

Algo Market 2020: a revised Tokenomics

by the

Economic Advisory
Committee

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Introduction

In mid-November the Algorand Foundation released a major technological upgrade, aimed at making Algorand the most efficient platform for Decentralized Finance applications. New features include *Algorand Standard Assets*, making tokenization easy and safe, *Multiparty Atomic Transfers* that can be executed in a single transaction, and *Algorand Smart Contracts* allowing the developments of applications with unrivalled scalability.

At the same time, the Algorand Foundation, in consultation with our community, has revised the economics of the Algo market to foster stability and steady growth. Under the guidance of the Economic Advisory Committee (EAC), the Foundation has:

1. Supported temporary suspension of the distribution of Algos going to the early backers performing the role of Node Runners. The suspension came into effect on September 27, 2019. During the suspension, the Foundation agreed with the Node Runners on a new distribution plan that, in 2020, will release a minimum of 3% of the tokens allocated to the Node Runners, instead of the originally planned 50%.
2. Reduced the Foundation's own selling plans for 2019 and 2020 from around 1 Billion Algos to a maximum of 150 Million Algos.
3. Halved the speed of distribution of the participation rewards that go evenly to all Algo holders to reflect the significantly reduced token supply. The distribution will go down from an annual quantity that amounted to almost 20% of the circulating supply in 2019 to a percentage just under 10% in 2020, reducing inflation.

These three measures address the excessive supply issue that the EAC pointed out in the State of the Economy Report from November 2019. The supply issue, coupled with some features of the inaugural auction, led to a disruptive price fall for a few months after the inaugural auction. As confirmed by the observation of market returns and volatility in the last quarter of 2019, the fall stopped and became a more stable, less volatile market.

The above measures mean for 2020 a reduction of Node Runner distribution (potentially by more than 90%), a reduction of Foundation selling by more than 80%, and a halving of the distribution of participation rewards.

Taken together, these changes represent a prudent economic reform, vigorously addressing supply and distribution issues.

Conditional Vesting

The oversupply from Node Runners vesting and its impact on the Algo market was the focus of the previous State of the Economy report. The new vesting agreement includes drastic cuts in the vesting rate, hence it is expected to have a major impact on the Algo market. Specifically, 3.2M Algos were vested daily during the summer, exerting a powerful downward pressure (even if only a percentage reached the market). In contrast, only 205K Algos will be vested daily under the base rate in the new agreement during 2020. This distribution rate is only accelerated when the Algo price increases, specifically if a moving average of the Algo price rises above the previous high reached since the beginning of the new agreement. The rise in the price is an indication of an increase in demand, which in turn suggests that the market is able to absorb an increase in supply.

The new agreement therefore creates an incentive for Node Runners to hold Algos and support the market to obtain steady growth. Moreover, backers that sell their vested Algos (despite the incentive to hold) have a stabilizing effect on the currency, since dropping price will revert the vesting back to its base low rate.

In return for this significant vesting delay, an additional 25% reward is allocated to Node Runners. This is done without altering the total Algo supply, as the Foundation sales amount has been reduced by an equivalent figure. This 25% will not undermine the effectiveness of the new vesting plan, since under the base vesting schedule these additional Algos will be vested only in 5 years from now, when circulating supply will be much larger than it is now, making this vesting plan harmonic with the evolution of market circulating amount.

New Sales Target

In its first communication a few days after the inaugural auction, the freshly appointed EAC pointed out that, in spite of the high participation and fundraising results of the auction, some auction features could be responsible for the initial high Algo volatility and speculative downward trend. One of these features was the 90% Refund, a right owned by the auction buyers only, and not directly associated with the Algos bought at auction. On August 1, the Early Redemption of Auction Refund was announced: auction buyers could receive 85% early redemption if they transferred Algos back to the Foundation. This way 19.9M Algos, out of a total of 25M Algos sold at the auction, were permanently retired from supply and eventually burnt by the Foundation.

The total supply from direct Foundation sales, planned to approach 1B over 2019 and 2020, was eventually amounted to around 6M in 2019. Now the Foundation has decided to resume sales to fund research and ecosystem development, but with a maximum possible amount of 150M in 2020, and will structure the sales to have the minimum impact on the market dynamics.

Reformed Participation Rewards

The Participation Rewards in Algorand are distributed evenly to everyone. Even if the Algo has a fixed supply, so that no permanent devaluation is possible, such an even distribution can have an inflationary effect in the short or medium term. This becomes more likely if the amount of rewards is a high percentage of the circulating supply. Considering the above reductions of circulating supply, the originally planned rewards had become unsustainable. In order to remain consistent with the reduced supply implemented by the Foundation the rewards had to be adjusted, and this has been recently implemented by the Foundation, choosing a gradual adjustment detailed in <https://algorand.foundation/algo-dynamics>. This is likely to have no effect on the Algo holders, since what is not obtained by rewards can now be obtained by Algo stability and strength due to supply moving more in harmony with demand.

Market Analysis

The quantitative analysis of the market dynamics confirms that the Algo market is headed in the right direction. Price volatility was near to 150% in the first three months after the inaugural auction, but it has almost halved to 77% in the three months after the

first reforms. The average daily return has moved from -2.43% in the first three months to 0.4% in the last quarter of 2019. These results are confirmed by regression of the Algo price against the Bitcoin price, the benchmark of the cryptocurrency market. The correlation between Algo and Bitcoin remains rather high, as expected, and regression shows a beta around 70% which is stable across the whole Algo life. But the alpha, representing the relative strength of the Algo vs Bitcoin, has moved from less than -2% in the first three months to more than +0.4% in the last three-month period, a figure indicating a stable market headed for moderate, steady growth.

Conclusion

The Algorand governance has proven able to address the over-supply issue. This was made possible by a responsive community participating in the economic reform, partly guiding and partly following the Foundation efforts towards stability and steady growth. The new year sees the Algo start with both enhanced technology and enhanced crypto economics, where supply growth has been thoroughly reformed and brought in line with the growth of demand, the quantitative fundamentals appear strong, and the platform appears ready to host those applications that can only flourish under superior technology and stable economy.