

DIGITAL DEVELOPMENT DEBATES

Reinventing Money – A Community Exchange System from South Africa Conquers the World

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Political leaders around the world are trying desperately to prevent a financial crisis that seems inevitable. Our economic system requires constant growth to survive, an impossible goal considering resource scarcity. In response to this quandary, a group of money activists in South Africa have been experimenting with an internet-based exchange system that ignores physical money and interest. While it focuses on the local, it still permits international trade. Currently over 340 separate groups in 34 countries are using it, and as the world economy slows down, more and more are coming on board.

Capitalism is not the problem

Since the final years of the twentieth century, the world has been faced with the converging crises of global warming, resource depletion, loss of biological diversity, environmental pollution, systemic unemployment, increasing inequality, runaway debt and others. It has become clear that these are the symptoms of economic policies being pursued globally, and that they cannot be solved by these same policies.

As the prevailing and predominant economic system, capitalism has taken the blame for these global problems. Socialism has long been the only alternative offered, though many do not consider it a viable alternative because it is just another variant of industrialism. Clearly the industrial mode of production and the consumerist way of life industrialism has engendered have generated the earth's burden.

But is industrialism the true culprit? Is it impossible to have a non-destructive industrial mode of production, one that is not premised on growth and attendant consumerism? Many who have studied these macro questions have come to the conclusion that if the mega problems of today are to be tackled in a meaningful way, then human society's "operating system" needs to change. As with computers, if the operating system remains the same, then no matter how the interface is tinkered with and improved, the overall system will produce the same kind of results.

Today we call it the financial or monetary system

The system of exchange is the "operating system" of any society, beginning with the most basic hunter-gatherer and subsistence communities. This is what determines the relationships among people when obtaining or producing their means of existence – it is what establishes what is produced, how it is produced and how it is distributed. Exchange systems have evolved with human society, but they have always provided the rules or "operating instructions" of how a society functions in the economic realm.

This is still as true today as it has always been, only the nomenclature has changed. Today we call that exchange system the financial or monetary system. Money is just one of many historically recorded exchange systems. Our current debt-based money system is a fairly recent innovation. But it is this debt-driven exchange system that defines today's global economy.

Growth is the overriding imperative of our economies because there is always more debt than money, and so the urge to produce is based on survival in the marketplace rather than on peoples' need to consume. In order to keep the production engine going we have to be persuaded to consume, otherwise the money is not generated to pay off the (essentially unrepayable) debt.

Monetary reform cannot fix this situation, and would be just another form of tinkering with the operating system. What is required at this crucial juncture of history is an entirely new operating system, a novel way of "doing" money: a new exchange system.

Community exchange and the "new money" movement

The "new money" movement growing rapidly throughout the world is based on this realisation – that what is required to take humanity into the new era is a new exchange system. A new economic system would follow from that. Fortunately it is possible to design and implement novel local exchange systems, whereas it is not possible to do the same with entire economic systems.

It was in response to this realisation that a group of monetary activists in Cape Town, South Africa, decided in 2002 to investigate the field of alternative exchange systems (also known as complementary currencies, social currencies or local currencies) with the idea of setting up an experimental local exchange trading system (LETS) in Cape Town.

LETS as an alternative paradigm in monetary thinking started in Canada in the 1980s and quickly spread around the world, becoming popular in western Europe, and in Australia and New Zealand in particular. The basic idea of LETS is that members of a local community get together and compile lists of what they have to offer and what they require, whether it is goods or services. These lists circulate and members begin to trade. Instead of using an exchange medium that serves as an abstract representation of value (money), a central register is set up where members record who did what for whom and who supplied what to whom.

Thus if someone supplied a bicycle to another, that would be recorded as a transaction in which a bicycle went from seller A to buyer B. A gets "credited" so many "points" for providing the bicycle while B gets "debited" the same number of "points". The positive points now represent A's claim on the community, while B's negative points represent their obligation to provide goods and services to other members of the community. The aim of all participants is to keep their balances as close to zero as possible over the long term.

No money is used, only records are kept

Since no money is used in these transactions, many people think this is a barter system, but in fact this is further from barter than transactions using conventional money. The buyer has no obligation whatsoever to the seller. The buyer "pays" for what they have received by selling or doing something for someone else at a later time. This gets around the age-old problem of barter, which is that both parties must want exactly what the other has to offer – an unlikely and often impossible situation.

While in many ways this form of exchange trading is similar to a system based on money, no currency is used or created here. Records are simply kept of exchanges. If no currency is created, then it doesn't need to be distributed and so it does not circulate. There can never be a money supply problem in LETS. And because there is no medium of exchange, the concept of interest falls away. You can't "lend" a record; only "stuff" can be lent.

Although it is not possible to borrow LETS points, it is possible for users to go into debit beyond their allocated limits. This is the same as receiving a loan from a bank, except that there is no interest. A user granted permission to go into serious debit, to purchase a house for example, would have to work off that debit according to an agreed schedule. It would, however, be clear that the "credit" for this house is not a "loan" from the system, but true credit from the community: the receipt of value before like value is returned.

LETS is a true exchange system, as is money. Both provide the same functionality: they enable indirect exchange, provide a standard of value, a unit of account, a means to defer settlement, and many other things.

Creating an online shopping mall similar to eBay or Gumtree

In order to enhance the simplistic LETS scheme, the Community Exchange System (CES) was launched in 2003 to take the LETS concept to a new level. Instead of using manual methods of distributing lists of offerings and wants, and recording transactions in ledgers or spreadsheets, a website was set up where all of these things were automated and could be managed by users. An online “shopping mall” was created where users could advertise whatever it was that they required or were providing, in much the same way as they might on eBay or Gumtree. Instead of having the administrator of the group enter all the transactions, everyone was able to access their accounts and enter their own information.

The CES started with a single exchange group in Cape Town, which expanded rapidly and started to attract attention all over the country. Suddenly requests to establish similar groups in other parts of the country began coming in, and in that first year another six groups started up. At first all the groups were completely independent and there was no trade between them.

One of the greatest challenges was how to enable exchange between these independent groups. Each group is an accounting entity in itself and all the recorded credits must equal all the recorded debits. In other words the entire system has to balance to zero. It is impossible for any credits to “leave” a group to purchase something from somewhere else as that would upset the magical zero balance.

The solution was to use “virtual users”, who are like real users with accounts in all other groups. Thus if seller A in group A wants to sell something to buyer B in group B, the account would record that seller A actually sold to virtual user A in group A. Virtual user A, who has accounts in all other groups, could “step across” to group B (and be called virtual user B) and sell on to final buyer B in group B. The account in group A would balance to zero as the credits from the sale by seller A would cancel out with the debits of the purchase by virtual user A; and the account in group B would also balance to zero as the credits from the sale by virtual user B would cancel out the debits of the purchase by user B. The balance of trade between the groups could then be measured by the figures recorded for the virtual users.

CES grows more popular as the economy turns turtle

In the second year another five groups were started in South Africa. In 2005 word spread abroad, and 11 former LETS groups in New Zealand joined CES to take advantage of the facilities it offered, in particular the ability to seamlessly network among the independent groups, something that had proved almost impossible when they were managed separately.

From that point on growth has been exponential, and now, in November 2011, there are over 340 separate groups in 34 countries. Australia has the most (69) followed by the USA (64), Spain (47), South Africa (30), Finland and New Zealand (24 each). The trend is growing in inverse proportion to the fortunes of the global economy: as the latter turns increasingly sour, the number of new CES exchanges grows.

The CES web site is just a tool for managing exchange groups, for keeping accounts and for advertising. Each group administers itself and has its own rules and conditions of use. This keeps the overall system democratic and provides the basis for a multitude of separate but interacting local economies. Some groups base their unit of value on the national currency while others use time (e.g hours or minutes).

While information about actual trading is private, any user can check the balance and trading position of any other user. The administrative account of each group is open to public scrutiny. Transparency and openness promote honesty and discourage “free riders”.

The long-term vision of CES is to democratise the entire network. Currently all groups are hosted on a single central server but this is about to change with the installation of separate servers in some countries in order to host those countries’ groups.

A central bridging server could coordinate world trade

This introduces new challenges, however, because information is now scattered. If I in Cape Town want to enter a transaction against someone in Sydney, Australia, how does my group's hosting server know what to do with the data? Does my server have to be constantly updated with new information about remote groups every time a new one is created or a minor detail is changed? That would be an impossible situation, especially with so many servers around the world and new groups being added every day.

The solution was to create a central bridging server called Clearing Central. It keeps an up-to-date record of all groups in the CES network. When a transaction is entered by a user, the program determines if the buyer's group is hosted on the local server or not. If there is no record of it, it pushes the data to Clearing Central, which then does a lookup for the remote group, applies the relevant conversion rate, if any, and sends it on to the relevant server. The remote server receives the transaction data, applies it and sends a result code back to Clearing Central that indicates whether the transaction succeeded or not. Clearing Central then passes this back to the original server specifying whether it should confirm or discard the transaction entered.

The CES has been operating for nearly nine years now and, though it is still minuscule compared to the global financial system, has demonstrated that it is as versatile as the conventional money system, and indeed more efficient in many ways. It caters to fairly large volumes of trade, permits international trade, provides an extremely efficient means of tax collection through an optional transaction levy, handles multiple conversion rates seamlessly and clears accounts instantaneously.

Returning the “money power” to ordinary people

CES is just one example from the field of alternative exchange systems, but it is the first and only global network of local exchange groups. Other systems operate in a stand-alone way or attempt to create one giant system for the world. Monolithic systems are inherently insecure, and highly centralised. Should anything go wrong, the whole world would come to a standstill, and centralisation gives the providers immense potential powers of control.

In the new era of declining energy and other natural resources, the global economy is inevitably going to have to contract. The debt-based money system looks increasingly unstable in the current low-growth environment and definitely cannot operate in a steady state or degrowth environment. A new exchange system that operates something like CES will be needed. Such an exchange system simply reflects the economic situation, it does not drive it. When interest is removed as a factor in exchange, the growth imperative is removed along with the debt bondage that most of us live under. Extraction mechanisms such as speculation, derivatives, securitisation, hedging and other casino-like activities that allow a parasitic class to skim off the wealth of a society are also excluded. The decentralisation of control and lack of opportunities to hijack the exchange system for private gain will return the money power to ordinary people. No longer will those who currently control the financial system be the ones who decide where society puts its efforts and how it allocates its resources.

The realisation that money is information and not real stuff is hugely liberating because it means that a local community can create its own exchange system and not be dependent on the dysfunctional global one that is driving humanity to the brink of disaster.

This has all been made possible by our ability to share information on the internet. Local communities should jump at the opportunity to be able to define and control their own destinies instead of allowing financial institutions and governments to do it.