

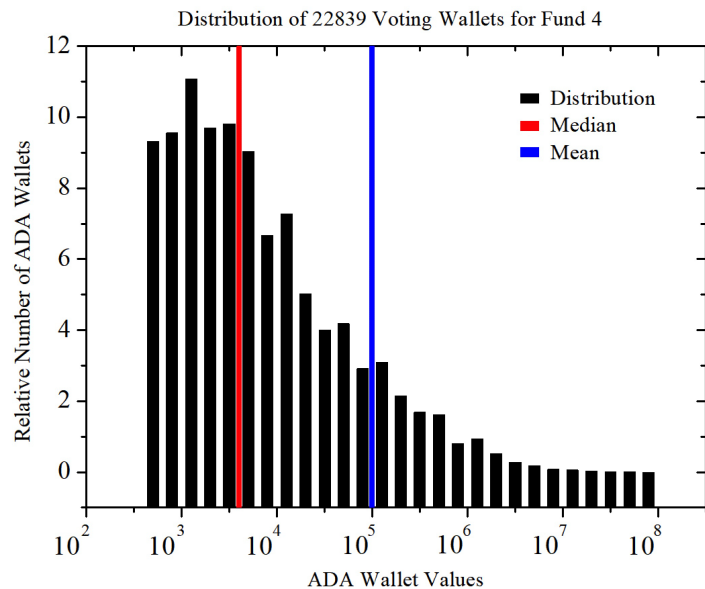
Diversify Voting Influence

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Initial Voting Analysis

Mikhail Zabaluev of the IOG Voltaire team has provided the distribution of ADA wallet sizes voting in Funds 4 and 5. The figure on the right shows a plot of the distribution of the 22839 wallets that registered to vote for Fund 4. The distribution has a heavy-tail property, which means that the tail decays very slowly. For this reason, the plot is shown using a linear-logarithmic scale.



Our preliminary analysis shows a few basic statistics of the distribution. The red line represents the median of the distribution (~4,000 ADA), which is to say half of the wallets are below or above this point. The mean is much larger (~10,000 ADA) due to the heavy-tail characteristic of the distribution. Since the proposal rankings are based on the difference between the total positive and negative ADA values, the mean is the more influential statistic. Our goal is to determine a voting strategy that will be more influenced by the median of the wallet sizes.

The next step of the research is to determine the “voting power” of each wallet. This is computed by the probability that a wallet is the deciding vote in an election. We will then compare this theoretical measurement of power with the actual outcomes of the Fund 4 and 5 voting. Once the voting power is computed, we will progress to a comparison of alternative voting strategies that will move the peak of voting power closer to the median of the distribution.
