

It became clear that running a pre-ICO makes the rest of the ICO (even DAICO) easily attackable. I am proposing using Control Tokens that are only issued during the public sale. This mitigates most of the problems that I highlighted in the [previous post](#).

During a presale, a dishonest founding team could acquire enough tokens to disable or manipulate the controlling mechanisms of a DAICO.

Removing the presale is often not an option. It often has legitimate use.

Two Tokens

However, it is possible that only the public sale buyers get controlling tokens. During the public sale, contributors would get two different

tokens.

The first one is the actual ICO token

— both private and public contributors get this. This is the utility token that will fuel the project's use case.

The second token is the control token

— the owners of these can exercise the control functions of the DAICO — opening the tap, pulling the plug, etc.

This structure makes most of the DAICO attacks financially non feasible. It also empowers the enthusiast crowd — the people who are less likely to be speculators, and more likely to be interested and care about the project.

Control Token Implementations

There are three ways how control tokens can be implemented:

1. Tradable Control Tokens

By default, the control tokens would be transferrable and tradable. They might be sent, received and bought, independently of the ICO tokens.

It does open up a host of interesting economic questions. For example that in this scenario it is possible for someone to acquire a large amount of control tokens, without owning any ICO tokens. That person would be able to influence the project without being financially involved in it.

Whether it's a problem or not, yet to be seen — but I sense some interesting economic scenarios emerge from this setup.

2. Non-tradable Control Tokens

In this scenario, control tokens are awarded together with the ICO tokens, but unlike the latter, control tokens would not be tradable or sendable. In other words, the public sale contributors would get a unique, non-transferrable right to control the project.

One could argue that these are the people who helped the project to become a reality. They should be recognized for this forever, and their right should not be sellable.

This is a defensible, but rather draconian solution — one variant of this could allow the trading of these tokens after a certain time period. Or we can go with hybrid tokens:

3. Hybrid Tokens

This method was suggested by [Clément Lesaege](#). Hybrid tokens work like Tradable Control Tokens, but the control would only manifest if the same amount of ICO tokens would coexist on the same address.

In other words, in order to vote with my 10 control tokens, I would have to have 10 ICO tokens on the same address. This fixes the issue highlighted under the first scenario, and keeps the system more flexible than the second scenario.

Legal Implications

The legal implications of control tokens is unclear. I am checking with lawyers who are familiar with the area.

Summary

The DAICO attack vectors enabled by a presale can be mitigated by using a dual token structure. There are multiple, non mutually exclusive ways to implement these. Further research, and probably several live sales are needed to find out the pros and cons of each.

Original post on Medium: <https://medium.com/@akomba/ico-control-tokens-e328da170514>