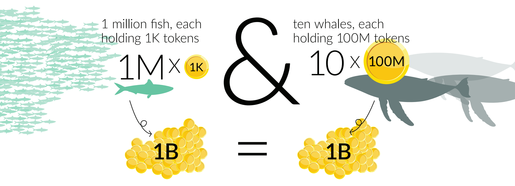
Democonomy Voting: Resolving the Voting Power Dilemma

A Story of Fish and Whales

Imagine an economy consisting of:



When a problem arises in the ecosystem and decisions need to be made, how do we determine voting power to best serve all parties?

There are two common methods to distribute voting power:

01 Participant-based: Each participant gets one vote

02 Stake-based: Voting power is proportional to holdings

Used in corporations and many crypto-projects

But these two methods have their shortcomings if used our ecosystem:

Fish voting power = 99.999%
Whales voting power = 0.001%

Stake is not Represented

Although the whales have invested half of the value, they have only a tiny amount of voting power.

Fish voting power = 50%
Whales voting power = 50%

Plutocracy in Effect

We all know that getting 10 people to agree with you takes less time than it would to get 1 million people to agree with you. This gives the whales a significant advantage and essentially **puts them in control.**

Introducing Saga's Democonomy* Voting:

Striking a Viable Balance

How does it work? both stake-based and participant based are used. However, the weight each is given depends on the concentration of wealth in the economy. If much wealth is concentrated in the hands of few, then the weight of stake-based voting will be relatively low and the weight of participant-based voting relatively high. If wealth is more evenly dispersed, then the the stake-based and participant-based weights are more balanced.

For measuring concentration we use a standard statistical measure of dispersion - commonly known as the Gini coefficient*

In effect, we are turning the Gini coefficient from a passive measure into an active power balancing tool.

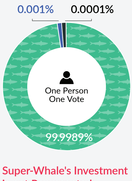
* Democracy + Economy
*The Gini index is a common measure of inequality when it is used to measure the dispersion of income. We use it to measure the dispersion of holdings.

Now, imagine that a

very big whale

takes an interest in our ecosystem and wants to control it for his own purposes. They decide to buy two billion tokens, immediately doubling the size of the economy.

Will the super-whale gain control over the ecosystem?

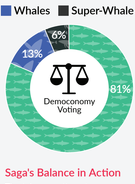


Super-Whale's Investment is not Represented

The super-whale's voting power is **virtually zero** although it is highly invested in the economy.

Takeover Succeeded

The super-whale **buys control** of the entire ecosystem.



Saga's Balance in Action

The takeover attempt significantly increased the concentration of holdings. As a result, the weight of stake in voting decreases and the weight of per-person voting increases. **The ecosystem's integrity is maintained.**

Sybil Attack Protection

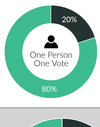
Even if the super-whale managed to split their holdings between 1,000 different accounts, they would only gain a marginal addition to they voting power.

A Real World Scenario

20% of the population holds 80% of the wealth.

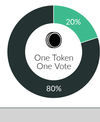
A more realistic distribution of holdings is the **Pareto distribution** where:

So how would the voting power methods work in a real world scenario?



Discourages Investment

Voting power does not take into account financial investment in the ecosystem.



Discourages Network Growth

The wealthiest 20% control the ecosystem, **discouraging small holders** from joining the economy.

Representing Stake, Protecting from Plutocracy

The top 20% have no control over the system but their higher **financial interests are represented.**

This solution provides incentives for both investment and network growth - two key factors for the success of many financial ecosystems.

*According to the commonly accepted Pareto principal for wealth distribution

By balancing between participation and stake, Saga's Democonomy Voting promotes a sustainable, growing economy, where both people and money count.

SAGA