



A Water Based Digital Stable Coin

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Introduction

This document provides the design of a digital stable coin based on potable water. The notion of stable coin doesn't make sense without mentioning his referential. At time of this writing (November 2023), all existing stable coins are based on volatile and/or controlled values, either directly or indirectly thru algorithms and therefore share the same volatility risks as their referential. For this reason and as it has been used many times in human history for obvious reasons (see kilogram definition in "Système des poids et mesures" a.k.a. Metric System), we have chosen potable water as referential for our stable coin guaranteeing stability and zero inflation with potable water, which is the base of life and is present in one way or another on earth wherever humans live.

One O coin is defined as the average retail value of one liter of potable water bought individually.

We will first explain how a stable coin calibrated on potable water is the solution to resolve most of the problems humans are facing today at once and for all. We will then explain the core architecture of the O coin.

Water Based Coin Benefits

The benefits of having a stable coin independent of any other volatile value are huge because the only reason a currency needs to be limited/controlled and can't be used to solve non profitable issues is because of the risk of devaluation against other currencies due to the

loss of investor's confidence who would naturally expect a financial return.

A coin defined as the average value to buy one liter of potable water can be used as an infinite source of wealth that doesn't need creditors considering his usage profits all humans the same way and therefore won't represent a cost to current and next generation because it would stay stable independently of human trust and confidence. Such a stable coin can be used to solve the problems all humans are facing today and that current economic model is failing to address as it always requires a financial return.

A universal water based stable coin is also the only viable solution for the creation of a universal basic income. This concept has been the subject of several debates where the supporters affirm that in current time where machines are taking over human's jobs and poverty/homelessness is rising, this would improve social, financial, economic and security aspects of our society and the opponents arguing that it will devalue the value of work, create unwanted immigration flow and cost money that doesn't exist.

A water based stable coin can be used to create a universal basic income satisfying both supporters and opponents concerns because:

- It won't devalue the value of work; this wage should be distributed to all humans on earth without distinction. That way, this wage will appear as an offset rather than an assistance and will benefit all persons and all economies without devaluing anyone's work.
- It won't create unwanted migration flow; Indeed, currently, any country providing a universal basic income with his own currency would see an increase in migrants. The solution here is that this wage should be universal, a right to all humans on earth and should be valued the same everywhere to avoid and even reverse migration flow. The idea of a coin calibrated on potable water is huge as the universal basic income should be calibrated on basic primary food and needs, which can be easily transposed in number of liters of water and the value would then be the same everywhere on earth.

- Who pay for this?; nobody wants to pay for this, not current nor future generations. The nature of the O coin, independent of any other volatile value, trust and confidence make it possible to finance this universal cost without creditors as it will profit all humans on earth the same way and would stay stable without human trust or market confidence. In fact, the main reason governments and corporations wouldn't invest in something that doesn't have a financial return even if humanely vital is that it would devalue his own currency or shares and would therefore lose value. So having a stable coin independent of other volatile wealth system simply allows to create infinite wealth that can be used to resolve problems that affect everybody on earth and that current system can't address by design. This system can only take place if it is transparent, open, equal and profit all humans in the same way.

More precisely, here is a list of issues that a water based stable coin will help address:

- Immigration: Today's immigration is mainly driven by wealth imbalance and by the hope of some for a better life, usually sold by developed countries through their media and entertainment export. Mass immigration, other than the one resulting from conflicts, always goes the same way, to richer or more generous countries and usually attract people with high entrepreneurship and risk-taking skills, also representing a loss of skills and resources for the migrant's country. The O coin will re establish the trust of the people in their own countries thru the stable currency giving hope for more financial stability and a currency value which is the same as in any other countries. By doing so, it will allow people to re enforce their own local economy instead of migrating to richer countries. The O coin will not only stop mass immigration but also reverse it as migrants will see more opportunities and stability to bring their skills back home and build new economies. The universal basic income can also be used to bring back illegal immigration using in-person registration in native country.
- Poverty - homelessness: Half of the world population lives under poverty level in a world where all currencies are virtual, detached

from any physical assets, where our earth is exhausted by our level of abuse, where businesses and governments are looking for new customers and economies. A universal basic income as defined previously would reduce poverty, ends homelessness as well as reduce current associated costs currently paid by tax payer's money thru governments.

- Security: Having a universal basic income will considerably improve security as the poorest would receive their universal income, which should be enough to get basic necessities. There would be no more reason for mendicity other than a wrong personal use of this income.
- World Peace: Financial, economic wars, often lead to bloody wars. Having a universal stable coin will give more freedom and financial independence to all countries and will level the playing field for businesses to compete based on their performance rather than their operational cost or subsidies. This will lead to more respect between nations, less financial friction which will lead to an overall more peaceful world.
- Social dumping : Similar to the reasons mentioned above, the O coin will level the playing fields for governments, businesses and individuals by allowing the cost of production and services to be more harmonized. Developed countries who have lost their industrial resources in the past decades will see a return of industries, businesses and jobs while low cost countries will see an increase in their own people's buying power reinforcing their local economy and jobs.
- Climate change: Current financial and economic model doesn't allow a quick cleaning of our dying habitat for the simple reason that cleaning water, soil and air doesn't has financial return even if it's necessary for the survival of our planet. The fact the O coin can generate unlimited stable wealth without creditors make it the perfect candidate to finance earth cleaning to offset our current level of pollution and eventually clean up to normal level that would provide hope for future generation. Also the relocation of industries within countries, closer to their customers, is the only solution to reduce the transportation of goods that represents a

fair amount of our carbon emission and where we have no clean immediate replacement for those heavy fret.

- Inflation: A stable coin based on water is the perfect tool to stop inflation on basic necessities, the price of water and food in general would be stable over time.
- Economy, jobs: A universal income distributed to all humans on earth will not only help the poorest to have access to the most basic necessities but would also provide more buying power to the middle class reviving an economy hopefully in a more ecological way. The fact that a water based stable coin can finance activities not profitable financially but essential for human survival will allow new economies to emerge, especially in the field of cleaning our water, air and soil. Unlike current economy models, those new economies are not geographically dependent and benefit all countries on earth based on their cleaning performance since, at the end, we all share the same air, water and soil.
- Health: By having a universal stable coin, it will help harmonize the price of health care, provide access to more people and provide more financial resources to research which are currently mainly paid by rich countries
- Retirement plan: Most countries are facing issues with their pension plan, often having to add more years of labor to claim benefits while the work load left to humans is diminishing as technology takes over our everyday tasks and the technological gap between generations makes it harder for senior to find jobs. In that sense, a universal basic income would also improve the resources allocated to that segment of the population and reduce tax payer's costs.
- Reduce tax: As more funds will be available to humans in an equal way thru O, governments will be able to reduce their operating costs and subsidies and hopefully achieve a tax-free world in a soon future.

A water based stable coin will help fix most of the problems we are facing today in all countries at once and for all, and without the need of creditors as the stability is independent of trust and confidence. We

will now explain how we can create a stable coin based on water without backing it up by assets and without any direct human intervention while keeping it transparent and opened for all.

Water Based Stable Coin Architecture

A stable coin is not a replacement for a volatile coin, this is a concept that never existed before and that complements current systems of wealth and value. While most volatile currency are used as investment value, it doesn't make much sense for a stable coin to be stored as it will not gain or lose value overtime; instead, this coin will be a transactional coin. Investments will continue to use traditional volatile system while low income people and businesses will have trust in the money they earn or trade and the value of the money will be equal everywhere and stable over time in a referential of basic human necessities.

To avoid entering into the volatile system of "supply and demand" where controlled and/or uncontrolled inventory set the value based on demands, the O coin won't be backed by any physical asset allowing unlimited supply and avoiding inventory/price manipulation. Instead, we will use a method of calibration and will demonstrate we can defy the principle of "supply and demand" and create unlimited stable wealth with the right design.

In order for a water based stable coin to work and in addition to traditional "mining" which rewards users that create and store blocks, we need users to establish and measure exchange rates between the water based referential and current referential so the blockchain can provide supposed and measured exchange rates between O and other currencies. Here are the three types of tasks that will reward users when they perform them either on their own (for traditional mining) or when picked randomly by the blockchain (for data collection):

- **Traditional mining** : this concerns the users that receive and process the transactions by mining blocks. In this project, we will develop an hybrid of proof of stack and proof of business. The main challenges crypto currencies are currently facing are scalability and liquidity, which are main issues for a coin supposed

to be transactional. One way to fix this, as suggested by Satoshi in his Bitcoin whitepapers, is that businesses that process lots of transactions would be mining as well. While proof of stack is a well known algorithm where users stack coins to be able to mine blocks, we introduce proof of business along with proof of stack, where users that generate enough amount of O transactions (either in volume or number of transactions) would be able to mine other's transactions and be rewarded. The incoming transactions the businesses receive can serve as provision to guarantee new blocks, similar to stacking and rollover security deposit. A business would never process his own account transactions but would be able to process other businesses's transactions, generating extra income from processing. This would create incentive for businesses to accept transactions in that currency and would reduce large monopolies as businesses would need each other's to process transactions.

- **O exchange rate** : this task is required to allow the blockchain to provide exchange rates between the O coin (water referential) and other monetary referential (fiat and crypto currencies). To do so, along with online crawlers that can capture online pricing, users (account holder defined by their public key) will be picked randomly by the blockchain and offered a reward to collect a measurement of one liter of potable water sold individually in one currency. By averaging all those measurements over a certain period, the blockchain will be able to provide exchange rates at any time with all currencies on the market. For more security, we can allow cross currencies measurement (where users will measure other country's prices) and validations (where users will validate other's measurement). We can also detect any increase/ manipulation in water prices from one currency and apply sanctions if needed.
- **Stability control**: Now that the coin is defined in any referential following the step anterior, we need to observe that the effective exchange rate is respected for each currency. And, in the same manner we collect water prices, the blockchain will pick random users and allow them to earn coins by collecting online and offline exchange rate information between O and other currencies. For currencies with no public exchange rate, we can extrapolate using

other fiat or crypto currencies. Ideally, if the coin is stable, the exchange rate observed should be the same as the one defined by the measurement. To be considered unstable in a referential and trigger "sanctions", the exchange rate between the currency and O should be out of range of the supposed exchange rate (within a precision based on the precision of the water price measurement) for a certain amount of time.

Now, let see how we can help currencies respect the rate established by the blockchain through user's measurements and without third party authority.

To force maintain the coin stable in his referential, we will use the very simple human principle that the offender's sanction can be the reward of the offended.

In other words, if a currency becomes unstable with O (out of his supposed range for a certain amount of time), it will automatically trigger two sanctions for the offender by:

- Generating new coins equal to the value of the difference ($\text{abs}((\text{ObservedRate} - \text{SupposedRate}) * \text{TransactionVolume})$) and will distribute them to random users for which the observed exchange rate of their currency follows the supposed rate (aka the good actors). We will call this process the stabilization mining.
- Banning users attached to this currency (place of birth using this currency) from receiving money from the stabilization mining (when other currencies would become unstable with O)

The benefit of this system is that individuals and governments would both have interest in keeping the exchange rates to how it is defined by the blockchain so they don't generate money for other good actors that follow the rules and individuals from that currency can receive money from other currencies that are disrespectful of the O value. A currency that exchanges at a rate different than the rate made of human measurements, provided by the blockchain, would take the risks of enriching other currency's users, therefore becoming poorer over time and also having his users angry by not receiving their part of the stabilization mining.

Based on this business model, the following case scenarios may happen:

- The ideal case of all currencies following their established exchange rate with O. The coin can then be considered stable with his referential of water and serves his main purpose that other currencies can't. This would demonstrate that we can have a real unlimited stable coin based on water without supplies (no stabilization coin generated, no coin inventory) and with high demands (since exchange rates are respected meaning users/governments are interested in)
- A currency get uncontrolled and get out of range of his supposed value over a certain period of time. This will generate coins on a daily basis equal to the volume of transactions of O in that currency for the day multiplied by the difference in exchange rate and will be distributed randomly in pre-determined amount to users which currency follows the rules of exchange rate. That way, users and governments have interest to have their own fiat currency following the exchange rate in order to receive stabilization mining coins and to avoid enriching other currency's users that do follow the rate.
- A currency doesn't provide an exchange rate with O for some reasons. We can extrapolate through other currencies that do have an exchange rate with it.
- A currency disappears: in that case, we will just control the average retail price of one little of potable water.

For the good actors, which currency follows the official exchange rate, funds in O coin will be able to be created thru smart contracts using an e-governance based on scientific knowledge & evidence; measured performance and with goals that benefit all humans the same way. The e-governance algorithm will be the subject of our next whitepaper.

Conclusion

In this document, we successfully designed a digital currency that is universal, stable in his referential and based on the value of life. This will allow to create unlimited wealth that can be used to solve vital issues humanity is facing and that current wealth don't want to pay due to lack of financial return. As explained in this document, this will permit to reverse immigration, clean our soil, water and air, solve homelessness and poverty, create jobs, reduce inflation, increase buying power, reduce tax, improve security, make health care accessible for everybody and create policies that makes sense to all humans in the same way. This will soon be followed by another white paper which will define the base of a decentralized e-governance to control the creation of coins thru smart contracts for project that serve all humans on earth and that current system can't finance due to the lack of financial return.