DAOIC members.

The key difference from the traditional VC model is that even for the co-purchases through the market, the DAOIC only makes their investment choices public. The co-purchases by the public are entirely voluntary, the DAOIC never provides investment analysis etc. All that is visible is that the DAOIC members approved for the DAOIC members' smart contract to release the deposit for a purchase of the token opportunity. If the public trades along, that has arguable only a tentative connection to the DAOIC. It is similar to a VC fund disclosing publicly where they are investing and the public having direct access to also invest in such projects.

## V. GOVERNANCE ADJUSTMENTS

Governance metrics in decentralized designs are subject to dynamic upgrade processes over time. The DAOIC governance design is subject to such governance upgrade requirements in a dynamic evolutionary process. The following ratios can be adjusted during different phases of the DAOIC. Ratio adjustments provide a key tool for strategic increases in profitability and overall DAOIC policy. Ratio adjustments should be subject to DAOIC member vote following the decentralized reputation staking governance mechanisms (Calcaterra & Kaal et al (2019)).

#### a) *Minting Ratio of Capital Commitment to RNFT*

DAOIC may start in the priming the pump phase 1 by keeping capital commitments to \$2 mil for each incoming purchaser which is minted into 200 RNFT. This incentivizes people to commit capital to keep their spot. For simplicity, in phases 2 and 3, the DAOIC follows the baseline minting ratio of RNFT for an upvote proposal as specified in the decentralized reputation staking governance mechanisms (Calcaterra & Kaal et al (2019)).

#### b) *Ratio of Capital Commitment to RNFT Staking*

The ratio of capital commitment on a given deal to RNFT staking commitment on such deal illustrates how reliant the DAOIC is on incoming and committed capital. The ratio measures the degree of reputation usage as a proxy for capital. The DAOIC may mandate a minimum commitment in phases 1 and 2 but in phase 3 may wean off the ratio and, thus, enable an increasing reliance on RNFT staking and fungible reputation token revenue to DAOIC members. This ratio adjustment makes it possible to move away from capital to increase the community benefits of reputation as capital.

#### c) *Minting Ratio of ROP to Fungible Reputation Token*

The minting ratio of ROP on a funded deal to fungible reputation token measures the speed of capital conversion into fungible reputation tokens. Arguably, it should be a 1 to 1 ratio based on the ROP dollar equivalent value through phases 1-3, regardless if it is from the 20% of ROP from public purchases or the ROP from DAOIC purchases.

During phase 3 it seems possible to consider an increase in the minting ratio as reputation increasingly replaces capital. This could have a significant impact on the scaling of the system and the returns of the DAOIC members. It may be defensible to adjust the ratio in phase 3 in an effort to scale the DAOIC publicly listed fungible reputation tokens and increase their value proposition. The counterargument here suggests that an increase in the ratio would increase supply which destroys demand. Yet, this may not be entirely true, it is theoretically possible that the demand for the reputation token is so significant that the ratio adjustment becomes a much welcomed policy tool to adjust pricing. Of course, there are potential legal issues associated with using the ratio adjustment as a policy tool.

Arguably during phases 1-2, the minting ratio of the ROP to fungible reputation tokens as it pertains to the ROP from DAOIC member investments can be adjusted. The rationale for this adjustment is associated with the need for increased fungible reputation tokens during phases 1-2.

During phase 3, the 20% of the public ROP portion is increasing the proportional ROP minting into fungible reputation tokens. Therefore, the need for a

higher minting ratio from DAOIC ROP to fungible reputation token is removed over time.

d) *Ratio of Market to DAOIC Capital Commitments*

The ratio of market purchases to DAOIC purchases on a given deal is subject to many factors. This ratio is certainly affected by a cap on the total amount of potential purchases in a token opportunity. For example, some token opportunities may not at all be open to the public market because the token opportunity team decides it does not want public market exposure. Conversely, some token opportunity teams may decide to use the DAOIC purchase publicly to create a market frenzy in their token. It may be up to the DAOIC to determine what is in their best interest to maintain their collective reputation in the market and ensure ethical business practices and corresponding longevity of the DAOIC.

It seems possible to use several measures pertaining to this ratio in an effort to adjust policy. For example, a predetermined cap on the ratio, e.g. 50/50 has effects on the market demand and profitability as well as on the ROP to fungible reputation minting ratio.

e) *Minting Ratio of Market Purchases to Fungible Reputation Tokens*

The ratio of market purchases to DAOIC purchases for a given deal as it relates to minting of new fungible reputation tokens is a measure for how much the market relies on and trusts the reputation-driven DAOIC.

A higher proportion of market purchases to DAOIC purchases (assuming a fully transparent and efficient market) could justify higher minting of fungible reputation tokens because the higher proportion of market purchases to DAOIC purchases is testimony to the fact that the market increasingly adopts the reputation-driven opportunities that derive from RNFT staking by DAOIC members.

## VI. CONCLUSION

The replacement of capital with reputation has several core benefits above and beyond traditional finance. Decentralized systems can take the removal of investment capital from deals to the next level. Replacing capital with reputation increases liquidity. When reputation takes over part of the role of capital it frees up otherwise locked capital that cannot fully be utilized. Decentralized investment vehicles are able to deploy capital more effectively because reputation staking on deals does not require the deployment of capital.