Logos Project

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Shammah Chancellor
shammah.chancellor@cashweb.io

Tobias Ruck Joel Croteau

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Abstract

Many outreach projects run by peace activists suffer from the problem of funding their efforts. Many of these projects are open source and do not have an effective charge for their work. Some of these projects have turned to cryptocurrency tokens to fundraise. These tokens allow them to either turn a public good into a club good, or provide digital evidence of a donation for charitable individuals. However, each one of these projects suffers from relatively small network effects and thus still struggle to market themselves. It is known empirically that tokens become exponentially more useful the more users, and projects, there are on the network[10]. The goal of the Logos Project is to provide an umbrella funding token for a variety of public projects – increasing the total network effect – and to provide a functioning self-sustaining token economy.

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1 Background

The Logos Project has been founded with the goal of ending war, indebtedness, and short-term thinking. We believe these phenomena are rooted in the incentive structure of our daily lives. They are manifestations of the financial incentives we are all subject to.

When examined closely, the source of these incentives is our monetary system itself. Thus, this project's initial focus is on creating a monetary system which is ethical – a monetary system which does not cause indebtedness nor do the proceeds of the system go to funding wars. This is accomplished by producing "ethical" money.

Ethical money does not obtain value through the use of coerced debt – like legacy money. This means that there is no debt – or coercion – as a necessary byproduct of money creation. As such, the implementation of widespread implementation of ethical money will remove a major source of violence in the world.

The guiding philosophy of this coin is pragmatism. Thus, all decisions pertaining to the direction of this project are motivated by the goal of creating a freer world – rather than enacting a particular ideology. As such, the base economics of the coin are bent towards this goal as well.

Thus, the Logos Project embodies peace. The incentive structure, only, will ensure that decision-makers maintain honesty, transparency, and fulfill the desires of users. There will be no other requirements on those individuals who serve the users; except the natural incentives created by the economic system itself.

1.1 Functioning of Monetary Systems

An accurate understanding of how money systems operate is crucial to the design of a functioning alternative to existing structures. The modern monetary theories[1] provide insight into these structures.

Historical evidence suggests that money originated in fines issued by authorities for lawbreaking, and created a debt. Early in the history of money, religious authorities[a] issued these fines against the perpetrators and gave the victim tokens representing their loss. These tokens could be redeemed for meat at the temple or indirectly via traders. Over time, money evolved into a way to compare the value of goods; functioning as a unit of measure like a meter stick.

Later, nation states began using money as a tool to fund projects in conjunction with fines and taxes[b]. Nation states issue money is a form of an IOU ("I owe you"). Money is always[c] attached to an issuing authority who manages the money supply. This authority must maintain the value of money over time for it to be a useful for measuring value and trade.

The government accepts their token in return for taxes, fines, or redemption into a commodity. The money the government collects is then destroyed[d] This system of money redemption[e] by the government is what causes it to be valued. Modern money systems contain many indirections in this process, but fundamentally operate in the same way.

Expansion and contraction of the monetary supply occur through the policies of issuing authorities. When fines and taxes exceed government liabilities, the money supply contracts. When a nation state spends in economic sectors which are unable to meet government demand the money supply expands. The issuing authority must expand and contract the money supply according to market demand for money in order for its value to remain stable over time. However, due to the centralized nature of this process, the government can never collect sufficient information[8] to make these decisions efficiently. Thus, boom and bust cycles result[6].

Finally, because traditional money can be counterfeited or debased – creating unsustainable inflation – the authority to issue a particular token must be reserved to a particular class of people who are trusted to perform the above functions: the issuing of currency, levying fines and taxes, and redeeming the money for those fines and taxes. The ability to perform these functions [f] depends on its continued ability to monopolize violence within a geographical area.

1.2 Ethical Money

In 2009, the advent of Bitcoin[2] a new way of issuing non-counterfeitable tokens through the use of proof of work. These tokens are issued without the participation of a centralized authority. This invention established the cryptocurrency field. However, Bitcoin is often argued not to be money because it lacks the necessary properties of money. Due to the lack of a centralized authority, there is seemingly no issuer, no ability to create demand through fines and taxes, and no token redeemer.

Upon close inspection, the authority to issue and redeem tokens can be seen to be distributed into the user-base of any particular cryptocurrency. In order to participate in a cryptocurrency economy, a user must first redeem tokens while simultaneously participating in the process of issuing token. Users willingness to redeem and issue tokens, and this comes from their individual value ethics[15]. Empirically, cryptocurrency users fall into two main categories: the ideologically motivated seeking to opt-out of existing social structures, and traders who seek to increase their wealth.

This system of issuance and redemption is compatible with a plethora of belief systems which advocate non-violence in society. Cryptocurrency users who are ideologically motivated typically fall into one of the value systems promoting non-violence. Careful observers will note that users of similar value-systems tend to congregate around particular cryptocurrencies forming ideologically aligned groups. Users will typically expound various ethical ideology and how their preferred cryptocurrencies embody these ideas. Cryptocurrency systems and their user-base are engaged in value ethics[15] and form pseudoreligions[12]. Cryptocurrencies are ethical in their nature.

[a] Historically called a sin although religious terminology as become verboten in modern culture.

[b] In doing so, governments break their own laws by engaging in behaviors which are otherwise denied to its citizens.

[c] There are exceptions, but these "prove the rule" and generally result in insolvency of the government. Thus, sovereign money is the norm.

[d] This is generally true, although new spending generally exceeds previous debts. Thus, the money supply grows or contracts through the difference between these two amounts.

[e] This is also co-opted religious term, and reflects the history of money.

[f] This is the libertarian definition of a nation state

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Ideologically motivated users often prefer payment for goods and services in their preferred cryptocurrency when engaging in trade[g]. This is an attempt to increase demand and value of the tokens that they already control. However, the effect of this is minimal due to the difficulty of obtaining coins. The discount which must be provided to incentivize individuals who are not ideologically motivated must be high and often refused. This often works in the context of exchanges among peers. However, when a large power differential exists between the ideologically motivated, and non-ideologically motivated counterparty, the ideologically motivated party just relent. This limits the network of people with which the ideologically motivated party can engage with in trade.

Therefore, the value of a cryptocurrency system depends on the social influence – and social power – of the pseudoreligion that has congregated around a cryptocurrency. This is in stark contrast to traditional currencies where the value of the money depends on difference in ability to engage in violent behavior between the issuing authority and other individuals.

However, the ability to be a unit of account is lacking from cryptocurrency systems. Their issuance schedule is predefined, and thus they do not have the supply to expand and contract according to market demands. This has resulted in a variety of so-called stable coins to be issued. However, they are all ultimately[h] attached to an authority which controls the monetary policy.

Due to the lack of ability to stabilize the value of the cryptocurrencies, they are unsuitable for being a unit of account in trades which involve a time-delay between price agreement and redemption. The counterparties risk insolvency when they make any trade agreement to be paid in amounts denominated in a cryptocurrency. Thus, while existing cryptocurrencies have some of the properties of money, they do not possess all of them and cannot reach widespread adoption.

The implementation of a truly ethical monetary system must contain a way to regulate the supply of money.

2 Rationale

Many peace-promoting projects suffer from lack of funding. These projects often satisfy the characteristics of being public goods [13]. As such, they rely on charity to operate. Some, which provide useful services have introduced utility tokens. However, these tokens must be advertised independently, and thus suffer from small network effects.

However, Metcalfe's law [10] tells us that the value of a network is not proportional to the number of users, but proportional to the number of users squared. This means that the more of these projects band together under one token, they will receive a disproportionate amount of additional funding compared to staying insular.

> "Though one may be overpowered, two can defend themselves. A cord of three strands is not quickly broken."[5]

As such, there is a strong incentive for projects targeting different use-cases to bind together under a single utility token. The Logos project seeks to do just that, and in doing so provide a significantly stronger platform for executing on the goals of realizing the dream of a better future.

In order to be able to be broadly useful, the token that the Logos project seeks to provide must embody a minimal ethical system, and all three properties of money. Thus, we must embody a minimal ideology which appeals to a maximal amount of ideologically motivated individuals. We must also provide a way for users to reach consensus about issuance.

The first condition can be done by choosing to support projects whose existence is centered around ideologies which overlap on the value of non-violence. The second condition can be satisfied by employing fair voting schemes to control how many coins are removed through circulation via network fees; and how many coins are issued through mining rewards.

In doing so, the token provided by the Logos project can become a viable mechanism for peace-activists to group together and remove the value – and power – which they are providing to existing economic systems. Economic systems which are rooted in violence. Business can be conducted on the token without using violent money as a reference point for value.

[g] This is similar to dollar voting schemes such as veganism, fair trade, and other ideas.

[h] A prime example is DAI, however this is pegged to traditional currencies through the use of distributed oracles and thus still subject to the whims of an external issuing authority.

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Expansion of non-violent means of trade can be more effectively implemented through intolerant refusal to accept violent money[3]. While coercion will always exist in the world, the primary source of it can be reduced in size.

3 Governance

Many coins have complicated governance structures in the form of distributed autonomous organizations (DAO). These are technically complex and subject to hacks and other social vulnerabilities. Additionally, DAO voting mechanisms still require decisions to be executed by developers. Since there needs to be an executor, the decisions of the DAO are often impotent. The Logos Foundation sees voting mechanisms as unnecessary inefficiencies that do not ultimately solve the problem of keeping executors honest and in representing user preferences.

The market is always the ultimate decider of good decisions. Although committees can provide valuable input to determine what the market will want, these ultimately suffer from the same problems legacy voting systems have[7][11][17]. They are unable to make rational decisions on policy because voting systems do not satisfy the necessary conditions to consolidate market information. This is due to the properties of the Bernoulli distributions[14] they are based upon. The result is tyranny of the majority[14] which causes group cohesiveness[9] to break down; resulting in schisms.

However, voting systems which involve continuous variables – numerical quantities – can reach very accurate estimations of true quantities. This phenomena is typically referred to as wisdom of the crowds[16]. In fact, this is how the market price of goods and services are decided. The two primary quantities which are relevant to cryptocurrencies are transaction fees, and coin issuance. These can be adjusted through voting on transaction fees, and coin issuance. Automated voting systems relevant to the token system implemented by our software should be limited to these two variables, and possibly other yet unknown continuous values.

Finally, voting systems are antithetical to the idea of voluntary action. Instead, the Logos foundation will operate as a corporate body dedicated to the principles of peace. The Logos Foundation will do whatever is necessary to support, and enrich, the most possible users. If they fail to do so, the market price of tokens will inevitably suffer. Since the value of the funding to the projects involved in the decision making, they have a strong incentive to make pragmatic decisions in policy implementation. Thus, the free market is the guiding light to the governance system.

3.1 Responsibilities of the Logos Foundation

Every token in the cryptocurrency market requires scalable infrastructure for end-users. The Logos Foundation seeks to help realize other projects by providing the funding mechanism. As such, the responsibility of the Logos foundation will be to maintain the base infrastructure. This infrastructure includes:

- General project oversight
- A scalable blockchain and associated node software
- An easy-to-use end user wallet
- Blockchain indexing software
- Application programming interfaces

The Logos project will fund development of these projects both through project-based work, as well as full time staff. Full time staff will be providing management of source code repositories, build infrastructure, release management, and code reviews for outside contributors.

4 Economic Model

The Logos Project seeks not just to provide a useful funding mechanism, but to set up an independent economic system. In order for an economy to function as a closed system, it must have a currency. The requirements for a currency is that it be a medium of exchange, a store of value, and a unit of account. While existing blockchain systems satisfy the requirement of being exchangeable, they do not provide a stable unit of account, and thus also cannot be a unit of account or store of value.

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The Logos Project is solving this problem by allowing users to decide on the coin issuance in real time via an Avalanche-like [4] consensus mechanism. Logos users have a mechanism to decide how much transaction fees are and how much of those fees to burn. Initially, coin issuance per block will be constant, and arbitrary as it does not affect the overall incentives. If fees result in burning more coins than the block reward, supply will decrease providing an inflation control mechanism. In the future, the block reward may be adjusted based on information provided by proof of work itself; however this is an active area of research.

This process is similar to existing central bank processes. However, within those systems, the interest rates are decided by large financial institutions. They vote on new issuance of money via interest rates. Lowering rates almost always benefits these institutions, but harms holders of existing money. As such, all central bank currencies lose value over time – and this is born out empirically. This loss of value is slow and invisible to most users. The value lost to holders of the currency is captured by these financial institutions. This creates a financial incentive for banks to behave in a way which is contrary to the users and holders of their currencies. Because these institutions vote themselves money, they do not have an incentive to invest this money efficiently. If they invest poorly, they can simply issue themselves more money – harming the economy to an even greater extent. This also has been shown empirically.

In contrast, Logos holders decide the supply by burning transaction fees. They are not issued new currency for their votes as with existing central bank systems. The value of user holdings are subject to their decisions. Bad decisions reduce the value of their holdings. Appropriate decisions about supply management reward everyone through maximal token value. This incentive structure keeps holders honest.

Additionally, by funding various projects which create valuable public goods will provide users a reason to participate in, and grow, the economic network over time.

5 Funding Decisions

As this project exists to promote the ideas of non-violence and voluntary action. The token itself manifests the ideas of voluntary action and peacefulness. This is due to the lack of coercion in the issuance, of the tokens and the ideals of the projects funded. The lack of coercion means that the Logos foundation is incentivized to manage project funding wisely. If they do not, it will destroy the ideological reasons for participating in the provided economy.

Thus, projects chosen to receive funding will provide tools to enable voluntary action, or promote the ideas of voluntary action. The value created by these projects will advertise the token and realize their goals through the increased use of the token.

Initially, this project will fund thirteen projects. The thirteenth will be the Logos Foundation itself. Each project will be funded in equal amounts. The funding for each of these projects will go directly to a financial officer for that project. This officer will be responsible to the Logos Foundation for updates regarding what they are doing with their project. These updates will be regularly conveyed to the Logos user base through a newsletter.

The Logos foundation will have final say over which projects are funded. The Logos foundation will update the list of wallet addresses at each network upgrade. These network upgrades will follow a 6 months schedule. The continual reviews will ensure that the issued funds are being spent wisely and are still representative of the mission of the foundation.

Each financial officer will receive an equal portion of the available funds for six months. These funds will be distributed directly through the block reward to provide clear auditing that the chosen projects are being funded. Disputes over the relative importance of projects are obviated by equal distribution to financial officers. The financial officers of the projects will be expected to allocate these funds efficiently. These officers may choose to pool resources to accomplish a goal.

6 Conclusion

The Logos project provides a simple, efficient, and productive mechanism for providing funding to push forward the dream of a better, less violent, more free, world. It obviates the need for complicated technical solutions with the realization that people are ultimately the problem and the solution. It follows in the footsteps of Satoshi Nakamoto by using incentives to align behavior. The Logos Project goes a step further from blockchain security, and moves into the realm of global financial security.

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A Initial Representatives

At launch the coin will have several of the 13 chairs filled for projects which have participated in the development of the coin. However, there will be additional slots filled over time.

1. Logos Foundation
2. Be.Cash

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3. Stamp Chat
4. Abstract Business Corporation (ABC)
5. Saipan.institute

In addition to these initial representatives, there will be several more selected prior to launching. Some other areas of expertise which need to be filled are:

1. Blockchain scaling research and development
2. Coin promotion content production
3. Financial education content production
4. Anti-war outreach and content production

B Initial Coin Details

The initial version of the coin will change a minimal set of technical items. These items have proven difficult to do through hardforks of the Bitcoin[2] blockchain. Since we are restarting from the genesis block, we have the opportunity to fix a number of issues Bitcoin has been shown to have. These initial changes are as follows:

1. Items to generate a new blockchain:
   (a) New Genesis Block
   (b) Reset difficulty to 1
   (c) New Net Magic
   (d) New Disk Magic
2. Block time to 2 minutes
3. Block header adjustments:
   (a) Block size field to support uncapped block sizes
   (b) Extra metadata fields for use in merged mining and side-chains
4. Script Changes:
   (a) All reserved, and deprecated opcodes will become disabled so as to avoid having them in unexecuted if branches
   (b) Enable the use of 64-bit integers for script w/ overflow checks
   (c) Enable OP_RAWLSHIFT
   (d) Enable OP_MULPOW2 w/ overflow checks
   (e) Relax OP_AND, OP_OR, and OP_XOR operators to not require same-saved operands
   (f) Enforce standardness checks on consensus
   (g) Disable OP_SHA1
   (h) Limit OP_NUM2BIN to 68 bytes
   (i) Change opcode limit to 400
   (j) BIP341 (Taproot)
5. Economic changes:
   (a) The issuance of Coinbase rewards will be changed to be a fixed 260 megasats
   (b) The default fees will be increased, and half will be burned
6. Simple GPU mining client for users

C Coin Technical Roadmap

The roadmap of the coin will include additional items in future network upgrades:

1. Removal of the chain transaction limit and fixing inefficiencies in the child-pays-for-parent code
2. Removal of relay delays

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3. Addition of Mitra for the use of on-chain tokens and other valuable DeFi contracts
4. Addition of Avalanche consensus for voting on various network parameters in addition to block finality
5. On-chain zero knowledge proofs to enable off-chain contracts and miner verified tokens
6. Improved wallet backend API software to replace electrum and fulcrum
7. Proof-of-Work based inflation control mechanism to complement fee-burning.

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