Local Economics 101

Local governments all over the world are struggling to promote economic development for two main reasons:

1) so that their residents can have better jobs, and

2) to create a more valuable tax base so they can improve municipal services offered to the public.

Yet the ways in which they pursue economic development often inadvertently undermines the long-term economic security of the community, because they spend a lot of time and money trying to recruit large, outside companies. This often leads to locally owned business closures, while at the same time the profits from the large businesses tend to flow out of the local economy.

The resulting trends are well-known – large, big box stores are undermining the small downtown shops. Pressures of higher insurance rates, labor costs and regulations, increased shipping costs, and the lack of economies of scale send more and more small businesses into the “failed” column every year. When this happens, local municipalities are left with a lower revenue base, which in turn drives up the costs of taxes, water and sewer fees, and road maintenance for the local population. When their low income residents can’t pay, municipal officials have few alternatives except to discontinue service (turn off their water, stop collecting their garbage) or initiate tax sales on properties (sell people’s homes and businesses for back payment of taxes).

Other troubling trends exacerbate the problem. Fewer people are joining civic and religious organizations - the glue holding communities together. The pervasiveness of television and isolating entertainments like video games and computers are undermining the social structures that supported community life in the past. New ideas are needed to reinvigorate the social system and get people back out into the community, connecting with each other and creating networks of support for everyone.

Local communities need new ways to offer people employment, and to pay for local services like education, child care, health care, waste management, fire and police protection, infrastructure, and administration. They have unmet needs in the community for these services, and at the same time there are underutilized resources available that could fill the gaps. The main barrier to matching the unmet needs with the underutilized resources is a lack of money.

This workbook will show local leaders how to take the matter of money into their own hands.

The authors are grateful for the support we have had from Chris Lindstrom and the E.F. Schumacher Society.
Community Currency allows localities and regions to create real wealth in their local economy by matching the unmet needs with the underutilized resources. It also provides a way for the wealth that is produced locally to benefit local people, rather than being siphoned off to distant companies. This workbook takes you through four basic steps to evaluating, choosing, and implementing a local community currency that improves your economy and builds local capacity. These four basic steps are as follows:

1) **Set Currency Objectives:** Do an assessment of your community where you identify the priorities for matching unmet needs with underutilized resources – this will determine the *objective* of the complementary currency project you want to implement.

2) **Choose the Appropriate Currency:** Review the different types of complementary currencies that are available, and choose the type or types that suit your needs best.

3) **Recruit the Leadership Team:** Build local support for the community currency system, which means finding appropriate leadership and a group of people who can help with the different aspects of the project.

4) **Choose the Right Mechanisms:** Establish a system for managing transactions in your community, which includes considerations of the support medium, standard of value, store of value, issuing procedures, and cost recovery. This system can take many forms, depending on the local resources available, the scale of the project, the type of participants, and the type of currency you select.

5) **Establish a Circulation System:** Every community currency system needs to carefully design the exchange process and circulation system so that the money keeps moving throughout the community, and doesn’t accumulate in ways that make people and business discouraged.

**Complementary and Community Currencies**

A complementary currency - the basis of the community currencies discussed here - is an agreement to use something else than legal tender (i.e. national money) as a medium of exchange, with the purpose to link unmet needs with otherwise unused resources. Complementary currencies exist on many levels and for many purposes - consider what has happened with frequent flyer miles issued by the airline industry around the world. Initially, frequent flyer miles were only a marketing gimmick for each individual airline; they could only be used to purchase airline tickets of that specific airline.

By now, fourteen trillion airline miles have been issued by five global airline alliances – more than all the dollars or Euros bills combined. They can be earned without setting a foot in a plane (e.g. through the use of specific credit cards); and they have become redeemable not only for air travel, but for car-rentals, long-distance phone services, and an increasing range of products. Two thirds of all British Airways miles are cashed in for something else than for purchasing an airline ticket.
In short, airline miles have become a corporate ‘scrip’, a complementary currency with a specific commercial objective (customer loyalty). They mobilize the otherwise unused resource of an empty airline chair to achieve that aim.

Many other complementary currencies have a social purpose, rather than a purely business one. One example from Japan is directly relevant for the healthcare field. The Japanese has the fastest aging population in the world. Today over 1.8 million Japanese need daily care, and it is estimated that the number of such dependent people is going to double over the next decade. Simultaneously, the younger generations have moved away from family homes in much greater numbers than any previous generations.

Enter the Japanese Fureai Kippu (literally “Caring Relationship Tickets”). These electronic “tickets” are paid in a computerized savings account to individuals who help elderly or handicapped with any aspects of their care that the Japanese national healthcare system doesn’t cover: services in their own homes for food or the daily bath (a ritual in Japan), help in shopping or food preparation so that they can stay longer in their own home, reading to blind people, etc.

The unit of account of the Fureai Kippu is the hour of service. There are different rates applied to different services (e.g. one hour of shopping or reading is credited with one Fureai Kippu, but help in body care is valued at two Fureai Kippu for each hour of service). These Fureai Kippu can be saved for the individual’s own use in the future, or transferred to someone of their choice, typically a parent or family member who lives elsewhere in the country and who needs similar help.

Currently, some 374 non-profit organizations in Japan are issuing and participating in exchanging across the country Fureai Kippu through two computerized clearing houses, the whole being loosely coordinated by the Sawayaka Healthcare Foundation. Because the elderly now have a support system at their own home, the time when they have to be moved to expensive retirement homes can be significantly postponed, and the period they are spending in hospitals after a medical problem can also be much shorter.

All this reduces dramatically the costs to society of elderly care, while actually improving the quality of life of the elderly themselves. Finally, this system creates a resource flow that does not rely on government subsidies or bureaucracy, expensive insurance, or even national currency to function. The transferability of the Fureai Kippu makes them a form of elderly care medium of exchange, a specialized complementary currency that functions in parallel with the national currency.


2 Total volume of outstanding Frequent Flyer Miles is estimated at 14 Trillion, worth about US$ 700 Billion. See Jenni Roth “Die schlummernde Weltwährung: Fluggäste haben 14 Billionen Bonusmeilen angesammelt” Der Tagespiegel (Jan. 17, 2005). The Federal Reserve estimates that there are 650 Billion US$ circulating in bills, two thirds of which are circulating outside the US.
Setting Objectives for the Community Currency

Evaluating Community Currencies to Meet Your Needs

There are a wide variety of unmet needs:

- Social needs such as elderly care or youth mentoring;
- Economic needs like unemployment and underemployment,
- Commercial needs like helping the locally owned businesses to better compete against the supermarket chains and big box stores;
- Ecological, cultural, educational or regional identity activities;
- Supporting local non-profit organizations and community projects.

Only our imaginations are the limit of what can be done with complementary currency designs.

Similarly, underutilized resources can be found in the most unexpected places:

- Obviously, any unemployed person who is willing and able to do something has some unused capacities.
- The next time you go to your neighborhood restaurant or movie house, count the tables and chairs that are empty: these are all unused resources that could be mobilized for your purposes. Schools or other buildings that are empty during part of the day, week or the year;
- Empty chairs in college, university or vocational courses;
- Youth organizations and other non-profits that have people ready to do things if supplies are provided.

The idea is to design complementary currencies that are backed by or redeemable in some of those underutilized resources, and can be mobilized to meet the unmet needs on which one wishes to focus.

Economists will correctly point out that matching needs and resources is the function of the market, even without complementary currencies. And if by the agency of some magic wand all humans on the planet suddenly had an optimal distribution of money, one could even imagine that there wouldn’t be any unmet needs.

The reality is clearly different. Therefore, the starting point for complementary currencies is to meet needs that remain unfulfilled after transactions facilitated with conventional money available to the community have taken place. Similarly, the unused resources are those that haven’t been used in economic transactions mediated by conventional money.

The economics of frequent flyer miles illustrates how this process works even in strictly commercial environments. A well managed frequent flyer mile system is the one that obtains something (customer loyalty) at the cost of an unused resource (an airline chair that would be otherwise remain empty). We are simply extrapolating these same concepts to a broader environment, and where the benefits would be those chosen by the participants themselves in the regional systems.
There is not one “ideal” design for a complementary currency. Almost every design characteristic has advantages under certain circumstances that can become disadvantages in others. The best design for your community depends on what the objectives you have set for the medium of exchange, and the conditions under which it has to operate. Various objectives can be relevant to implement a currency system, such as the functions the currency is supposed to serve, the type of concern it addresses, or the people it aims to involve in exchanges. What follows are examples of some of the design features of a complementary currency system.

**Legal Tender**

Legal tender is the currency that the government of a country accepts as payment in taxes.¹ For example: “This note is legal tender for all debts public and private” is printed on every US$ bill. What this means is that if you owe someone money in the US and she refuses your offer to pay with US$ bills, you can walk away and simply have the courts declare your debt void.

One particularly important type of debt that almost everybody incurs is taxes, and therefore “legal tender” means in this context that the government of the corresponding country accepts only this type of currency in payment for taxes. Normally, only the conventional national currencies are defined as legal tender.² However, in Japan two cities have decided to accept their respective local complementary currency in payment for local taxes, and use the proceeds in partial payment for municipal service providers as well. Typically, complementary currencies are designed to be complements to legal tender, rather than replacing it.

¹ There is an important theory of money proposed by the “Chartalists” school founded by Georg Friedrich Knapp in the 1920s that defines as money anything that the government declares as acceptable in payment for taxes. See Knapp, Georg Friedrich The State Theory of Money (Clifton, NY: Augustus M. Kelley, 1924). This school has a substantial following to this day. See for instance: Wray, Randall Understanding Modern Money (Cheltenham, UK and Northampton, MA, US: Edward Edgar, 1998).

² There are nevertheless exceptions, but they tend to be temporary in today’s world: for instance, in Russia the government has accepted commodities and goods from corporations in payment of taxes after the collapse of the Ruble in 1998.
Commercial Purpose Currencies

There are a wide variety of commercial purpose currencies that are defined by the kind of exchange relationships they are designed to facilitate or encourage. The four main categories are:

- Business to Business (B2B);
- Business to Consumer (B2C);
- Consumer to Consumer (C2C); and
- Consumer to Business (C2B).

They take typically electronic forms (see classification by support medium below), and result from the dramatic cost reductions in data processing technologies over the past decades.

**Business to Business (B2B):** These complementary currencies usually are exchange units created by businesses to facilitate exchanges with suppliers and wholesale customers. For instance all the contemporary so-called “commercial barter currencies” fall into this category. There are well over 500 such commercial barter systems, particularly in the US, regrouped under two trade associations: the International Reciprocal Trade Association (IRTA) and the Corporate Barter Council (CBC).

**Business to Consumer (B2C):** The most widespread complementary currency today are “loyalty currencies”, issued by a business or a group of businesses to encourage client returning to them. “Frequent flyer miles” are the largest such system today, with 1.5 trillion miles issued yearly worldwide by five major airline alliances. One older, and still very common paper-based variety of such system are the ubiquitous “discount vouchers” redeemable for goods or services in retail shops and supermarkets.

In the UK, Tesco has grown to become the largest supermarket chain on the strength of its loyalty currency system which it developed into a fully fledged complementary currency system. Tesco introduced in the mid 1990s a remarkably successful loyalty program that forced rival retailers to follow suit. One in three UK households now are Tesco card members and their Clubcard magazine is Europe’s largest circulation customer magazine.

**Consumer to Consumer (C2C):** At some level, one can describe much of the conventional payment system managed by the banks (i.e. checks, cash payments, etc) as a commercial C2C system. Outside of the banking sector, the “pay-pal” payment system is a successful example of this approach extensively used by the e-Bay online auction system, although it is also exchanging only conventional money at this point.
Consumer to Business (C2B): An interesting innovation by Strohalm* Foundation introduced in Amsterdam, the Netherlands, El Salvador, Uruguay and in the South Brazil is what they call Consumer and Commerce Circuits or C3. It is an Internet based system in which some basic rules guarantee sound performance and inter-C3- exchange but most of the details are decided locally.

Consumers buy vouchers with conventional money from the C3 network with a locally established premium, varying between zero and 10% to encourage the consumers to join. The vouchers are used to pay for goods and services provided by member-businesses. The businesses can use the vouchers to pay other businesses members of the network or cash them in at C3 against a small fee (similar to the Save Australia project).

Using this system, businesses obtain customers they wouldn’t get otherwise, and improve customer loyalty in general. The ‘float’ in conventional money accumulated in the system is handled by a local bank that use it to offer low-cost financing for member businesses or projects.

Consumers get loyalty discounts and help make decisions about the way their money is being invested in the community because consumers and businesses all get an equal vote in the management of the system; and there are more consumers than businesses. This, and the fact that consumers are initiating the creation of the complementary currency by buying the vouchers justify labeling this approach as a new type of commercial application: a Consumer to Business (C2B) financial product.

Combinations of the above: There are also successful combinations of the above: currencies issued by businesses that are used among individuals as well. For instance, the WIR system in Switzerland, or the WAT system in Japan fall in this category.
**Social Purpose Currencies**

The bulk of the social purpose currencies are highly focused on specific problems or social classes, ranging from elderly care to unemployment or educational currencies. Here are some examples.

**Elderly Care:** The very first post WW2 complementary currencies systems were conceived in 1950 by and for women in Japan for the care of elderly, children and handicapped persons. They also created the first “Volunteer Labor Bank” in 1978, a prototype that was later reinvented in the West as Time Banks in the US and the UK in particular. In Japan, the Fureai Kippu system is today the direct descendant of those earlier pioneering systems.

**Retirees:** Some of the first Time Dollar applications in the US were implemented by Edgar Cahn in retirement homes and encouraged self-help activities among retirees. It also resulted in creating a stronger community feeling.

**Unemployed:** The first LETS systems originated in Canada in 1982 aimed specifically at addressing the problem of currency scarcity in areas with high unemployment. Still today, a majority of LETS tend to be more widespread in high unemployment areas.

**Educational:** The MUSE system (Mutual Unit for Sustainable Education) is a complementary currency designed for stimulating learning and teaching by youngsters among each other. The Sonoma County, California, Community Service Dollar (CSD) is being developed under the guidance of the nonprofit Skaggs Island Foundation. Both state university and city officials are exploring the possible value of the system for partial payment for educational and other public services and, in the latter case, for taxes and fees.

**Child Care (Babysitting):** There is a long tradition of more or less formal but small scale local babysitting groups constituted by families who in turn take care of each other’s children. A large national-scale Internet-based system is being designed now in Holland, under the name of “Care Miles” to help the 2.3 million families who have trouble finding access to the care centers, particularly for the 0-4 year olds.

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1 The first post-war complementary currency pioneer in chronological order was Teruko Mizushima, who was born in 1920 in Osaka. She wrote in 1950 a visionary article about a “Labor Bank”, a paper that was honored at that time with the Newspaper Companies’ Prize.


3 The organization involved is called Regeltante: see [www.regeltante.nl](http://www.regeltante.nl)
**Social Purpose Currencies**

**Community Building:** The most popular reason to start complementary currency systems in neighborhoods where there are no major unemployment or economic stress situations is community healing and rebuilding. Various types of designs have been used for such purpose, including Time Dollar systems, LETS, and Ithaca HOURS. The Balinese Time Currency could also be considered as a well established system of this nature, operational for more than one thousand years.

**Identity Reinforcement:** One of the secondary reasons that some complementary currencies were introduced was to reinforce the feeling of belonging to a particular community or area. For example, the logo on Ithaca HOURS bills proudly claims “In Ithaca we trust”, and most paper-based complementary currencies feature prominently local features, plants or history as a means towards local identity reinforcement.

**Ecological:** Applications of complementary currencies specifically for ecological purposes have recently become more popular, particularly in Japan. One example is the NU smart card system used in Rotterdam, Netherlands, to reward ecological behavior (using public transport, buying more energy efficient devices, buying a bicycle, etc.) charging ‘green-points’ on a smartcard.

These points can be used in getting discounts in the same type of activities, thereby creating a double incentive to behave in an ecologically responsible way. A less successful model is the “Earthdaymoney” project in the Shibuya neighborhood of Japan, started by a major advertising firm to honor people who are contributing to the ecological sustainability of the area.

A whole family of Japanese complementary currencies are the “eco-money” projects, but notwithstanding their name only a few of those projects have specifically an ecological purpose. One large scale demonstration project involving over 6 million participants was implemented during the 2005 Aichi world fair.

**Other Social Purpose:** One could theoretically continue almost ad infinitum a list of specialized social functions for which complementary currencies could be implemented. Indeed, the whole field of complementary currencies is sometimes labeled as “social money.” So the above list is mostly indicative of projects that already do exist somewhere in the world, rather than what could be designed in the future.

**Mixed Social Purpose:** One could of course easily combine several of these social objectives, such as having the possibility to earn credits through ecological support activities, and use them for obtaining baby sitting hours, or other combinations of the above list.
Objectives Worksheet

Questions to Answer

1. What is the objective of the currency you would like to design?

2. What are the unmet needs you would like to address?

3. Are there underutilized resources that offer themselves as a possible resource?

Currency Design Considerations

1. What form of currency best fits your objectives?

2. If it's a Commercial Purpose Currency, is it a B2B, B2C, C2C, or C2B?

3. What social purpose will the currency you are designing serve?
Community Currency Narrative Description

Use this space to describe the currency you’d like to introduce to your community. Try and imagine how the community will be different when you’ve succeeded.

Vision and Mission for a Community Currency

When we have this Community Currency, our lives will be improved by:

The people who will be most interested in this form of currency are:

This is how we imagine the currency will be used by all the different parties:
Recruit a Leadership Team

Once you have chosen your objective, you need to recruit a team of people who can help implement the project. The team will be suggested by the objective itself, since the people you will need for implementation will have to have a connection with the needs and resources identified in the objective. Here are some examples:

Social Purpose Currencies

Elderly Care: The team you will need to recruit includes organizations that:

• are currently involved with care for the elderly,
• recruit and deploy volunteers,
• have other underutilized resources related to the elderly – fitness facilities, restaurants, beauty parlors, educational programs,
• have older people as members or clients.

Employment: The team should include:

• State service providers for the unemployed,
• Unemployed people,
• Organizations that recruit and deploy volunteers,
• Businesses and government employers.

Commercial Purpose Currencies

Business to Business: The team you will need for a B2B currency includes:

• Business leaders,
• Business Organizations – the Chamber of Commerce, Industry Associations, etc.
• Local Government,
• Business Support Centers – Incubators, Industrial Parks, etc.
• Businesses that specialize in business services – temp agencies, accounting firms, etc.

Business to Consumer: The team you will need for a B2C currency includes:

• Business Organizations
• Civic Groups – Rotary Clubs, Churches, Hobby Clubs, etc.
• Retail Businesses
• Local Government
Experience has demonstrated that the single most important factor that predetermines the success or failure of any complementary currency project is the quality of the leader or of the leadership team.

The team is needed because one of the critical elements of success for a community currency is direct contact with and involvement of the target audience. If your objective is to have a real impact on the social or commercial sector you have identified, the stakeholders in that sector need to be actively involved in the design and implementation of the currency.

As the ideas come to fruition, you will discover other people you need on the team, like bankers, printers, or other companies. Don’t hesitate to expand the group – the more informed people who have a voice in how it will ultimately work, the more likely it is that it will be successful.

Why a Leadership Team?

Leadership Team Worksheet

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Initial Meeting Schedule

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Choose the Right Mechanisms: Support Media

Once you have convened the Community Currency Leader and his or her Team, there are several aspects of the currency you need to consider to design the system you need:

A. the Support Medium they use;
B. their Function;
C. the Issuing Process; and
D. the Cost Recovery Mechanism.

Each of these considerations will first be defined, and then we’ll identify the choices available within each category. We will also briefly identify advantages and disadvantages of each one of these choices. In the conclusion of this section, we will map some real-life currency systems according to the characteristics they have that match these five groups.

The starting point for a general typology of complementary currencies systems is our working definition of currency as “an agreement within a community to use something as a medium of exchange.” On the basis of this definition, one can identify as currencies a wide range of social tools that had been, are currently, or could be used as medium of exchange in the world.

**SupportMedia**

The support(s) used for issuing or handling a currency is one of the easiest features to grasp - we are familiar with the various forms that currency comes in – paper notes, coins, and plastic cards, given that conventional money uses practically all of them today. These supports fall into the following types:

**Commodity Money:** Commodity money in history took an extraordinary wide variety of forms. For centuries, societies have successfully used salt, eggs, cattle, textiles, various handicrafts, ingots of various metals, and dozens of other items as currencies. In modern times, during WW2 in prison camps cigarettes were used as currency in many places. Today, the charcoal currency of Osaka is a contemporary example of that tradition.

**Paper and coins:** Paper and coins are the most familiar form of money today. For contemporary uses of complementary currencies paper is the most popular form because it is both easy to carry and handle, and comparatively cheap to produce (e.g. Ithaca HOURS, WAT bills of exchange, LETS account booklets, etc.)

**Electronic media:** Electronic media include smartcards, a central PC running the accounts, or Internet networks, or for large systems mainframe computer systems. The vast majority of conventional money has taken the form of computer bites over the past four to five decades, and complementary currency systems have been following this path as well.
**Support Media**

**Mixed media:** When several media are used for the same currency, this provides of course maximum flexibility. The historical evolution of conventional money has traced a logical sequence towards more convenience: one started with physical commodity money (such as precious metal coins used to be); but now it is more convenient to handle paper receipts with promises to pay that physical commodity (“I will pay to the bearer the sum of one Pound Sterling” is still written on the English currency bills). And of course, if the appropriate technological infrastructure is available electronic bits are even cheaper to move around than paper currency. The same currency can and often does take different forms depending on the media that supports it. For instance, national currency takes many forms: electronic bits, paper, or coins.

The advantages and disadvantages of each of these media are relatively straightforward.

**Commodity currencies** have as advantage that one doesn’t need a lot of social or legal infrastructure to make them work – it is the only currency that can operate in extreme circumstances such as civil war, social or economic chaos. Such “currency” can be literally consumed directly by the recipient as a last resort, and it is also most impervious to counterfeiting. Its inconvenience is also clear: limited flexibility to create it; and it can be inconvenient to store, handle and transport as well.

**Paper currencies** in contrast are among the easiest to handle, and are cheap to produce. But they have as downside that they can also more easily be counterfeited. With today’s high quality photocopying equipment available to almost anybody, security is a perpetual issue for paper currencies. Even for complementary currencies, this issue needs to be addressed as soon at they become successful enough to make it worthwhile for someone to counterfeit them.

**Electronic media** are fairly familiar by now. PCs are the most common support for small to medium-sized complementary currency systems, and are satisfactory if one has access to phones and other communication means to convey the information to the person handling the PC. Their downside is that such an approach tends to require a labor intensive way to process the transactions. Internet connections in which the users update their own transactions reduce the cost of overhead, but create additional risks for fraud, and not everybody has an easy access to a computer. Smartcards combine the advantages of both, but require readers that are both expensive and not commonly found anywhere but Europe and Japan at this point. The best electronic solution would be to have the complementary currency piggy-back on another smartcard application, such as a public transport or a bank-smartcard. That way the marginal cost of adding the complementary currency application becomes very reasonable.

**Mixed media** is of course the ideal, because one can tailor the advantages of each form to whatever the specific application of the currency. But as a downside one should remember that particularly from a security viewpoint, whatever the weakest media is ends up also as the weakest link of the entire chain.
### Functional Considerations

The three most important functions of money according to classical economics are standard of value, medium of exchange and store of value. In most of history these three functions were not played by the same currencies. For instance, many cultures have had standards of value different from the medium of exchange. One important unit of value in ancient Europe used to be cattle — Homer (8th century BC) would invariably express values in oxen. However, payments were often made in a more practical media such as standardized bronze ingots, gold or silver bars and later coins.

All currencies can therefore be classified in terms of the number and kinds of functions they are designed to fulfill: Standard of Value, Medium of Exchange, and Store of Value.

### Standard of Value

The first classical function of money is to play the role as a standard of value that enables to compare prices of the proverbial apples and oranges. The majority of complementary currencies actually don’t attempt at playing a role of standard of value at all, leaving the monopoly of that function to the conventional national currency by denominated their unit of account in terms of the conventional money. There are of course exceptions, examples of which will be listed below.

All currencies can be classified as follows in terms of their function as a standard of value.

#### Reference to Conventional Money:

Many local complementary currencies use as unit of account conventional national currency. Most systems use logically the currency of their own country as reference, but in case of trouble with the national currency some other country’s can also be used.¹ The former is the case for instance for most LETS-type systems (e.g. “Green dollars” in Canada or Australia, or “bobbins” in Manchester), and also for the majority of the systems where local businesses participate. Examples of the latter include the dollar being used in South America, or the Euro in ex-Yugoslavia.

#### Time Denomination:

Currencies denominated in time (hours, minutes). This is the second most popular unit of account. It is of course by nature the one used by Time Dollar systems, or by the Japanese Fureai Kippu for instance.
Physical Unit Denomination: Currencies denominated in some physical unit, such as is the case for the best known commercial loyalty currency: the Airline Mile system, where the unit of account is a flight of the distance of one mile. Among other contemporary examples let us mention some Japanese models: the WAT (whose unit is equivalent to the value of 1 kWh of electrical current generated by citizens’ cooperatives through renewable energies such as wind, water, sun); the gram of charcoal used as bio-regional unit in Osaka or the crop denominated currencies of the “leaf” unit in Yokohama or Kobe. Historically, the Wara currency in Germany in the 1920s and early 1930s was similarly denominated in kg of coal.

Comparisons of Different Standards of Value

The currencies referring to the conventional national currencies have familiarity as their main advantage. They also avoid forcing shops and businesses to deal with multiple pricing systems – one in dollars, one in local units. Particularly when the national currency is a stable one, such a choice makes a lot of sense (e.g. the WIR currency in Switzerland is equivalent to one Swiss Franc). The downside is of course that if the national currency gets into a major crisis (e.g. the Russian Ruble in 1998), the complementary currency risks going down with the national currency.

Currencies using time as unit of account make most sense when services are the most typical use of the complementary currency. Sometimes there is a misunderstanding that “everybody’s time is supposed to be of the same value” for such a unit to work well. This isn’t actually true: nothing impedes a dentist to ask customers for instance five hour units for one hour of work as his activity obviously requires a longer training and expensive equipment compared to one hour of unskilled labor.

Time currencies also automatically avoid being caught up in a crash of the national currency, and can make it easier to make exchanges with other time-based systems. Their downside is that it may require multiple pricing (how many hours for a dozen eggs?) something that businesses in particular don’t like. One easy way to solve this problem is to ensure that the time unit is roughly equivalent to a round value in conventional money (that is why one Ithaca Hour is equivalent to US$10; or one WAT in Japan to 100 Yen).

Currencies using a physical unit of account such as miles, pounds, grams, or kilos of something, etc. have advantages similar to the time currencies. Often such units provide a “real physical connection”, and if the product involved is widely used and produced in an area, they can be considered as logical bioregional currencies. But they have also the same issues with pricing as time currencies, and the potential solution is also the same - in Osaka, for example, one gram of charcoal is considered equivalent to 1 Yen.
Medium of exchange

For currencies that are not playing the role of standard of value (i.e. the majority of the complementary currency systems), the function of medium of exchange is the most important one. The ease and costs of their use as medium of exchange depends predominantly of the support medium used in the currency. Hence, this aspect has already been dealt with above, when we were describing the different supports.

Store of Value

The last classical function of money is as store of value. As noted before, it may be desirable to have as complementary currency one that is not used as a store of value. Currency was indeed not the preferred store of value in most civilizations. For example, the word capital derives from the Latin capus, capitis, which means head. This referred to heads of cattle and still is used today in Texas or among the Watutsi in Africa — “He is worth one thousand head”. In the Western world, from Egyptian times through the Middle Ages and until the late 18th century, wealth was stored mainly in land and improvements, that’s why it’s called Real Estate (irrigations, plantations, etc.).

Specifically, if one desires to encourage circulation of a currency, one good way to do so is to discourage the hoarding of that currency through various mechanisms such as demurrage or expiration deadlines as will be explained next. Therefore, classifying currencies in terms of their function of store of value is in fact the same as analyzing the way they relate to time.

Interest bearing currencies: One way whereby one can encourage people to save in the form of a currency is paying interest. This is the typical situation with all conventional currencies because they are created by bank debt. Interest is a charge that is proportional to the length of time involved in the loan. In this type of currency, one receives interest by making a deposit in that currency; and one can borrow money by paying interest.

Zero-interest: The vast majority of complementary currencies are simply operating without interest. For example, loyalty currencies or mutual credit systems don’t accrue interest, and for those systems where one can borrow complementary currency typically no interest is being charged either.

Demurrage charged currencies: The opposite of an interest-bearing currency is a demurrage-charged currency. Demurrage is a time related charge on outstanding positive balances of a currency. It can be visualized as a parking fee on the currency. It operates exactly as a negative interest rate, and is used as a disincentive to hoard the currency. John Maynard Keynes, Silvio Gesell, Irving Fisher, and Dieter Suhr provided a strong theoretical foundation for this approach, and it was extensively implemented in the form of “stamp scrip” in the 1930’s. Today, the most successful grassroots complementary currency in Japan, the Peanuts, charges a demurrage of 1% per month.
Currencies with Time-Related Step Function Valuations: There are also currencies that are characterized by “step functions” triggered by time, a crude form of demurrage. For instance, during the Central Middle Ages, the practice of *renovation monetae* was widespread. It meant that for instance every five years, the old currency would be withdrawn and 3 new pennies would be given in exchange for 4 old ones, implying a tax of 25% on the value of the currency at that point in time. This process produced income for the local currency authority (typically a local lord, bishop or monastery), and gave an incentive not to hoard this type of currency. Stamp scrip systems – whereby a periodic stamp has to be purchased and applied on the currency for it to keep its value – are modern applications of this principle.

Currencies with Expiration Dates: The most radical “step function” is when a currency has an expiration date. This process is equivalent to a 100% tax on the date of the expiration.

Trade-offs are available between functions. If one desires to encourage the circulation of a currency as medium of exchange, one can achieve this most effectively by charging a “parking fee” of demurrage, or the simpler forms of step functions or expiration dates. The advantage of interest bearing currencies is that they provide an income to those who create the currency (called “seigniorage”). Its disadvantage is that it implies a systematic money transfer from people who don’t have money to those who do, so that it tends to concentrate wealth. It also gives an incentive to save in the form of currency as opposed to real assets. Finally, it provides a systematic incentive to think only short-term, as income generated in the distant future is discounted to irrelevance with positive interest-rate currencies.

In contrast, demurrage-charged currencies provide an incentive to circulate the currency as opposed to accumulate it. It also motivates to be concerned about long-term implications particularly for investments. The currencies with time-related step functions or expiration dates can be seen as cruder and more radical forms of demurrage-charged currencies.

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**Review Questions**

1. What support medium (or media) would work best for the currency you would like to introduce?
   - ✓ Commodity Money
   - ✓ Paper and Coins
   - ✓ Electronic Media

2. What standard of value will you use?
   - ✓ Reference to Conventional Money
   - ✓ Time Denomination
   - ✓ Physical Units

3. Will your currency serve as a store of value? How?
Choosing Mechanisms: Issuing Procedures

General Purpose

General purpose currencies are designed to fulfill all three classical functions of money (standard of value, medium of exchange and store of value). Historically, many traditional currencies used locally would fall into this category. Today, conventional national currency is by far the most important general currency.

However, there exists an implicit contradiction between the function of store of value and medium of exchange: notionally when someone accumulates money he or she also deprives others from using it as a medium of exchange. This is why some currencies are actually designed purposely to separate those functions.

In general, complementary currencies are typically designed with a narrow and specific purpose in mind. Although a successful complementary currency system tends to gradually expand its applicability over time, today no complementary currency has reached the point where it can truly be considered a “general purpose” local or regional currency, although this could happen in the future.

1 The Department of Economic History of Bocconi University in Milan, Italy, has undertaken a systematic study of such historical complementary currencies. They have discovered many such currencies widely used locally in Europe from the 8th Century to the 18th. Such currencies were circulating in parallel with centrally issued currency, some were even issued by central authorities, but they were not accepted for payment in taxes by the central government (royal or imperial). See Fantacci, Luca “Storia della moneta immaginaria”, (Venice: Marsilio Editore, 2004). See also Labrot, Jacques “Une histoire economique et populaire du Moyen-Age: les jetons et les méreaux” (Paris: Editions Errance, 1989).

2 The banking system resolves partially that problem by relending funds that people deposit with them. But, particularly from a regional viewpoint, there is no guarantee that the money will become available within the same community or area where it originated, thereby reducing the helpfulness of the recycling of funds via the banking system.

Issuing Procedures

This is perhaps the least familiar of all four dimensions of this classification system, but is nevertheless also one of the most important. Errors in designing the issuing process are the most common reason for dramatic failures of complementary currency systems (consider the fate of the Argentinian créditos for instance). There are seven major ways of issuing a currency:

**Backed Currencies:** The strongest currencies are typically those that are fully “backed” by a good or service, and are directly and legally redeemable for them. Historically, many currencies were inventory receipts, i.e. with 100% backing secured by a physical inventory of a good (e.g. the wheat currency in Dynastic Egypt). Some contemporary complementary currencies are using conventional money as backing, others some specific goods or services.

**Borrowing with legal collateral:** This is the way the bulk of the conventional currency is created: through bank loan backed by collateral such as a mortgage on a house, or inventories for businesses. It can be considered as a form of a “backed” currency, but their redemption requires a legal action (seizure of the collateral) and is normally an exception rather than the rule. Some
complementary currencies, most notoriously the WIR in Switzerland, are exactly reproducing the conventional banking model in this sense.

**Purchased and Redeemable Vouchers:** Vouchers that are purchased directly with national currency, and that are circulating as a medium of exchange, and are redeemable at some pre-determined conditions into national currency again. Examples: Save Australia vouchers; Swiss Chiemgauer, Toronto dollars.

**Commercial Vouchers:** These are similar to the vouchers, except that they are not redeemable back into conventional money. They may be given for free (for example as coupons in newspaper ads) or could be purchased at a discount. They are not redeemable for cash, but typically are redeemable into some good or service instead. They tend to be used only between the issuer and the customer, and rarely circulate as payment device among customers. The most typical example is the commercial vouchers “give aways” by supermarkets as discount tokens.

**Loyalty Currencies:** Loyalty currencies are commercial complementary currencies that are issued by businesses to customers in proportion to their purchases in conventional money. It is a form of corporate scrip typically redeemable for goods or services in the same corporation or in a consortium of participating businesses. The Frequent Flyer Miles issued by airlines was the first large scale system; the Tesco loyalty currency in the UK is probably one of the most successful of such systems.

**Mutual Credit:** Currency issued by a simultaneous debit and credit between participants in a transaction. Examples of Mutual Credit Systems include LETS or Time Dollars. For instance, in Time Dollars if Julia renders a service of 1 hour to James, she gets a credit for one HOUR, and James a debit for one HOUR. They have therefore created the Time Dollars necessary for their transaction by agreeing on the transaction itself. The main advantage of mutual credit systems is that they self-regulate to have always currency available in sufficiency.

**Borrowing without collateral:** A currency issued as a credit, but without formal collateral of any sort (other than perhaps an informal promise to provide a good or service in the future). In fact, mutual credit can be seen as a form of borrowing among the participants themselves without collateral. There exist also systems that consider the borrowing without collateral from a central office that plays a role similar to a complementary currency bank (e.g. Bia Kud Kum in Thailand).

**Central Distribution:** One of the simplest ways to issue a currency is to have a central office distributing it to everybody or to everybody who qualifies. This is the way major currency reforms are typically introduced when a radical departure is necessary (e.g. the German “Währungsreform” after WW2, the credito system in Argentina, or the purchase coupon experiment used in Japan in 1999).
Choosing Mechanisms: Issuing Procedures

Mixed processes: Some systems combine features of various issuing approaches described above. For example WIR is issued both as mutual credit and from a central office with legal collateral. Or some social purpose complementary currencies are also accepted in partial payment by local businesses as a loyalty currency.

Advantages and Disadvantages of Issuing Procedures

Here again, one can identify some advantages and disadvantages for each one those systems. There tends to be a systematic trade-off between the ease of creating the currency and the effort needed to gain and maintain its credibility. An appropriate balance between these two objectives is a key decision for a robust currency design.

All things being equal, as one goes down the above list of the different ways to issue the currency (from Backed Currencies to Central Distribution), it becomes easier for its participants to create the currency; but it requires simultaneously more discipline to maintain the currency’s credibility.

Currencies that have a legally enforceable collateral (as is supposed to be the case for the majority of the national currencies issued), currencies that are fully backed by a good or service that is in broad demand, or that are purchased and backed with national currency have logically an easier time to gain credibility. But on the downside, often the very people who don’t have the necessary collateral or cash are also those for whom a complementary currency would be most beneficial.

Loyalty currencies have as backing mainly the reputation of the businesses that issue them.

Mutual credit has as significant advantage that the quantity of money created is by definition always perfectly matching its need. There are also no risks of inflation in mutual credit systems. In contrast, the problem of over-issuing is the biggest risk run by currencies that are created by borrowing without collateral, or by central issue. It is important with these latter models to cautiously control the quantity of currency issued, otherwise its depreciation and risk of loss of credibility is a predictable outcome.

1 During the month of December 2001, Argentina went into a financial meltdown: all of the banks were closed for months and people were not allowed to access their bank deposits. During the summer of 2002 an estimated 7 million people were using the complementary currency on a regular basis. By November of that same year, however, the trueque movement had shrunk back to about 70,000 participants, roughly a 90 % drop. What happened? The short answer is that the Credito system was abused by unscrupulous leaders, who over-issued the currency for their own personal benefit. From a complementary currency design viewpoint, three key flaws can be detected:

1. The creditos were created as a fiat currency by a central authority.
2. There was a lack of transparency to its users, so that a central authority could keep their accounting secret.
3. The creditos were primarily created as paper currency, without adequate safeguards against counterfeiting.
Issuing Procedures Worksheet

Questions to Answer

1. Who in the leadership team is prepared to take responsibility for issuing the community currency?
   - Local Bank or Credit Union
   - Business Association
   - Community Group

2. Given their responsibilities and limitations, which issuing procedure will work best for them?
   - Backed Currency: Where the currency can always be exchanged for a good or service.
   - Collateral Currency: Where people borrow against their assets to issue the currency.
   - Redeemable Vouchers: Currency is paid for with conventional money, and can be redeemed for conventional money.
   - Commercial Vouchers: Currency is purchased with conventional money, but can only be redeemed for goods and services.
   - Loyalty Currency: Currency that rewards loyalty to a particular business, like frequent flyer miles.
   - Mutual Credit: Currency issued by a simultaneous debit and credit in a transaction.
   - Borrowing Without Collateral: Currency issued as a credit without collateral.
   - Central Distribution: A central office distributes it to everyone that qualifies.

Narrative Description of the Issuing Procedure

Using this space, describe in detail:

a. the entity that will be responsible for issuing the currency,

b. the procedure that will work for them, and

c. give a short case study about how it will work for individuals.

Example: In Anytown, USA, the Municipal Employees Credit Union made a commitment to being the issuer of the complementary currency. Since they offer their members electronic transactions, their system could be adapted to do this for the complementary currency as well. The system being implemented in Anytown is a combination of a Loyalty Currency system, where people will earn ‘points’ for buying local products and services, and other ‘points’ for volunteering their time for local community groups. Members of the new complementary currency system will get electronic transaction cards that will reference their ‘account’ at the Credit Union, which also can be managed electronically. When they go to purchase goods and services from participating businesses, the cards will be debited. When they earn points, the cards will be credited.
Cost Recovery Mechanisms

All payment systems cost some human effort to be kept in operation, and typically also infrastructure expenses. While some may be able to be covered in the complementary currency itself (typically labor), there is often a hard currency component (computers, Internet service or telephone expenses) that need to be covered one way or the other. When that aspect hasn’t been thought through, the operation and maintenance of the currency system tend to gradually deteriorate, service is provided in a haphazard way, with the consequence of slowly degrading satisfaction of the users. In short, unless some income is generated to pay for the work performed the system is probably not going to be sustainable in the long-run.

The first step is to make a clear separation of what costs need to be covered in conventional money, and what part can be covered with the complementary currency. There are two types of budgets to be made in each of these currencies: a start-up and an on-going operation budget.

Next, the options to generate income are chosen, for each type of currency involved. These options are limited, what follows is an exhaustive list.

No Recovery: The first option is not to recover any of the costs. For the complementary currency component of the costs, most mutual credit systems simply open an account for “general overhead” and the people doing work for the system, are credited and this overhead account is debited.

For other systems, or for the conventional currency component, not recovering any costs is sustainable only if the design of the system is such that no such costs are incurred in the first place, or if there is a “sugar-daddy” organization that is willing to either provide or raise the funds to make the system operational and keep it going. Some peer-to-peer systems are actually designed to incur no costs, and therefore do not need membership or recovery mechanism either. That is the case for instance with the WAT system in Japan, based on bills of trade issued by businesses among each other.

Flat Fee: The second classical option is to have a flat fee. That can be a periodical membership fee (typically yearly or quarterly) or an entry fee that participants pay to the central operation to be able to participate. In some cases, there are higher membership fees for businesses than for individuals. This is usually done to cover the conventional money component of the costs.

Transaction Fee: Transaction fees fall in two categories: those that are based on a small percentage of the amount involved, and those that are a flat amount for each transaction. They are typically levied at the moment of the transaction, although some provide a monthly total instead. The transaction fees are normally levied in the same currency of the transaction itself.

Interest, demurrage, and other time related charges: In the section on store of value we discussed the issues around interest, demurrage, step functions, or expiration deadline currencies. Of course, such time related charges produce an
income – although only in the type of currency involved in the transaction – and that income is a perfect candidate to cover the running expenses.

Combination: Many systems use a combination of the above. Typical examples of such combinations include:

- Charges on both positive and negative balances beyond a certain level (i.e. demurrage and interest).
- Membership fees are also often used to cover the conventional money expenses, while other one or more of the above mechanisms deals with the complementary currency costs.

Advantages and Disadvantages of the Cost Recovery Mechanisms

Of course, keeping the costs as low as possible is the best approach of all. Particularly if the costs in conventional currency are high, a complementary currency system is predictably going to have difficulties over time. Costs in complementary currencies are easier to deal with because, particularly with mutual credit systems the recovery problem can be dealt with easily within the system itself.

Whenever cost recovery mechanisms are needed, there are some advantages and disadvantages in the different solutions listed above. One key criterion to keep in mind is to try to use the costs recovery as an incentive that is lined up with the objectives of the system. For instance, normally it is highly desirable to ensure that the incentives to circulate the currency are lined up.

In that sense, the worst recovery mechanism is transaction fees, as those provide an incentive not to trade with the currency. In contrast, membership fees and demurrage fees both give incentives to trade and are therefore preferable.

How will your Community Currency System Recover the Costs of Operation?

- Flat Fees
- Transaction Fees
- Interest
- Demurrage
- Other time related charges
- Combination: ______________________________


Establish a Circulation System

At this point, you have chosen and objective, recruited a Leadership and a Community Currency Team, and selected the various mechanisms that the currency will need. The last step in designing a community currency is to make sure that you have a complete system in place for circulation.

*Circulation* – the word itself implies a key consideration for this exercise. To be successful as a medium of exchange, currency needs to travel through the community in circles, also called closed loops. If you were an electrical engineer, you’d be looking for a complete circuit. A simple concept, but yet this is where a lot of community currencies have failed in the past. They have neglected to close a complete circulation patterns, and as a result, there are some people who start using it, a few businesses perhaps, but it tends to “pool” in particular parts of the system (also called “sinks”). Unless such sinks are managed appropriately, people who are using the currency get frustrated, and the system tends to deteriorate.

Our money systems functions in cycles, and these cycles are partly responsible for the multiplier effect that is so well known in economics. When money circulates through a community, and is stored in banks for future use, and the banks lend the money out to homeowners and businesses, then the total value that is in use in the community is greater than the absolute value that people feel they have, and the economy expands.

Within these cycles, there are several important points, which involve different people and organizations:

**Households:** Consumers, Employees, Savers, Investors

**Firms:** Businesses, Organizations, Producers, Service Providers, Employers, Investors

**Government:** Taxes and Fees, Service Delivery, Employment Support

**Banks and Financial Institutions:** Savings, Investment, Loans

**Professional and Wage Labor Markets:** Labor Rates – Wages & Salary Levels

**Product and Service Markets:** Raw Materials & Finished Products

When you are designing the system for circulation for a community currency, you want to make sure that a full circle of key points are involved in some way, so it can circulate successfully.
If you show all the circulation of currency that occurs between these different points, it might look like this:
Circulation System Flow Chart

Using the boxes provided and the circulation system outline on page 27, describe how the community currency you are planning to introduce will complete its circuit through your community system. Notice and plan for any places where you can’t close the loop, or where more transactions are going in one direction, without the necessary volume to compensate.

1. Did you notice places where the currency tended to accumulate? For example, popular businesses that wouldn’t have a place to spend all the currency they might take in.

2. Are there any plans you are making to help encourage the free and complete circulation of the currency?

3. Do you have people involved in your initiative that represent each ‘stop’ on the circuit? Banks or financial institutions, government, households, businesses and organizations, and other major employers?
Case Stories

Ken Anderson grew up in a rural community in Michigan during the 1950s and 1960s. While he once farmed full-time, by the time I came along, my father had taken a job in the city, and continued farming and logging part time. As people were apt to do then, He grew up watching his father, a full-time farmer barter skills to accomplish daily activities, leaving the flow of cash in the community to be maintained by those who wouldn’t participate in the system of exchange. For example, instead of paying the butcher to cut up his venison after hunting season, he might shoe the butcher’s horses. No money was exchanged.

While the example above was not very formalized or part of any community-wide program, recent time has come to create programs such as the Katahdin Time Dollar Exchange. In this more formal bartering system, one “time dollar” is credited for each hour of service performed. Whether the service is a professional service, mowing a lawn, helping to clean a stream, or playing cards with seniors at a local nursing home, for every hour you give, you get an hour back. These time dollars can be redeemed later in the form of services that you may need from someone else.

In the spirit of helping a neighbor in need, the KTDE brings people together for mutual benefit. In addition, its members perform community services for the greater benefit of the Katahdin, Michigan region.  


Barter Systems, Inc. is an organization who aims to offers business owners and professionals, another means of meeting many of their ongoing business and personal needs without using cash. BSI clients have the ability to use trade dollars earned by selling their products or services to other BSI client companies or to member companies belonging to other barter exchanges located throughout North America, the Caribbean, Europe, Australia and South America. Below is an excerpt from a thank you letter written to BSI by one of their satisfied members:

“We are writing this letter to thank you for the newest business opportunity you have introduced to our company. It has opened several doors to our company that would have remained closed, if it were not for “Barter Systems.” With “Barter Systems” we have gained new customers; with the new customers, we have gained trade dollars; with the trade dollars, we have been able to utilize the potential buying power within the vast network. The end result, we keep more “George Washington’s” in the bank!

“In addition to the new customer’s and the new income, we have utilized the trade dollars in several ways. All expensing involved with sales is done using trade dollars. We give a fifty dollar gift certificate to the employee of the month, via Barter. We have counteracted the high costs of medical insurance by taking advantage of the many medical services within “Barter Systems.” In the future we are going to have all of our company holiday parties through “Barter Systems.” We plan to use the catering services, DJ services, entertainment services, and whatever else might prove to create smiles on the employees who make our business work. Where we used to budget money for such events now we just Barter!
“As we grow in age with “Barter Systems” the network grows in size. The customer’s we have met have become friends within this unity. We work as one to promote each other. Our broker Lillian has worked with us tremendously to create new leads, new promotions, [and] new money!!…Thanks again for introducing us to a new, yet old way of developing business!”

~Written by Russell J. DeGraw, President of D.T.S.

Prior to the early 1980’s, the small town of Courtenay, British Columbia was heavily dependent on a local US Air Force Base and a Timber Mill. Unfortunately for the local residents, when the base relocated and the Mill closed, the local economy plummeted. As a result, unemployment was high and people were experiencing significant financial hardship.

The LETS program was established around 1983, introducing the green dollar (the LETS currency). This system allowed people to exchange goods and services with one another even when they didn’t have access a lot of official Canadian dollars. The LETS network allowed members to participate in the economy without needing an employer or having money to spend. An additional positive aspect of LETS in Courtenay, BC was that the use of green dollars freed up more Canadian dollars for other uses. It was also an efficient and inexpensive way to for local businesses to advertise, since participating businesses were listed in a local directory.

Commercial Barter Systems


Mutual Credit Systems

Community Empowerment through Mutual Credit Systems: http://www.ratical.org/many_worlds/cc/NMfHC/chp12.html

Complementary Currency Resource Center: http://www.complementarycurrency.org
Resources

**LETS Systems**

*LETS* System: The Home Page. ([www.gmlets.u-net.com](http://www.gmlets.u-net.com)) An excellent source, providing several links to sites with information about issues, administration software, organization, and user materials.

*LETS*-Linkup: The Link to Local Community Exchange Groups Worldwide. ([www.lets-linkup.com](http://www.lets-linkup.com)) An international LETS groups directory with a guide to over 1,500 LETS groups from 39 countries.

Transaction Net: LETS. ([www.transaction.net/money/lets](http://www.transaction.net/money/lets)) A complete description and glossary of terms related to LETS and other currency systems.

*CyberClass*: John “The Engineer” Turmel. ([www.cyberclass.net/turmel](http://www.cyberclass.net/turmel)) Links to thousands of LETS currency sites in 57 nations.


**Time Dollars**


Information about what drives the Time Dollar and how it can benefit the economy.


*Time Dollar Tutoring*: [http://www.timedollartutoring.org/](http://www.timedollartutoring.org/). An organization which works with students by teaching them the Time Dollar system as a way of lending their time as tutors.

San Antonio Community Connections Time Dollar: [http://makingconnections.utsa.edu/mcsa/rgd/communityprojects/timedollar/timedollar.htm](http://makingconnections.utsa.edu/mcsa/rgd/communityprojects/timedollar/timedollar.htm)

**Local Currency**


Complementary Currency Systems and Local Exchange Networks [http://www.transaction.net/money/community/index.html](http://www.transaction.net/money/community/index.html)

Local and Interest-Free or Alternative Currencies, Social Credit and Microcredit [http://www.ex.ac.uk/~RDavies/arian/local.html](http://www.ex.ac.uk/~RDavies/arian/local.html)


LASER is designed to help you initiate economic renewal activities in your local community. Each idea in the workbook is accompanied by a step-by-step tool that helps you put the ideas into practice. The Guide is based on the idea that we can satisfy our common human needs by building on our strengths, intervening at the system level, and integrating all the different parts of community life into a whole package, rather than trying to tinker with different problems in isolation.

The principles and activities outlined in LASER are relevant whether you live in a rural village in Afghanistan, or a neighborhood in a modern western city. The details will obviously differ, but the broad opportunities exist everywhere. All it takes is you. LASER describes how you can take control of your own future and begin to create the sort of economy that will bring real jobs, real prosperity and a high quality of life to you and your family.

Please visit our web site at www.global-community.org, or the LASER web site at www.global-laser.org for more information.

Books to Read


Lietaer, Bernard. *Beyond Greed and Scarcity.* (Yes! Spring, 1997)


Yunus, Mohammad. *Banker to the Poor* (Public Affairs, 2003).