



Staking and Governance as Risk Management Tools

By Peter Marshall and Joe Willis

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Staking and governance will come to the forefront of crypto discussions this year as Proof of Stake consensus-based networks see increased usage and developers build new financial and data applications on top of these blockchains. Depending on the inflation rate of the system and the cut of transaction fees being paid to validators, staking cryptoassets within these respective systems will allow token holders to mitigate dilution risk and potentially increase their respective ownership. With more value being passed on to the token holders who chose to stake their assets, the governance of these systems becomes increasingly important. Given the open-source nature of cryptocurrency systems, the native assets of the systems can be programmed to contain characteristics beyond what is typical with a static monetary asset, such as a US dollar. When necessary, governance mechanisms are used to alter the characteristics and functions of these programmable assets. Both staking and governance provide investors with new tools to manage specific risks associated with owning a specific cryptoasset.

Growth of Proof of Stake

The Proof of Stake consensus mechanism is growing in popularity among blockchain networks. Bitcoin, the first digital asset, uses a Proof of Work mechanism in which “miners” secure the network by running cryptographic hashing functions to solve blocks. In solving these blocks, miners validate the transaction history on the network, and they receive some bitcoin in return for their work. In contrast, Proof of Stake blockchains reach consensus using a distributed set of validators. These validators take turns proposing and voting on the next block, which contains information about recent transactions in the network. The value of each participant’s vote is dependent on the amount of the network’s token they have staked. Similar to how banks and payment processors take a cut of financial transactions for verifying the authenticity of transactions, those who validate transactions in Proof of Stake blockchain networks will essentially receive a cut of the transaction fees generated within these systems.

There are several advantages of Proof of Stake over Proof of Work. For example, it is more environmentally friendly and cost efficient than Proof of Work because it does not require large amounts of electricity to run the hardware that solves hashing functions. It is also more resistant to 51% attacks and to the formation of “mining cartels” that can create centralization issues.

These advantages have become clear to blockchain developers. Ethereum, the second biggest cryptoasset by market cap, is in the process of transitioning from Proof of Work to Proof of Stake. As of December 31, 2019, the market cap of tokens that utilize staking was about \$10.1 billion, and \$6.3 billion worth of these assets were locked in staking.¹ This accounted for about 5.3% of the total market cap for cryptoassets, or about 16.8% if you excluded bitcoin, which had a market cap of roughly \$130 billion at that time. While Proof of Stake is quite promising, it is not as battle-tested as Proof of Work consensus, which has been utilized within the Bitcoin blockchain for over ten years. The percentage of networks utilizing Proof of Stake should continue to grow as people become more comfortable with it and as the network effects strengthen around key Proof of Stake systems.

Staking and Risk Management

Proof of Stake blockchain networks can inherently offer risk advantages over traditional centralized systems because of their transparency, decentralization, and minimization of counterparty risks; however, they generally involve increased risk of dilution. A primary goal of risk management is to protect the value of your investments from losing their value, and one potential source of value degradation is dilution through inflation. For cryptoassets, this is especially relevant since the large majority of tokens have a positive inflation rate. Proof of Stake enables network participants to mitigate inflation risks more easily than other consensus mechanisms.



Example of potential staking rewards in the Tezos ecosystem.² Staking is referred to as “baking” within Tezos.

In Proof of Stake, network participants can stake their holdings and receive rewards for their validating work in the form of the token itself. The distribution of these rewards is built into the supply issuance model of the network. Some view these staking rewards as a source of positive yield or income. While that is definitely possible, at the most basic level, staking your tokens ensures that you will not be diluted by inflation. If you do not stake, you are very likely going to

experience dilution of your market share of that network's total token supply, since others will surely be staking and receiving the rewards. If you do stake your tokens, you receive rewards proportional to your staked amount. Therefore, the worst possible scenario is that you maintain your market share in the network. This will only occur in a system where 100% of token holders are staking, which is essentially never the case. Projects like Cosmos actually have a staking participation target rate of about 66%, and inflation rewards are dynamically adjusted to stay close to that percentage.

In the usual scenario where the staking participation rate is significantly less than 100%, staking can result in growth of market share. As you accumulate staking rewards while others forego them, you increase your ownership of the network, and this compounds over time. The monetary value of that share may increase depending on changes in the price of the token, but increasing your market share of the network is undoubtedly a positive thing. It increases the proportional amount of future staking rewards one can earn and can strengthen one's voting power and influence within that specific network.

Governance and Risk Management

The role of governance within crypto networks is becoming substantially more valuable as the amount of capital and applications within these networks grow. Between the rising market capitalizations of existing crypto systems, and the fact that leading companies in the space are looking to transition from traditional equity structure to decentralized autonomous organizations, governing these new and diverse systems is becoming more complex and will be key to shaping the technological and political nature of the crypto and blockchain space. At the same time, as more participants engage with these networks, competing interests will likely lead different groups to try to influence the evolution of these platforms in a variety of ways.

For many new blockchain systems, owning and/or staking tokens is a requirement to participate in the governance of the networks. This aligns the interests of token holders with the well-being of the respective crypto network. By having skin in the game, participants in the system are more incentivized to guide it down a path that they believe is going to be most successful over the long term. Therefore, governance can be a strong risk management tool for owners of these assets.

Token holders may even sacrifice short-term monetary benefits for sustainability and persistent growth of a blockchain network. We recently saw an example of this in the MakerDAO ecosystem. In this network, owners of the MKR token vote on frequent governance proposals to change parameters and functionalities of the system. MakerDAO participants used public forums to discuss the possibility of setting the Dai Savings Rate (DSR) and the Stability Fee at equal rates. (For a refresher on these parameters, you can refer to our [previous paper](#) or the [MakerDAO Blog](#)) Usually, the Stability Fee will be higher than the DSR to account for the risk taken on by MKR holders; however, by raising the DSR to equal the Stability Fee, MKR holders were showing that they were willing to sacrifice that risk premium in the short term in order to

attract more participants to the system. They believed that this would bring more liquidity to Dai and the DSR, which would prove most beneficial on a longer time horizon.

As this example shows, participating in governance is a way that you can actively manage the risk associated with your investment. Having some level of control over the future path of an asset you own is a very uncommon mechanism, and it represents one of the huge advantages offered by these decentralized blockchains. We think this governance power is undervalued in the market and will grow even more influential over time.

Staking and Governance Intertwined

Many of the biggest Proof of Stake networks preparing for launch are implementing governance directly into their respective cryptoassets. Their developers recognize the superior scalability and efficiency that this consensus mechanism can provide over Proof of Work, as well as the importance of governance for sustaining the health of a blockchain network.

Polkadot is a great example of one such network. It is an interoperability blockchain that will enable cross-blockchain transfers of data and assets, and it is expected to launch in 2020. As described in a proposal released in July 2019, Polkadot will use stake-weighted voting based on holdings of DOT, the network's native token. The project will launch with a full set of sophisticated governance rules as the development team aims to create a governance system that is as solid as possible from day one. Of course, these rules and many other features of the network can still be changed in the future through a voting mechanism. The strength of an individual's vote in these governance proposals will be based on the size of their DOT holdings and the length of time they commit to lock them up for voting. This is a unique approach that more directly integrates staking into the governance model. Polkadot has even proposed a feature for delegated voting, which they refer to as "liquid democracy." This would allow DOT owners to delegate their voting power to another entity who they trust will vote in the best interest of the delegator and the overall health of the network.³ This would enable greater overall participation in governance and ideally ensure an optimal path forward for Polkadot.

As more networks like Polkadot implement Proof of Stake and sophisticated governance mechanisms, investors will benefit from being able to vote on system parameters and influence the evolution of these public blockchain systems. Token holders and participants in these networks should do their best to educate themselves on their powers within these networks and take full advantage of them. They can utilize these features to protect their market share and guide the political and technological evolution of the respective systems.

coinbase Custody Portfolio Activity Settings Coinbase Capital Portfolio 1

Portfolio > Maker > Executive Proposal

Lower the stability fee by 2% to a total of 14.5%
48 hr left • 26,000 MKR available to vote

Voting Options

OPTIONS	COMMUNITY VOTES	ACTION
A Lower the stability fee by 2% to a total of 14.5%	97.1% 13,440.32 MKR \$6,048,144.32	Vote
B Keep the stability fee set to 16.5% per year	2.9% 283.77 MKR \$127,696.50	Vote

Details

Lower Stability Fee by 2% to a total of 14.5%
The Maker Foundation Interim Risk Team has placed an Executive Vote into the voting system, which will enable the community to enact a new Dai Stability Fee of 14.5%.

The Executive Vote (FAQ) will continue until the number of votes surpasses the total in favor of the previous Executive Vote. This is a continuous approval vote.

Review
The need to increase the Stability Fee was discussed in the Governance call on Thursday, April 18.

More Information
Start date: Apr 18, 2019
Source: [0xbbEe97...C137c702](#)

Top Supporters
[0xdfC...Ee8d5597](#): 75.6%
[0xfcffD...Fg5d8568](#): 12.7%

Example of a governance vote within the Coinbase Custody interface for Maker governance⁴

Fortunately, it is becoming easier for token holders to stake their tokens and participate in the governance of these networks. Coinbase recently enabled Tezos staking for all customers and plans to rollout support for staking other assets soon. Users can also participate in Maker's governance directly from Coinbase Custody. Binance currently offers staking services for over fifteen different assets and takes zero fees from staking rewards. As major platforms like these continue to expand the number of staking and governance tools they offer, more investors will be able to actively participate in earning staking rewards and governing different blockchain networks. This will be crucial to the success of a wide variety of blockchain systems as it incentivizes commitment to active participation in the networks, rather than just owning the respective assets for speculative purposes. Investors and financial institutions will learn that their ownership of these cryptoassets entitles them to a proportionate share of voting power and staking rewards generated within these networks, and this will likely be a key catalyst to bringing more capital and product innovation to the crypto space.

Conclusion: Crypto Risk Management

As the crypto space emerges beyond the realm of abstract, speculative financial technology to become the core infrastructure for Web 3.0, staking and governance will help drive investor engagement with the most important public blockchain networks. With the crypto derivatives market growing at a rapid rate, investors across the space can now effectively manage basic risks that are present in volatile, liquid markets. Staking and governance take risk management one step further by allowing participants in these networks to manage the idiosyncratic inflation, security and governance risks that are present in nascent public blockchain systems. As Proof of Stake blockchains gain market share, and interaction tools become more established and

widespread, increased investor participation in staking and governance will help reduce risk and bring trust and efficiency to the crypto market.

1. <https://www.stakingrewards.com/>
2. <https://www.stakingrewards.com/asset/tezos>
3. <https://polkadot.network/a-walkthrough-of-polkadots-governance/>
4. <https://blog.coinbase.com/coinbase-custody-now-supports-maker-governance-ced7aabfa054>

Disclosures: Walden Bridge Capital holds Maker, Tezos, and Polkadot tokens. The information included here is for general information purposes only. Nothing should be construed as, or relied upon as, investment, financial, legal, regulatory, accounting, tax or similar advice. Nothing should be construed as a solicitation to invest in any security, future, or other financial product, and nothing herein should be construed as a recommendation to engage in any investment strategy or transaction. You should consult your own investment, legal, tax and, or similar professionals regarding your specific situation and any specific decisions.

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