Theoretical Groundwork

History and theory of moneyless exchange systems

Barter

In the early ages of mankind, long before the concept of money existed, people relied on direct trades of items such as food, clothing, tools and weapons. Such direct exchanges of goods or services are called barter. Bartering has one obvious disadvantage: It requires a double coincidence of wants. If one person owns a hammer that they want to trade for a bag of rice, they need to find somebody who not only wants to obtain a hammer, but also has a bag of rice to offer in return. Otherwise a trade can not take place. Another problematic aspect of bartering is the lack of common measures. Without money or another standardized form of measurement, it is often difficult to determine and negotiate the value of goods or services, which might result in a disadvantage for one of the involved parties.

These commonly recognized drawbacks of direct bartering systems eventually led to the introduction of metal as a standardized representation of value. Around 2500 BC, copper rings were a common form of payment in ancient Egypt. The first recorded evidence of money as an accepted means of payment in exchange of goods dates back to around 600 BC, when the first stamped coins were minted in Lydia, an ancient nation located in an area that is now a part of Turkey.

Throughout the course of history, money evolved into an increasingly abstract concept, establishing a convenient and widely accepted means of payment and thus providing the basis for rapid economic growth of modern societies, while simultaneously raising new severe issues: The possibility to accumulate wealth without any maximum limits and the general concept of interest along with banks growing into powerful and insufficiently supervised institutions are only some of the problems that have created a grave crisis for the monetary system, the effects of which are perceptible more than ever in current times.

Throughout the evolution of monetary societies, barter never ceased to exist, often gaining immense importance during times of financial crisis such as the hyperinflation that took place in the Weimar Republic during the early 1920s.

Over time, the obstacles that direct forms of bartering are facing were met with a more organized system of exchange. Instead of trading goods or services directly and one-to-one, parties would pay and be paid with virtual value units, which in return could be spent on purchases from a different party. A centralized institution within the barter exchange keeps track of each member's account balance and processes all transactions. This opened up a new horizon of possibilities, making it more feasible for businesses to engage in barter exchange while at the same time forming the basis for new networks to emerge.

Local exchange trading systems

The term "local exchange trading system" (abbreviated to LETSystem or LETS) was coined in by Michael Linton in 1983. Linton, originally from the UK, migrated to Courtenay, Canada in the 1970s to work as a teacher for the Alexander Technique. During the early 1980s, the small town was hit by the recession and local purchasing power suffered immensely. Linton, motivated to continue treating his clients who couldn't afford to pay him anymore, developed and implemented a local system of community exchange that required no use of cash. He established five fundamental criteria that must be fulfilled by a system in order to be considered a LETSystem:

* Cost of service:

The system should be administered from within the community in a professional and sustainable way. Individuals who run the accounts of the system should be appropriately rewarded for their efforts in the currency that is used within the system. However, any attempt to generate profits from the system, for example by taking commisions on transactions, is illegitimate.

* Consent:

The system is based on consent given freely by all participants. There is no obligation for any member to participate in a trade. This also means that every new participant joining the network will start with an account balance of zero.

* Disclosure:

In order for the system to be trust-worthy, it must be transparent to all participants. This can only be achieved by keeping information about a member's account balance and trading volume available to all other members. This will also facilitate participants in collectively regulate the system.

* Equivalence to the national currency:

The LETSystem currency uses national currency as a means of measure. Without the possibility of putting the system's currency in relation to something of real-life value, it would be virtually impossible for participants to determine the value of their efforts or decide whether another participant's offer is reasonably priced.

* No interest:

In order for the system to operate without profit, no interest in charged on negative balances or paid on positive balances. This should also discourage participants in storing up large amounts of credits.

Over the past 30 years LETSystems have gained immensely in popularity all over the world, particularly during times of recession. Australia and New Zealand where amongst the most avid promoters of LETSystems. In 1989, the Australian government allocated a budget of $50,000 to faciliate the development of LETSystems all over the country. By the mid-nineties, 250 different systems existed in Australia with the largest one having around 2,000 members. In 2001, Germany counted over 35,000 members across 350 LETSystems. While systems are inherently independent, there are many examples of local systems cooperating with each other to span greater networks.

With technology evolving, many LETSystems have made use of the new possibilites in one way or the other. While most of them at least have a website providing some basic information, only few have fully adapted to the new era by using software for adminestering account balances and offering a digital directory to participant's offers and requests.

Time banking

Similarly to LETSystems, but with a very different approach on the aspect of measuring value, time banks use units of time as their currency. The first recorded evidence of the use time units as a means of payment dates back to 1825, the year in which Robert Owen, a wealthy industrialist and social reformer from Wales, emigrated to America, purchased a small town in Indiana and called it "New Harmony". His goal was to realize his vision of a "New Moral World, a world of enlightenment and prosperity leading to human happiness defined as mental, physical and moral health enjoyed in a rational way of life."[[1]](#footnote-1)

The experiment failed, but the idea of a time-based was adapted soon afterwards by Josiah Warren, an American individualist anarchist who was amongst the initial participants of Owen's society. In 1927, Warren opened up the Cincinatti Time Store, the first store that accepted "labor notes" which represented a promise to perform labor in the future, as a form of payment to purchase goods. The standard used to determine the value of one hour of labor was 12 pounds of corn, based on the calculation that this is the amount of corn that would be produced by one hour of labor. Warren, who was a strict follower of the labor theory of value, believed that all work should be valued equally and it would therefore be unethical to charge more for a product then the amount of labor it takes to produce it. The store enjoyed great popularity until it was closed down in 1930, when Warren deemed his experiment successful and set out to start new colonies based on his ideas.

The first succesful modern time bank was founded in 1991 by Paul Clover in Ithaca, New York. After a recently established LETSystem in Ithaca had failed to attract enough members, Clover developed the system of "Ithaca HOURS". He initially managed to convince 90 participants, amongst them a massage therapist and a toy store owner, to accept HOURS as an exchange for services or goods. The system became an immense success and is still flourishing today, serving as an inspiration for many time banks to appear all over the world throughout the last decade.

Case studies

Warnowknoten

Established in 1996, "Warnowknoten" is a local trading exchange circle in Rostock, Germany. The currency used by participants to exchange services or goods is called "Knoten" (German for "knots"). The value of one Knoten is freely negotiable and not tied to a specific monetary or time-based measure, though as a guidance it is suggested to roughly set a value of 10 Knoten for one hour of work. During its peak time in 2003, the community counted about 200 members. During the last 10 years, the level of participation decreased significantly. Only few people still actively take part in the exchange and the community has failed to attract enough new members.

One reason for this development might be the lack of appeal for younger generations due to the community's relatively old-fashioned mode of operation. A newspaper, containing general information about meetings and organizational matters as well as a full directory of all offers and requests, is issued quarterly by the administering team. The community also has a website that offers various information, a PDF version of the newspaper's current issue and printable forms necessary for signing up as a new member, advertising new requests or offers and submitting a transaction to be processed on the participating party's account.

The process of engaging in an exchange requires several steps: If a member finds an advertisement in the paper that they are interested in, they can look up the contact information of the person behind the offer in a member directory through a 4-digit identification number. The offers and requests have no initial prices assigned to them – members have to negotiate the amount of "Knoten" they are willing to accept as a reasonable price. After the service has been provided or exchange of items has taken place, both participating members have to fill out and sign a form about the transaction and send it to the team that takes care of all accounting. The responsible team then updates the account balance of both parties according to the value documented in the transaction form.

While the community has obviously made an attempt to adapt to the demands of modern times by providing a website and making content available in a digital form, the necessary steps to truly make the network more accessible and convenient have not been taken. The option for members to log into the platform to view their account balance, initiate contact with other members and digitally submit their transaction claims would immensely simplify the process of participation and potentially make it easier to attract new, younger members who are used to getting things done on the internet.

Community Exchange System

The system, orginally known as the "Cape Town Talent Exchange" was founded 10 years ago in Cape Town, South Africa by political activist Tim Jenkin. It started off as a regular LETSystem, introducing the "Talent" as the unit of currency. The community grew fast and started to attract attention from all over the country. In the same year, six more exchange groups were established in different parts of South Africa. Initially, they operated independently from each other, but as demands to interact with particpants from different groups started to rise, the initiators and administrators of the communities started to think about ways to connect their systems into one big network. The initial problem with this idea was the fact that all communities are inherently closed off systems within which all transactions have to balance out to zero. If one person would be allowed to simply spend their credit within a different system, both affected systems would suffer from an imbalanced economy. But since all of the newly established communities in South Africa already made use computer technology to manage accounts and directories, an internet-based solution was quickly found:

"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."[[2]](#footnote-2)

The newly created network to connect local exchange groups was called "Community Exchange Service" (CES). It quickly grew in popularity with more and more groups joining from all over the world to take advantage of the new possibilites of cooperation amongst different groups. By the beginning of 2013, the CES website counted 499 separate groups from 52 different countries.

1. The Original Boatload of Knowledge Down the Ohio River: William Maclure's and Robert Owen's Transfer of Science and Education to the Midwest, 1825-1826, DONALD E. PlTZER, Department of History, University of Southern Indiana, Evansville, IN 47712 [↑](#footnote-ref-1)
2. The Community Exchange System - Reinventing Money, by Tim Jenkin, December 2011. Published in Digital Development Debates, December 2011

   http://www.digital-development-debates.org/issues/06-innovation/transparency/reinventing-money-a-community-exchange-system-from-south-africa-conquers-the-world/post/comment/list/ [↑](#footnote-ref-2)