

Black Hole network economy

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Abstract

We propose a new type of economy, that can only take place on an open ledger. In this new economy we make the distinction between goods and services, and users are encouraged to only purchase services that burn at least 10% of every transaction, which we graphically imagining as throwing into a black hole. This model is an experiment for socially enforced taxation.

1 Introduction

The invention of bitcoin by Satoshi Nakamoto [1] has changed the world forever. But, although Bitcoin and Blockchain appear on the news frequently, most people (even in the blockchain space) probably do not fully grasp the magnitude of the revolution. Bitcoin will remove the power of states over currencies, and will eliminate fiat currencies. People will stop using fiat currencies just like they will stop using non-autonomous cars. It is impossible to estimate the social changes caused by this revolution, mainly in for governments that much of their power comes from their control over the monetary system. But it is obvious that new ideas will come into play.

The second blockchain revolution, which is the general purpose blockchain, lead by Vitalik Buterin in Ethereum [2] is also a huge promise. Here however it is even hard to predict the fields that will be effected by this new tool. One field however which is a good candidate is social structure, e.g. governance and decentralized autonomous organizations (DAOs), but even that is somewhat vague.

In this paper we propose a very concrete empirical social experiment. The idea is to try and form an economy which is based upon socially enforced taxation on services. Namely, we create a token that people should only use as a utility to purchase services that burn at least 10% of the tokens, by sending them to the token contract, and we use the analogy of throwing them into a black hole.

2 Black hole economy social experiment

The notion of representing a certain economy by its token is not new. However, the technological ability of breaking this atoms to finer and finer parts is only possible due to the blockchain. Namely, not only states, but rather each utility/company/social structure can distinguish itself by its own token, and by choosing to use a certain token, or to offer services in exchange to a certain token, you are essentially supporting this structure and help growing it.

Here we propose a very simple social experiment. We are looking to test if individuals are willing to participate in a non-forced taxation system. The notion of taxation is to collect funds from the public in order to use the collected resources to benefit society as a whole. The debates of how much tax should be collected, from who, and most of all, how to use them are common in democracies.

In our economic model, the public is not forced to pay any tax. Rather, we encourage the public to only buy services (e.g. from smart contracts) that pay at least 10%. We avoid the hard discussions of how to use the collected funds by simply destroying them, which we call “throwing into a black hole”. Due to the physical analogy of a black hole, where everything which is thrown into it is doomed and can never escape ¹. From this picture we name the token, Black Hole Token (BHT). Destroying BHTs deflates the token, which by definition, benefits all individuals who take part in the economy, namely holding BHTs.

To be a bit more technical, the implementation of the social experiment takes place as a token contract on the Ethereum blockchain. It is an ERC20 compliant contract with the added features of throwing tokens to the black hole, and paying voluntary tax.

In order for the BHT economy to grow people should be willing to provide services and offer them in exchange for BHT, while consumers should enforce the social agreement and not buy services that do not destroy the minimal amount of BHTs. To push the system on the right track we are intending to use most of the funds from the token sale to develop services that will cost BHT and will pay the tax.

We have two paths for using the funds to start develop the economy. The first is to build services on our own. On this services we commit to pay 100% tax, namely, to throw all payments to the black hole. The second path is to put out bounties for people that will build good services. We commit to have at least 10 bounties, each will be 1% of the token sale. The only requirement from the applications will follow the social agreement rules and throw at least 10% of the income from the service they are offering to the black hole.

¹Scientifically speaking this image is not correct, due to Hawking radiation process [3] and the information puzzle.

3 Token distribution

The initial distribution of tokens is always a bit tricky. On the blockchain space, one cannot just give away tokens due to civil attacks. We have decided to take the common strategy of selling most (90%) of the tokens, and keeping a small fraction for the team (10%). The advantage of this strategy is that the incoming funds can be used to boost and incentivize the early adopters of this experiment.

Unlike most projects this days which are trying to make huge token sales, usually by selling much of the tokens in closed rounds, with fat bonuses. We decided to take the opposite approach. Since this project is not focused on technology, but rather employs the new technology of the blockchain for a social experiment, we are looking to raise a small amount, mainly to incentivize the initial growth of the new economy.

We are not doing a roadshow, not pre-selling, not giving bonuses in closed rounds. Rather, we are opening a small, real, open, public sale that will start from zero. For regulatory reasons, and to make sure we are not overshooting (like The DAO did), we decided to put a hard cap of 6000 ETH on the sale. The sale will be open for a period of four weeks and the price will be fixed throughout the sale. This is only fair, as the project is starting small and it will take time for people to hear about it. It makes no sense having bonuses, furthermore, we are trying to avoid using techniques such as fear of missing out (FOMO) on the crowd, and rather have smaller fund raising from participants who understood what they are taking part of.

To put it into numbers, the rate will be 30,000 BHT to one ETH, so there will be no more than 200,000,000 BHT in total.

4 Anonymity

The BHT team has decided to stay anonymous at this point, mainly due to regulatory issues. We are trying to stay under the radar of regulators by starting small and grass-root, hoping that this social experiment will gain momentum, and by the time it will grow to draw regulators attention it will be decentralized enough, i.e. unstoppable. This is exactly the Bitcoin growth model, and one of the key featured in it was Satoshi remaining anonymous.

References

- [1] Nakamoto, S. Bitcoin: A peer-to-peer electronic cash system. <http://www.bitcoin.org/bitcoin.pdf> (2008)
- [2] Buterin, V. Ethereum: a next generation smart contract and decentralized application platform. <https://github.com/ethereum/wiki/wiki/White-Paper> (2013)
- [3] Hawking, S. W. Particle creation by black holes. *Comm. Math. Phys.* 43 no. 3, 199–220 (1975).