The UNO

A Model Complementary Currency Used to Reduce Poverty & Help Build Healthy Local Economies

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This document explores a topic introduced in a companion document titled Commonwealth Development Organizations (CDOs), which describes a more complete financial ecosystem of which this concept is a part. It can be found at: https://commonwealthgroup.net/doc/CommonwealthDevelopmentOrganizations.pdf

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Overview

Economic disparity is greater than at any time in recent human history.

Four out five people live on the equivalent of $10 USD or less per day,[1] largely left out of the global economy.

That is even more true for the more than 50% who live on the equivalent of $5 USD or less a day. This group, often called the base of the pyramid (BoP),[2] can be divided into three strata.[3]

1. **Low income**: approximately 1.4 billion people who struggle to live on $3-$5 a day.

2. **Subsistence**: approximately 1.6 billion people who barely subsist on $1-$3 a day.

3. **Extreme poverty**: approximately 1 billion people who receive less than $1 a day.

In 2002, C.K. Prahalad and Stuart Hart suggested that a fortune could be made in serving the needs of the poor and in the process coined the term BoP.[4] Unfortunately their vision to align corporate self-interest with improving the poor's standard of living has proven elusive. The global economy, for the most part, remains outside the grasp of the BoP, and attempts to integrate the poor, whether as potential consumers or as producers, have fallen well short of desired outcomes.

Treating the poor as consumers has left the corporate landscape littered with high profile disappointments due largely to the inability of sellers to reduce costs and prices enough to scale to profitability when each consumer makes a tiny purchase. Even deep-pocketed multinationals like Hewlett Packard, Procter & Gamble, SC Johnson and DuPont have either shut down projects or transferred them to non-profits.[5]

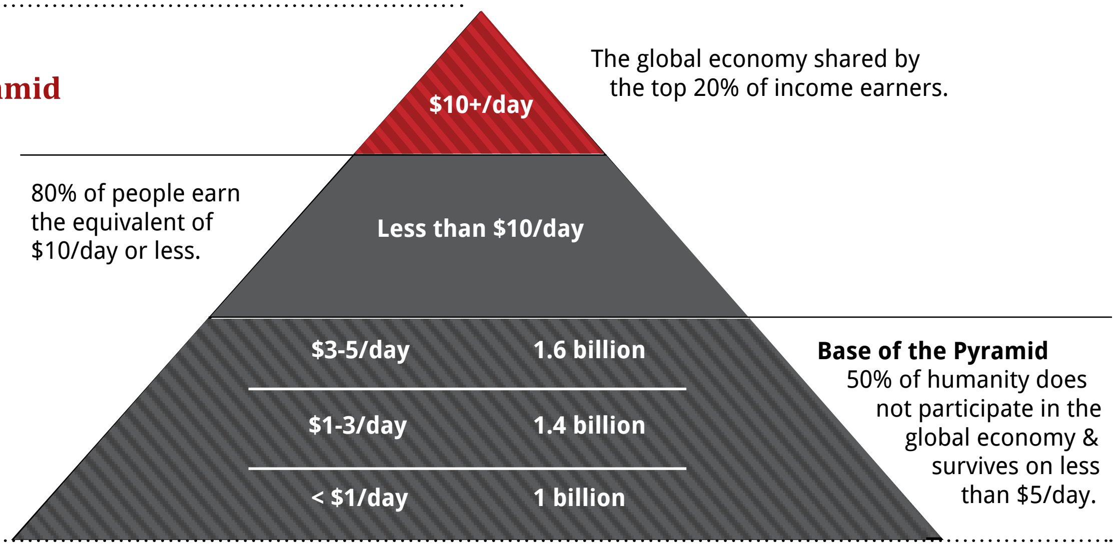
Treating the BoP as producers shows somewhat more promise, but this approach faces huge challenges, including producers' poor linkages to buyers, sellers and other producers, and very limited ability to take on economic risk.[6]

Borrowing doesn't really move the needle either. Microfinance, once held out as the rescue mechanism for the poor in the developing world, is proving to be inadequate.[7] Long-term studies reveal little difference in living standards between communities with available micro-lending and control communites.

To participate in the global economy, whether in the developed or developing world, one has to start with certain minimum assets and financial resources. The BoP does not have those assets and therefore cannot get a foothold on the economic ladder.

Fig. 1

The Income Pyramid



Income inequality in developed countries has created much the same hurdle. People born into ever-expanding pockets of poverty, poorly educated and stuck in low-wage service jobs, are unable to lift themselves off the bottom rung and build better lives for themselves and their children.

So the question is, how do we get money in the hands of the poor when the current financial system does not work for them? When it takes money to get money? And how do we then consolidate those individual gains to create healthy local economies and sustainable communities?

A two-pronged approach

We answer those questions by combining two approaches that have each proven to work in alleviating poverty and in building and maintaining robust, inclusive local economies.

1. Basic income grants

Only one concept has been proven to eliminate poverty, and do so rapidly, every time it has been implemented — basic income.[8] (See Appendix A for a basic income primer.)

Basic income is the idea that all citizens should be gifted a monthly income sufficient to cover their basics needs. It goes by various names, including unconditional basic income, basic income guarantee, universal basic income, social credit, social dividend, citizen's income or most commonly, basic income.

Not surprisingly, there is a popular misconception that a guaranteed basic income will just make the recipients lazy. In fact, the opposite is true. Evidence is accumulating that free money, as Dutch writer Rutger Bregman notes in the Washington Post,[9] has several advantages:

- *There is no negative effect on labor supply – recipients do not work less.*
- *Households make good use of the money.*
- *Poverty decreases.*
- *Long-term benefits in income, health, and tax income are remarkable.*
- *The programs save money.*

Basic income experiments have largely focused on grants of national currency and thus have faced an uphill battle to gain legitimacy and acceptance, not to mention severe structural challenges. Elected officials assume that such programs will require new taxes, anathema to politicians everywhere. And they are slow to realize that implementing basic income could well replace programs like welfare, housing assistance, food stamps and unemployment compensation that require complex and costly administration, eligibility review and oversight.

Nonetheless, where basic income programs have overcome these obstacles, the results are compelling. Thus we have concluded that some form of a basic income program is essential to reducing poverty.

But can a basic income program be implemented in a way that gets around the problems associated with using national currency? We believe it can — by introducing a second approach to produce an integrated solution.

We propose to simply make unconditional basic income grants to recipients using a complementary currency. [10]

2. Complementary currencies

Complementary currencies have a long history[11] of creating strong, stable economies that make full use of local productive capacity. Complementary currencies are so named because they function in parallel with conventional money. Complementary currencies do not replace national currencies, but rather complement them. Users need only agree to accept those alternative currencies as a medium of exchange for goods and services in addition to the money they normally use.

A complementary currency then is an agreement to use something other than national legal tender as a medium of exchange. (See Appendix B for more on complementary currencies.)

Types of complementary currencies

There are two forms of complementary currencies — one that resembles conventional money (paper or digital) and the other in the form of time tracking or credit.

Complementary currencies in the form of money can be issued in three ways:

- **Sold** for cash: Toronto Dollars, Berkshares, Brixton Pounds, Bristol Pounds.
- **Distributed** with no formal obligation to reciprocate: Ithaca HOURS and other time-based currencies.
- **Spent** into circulation as a credit obligation: LETS, WIR, mutual credit clearing systems like CES in Africa.

Programs such as **airline miles** and similar loyalty programs are also generally grouped under the umbrella of complementary currencies.[12]

Airline miles are one of the fastest-growing subsets of complementary currencies. Indeed, by 2005, it was estimated that the value of air miles in circulation far surpassed that of any other national currency.

Meeting multiple goals

Complementary currencies are often used to link unmet needs with otherwise unused resources.[13] In every community there are things that need to be done and people willing to do them. All that's missing is the medium to connect the two.

"Adopting a diversity of currencies is just as important to human survival as biodiversity is to the fate of the earth."[14]
—Bernard Lietaer

Therefore, the more money, i.e., medium of exchange, there is in local circulation, the less unused productive capacity and therefore the better off everyone is.

Beyond its ability to protect or stimulate a local economy, a complementary currency can be used to pursue social or environmental objectives.

And although complementary currencies are often local in nature, they can be used within virtual communities globally, promoting fuller utilization of resources over a much wider geographic area.

And like basic income, they have been shown to also significantly reduce poverty, depending on implementation and circumstances.

Combining two proven methods

By combining basic income with a complementary currency, we address both poverty elimination and the building of healthy local economies.

- By giving a grant, we circumvent barriers implicit in conditional government programs like those mentioned above. We also remove any incentive for fraud and corruption in participation and administration. And we allow recipients to decide for themselves how to use the money.
- By making the grant in a complementary instead of a national currency, we remove many of the real and perceived constraints and obstacles associated with the use of national currencies, including the assumed necessity to tax or deficit spend to fund such a program, reliance on donations or other contribution, and more.
- By coupling a basic grant program with a complementary currency, we get the best of both worlds.
- This combination is best applied where there is very little national currency in circulation.

Thus, it currently better fits developing economies.

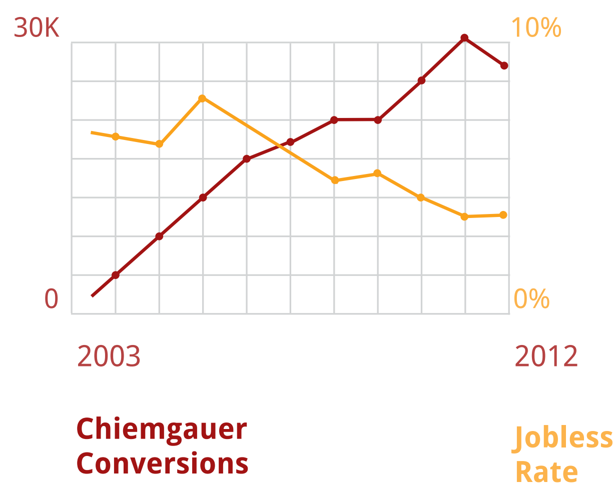
To implement this strategy, we are introducing the UNO, a new model complementary currency that can be used to provide a basic income to its users anywhere in the world.

The UNO is designed to alleviate the ravages of poverty and thereby the suffering of the BoP, one region at a time, and also serve as a catalyst for creating healthy local economies that provide opportunities for citizens, and ultimately nations, in both the developing and developed world.

We based our approach on evidence from studies conducted on basic income programs around the world, described in greater detail in Appendix A and on complementary currency programs, explored in Appendix B.

Fig. 2
Linking Unmet Needs with Unused Resources

In Rosenheim, Germany, unemployment inversely tracks deployment of *Chiemgauer* complementary currency, decreasing as use of currency increases.[15]



02

Currency Sources

hurdles implicit in basic income projects tied to national currencies and why a complementary currency like the UNO overcomes those barriers, we begin by asking, "What exactly is money? Where does it come from? And how does the source of money help or hinder our goal of poverty elimination?"

Definition of Money

Wikipedia summarizes money as "any item or verifiable record that is generally accepted as payment for goods and services and repayment of debts in a particular country or socio-economic context, or is easily converted to such a form. The main functions of money are distinguished as: a medium of exchange; a unit of account; a store of value; and, sometimes, a standard of deferred payment. Any item or verifiable record that fulfills these functions can be considered money."[16]

Units of exchange that fit this definition have been around for millennia, often in two parallel forms – those that we would call a national currency, authorized and/or backed by a government (nowadays called fiat currencies[17]) and others that are non-government, citizen sponsored systems, usually called complementary currencies.

Bank-created Money

Contrary to popular belief, the vast majority of national currency today comes from private banks, not governments.[18] That means every bank from the smallest community bank to the largest bank on Wall Street contributes to money creation. Some central banks[19] are owned by their national governments and some are a public/private mix, but they do not account for the direct injection of the majority of the money in circulation, but rather support the other banks.

And, as acknowledged recently by the Bank of England,[20,21,22] banks do not lend depositors' money as commonly believed, but rather create the money they lend with a simple accounting maneuver when they approve a loan. Banks use the borrower's own assets as the guarantee for this brand new money.

This means that the for-profit financial industry has succeeded in capturing the creation and control of the majority of the world's money supply, manifested in the form of national currencies. Bankers, going back several hundred years, persuaded governments to let them create the money that drives our economies. In essence they privatized the money supply.

One problem fundamental to this system is that each time a bank creates the money for a loan, it does not create the money to cover the interest. This means that ultimately somebody will not have the necessary funds to fully pay back their loans. At that point the bank turns to asset confiscation to close out that loan (i.e., seize the collateral that was pledged with the loan). Thus the banks either make money on the money they created out of thin air (interest on the loans), or acquire assets in exchange for wiping out that magically created money.

Another problem with bank-created money is that its creation and withdrawal from circulation normally runs counter-cyclically to what the economy needs, i.e., when the economy is slowing down and more money needs to be circulating to rev it up, banks cut back on lending. Their rationale is that when the economy is faltering, their risk as lenders goes up and therefore they want to limit their exposure. Conversely they loosen up the purse strings when the economy is running hot. The net result is that society is deprived of the very thing it needs when things get tough and has more than it needs when things are good.

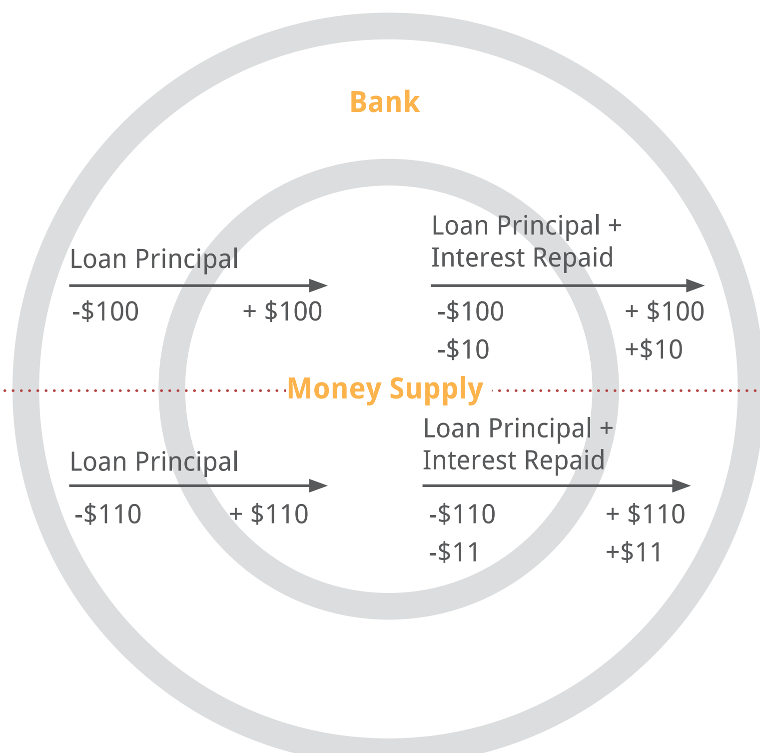
We find that the only banks that prioritize lending in concert with society's needs are non-profit owned banks like the German *Sparkassen*[23] or government owned banks like the Bank of North Dakota,[24] the only government-owned bank in the United States. These support healthy,

Fig. 3

Private Banking with Interest[25]

Step 1: A bank creates a loan of $100, increasing the money supply by $100. When the loan is repaid at 10% interest, the money supply is reduced by $100, plus an additional $10 (because the money to pay the interest is never created), which becomes **property of the bank**.

Step 2: The bank leverages its $10 in interest income to loan $110 dollars and the cycle begins again. After each cycle, the money supply is reduced by an ever-increasing amount, which represents the **growing private ownership** over the money supply.



thriving economies while most of the rest of the world suffers through boom and bust cycles, dependent on private banks that prioritize profit for their shareholders ahead of what the economy needs.

Instead of trying to work within that dysfunctional system, we wish to look at alternatives, specifically those that can be implemented without challenging the current banking paradigm.

Yet nobody would expect even these public banks to just give money to citizens! The idea of a basic income grant is completely outside of their conceptual framework. We have to look elsewhere.

Government-created Money

As noted above, most governments today have ceded their right to create money to the private banking industry. The U.S. government, for example, expands the money supply by spending money (essentially by writing checks drawn on an account at the Federal Reserve, which creates the money on its books as all banks do) and contracts it with taxes or bonds.

Paradoxically, central banks like the Federal Reserve create the money they lend to the governments based on the government's own creditworthiness, which should be the same justification for the government issuing its own money without having to borrow it.

If governments did start creating money directly, they would be most inclined to do so when the economy needs it the most. Think of Abraham Lincoln's Greenbacks program,[26] which allowed the North to fund and win the U.S. Civil War, or the programs launched under FDR's administration in response to the Great Depression. However, given the power of the private banking interests over national governments today, it is unlikely that any government will take back the power to create its own money to inject into its economy, whether for basic income grants or other uses.

Yet some countries have, or are in the process of, exploring basic income programs, even without their governments printing the money to do so. Unfortunately, their default mechanism is taxation or borrowing, both of which are rife with practical and political challenges. This is the case even though sophisticated financial models prove that most governments can save enough through elimination of high-overhead programs like welfare, food stamps, unemployment benefits and pension plans to be able to replace them with a basic income program — without having to raise taxes.

Unfortunately, most elected officials start with the assumption that such programs must be funded by taxes or deficit spending, anathema to politicians of all stripes. Government-created money would be even further beyond their ideological limits. So, once again we have to look elsewhere for a solution.

Public & Non-profit Bank-created Money

Government owned (public) banks and banks owned by communities and non-profits create money in the same way as private banks, i.e., with accounting entries when making loans. The difference is that in the case of government-owned banks, profits are returned to the government, while non-profit banks recycle profits into new loans and community projects.[27]

The private banking cartel, however, treats public banks as a competitive threat. In recent times more than 20 U.S. states have introduced legislation to replicate the example set by the publicly owned Bank of North Dakota. Every single one has been defeated as a consequence of lobbying by the private banking industry.

Beyond the question of whether the banks that create our money are publicly or privately owned, one fundamental fact makes banks of either type an improbable source of basic income money. Nobody would ever expect them to just create and give away money with no review process, no collateral and no interest attached. Thus we cannot look to this segment of the financial community to provide a solution.

Citizen-created money

If we are to break free from our dependence on banks for money creation and cannot count on governments to assume this function, then we have to turn to complementary currencies created by the people for the people.

Complementary currencies exist parallel to national currencies. They can be limited geographically (like BerkShares[28] in Massachusetts or to specific groups (like the Swiss WIR,[29] which serves businesses in several industries.) Most have been based directly on valuation against a national currency, or indirectly via a basket of goods or an hour's labor, and thus fit in with the existing financial paradigm.

But there is no inherent value to any currency, whether we call it a dollar, yen or euro (national currencies are no longer tied to gold or any other hard asset), or the Bristol Pound,[30] LETS,[31] or the Chiemgauer[32] in Germany (complementary currencies). They all have value only because we agree that they do.

As of June 2017, Switzerland's WIR Cooperative held **5.4 billion CHF ($5.6 billion USD)** in assets.[33]

As citizens we can agree among ourselves on any kind of value exchange mechanism that functions like money.

That happens all the time. Thousands of complementary currency systems already exist. Some are general purpose and can be used to purchase any kind of good or service as long as the seller accepts that particular currency in lieu of a national currency.

Others are more limited in scope. For example, when a traveler earns or uses airline miles, he or she is in effect participating in a complementary currency system. Airline miles can be used to not only purchase other flights, but hotel rooms, car rentals, vacations, gift cards, and other goods or services and in some cases cash. Thus they are similar to a currency in their ability to be exchanged for certain goods and services.

We certainly don't have to depend on the for-profit banking industry to create a currency for us. And we do not have to get permission from anyone (with the exception of certain governments who may curtail complementary currencies), nor take something from anyone else (tax) to create this new currency.

We the people can chose to create it (as digital units) and do with it what we want, including giving it to ourselves. We can create it out of thin air, without taxation and without government involvement. Any value we place on it is up to us.

We propose to create a new model digital complementary currency and call it the UNO. We envision the UNO as a universal tool that can begin to eliminate poverty via a basic income program, and do so in a relatively short period of time.

03

The UNO

Distinguishing Features

The UNO has one particular feature that distinguishes it from most other complementary currencies, and another that it shares in part.

1.

No contribution required

How will the UNO get into the hands of users? That is where this complementary currency differs from virtually all others. Normally one has to contribute time, money or something else of value in exchange for receiving either a national or complementary currency.

But what if someone has no excess money to purchase a currency, as is widely the case throughout the BoP and in poorer communities throughout the developed world? Or is incapable of contributing time, services or other personal effort? To reduce poverty, everyone has to be able to participate, not just those who can afford it. Therefore, obtaining the UNO cannot require an *a priori* contribution.

This is just as true on the supplier side as on the recipient side. Historically, basic income initiatives (described below) have proposed distributing the national currency, which some non-profit organizations use to provide grants as described in the article, *This Startup Gives Poor People A Year's Income, No Strings Attached.*[34] Such a program requires donors to contribute national currency money to the non-profit to fund those grants, and so is limited by the donations it receives.

Not so with the UNO. To allow universal participation and maintain independence from national currencies, the UNO is a completely self-contained currency.

We intend to provide everyone desiring to receive a basic income in UNOs with a monthly grant (described below). They need only sign up and the grant begins

[Theoretical economist Silvio] "Gesell advocated ***currency decay*** *as a device for decoupling money as a store-of-value from money as a medium of exchange . . . The result, he foresaw, would be an end to the artificial scarcity and economic depression that happens when there are plenty of goods to be exchanged but a lack of money by which to exchange them. His proposal would force money to circulate. No longer would the owners of money have an incentive to withhold it from the economy, waiting for scarcity to build up to the point where returns on real capital exceed the rate of interest . . . freed from the control of the wealthy,* ***money would circulate freely instead of coagulating in vast, stagnant pools as it does today.*** *"—Charles Eisenstein, Sacred Economics*[35]

to flow, no strings attached. We may limit the total amount of the grant under certain conditions (described next), but there will be no means test or oversight on what the recipients do with their grants. They are free to use them as they wish.

Our premise is that everyone who needs and wants UNOs should be able to receive them as a basic human right. With regular grants of UNOs, they will have the currency to spend into their local economies. They may not be in a position to contribute time or money to acquire this currency, but they nonetheless can make a contribution by being a consumer of goods and services acquired with their UNOs.

2.

Grant limits & demurrage

One of our main goals, in addition to improving individuals' standard of living, is to get currency flowing within communities. The more UNOs that circulate, the healthier the local economy. Thus our program is designed to encourage users to spend their UNOs. We do this using two mechanisms: grant limits and demurrage.

Grant limits

If a user does not spend their newly granted UNOs, they will cease to receive their monthly grant beyond a certain point. That limit may be modified over time, but we plan to start by withholding grants after three months.

That means if someone accumulates three full months worth of UNOs in the grant portion of their account, they will not receive any more grant UNOs until they reduce that total by spending some or all of them into the community. As long as they spend their grant UNOs, they will continue to receive new ones.

In addition to the monthly grant received from the UNO bank (described under Implementation below), users can also receive UNOs in the form of transfers from other users. These transfers can result from payments for goods and services or simply be gifts (such as a user giving some of their UNOs to a family member.) Such transfers have no limits.

Those two different deposit types have different impacts on the local economy:

- **Grant UNOs:** Newly issued grant UNOs (like newly minted money) will not have been placed in circulation. As long as they sit in a member's account, they will have no impact on the total amount of UNOs in circulation. However, that means they are also not contributing to the local economy.

- **Transferred UNOs**: A merchant may sell goods or services and accumulate many times his or her personal monthly grant in one month of business transactions. So, to make sure the merchant continues to circulate those UNOs in the community, we included an additional element — demurrage.

Demurrage

Here the UNO resembles many other complementary currencies in that it loses value over time.

Demurrage[36] can be likened to negative interest or a tax on the currency. For example, a currency with a 10% demurrage fee would be reduced to 90% of its initial value at the end of the demurrage period (daily, weekly, monthly or annually).

We will charge a demurrage to users who attempt to let their UNOs pile up. It will likely be called an account fee and will be charged by the UNO bank, following certain guidelines to be determined. The exact percentage and rules are yet to be decided.

Our goal is to maximize the incentive for moving UNOs within the community, but not be overly aggressive with the fees involved. We also need to adjust for potential inflation (explored below) by matching the amount of UNOs in circulation with economic output. That may require some real world experimentation to determine the right balance.

These two features, the unconditional granting of UNOs and the demurrage, should greatly simplify rollout, speed growth in usage, and accelerate circulation within local economies.

Fractional transactions

Historically, most complementary currencies have been valued in step with the national currency. For example, the Bristol Pound is backed by sterling deposits and is equal in value to £1 sterling; the Chiemgauer can be exchanged 1:1 for euros, and the WIR Franc is pegged to the Swiss Franc.

Similarly, the UNO will likely be valued by its user community at a rate similar to the national currency. But in many economies, that unit is too high to address the many millions of small purchases that are made for a fraction of that value.

To facilitate fractional transactions, we plan to track 1/100th of an UNO using a unit we call the Centi. In U.S. dollar terms, it would be equivalent to the penny.

Implementation

We start by designating a region to deploy UNOs. It requires the presence of enough participants so that the UNO can serve as either the primary or secondary trading currency. The region may be a village or a group of villages, or any other group of residents constituting an economically viable trading group, i.e., that can provide at least a basic spectrum of goods and services to each other.

Both the UNO and the Centi will be created by a central non-profit organization (TBD) that manages the creation, distribution and withdrawal of these units. The UNO and the Centi are the "people's currency," created by us, for us – without any government involvement or restriction, and without any involvement of banks, private or public.

Local distribution and management points will be established worldwide with something akin to a local bank that we call an **UNO bank**.

UNO bank (PBFI)

The entity that will actually issue the UNO is a Public Benefit Financial Institution. A PBFI goes well beyond a banking function for the issuance of a complementary currency; it is more like a bank, venture capital firm and a public foundation rolled into one. Its full functions are described here. However, for the sake of simplicity, in this document we will simply call that entity an UNO Bank.

Each local UNO bank will exist under authority from the central non-profit organization (which will serve as the UNO Central Bank) and receive all the tools it needs to manage local distribution of the currency, along with a tie in to the central computer system that will manage the effort worldwide. The website for the central bank will be www.uniex.net (UNIEX). UNIEX is an abbreviation for UNIversal EXchange.

UNIEX will seek out one or more local partners interested in establishing a local UNO bank, for managing the distribution of UNOs in that region. UNIEX may well do so in conjunction with NGOs[37] already working in that region.

Recruiting participants

The key to successful implementation is directly tied to the UNO's acceptance by the local population as a viable currency which they can use to buy locally available food, clothing, housing, education and the other basic necessities.

Once the UNO bank is operationally viable and the rest of the infrastructure is in place (no brick and mortar facility is required, just connection to the Internet), participants can be recruited to receive UNO grants. Ideally this will entail a substantial group of participants being presented with this opportunity at the same time (e.g., group village meetings) and signing up together.

We propose to provide a monthly grant of digital UNOs to anyone asking to receive them.

There would be no economic eligibility test (as with a guaranteed minimum income[38] or welfare). Grants will be made to individuals, adults and children alike (probably lesser amounts for dependent children under their parents' account).

This would create a rising economic tide that lifts all boats, and the assumption is that the more UNOs there are circulating in a community, the healthier the local economy. If someone doesn't need or want them, they simply don't request to receive them.

Participants will receive their grants deposited in a UNIEX account similar to a bank account. They will access UNOs primarily via a banking app on their mobile phones and other mobile devices, (see Technology below) as well as through Internet-connected computers.

89% of adults in the West have bank accounts versus only **41%** in the developing world.[43]

Since the developing world, home to the majority of the BoP, has far outpaced the developed world in adoption of mobile banking,[39,40,41,42] adoption of the UNO should encounter few technological barriers.

Since there is almost no physical friction preventing expansion, we expect that adoption will be paced by the speed at which we can find local UNO banking partners capable of being trained in implementing the system.

We anticipate, based on previous experiments with basic income, that once the UNO is adopted in one village in a region, neighboring villages will want to participate. As word spreads, the UNO could easily grow virally. It is not out of the question that poverty could be greatly reduced if not largely eliminated in the areas where the UNO is deployed.

Linked to cost of living

We propose that the grant amount be based on the general cost of living within a particular region (nation, region, state, etc.). An UNO will be an UNO anywhere in the world.

However, its value will largely depend on the cost of living in a local economy. A dollar in Silicon Valley will generally have less purchasing power than it will in rural Mississippi, which in turn will have much less purchasing power than a dollar in rural India.

Thus the size of a potential grant would be tied to the local cost of living, where the numbers of UNOs would correspond roughly to the number of national currency units (like the dollar) it would take to have a basic subsistence income for that region. The assumption is that the vast bulk of the grant would be exchanged right in that region, just like a national currency. Thus even though the UNO would be universal (like a dollar) its value would fluctuate based on local conditions.

> *Our goal is to encourage recipients to use their UNOs as soon as possible in order to get them circulating in the local economy.*

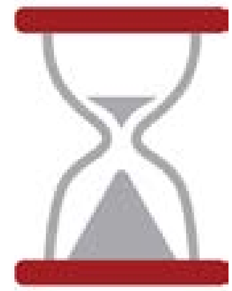
We do so with the demurrage system described above. If an owner does not transfer units they have received within a prescribed period of time, those units will lose value.

Preventing inflation

Our grant limits and demurrage system will not only encourage users to spend UNOs rather than retain them, but they have another attribute that gets to the heart of one key objection to the basic income concept, the belief that continuing to pump money into an economy (via monthly grants) will ultimately lead to inflation.

Our grant limits help to curtail inflation at the source. If a grantee cannot spend their UNOs because there are too many already chasing too few goods and services, then by limiting those grants we throttle the amount that might go into circulation.

When UNOs are already in circulation, the demurrage part of our system counters any inflationary tendencies. If the total money in circulation becomes more than the local economy can absorb, the excess is automatically extinguished until demand matches supply and production is in balance with money in circulation.



We can **adjust the percentage** of the demurrage to fit local conditions.

04

The UNO in Practice

We anticipate the primary usage of the UNO will go to obtaining local goods and services.

Services by definition are the time and effort of others, and thus are fundamentally local in nature. Goods so obtained will be those that are largely produced locally, so that the providers can produce and sell their goods to buyers using UNOs and use their own UNOs to purchase their raw materials.

One of the best such applications would be for locally grown food. UNOs would give local residents more resources with which to better support their local farmers and get healthier and fresher food in the process. Communities can then move on to other elements that are critical to their health and vitality.

Small businesses

One of the foundations of any local economy is the myriad of independent small businesses that provide products and services to local residents, including agricultural products, furniture, personal care, clothing, construction and more.

Many of these businesses can be started with the equivalent of just a few hundred dollars. Microcredit has attempted to fill that capital gap, but microcredit's collective success track record is spotty at best. It entails a high degree of overhead, has a high interest rate (which means money leaves the local economy to pay interest to the lender) and tends not to produce businesses that survive beyond the initial borrower (usually a woman) into a family owned business.

It would be preferential for the small business owner to get a grant rather than a loan, adequate to cover the costs of tools and initial supplies/inventory. That way they do not have to take money out of their sales to cover their capital costs, nor does the interest money leave the local economy.

We propose that local UNO bankers review and approve applications for small business grants to cover the initial capital costs for establishing a small business. One of the key conditions for this would be that the source of the tools, raw materials, etc. be willing to accept UNOs as payment. Suppliers that require payment in a national currency may have to be excluded until such time as UNIEX is in a position to exchange UNOs for one or more national currencies (see below).

If the seller will accept UNOs, and the UNO banker feels that the business plan is worthy, the banker would request an invoice from the seller and the bank would make a grant to purchase those items directly. That makes the bank the initial owner of the goods, which it then grants to the new business owner. That way the bank can guarantee that the goods are actually purchased and provided to the business owner at the price agreed upon.

Public works

There are many things that a local community might need in the way of publicly owned facilities or infrastructure, such as community wells, water purification, power generation, schools, meeting places, irrigation systems and roads. A group of local citizens can petition the UNO bank for a community grant to cover design and construction costs for such public resources.

Like the small business grants above, the source of those goods and/or the labor must be willing to accept payment in UNOs. Thus the UNO banker can provide a grant to cover the cost and the community gets a needed resource to serve the common good.

Remittances

One of the ways that the poor in the developing world are able to survive is by receiving money from economic migrants working in wealthier countries. This process is commonly referred to as remittances.[44] A remittance is a transfer of money in a national currency by a foreign worker to an individual in his or her home country.

In Africa, 38% of those with bank accounts say they use them to receive remittances from family members abroad.[45]

Money sent home by migrants competes with international aid as one of the largest financial inflows to developing countries. According to the World Bank, approximately $429 billion USD in remittances were sent in 2016 to developing countries, larger than Official Development Assistance and more stable than private capital flows. 2017 figures were expected to reach $444 billion.[46]

One big drawback to remittances is the high fees often charged by service providers. Given that the senders often work for low wages in the foreign country, the costs of remittances can represent a large percentage of the money sent, itself already reducing the living standards of the sender.

There are two ways in which UNIEX can make this process more effective for senders and recipients.

1.

Since the UNO is both a local and a universal unit of a complementary currency, participants can receive their allocation of UNOs anywhere in the world. Thus family members living in a foreign county, who normally send remittances to their home country, can also send UNOs home as well.

They would simply sign up to be a recipient of a grant from their home town/country UNO bank, and when they receive their monthly allocation, can take a portion of it or all of it and transfer it to other family members back home – essentially at no cost!

2.

To send a remittance in a national currency, UNIEX will provide the sender with the option to convert that remittance into UNOs at no charge, for a nominal charge if the remittance is to remain in the national currency, or a combination of national currency and UNOs. Above a certain percentage converted to UNOs, UNIEX may waive any fees for the balance.

Where UNIEX is able to convert a national currency into UNOs, UNIEX can build up its reserves that can be used to perform other activities requiring fiat money.

Conversion to a national currency

Wherever possible, it is our goal to see that UNOs are the medium of exchange for all goods and services needed by local communities and their citizens. However, we recognize that there may be circumstances where payment needs to be made in another currency, especially a national currency.

Therefore, UNIEX will endeavor to establish relationships with other grant providers (foundations, NGOs, governments, etc.) that might be willing to fund purchases requiring a national currency (e.g., solar panels from a manufacturer), while UNIEX provides for the labor and local materials costs. As a fallback in certain circumstances, UNIEX may make provision to facilitate the conversion of UNOs into other currencies.

If a grant requires that a supplier be paid in a national currency, UNIEX will attempt to make arrangements with other parties to

The ability to do so will depend on one of the following elements being put in place in advance of such a requirement.

1.

UNIEX will solicit parties willing to provide outright grants to UNIEX funds that UNIEX can then use as appropriate.

2.

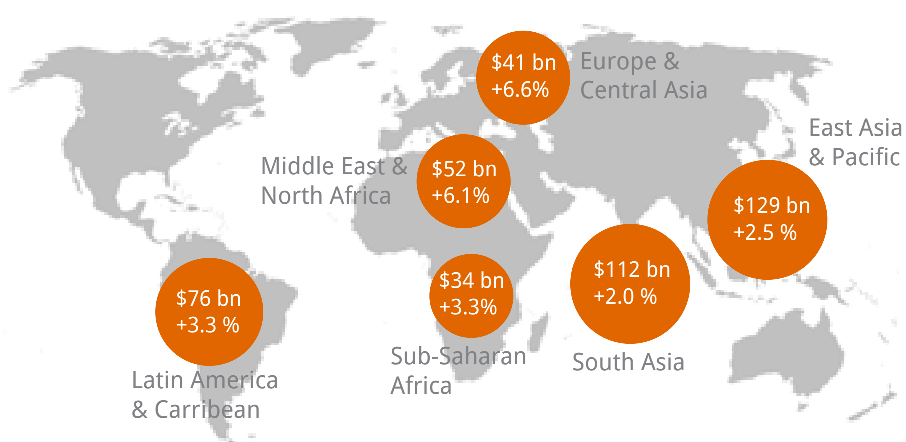
National currency remittances will help establish a national currency cash pool that will allow UNIEX to provide the resources to cover conversion from the UNO to a national currency.

3.

UNIEX will solicit parties willing to exchange units in a national currency for UNOs when needed.

Fig. 4

2017 Estimated Remittance Flows to Developing Countries[47]



05

Technology

Existing off-the-shelf technology can enable a basic UNO system. More complex features are possible with customization.

Several organizations have already developed software platforms to support complementary currency systems.

One of the leading providers operates under the brand name Cyclos.[48] Cyclos is a project of a network of non-profit organizations called Social Trade Organizations (STRO[49]) from Latin America and Europe, whose objective is "to move money as a major steering mechanism in society from causing environmental abuse and preventing many poor to optimize their capacities, to become an instrument that serves a qualitative human development."

Through Cyclos, STRO has provided software solutions for over 20 years to more than 1,000 providers of complementary currency systems. In addition, Cyclos also provides for Internet and mobile banking services, barter systems, campus card systems, time banks and LETS systems, micro finance systems, remittance systems and more.

Server side

To manage the UNO lifecycle using Cyclos, we plan to install the latest Cyclos software on our own servers.

Features include member accounts (like conventional checking and savings accounts, but in any currency), full online and mobile banking (payments and deposits, SMS), loans, invoices, remittances, demurrage, online marketplace (allows members to advertise and promote their products and services to other members and provides users with search functions to find what they want, contact sellers, etc. (similar to Craigslist)), shopping cart, commercial and private barter and much more.

Online and mobile banking software programs such as Cyclos currently offer the majority of the functions the UNO system would require as part of their off-the-shelf solutions. Only a few of our desired features, most importantly the ability to time stamp each unit of currency for enhanced demurrage purposes, will require some customization of the basic Cyclos 4 software package.

To implement UNIEX with minimal delay, we therefore plan to launch with the Cyclos 4 Communities package and over time migrate to a full-feature standalone system dedicated to UNIEX and its UNO system.

An initial Cyclos 4 Communities system is under development and can be viewed at http://www.uniex.net or https://communities.cyclos.org/uniex.

Client side

Cyclos comes with a robust mobile interface. It is compatible with the Android, iOS, Blackberry and Windows operating systems (most mobile phones in the developing world run on the Android OS).

Users can make and receive payments, view member account balances, view account history, search for users in the local network and more. Transactions can occur directly between mobile devices, or be initiated on one end only (for example, a payment can be sent to another user's phone number and thence to their account).

This is significant because the most seamless way of accessing the functionality required to administer the UNO program is to use existing mobile phone networks. As we mentioned earlier, the developing world is far outpacing the developed world in adoption of mobile banking. In countries with few retail banking branches, mobile telecom networks have emerged as major providers of financial services, bypassing traditional banks.

In Kenya, **68% of adults** say they have used a mobile phone to send or receive money in the past 12 months. More than half of them have bank accounts.[50]

Since December 2008, French telecom Orange has signed up one million people for its Orange Money mobile banking service in Mali, Senegal, Ivory Coast, Madagascar, Kenya and Niger. British mobile operator Vodafone has 13 million customers in Kenya and six million in Tanzania for its mobile banking service, which generated 670 million transactions last year. In Kenya and Tanzania, Vodafone subsidiaries now process more international wire transfers than Western Union.[51]

Globally, the number of mobile banking users is expected to surge more than sixteen fold, to 894 million by 2015 from 55 million in 2009.[52] Almost all of those mobile banking customers — 78%, or 697 million people — are in Asia, Africa, the Middle East and Latin America.

The potential is great in Latin America, where only 35% of people have bank accounts, only 19% have bank cards but 90% have mobile phones.[53]

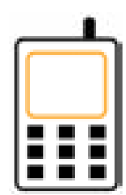
The number of mobile subscriptions worldwide has grown from under 1 billion in 2000 to over 6 billion, of which nearly 5 billion are in developing countries.[54]

As the cost of a simple mobile phone has fallen below $20 in most of the world, mobile banking is becoming affordable in emerging markets.[55]

Widespread adoption

Each local UNO bank will have a dedicated section in the UNIEX backend system managed by the local UNO banker. UNIEX will provide for the allocation of UNOs to each UNO bank, which in turn allocates them to its local participants. The local system will manage the withdrawal of local UNOs and the process of "parking" them in the local UNO bank for later re-release in a new grant.

Given that the UNIEX backend system is capable of near infinite expansion, there are no technological obstacles to slow adoption of the UNO. And most importantly, blocks of new UNOs can be created on demand at a moment's notice, such that there will never a shortage of UNOs to supply this system.



An estimated **1.7 billion unbanked customers** worldwide have access to mobile phones.[56]

06

Benefits of the UNO

The UNO corrects or ameliorates many market inequities and inefficiencies.

- It can fill the gap between willing workers and work to be done when there is insufficient national currency to pay for the work. This is of particular importance in the case of infrastructure projects that benefit the community as a whole.
- Willing workers no longer have to compete against those who are forced to seek work out of financial necessity.
- Workers can take time to gain the skills to compete for better-paying jobs.
- Job seekers have the luxury of finding work that is the best fit for them, increasing efficiency in the distribution of labor.

The UNO aligns with technological advancement.

Worker productivity is advancing faster than the need for workers. Robots and automation are taking over tasks in fields as diverse as agriculture, manufacturing, professional services, medicine and construction. Not everyone will be able to find paid work, and all projections point to this problem growing into the foreseeable future, producing a permanent glut of workers with too few jobs to engage them. A grant of UNOs can provide a living for displaced workers.

The UNO stimulates entrepreneurship.

Local economies flourish as entrepreneurs have an income to survive on while building their businesses. And it creates customers as people have currency to buy goods and services.

The UNO is simple to administer.

Because there are no eligibility requirements, the UNO dispenses with the need to create a bureaucracy to verify initial and continuing eligibility.

The UNO is easy to obtain.

Entitlement programs and aid packages can be complicated for intended beneficiaries. UNO recipients have no bureaucracy to navigate and no complex signup procedures. They just sign up and begin receiving their monthly allotment.

The UNO is fair.

All people are treated equally. There is no means testing and no preferential treatment.

The UNO prevents fraud and corruption.

Because it is a grant to all, there is no need to cheat or pay bribes to participate.

The UNO puts people in control.

Recipients make their own decisions about what to do with their money, rather than politicians, local bureaucrats or distant aid organizations.

07

Appendix A: Basic Income Primer

One way to fundamentally change living standards worldwide is to grant every person sufficient money to guarantee that their basic needs are taken care of, whether or not they work or can contribute in any way.

That means they would have enough money to obtain adequate food, shelter and clothing, be provided with basic health care and receive an adequate education. This concept is generally known as basic income.[57]

The idea has been around for centuries (Thomas Paine[58] wrote about the need for a guaranteed minimum income[59]) that all citizens deserve to receive an outright grant in the form of subsistence income sufficient to provide for the basics for survival.

It builds on the idea of a social heritage transmitted from one generation to the next. Just as wealth is transmitted from parents to their children, a basic income would be distributed to everybody equally, because it is the fruit of progress by a whole nation, and not of individual work.

Progress is a collective good to which all are entitled equally as members of an organized society.

Bank-created money, it is argued, is nothing but the monetization of the production capacity of the whole community. New money thus should belong to all of society and not be the property of the bank.

Most people in the United States are unaware that the country almost had a basic income system during the Nixon administration, supported by the president himself. The U.S. House of Representatives actually passed a bill[60] by a wide margin to create a basic income for all U.S. citizens, but it died in the Senate.

Over the years there have been a number of basic income experiments and the idea is starting to gain traction.

The Basic Income Earth Network,[61] which fosters discussion on basic income, notes "Academic discussion of basic income and related policies has been growing in the fields of economics, philosophy, political science, sociology, and public policy over the last few decades — with dozens of journal articles published each year, and basic income constituting the subject of more than 30 books in the last 10 years."

Reporting on studies of basic income worldwide, Bloomberg's Charles Kenny writes, "Worldwide, richer people express fears about handing money to poorer people. Giving poor people money is no way to stop them being poor, the thinking goes: Surely they will just waste it … A growing number of studies suggest that this is wrong-headed, that just handing over cash even to some of the world's poorest people actually does have a considerable and long-lasting positive impact on their incomes, employment, health, and education."[62]

Recently, basic income has been endorsed by NGOs and other advocacy groups as well as governments in developing countries. In the developed world, the idea of a basic income is often mentioned as a solution to increased automation and the resultant erosion of employment.

Studies show basic income works

Basic income has been tested in both the developing and developed world. As reported in The Washington Post,[63] "Numerous studies of development aid have found impressive correlations between free money and reductions in crime, inequality, malnutrition, infant mortality, teenage pregnancy rates and truancy. It is also correlated with better school completion rates, higher economic growth and improvement in the condition of women."

The evidence demonstrates basic income prevents poverty, improves health, increases education, stimulates entrepreneurship, increases the efficiency of public services, and boosts creativity, community engagement and mental health. Typical evaluations record no reports of the basic income being spent on drugs, alcohol or tobacco. Evaluations also found that monthly transfers improved food security, while lump sums tended to increase household assets. Similarly, short-term grants stimulated short-term activity such as food purchases, while long-term grants also stimulated economic activity and asset building.

In a comprehensive 2010 report "Just Give Money to the Poor,"[64] researchers from the Brooks World Poverty Institute at the University of Manchester examine the growing trend in a number of countries, including China, Mexico, India, Brazil, Indonesia, and South Africa. Their conclusion? Direct transfers to households are a key component of effective poverty reduction and development strategies.

The following is a sampling of programs that have been evaluated. These results are clear — if you give poor people money they'll use it to make themselves and their families better off and gain a foothold on the ladder out of poverty.

Today more than **110 million families in at least 45 countries** benefit from basic income programs.

India, Self-Employed Women's Association & UNICEF, 2011-2012[65]

- Significantly greater food security, healthier food purchased, reduction in the number of malnourished children.
- Fewer illnesses and greater access to medication and medical care.
- Increased school attendance.
- Increased economic activity: residents in basic income villages were three times more likely to start a business than those in the control communities.
- Increased agricultural activity and yields.
- Decreased debt and increased savings.

Namibia, Namibian Basic Income Grant Coalition, 2008-2009[66]

- Significantly reduced poverty.
- Increased economic activity; recipients started small businesses, stimulated by the increase in purchasing power.
- Notable improvements in child health, access to health care
- Increased school attendance.
- Significant reduction in crime.

Brazil, ReCivitas, 2008-[67]

- Improved ability to meet basic needs; improved expectations for children and future.
- Improved nutrition, with 25 per cent of basic income devoted to food expenditures.
- Improvements in health, clothing and living conditions.
- Increase in microenterprise.

Uganda, Youth Opportunities Program (YOP), 2006-[68]

- After four years, half of participants practice a skilled trade.
- Relative to the control group, the program increases business assets by 57%, work hours by 17%, and earnings by 38%.
- Many also formalize their enterprises and hire labor.

Uganda, Women's Income Generating Support (WINGS) Program[69]

- Dramatic increases in business
- Dramatic reductions in poverty.
- A year after the intervention, monthly cash earnings doubled from the equivalent of $6.60 USD to $12.52, cash savings tripled, and short-term expenditures and durable assets increased 30% to 50% relative to the control group.

Kenya: GiveDirectly, 2011[70,71]

- Reduced hunger.
- Enabled investment in assets, small businesses and livestock.
- Increased consumption.
- Increased psychological wellbeing.

Canada: Province of Manitoba and federal government, 1974 -1979[72]

- Increased high school graduation rates.
- Decreased hospitalization rates, in particular, hospitalizations related to stress (accidents, injuries and mental illness). Physician diagnoses of mental illness also declined.

United Kingdom, Broadway, 2009-[73]

(Program provided an unconditional grant to 15 homeless people.)

- The majority of participants moved into housing and stayed housed.
- Used grant to buy furniture, clothing, cell phones, televisions and pay off debt.
- Many began to plan for the future, took classes, developed independent living skills and addressed physical and mental health issues.
- No one spent the money on drugs or alcohol.

Gaining Acceptance

The concept of basic income has been gaining momentum in recent years, securing more attention from mainstream media and from politicians of all ideological viewpoints. Liberals support the idea because it would lift citizens above the poverty line at a stroke. Conservatives like it because it would eliminate much of the federal bureaucracy.

A Sampling of Recent Activities

- The province of Ontario, Canada, launched a guaranteed minimum income pilot project in 2017.[74]

- Finland implemented a basic income program, beginning with a pilot stage in December 2017. The Finnish Social Insurance Institution (KELA) drafted a plan to pay every citizen ~$876 per month, tax-free, which would replace all current social support programs.[75]

- Switzerland held a countrywide referendum in 2016 to grant every Swiss citizen a monthly unconditional basic income of 2,500 CHF (~$2,800 USD). The measure fared better than expected, but failed, in part because of fears that the country would be alone in doing so and thus become a magnet for immigrants. [76,77,78]

- According to a recent opinion poll, 60% of people in France support the idea of a basic income.[79]

- In January 2016, the city of Utrecht in the Netherlands began tesing several different basic income regimes for its welfare recipients. Currently 30 Dutch municipalities are considering pilot projects.[80]

- Ireland's Fianna Fáil party will include a commitment to a Basic Income of €230 a week in its manifesto for next year's general election.[81]

- The 2015 general conference of the Liberal Party in Canada approved two motions[82,83] in favor of basic income, including a federal pilot program. Local initiatives are also underway in the provinces of Quebec and Prince Edward Island, and the mayors of Edmonton and Calgary in Alberta have endorsed basic income pilot projects in their cities.

- In New Zealand, the recently elected leader of the Labour party and new leader of the opposition, Andrew Little has come out in favor of a universal basic income, saying in a radio interview that he would like this to be a focus of policy for the party.[84]

- In July 2105, the regional Council of Aquitaine, France voted through a motion marking the start of a process towards running basic income pilots in the region.[85]

More on Basic Income

1. "A basic income for everybody!"[86] 48 mins. This video by Alina Kneepkens and Jozef Devillé was broadcast on Belgian national television on December 18, 2014. It contains a section that explores the experiment in Namibia described above.

2. "Basic Income The Movie."[87] 1hr 38 mins. This German video was used as a basis for discussion during the time the Swiss petition for a Basic Income to be included in the constitution was under way.

08

Appendix B: Complementary Currencies

Complementary currencies (also called local or alternative currencies) have been with us as far back as ancient Egypt, existing side by side with state sponsored currencies.

They usually address a function or need not adequately served by the national currency.

A key attribute of complementary currencies is that they remain in and circulate within their communities to a much greater degree than national currency, which has no connection to the local community and easily migrates out of it.

History attests to the power of complementary currencies on a grand scale.

As Stephen Belgin and Bernard Lietaer write in their book *New Money for a New World*, [88] Europe in the Central Middle Ages was prosperous indeed. The quality of life for ordinary people in the 12th century may well have been the highest in European history. Caloric intake was higher than today, and working hours were limited to no more than six hours a day, five days a week, with frequent holidays. Ordinary people created healthy local economies with high living standards .

It was during this period that almost all of Europe's cathedrals were built. These structures were financed by the people, not the church or the aristocracy. We know where they found the time. But where did they get the money?

Essentially, they created it themselves. During this era, two forms of currency functioned in parallel.

One was centralized royal coinage (similar to today's national currencies), used primarily for long-distance trading and the purchase of luxury goods.

The second was a network of local currencies. Most of these had a demurrage charge, (the longer they were held, the less they were worth) and thus were put quickly into circulation and exchanged more frequently than the royal coinage. This was what paid for the architects and builders of those great cathedrals.

Unfortunately, this Golden Age came to a brutal end at the closing of the 13th century when local governments and administrations were overrun by strong, central authorities with large armies. The dual currency system was abolished and replaced by a monopoly of royal coinage.

The elimination of local currencies led to an economic crisis, which in turn led to a general societal breakdown and decades of famine and starvation, and ultimately the Black Death, the plague which killed up to 60% of Europe's population.

This was not the first time that imposition of a central currency devastated an economy.

Ancient Egypt had a dual monetary system, with long-distance currencies much like our own national currencies, together with demurrage-charged local currencies that enabled local exchanges among the people. This dual monetary system, which endured for thousands of years, ensured one of the highest standards of living of the ancient world.

The end of this age, like that of medieval Western Europe, coincided with the introduction of a currency system similar to today's national currencies, which was imposed on the Egyptians by the conquering Romans.

Filling unmet needs

Despite such efforts over millennia to stifle complementary currencies, they have survived. Thousands of innovative complementary currencies crafted around the world are addressing an array of social and economic issues and objectives.

Evidence shows that they fill the gap between community needs and the amount of national currency available to fund solutions. Complementary currency experiments have shown great success in addressing issues as diverse as infrastructure development, human services, environmental projects and more.

Two well-known experiments, more than a century apart, demonstrate the power of complementary currencies to improve people's lives and foster strong local economies.

1.

The "Miracle of Wörgl"[89, 90] took place during the Great Depression, when Austria along with most of the rest of the world was experiencing 30%-35% unemployment. Desperate to improve the situation locally, where he faced a large population of unemployed and 200 penniless families, the town's mayor issued a stamp scrip as a local currency.

He paid for work on a long list of projects by depositing his existing funds in the bank and using them as a guarantee for comparably valued stamp scrip. Because a stamp needed to be applied each month (at 1% of face value), everybody who was paid with the stamp scrip made sure he or she was spending it quickly, automatically providing work for others.

In a very short period of time, unemployment dropped to nearly zero.

Wörgl managed to not only re-pave the streets, expand the water system and plant trees, but built new houses, a ski jump and a bridge. Six villages in the neighborhood copied the system, one of which built a municipal swimming pool with the proceeds. Even the French prime minister came calling.

Interestingly, the bulk of the work was provided by the circulation of the stamp scrip after the first people contracted by the mayor spent it. In fact, every one of the schillings in stamp scrip created between 12 and 14 times more employment than the normal schillings circulating in parallel.

The anti-hoarding device proved extremely effective as a spontaneous work-generating device.

Wörgl's demonstration was so successful that it was replicated in neighboring towns and soon 200 townships in Austria wanted to copy it. At that point the central bank decided to assert its monopoly rights and succeeded in shutting down the experiment. The unemployment rate quickly shot back up to the same level as before the experiment, proving just how significant the positive effect of the stamp scrip had been.

2.

In contrast, another experiment elicited a different reaction from authorities, albeit circuitously. In 2013 in the slum community known as Bangladesh, Kenya, the Mombasa-based non-profit organization Koru introduced the Bangla-Pesa[91,92] (pesa is the Kiswahili word for money).

Within weeks of its launch, the currency had begun to strengthen and stabilize the local economy. More than 200 local small businesses have joined the Bangladesh Business Network, and thus gained access to the Bangla-Pesa.

The "typical" network member is a 35-year-old mother who is the main provider for 2-3 children. Increases in sales thus have a larger effect on women, **leveling out the gender gap**.

So far, overall trade for businesses in the network has increased on average by 83% compared to baseline data, and average daily sales have increased by 22%. Bangla-Pesa users have gained 16% more spending power, largely going toward food, water and cooking fuel. Overall, the use of the complementary currency appears to expand market exchanges in the community.

"The program has measurable benefits for economic development and could subsidize services otherwise provided by county governments. This shows that empowering communities to issue their own means of exchange is a simple and effective tool for reducing poverty and creating market stability by providing a way of trading which can be used even during harsh economic conditions and market stagnation." —Morgan Richards, Monitoring and Evaluation Officer, Koru-Kenya, 2013-2014.[93]

"For a region, city, or country to have a robust currency of its own, it must have a robust economy of its own as well. Key to building one is what economist Jane Jacobs called "import replacement"—the sourcing of components and services locally, and the development of the associated skills and infrastructure. Otherwise, a place is subject to the whims of global finance and dependent on commodity prices over which it has no control. In "developing" countries that still have strong local economic infrastructure, local currencies help to preserve that infrastructure and insulate them from global financial predation. "
—Charles Eisenstein, Sacred Economics[94]

The currency not only increases overall trade in Bangladesh, but also increases trade in the national currency. After initially trying to block the program, the Kenyan government is now pushing to replicate it in other locations.

Limitations

In today's global economy, complementary currencies seem to work best in localities that retain a high percentage of local production.[95]

In developing countries that still have strong local economic infrastructure, local currencies help to preserve those infrastructures and insulate them from global financial predation. But in developed economies dominated by a national currency and goods provided by transnational corporations, local currencies only work if there is a system of local production for which it can mediate exchange.

For this reason, we are targeting the developing world, places like Africa and India, or debt ridden areas like Puerto Rico as the launchpad for the UNO.

Global complementary currencies

Some forms of complementary currency can stimulate transactions on a global basis. For example, virtual currencies are not local in the tradition sense, but they do cater to the specific needs of a virtual community. Once in circulation, they add to the total effective purchasing power, just as with local currencies.

Perhaps the best-known example is bitcoin, a decentralized digital currency used for peer-to-peer transactions.

As of 2015, the number of merchants accepting bitcoin exceeded **100,000**.[96, 97]

Companies accepting payment in bitcoin include Dell, Dish Network, Expedia, Microsoft, Overstock.com, TigerDirect and Time Inc. PayPal also allows North American merchants using its system the ability to receive payment in bitcoins.

A Sampling of Complementary Currencies

Eco-Pesa, Mombasa District, Kenya, 2010- [98,99]

A precursor to the Bangla-Pesa, the Eco-Pesa began circulating in 2010 in Kongowea, an informal settlement of villages. Such settlements are among the most densely populated areas in Kenya, but they often lack the infrastructure to dispose of trash and sewage.

After the currency was introduced, the settlement held a large trash disposal event, in which local youths were given five Eco-Pesa for each trash bag they filled (the trash was ultimately sent to a landfill). They spent this cash at local businesses, which could either use it to buy goods or services from other local sellers or exchange it for national currency. After just three months with the Eco-Pesa, the **monthly income of businesses in Kongowea had risen by 22%**, three youth-led community tree nurseries were established, and the settlement had rid itself of 20 tonnes of trash.

The program was cost effective (only $4,698 USD was spent over seven months), and provided an improved mechanism for tracking development funding and increasing overall accountability.

Fureai kippu, Japan, 1995- [100]

Fureai kippu is a Japanese sectoral currency created in 1995 by the Sawayaka Welfare Foundation so that people could earn credits helping local seniors.

The basic unit of account is an hour of service to an elderly person. Sometimes seniors help each other and earn the credits, other times family members in other communities earn credits and transfer them to their parents who live elsewhere.

So, if you shop for a senior who can no longer drive, you get credit based on the kind of service and the number of hours. Users can accumulate credits for when they become sick or elderly themselves, or transfer credits to parents or others who can redeem them for local assistance.

Many of the participants, with elderly parents and other family members living at a distance, feel that they are providing direct support to their relatives even though they are not close enough to do it themselves. And recipients felt as if they were receiving care from their own relatives, heightening their sense of being nurtured and enhancing their wellbeing.

Not surprisingly, **the elderly tend to prefer the services provided by people paid in Fureai Kippu over those paid in yen.** To convert this community service to yen would seem to dilute the personal connection and community ethic.

Banco Palmas, Brazil, 1998- [101,102]

Banco Palmas, Brazil's first community bank, was conceived, created and managed by the Residents' Association in the Palmeiras neighborhood of Fortaleza, a city in northeastern Brazil. The objective was to foster economic and social development and prevent resources and wealth from leaving the neighborhood for more affluent areas, and encouraging local production and consumption.

Its own "credit card" and the local currency (the "Palmas") strengthen Palmeiras' internal economy. Today, in addition to the small shops that initially joined the project, public transport displays the sign, "We accept Palmas," as do service stations and butane gas distributors.

Results have included **increasing the positive perception** of a neighborhood that had only been identified with violence and poverty, improving self-esteem among residents and stimulating the strengthening of the network; **providing qualifications and vocational training for women and young people; creating small local businesses,** thereby generating more jobs and income; **creating internal savings** within the community as the local network prevents the outflow of resources and wealth; and **providing spaces for marketing locally produced products.**

Ithaca Hours, Ithaca, NY, 1991-[103]

The Ithaca Hour is the **oldest and largest local currency system still operating in the United States**. (The name Hour is meant as a reminder that in addition to being a medium of exchange for commodities, currency represents someone's labor, the time taken to provide a skill or perform a service.) One Ithaca Hour is valued at US$10, the average hourly wage at the time of the program's inception. Businesses who receive Hours must spend them on local goods and services, thus building a network of inter-supporting local businesses. The program is focused on promoting local economic development and community self-reliance in ways that support economic and social justice, ecology, community participation and human aspirations.

Several million dollars value of Hours have been traded since 1991 among thousands of residents and over 900 area businesses, including the local medical center, credit union, public library, local farmers, movie theatres, restaurants, trades people and landlords. Some local employers and employees have also agreed to pay or receive partial wages in Ithaca Hours. Individuals or businesses who are members of the program are eligible to apply for business loans, made in HOURS with a 0% interest rate.

Bristol Pound, Bristol, England, 2012-[104] *& Brixton Pound, London, England, 2009-*[105]

These two currencies are unusual in the level of institution support they have received. The Bristol Pound is the largest alternative currency in the United Kingdom with more than 1,200 users. Currently, over **700 local businesses** have received Bristol Pounds and over 450 have signed up for online accounts. The currency is so well supported by local government that the city's mayor announced he would take his £51,000 salary in Bristol Pounds."[106]

Similarly, the Brixton Pound's founding non-profit organization established a good working relationship with Lambeth City Council, which made possible a U.K. first — participating local businesses were **allowed to pay their business taxes in Brixton Pounds** as well as pay part of employee salaries.

The support of the local authority has been crucial to the growth and acceptance of both currencies. They are not only actively involved, but the city councils of Lambeth and Bristol, as well as the Bristol Credit Union, **help fund the programs.**

WIR Bank, Switzerland, 1934-[107,108]

The WIR Bank (WIR) is a complementary currency system in use throughout Switzerland that serves businesses in hospitality, construction, manufacturing, retail and professional services. Its name stems from Wirtschaftsring, the German word for business circle and is directly translated as "we," which can also mean "community."

WIR issues and manages the WIR Franc, a currency used in combination with the Swiss Franc to generate dual-currency transactions. The WIR Franc is digital only, and balances are managed electronically in clients' trade accounts.

WIR issues credit in WIR Francs to its members. The credit lines are secured by members pledging assets. This ensures that the currency is asset-backed. When two members enter into a transaction with both Swiss Francs and WIR Francs it reduces the amount of cash needed by the buyer; the seller does not discount its product or service. The use of this currency results in increased sales, cash flow and profits for qualified participants.

In June 2015, the WIR Bank Association announced that it held **assets of 5.03 billion CHF ($5.15 billion)**, a historic high, driven by the continued inflow of new money as well as constant customer demand for financing solutions.[109]

Benefits of Complementary Currencies

Studies indicate that complementary currency initiatives have been shown to:

- Enhance economic efficiency.
- Promote new forms of entrepreneurship.
- Mitigate social exclusion and unemployment.
- Localize economies and improve resilience.
- Build social capital, civic engagement and participation.
- Promote sustainable consumption.
- Promote alternative social movements.
- Develop trust-based relationships, promote cooperation, and strengthen existing networks.
- Organize emerging forms of non-profit activity, and even public welfare, based on self-help and mutual assistance.
- Support community development and promote special projects that represent a growth and enhancement of the commons.

These results are achieved through multiple specific mechanisms, including:

- Increased money supply, which increases demand and stimulates local production and employment.
- Increased money circulation. Local currencies with demurrage tend to circulate much more rapidly and more frequently than national currencies, resulting in far greater economic activity and benefit per unit than the national currency.
- Additional purchasing power, which more fully utilizes a community's existing productive resources, especially unemployed labor, and thus has a catalytic effect on the rest of the local economy. As long as no more currency is created than the local economy's productive capacity can absorb, it is not inflationary.
- Encouraging the purchase of locally produced and locally available goods and services. Thus it keeps money within the local community instead of being siphoned off to distant corporations.
- Giving business communities a way to create their own mutual credit-clearing system to build economic resilience and self-fund community development programs.
- Allowing individuals, community groups and businesses to bypass conventional credit channels. This offers access to an interest-free alternative source of capital. Where interest is applied, it circutlates back into the community.
- Providing a mechanism for communities to finance social services, such as education, environmental and health services.
- Facilitating the circulation of goods and services among people who may not have sufficient access to national currency but who may have time and skills to offer.

For a more **complete financial ecosystem** based on a complementary currency, see https://commonwealthgroup.net/doc/CommonwealthDevelopmentOrganizations.pdf

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