Tgrade

DECENTRALIZED FINANCE IN A SELF SOVEREIGN REGULATED ENVIRONMENT

Decentralised Social Organisation

Decentralised Social Organisations (DSO) are inspired by Decentralised Autonomous Organisations (DAO) and although they both have many similarities such as the ideas around self-sovereignty and autonomy there are some key differences.

The fundamental difference is in how the organisations are run, the DAO achieves autonomy through the "code is law" mechanism whereas the DSO does the consensus building off-chain (through human interaction, hence Social) and uses on-chain governance processes in the implementation.

The motivation for the creation of DSO came about because of the DAO mechanisms of hard coded rules "code is law" was felt to be too brittle, as in reality, rules and law are interpreted and have nuance.

DAOs, as a rule, struggle with legal structures that underpin them in the quest for autonomy, and decentralisation. There is an inevitable clash with these aims where legal entities need to be registered in a jurisdiction and often stipulate a responsible person. DSOs have no issues with complying with the legislation of the jurisdiction where they do business, as much of the off-chain work may be in complying with their local legislation, rules and ways of doing business. The blockchain comes in as a decentralised platform and the governance mechanisms reinforce the decisions made, off-chain, in a transparent way.

The basics principles of a DSO are that anyone can create a group without needing permission, that person can then add others (and they may add others), and the group can keep growing according to the criteria they set. The framework is not totally open, there are some basic processes around proposing members and voting them on, members leaving (good and bad leaver cases), and the setting of permissions of who can do what with whom.

To make the self-sovereign group work it is important that there is a mechanism in place to match people to their blockchain addresses and that is done as part of an off-chain process. Once the link between a person and their address is established then the governance processes follow.

The DSO framework of self-sovereign groups setting permissions extends from the basics of managing groups to the group permissions to interact with smart contracts, and Pegs or other Zones.

This may all seem a bit abstract. How would this setup work in practice and what is it used for?

Let's look at a group of forward-looking French banks who want to offer their customers a secure, responsive and cost effective way to trade amongst themselves on Tgrade. Bank Azure has a crypto team and they decide that they want to trade with Banque Privee de Paris who also have a crypto team. They meet in person, bringing with them identity, and documents to prove they are who they say they are and they agree a secure way through the banking system to share their blockchain addresses.

Bank Azure takes the lead and sets up a self-sovereign group, let's call it French Institutional Crypto Group (FICG). Bank Azure invites Banque Privee de Paris, note these are both administrators of the group and will need to move some tokens to an escrow account for safekeeping. They then begin talking to the other banks, family offices and fund managers they know and who have the necessary licences to join, and they follow the same onboarding process. They have a nice little network of institutions that can be sure they all follow the same rules as set out by AMF.

The next thing they do is configure the Automated Market Maker (AMM) for FICG members and their own Bitcoin peg. The Bitcoin is secured by their network as they have the legal safeguards in place and they have formed a circle of trust. The pegged Bitcoin allows the FICG to take advantage

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of a faster trading[1], with lower transaction fees while still being able to move pegged Bitcoin back to the Bitcoin blockchain.

We now have a functioning group, secure that they know that their counterparts have been screened and they all comply with the relevant legislation. Let's say Dmitri from Cyprus wants to join in and add some funds to the liquidity pool or trade on the AMM, he will be prevented from doing so as he is not a member of SICG. SICG can thus demonstrate to AMF that they are all approved organisations that trade pegged BTC among themselves and no unauthorised people can take part.

 In a second phase SICG members begin inviting select clients to their group, although this time the clients are not administrators and thus do not need to deposit tokens to escrow, and are not allowed to invite their friends (they have to go through a bank for the moment).

The application of DSO to finance opens markets that were previously not possible due to the anonymity of the participants and the inability for regulated institutions to demonstrate they knew who they were trading with and that they understood the origin of funds.

The importance of DSO is that it is a generic framework that is implemented in each local jurisdiction by a self-sovereign group.

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[1] The Bitcoin network has a low number of transactions per second and to ensure that the transaction is done the parties wait for 6 blocks (to ensure probabilistic finality) which can add 30 minutes to the transaction time.