An Overview of Parallel, Local and Community Currency Systems

by Stephen DeMeulenaere, 1998

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Introduction

In the second half of the twentieth century, we have witnessed an unprecedented globalization of financial and political institutions, driven by large-scale conflict, economic upheaval and technological advances. While the intention behind globalization is to reduce such instabilities and to increase cooperation between different cultures, it has resulted in the diminishing of the unique character of these cultures and the cultural homogenization and economic decline of the communities that comprise them in order to serve the global market.

As institutions become more and more globalized, and the ability of the nation-state to have autonomy over its economic and political affairs decreases, the pressure is being increased on regions, localities and communities to take charge of these affairs in the interests of their citizens. Unlike global institution, to which people appear as faceless masses and numerical populations, regional and local governing bodies see people as names, faces and identities. Whereas most global leaders have little understanding of the lives of the populations that they control, local leaders see how their people live on a daily basis. The more globalized and supranational institutions become, the more local we must look to provide for the needs of people.

Technological and economic globalization has been occurring both in the so-called First and Third worlds, or in the "developed" and "developing" worlds, to such an extent that it is hard to find a label to distinguish between the "high-income" and the "low-income" countries. In the First world, we see elements of the Third, and in the Third world, we see elements of the First. We can hardly say that the First world is "developed", when it is clear that they are experiencing the same problems as those faced by "developing countries", and when many of these "developing countries" had advanced civilizations thousands of years ago. Certainly there is something wrong with the use of these terms.

In the last two decades, local organizations have begun to take charge of local development. Movements are underway to preserve the distinct character of local areas, and to build new economies from this speciality. This is changing the method of conducting "international development", from the old model of giving a mass of money, which made the "Third" world country itself the recipient of welfare, to the local organizations which, with a small contribution or from their own activities, are able to begin to take charge of their own economic affairs. The microcredit small loan circle program, pioneered by the Grameen Bank in Bangladesh is a powerful example of a community's ability to take control of their economy, and through it, their cultural and community life.

Drawing from the distant past, and from recent developments, many communities are beginning to introduce new economic systems to enhance trade in local areas. These systems complement the ground-breaking efforts of the Grameen Bank, and propose a number of different plans for increasing economic activity in a way that is controlled, in a way that is environmentally sound, in a way that meets the social needs of the people who live in that area, and in a way that harmonizes community cooperative and free-market competitive interests.

Some of these new programs involve the introduction of local currencies, currencies which circulate only at the local level, or only within a specific group of traders.

However, much of the information that exists about local currencies is intended only for the "First" world and for organizations with easy access to high technology. Much of the information has been available only to speakers of English, and only through the Internet. Moreover, much of the information was too complex and theoretical to be easily understood and practically implemented by people without highly educated backgrounds. This is now beginning to change.

In the last few years, a new branch has grown in the development of local currencies. Cross-linguistic transference, the translation of materials into a number of different languages, and relocation of experienced individuals to southern countries is leading a new drive to bring local currencies to what may more accurately be described as the "majority world".

The following report is an overview of the various types of national, regional local and community currencies that have been implemented. In the production of this report, we have worked to bring together information from diverse sources and compile it in a form which is usable for organizations interested in starting their own local currency system. We have used some textual sources, but for the most part sought out sources that were accessible via the internet. Each of the links presented in the footnotes provide very useful, interesting and reliable information. We have also brought local currency groups from a number of different countries together to compare and share experiences, through communication via the internet and regular mail, and through presenting information about their projects on a website devoted to local currencies efforts in Asia, Africa and Latin America, provided by our project and located at http://ccdev.lets.net.

The first and second sections present the theories underlying conventional money and parallel currencies. In the third section, we will look at the application of parallel currencies in North America and Europe. Next, we will turn to the parallel currencies in use in Asia, Africa and Latin America. Lastly, we will look at the factors determining the choice of system to be implemented, and at the details for tailoring a system to a specific local area.

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Parallel, Local and Community Currencies

When describing parallel currency systems, we will use three terms to distinguish between them. Parallel currencies refer to currencies that operate separately or in combination with the national currency, and are not limited to a specific local geographic area, sometimes they are called "complementary currencies". Government bond currencies, nationwide exchange systems and other large bodies which issue their own currencies would come under this title. This term is also convenient when speaking about all types of currencies that are used alongside the national currency.

Local currencies serve a specific geographic area, from a neighbourhood to a small town. Regional currencies may also be covered by this term. The bonds issued by Salta province in Argentina and the Hours currency system would fit in this category.

Community currency systems serve a specific social community defined by participation in the system. Generally, community currency systems are also localized, but the system is defined by its community. The LETS system, and other mutual credit systems, like commercial trade exchanges would fit this definition.

We will be returning from time to time to these general definitions in the course of this paper.

The Challenge to Find Long-Term Solutions to the Problem of Poverty

The United Nations Development Programme Report for 1997(1) presents the background to the poverty crisis in the majority world, and identifies key points for developing strategies to address poverty. They distinguish between income poverty and human poverty, income poverty meaning a low income, and human poverty meaning a material lack of basic goods and services.

The report presents the following statistics:

- More than a quarter of the developing world's people still live in poverty as measured by the human poverty index that was introduced in the UN Development Programme's report.
- About a third of the world's population, 1.3 billion people, live on incomes of less than $1 a day.
- South Asia has the most people affected by human poverty. It also has the largest number of people in income poverty: 515 million. Together, South Asia, East Asia and South-East Asia and the Pacific have more than 950 million of the 1.3 billion people who are income-poor.
- Sub-Saharan Africa has the highest proportion and the fastest growth of people in poverty. Some 220 million people in the region are income-poor. It is

estimated that by 2000 half the people in Sub-Saharan Africa will be in income poverty.

- In Latin America and the Caribbean income poverty is more pervasive than human poverty, affecting 110 million people and growing.
- Eastern Europe and the countries of the Commonwealth of Independent States (CIS) have seen the greatest deterioration in the past decade. Income poverty has spread from a small part of their population to about a third with120 million people living below a poverty line of $4 a day.
- In industrial countries, more than 100 million people live below the income poverty line, set at half the individual median income with thirty-seven million jobless.

At a time in modern history when the capabilities for solving these problems is greater than ever before, new problems are arising to cause even further increases in poverty. The report presents slow economic growth, stagnation and even decline in some 100 developing and transition countries, continuing conflict in 30, mostly African, countries, the decline in meeting human needs in key areas such as nutrition, the continued increase in HIV/AIDS cases as the symptoms of global problems.

The report's data shows that the human development index declined in 30 countries, more than during any year since 1990. Between 1987 and 1993 the number of people with incomes of less than $1 a day increased by almost 100 million to 1.3 billion and growing.

This is also true in industrial countries where unemployment is rising, and traditional protections against poverty are being undermined by pressures on public spending and welfare reform. In some wealthy industrial countries, such as the United Kingdom and the United States, poverty has risen considerably and is expected to rise further.

From a human development perspective, poverty means the denial of choices and opportunities that make life worth living. Poverty is more than a lack of what is materially necessary, but includes the denial of opportunites, choices and the right to live a long, peaceful and creative life, free to enjoy the fruits of one's labour, a decent standard of living, dignity, self-esteem and respect.

Comparing the UN's Human Poverty Index (HPI) with income measures of poverty based on a $1-a-day poverty line revealing that income poverty and human poverty are pervasive, affecting a quarter to a third of the people in the majority world. Sub-Saharan Africa and South Asia have the highest incidence of both income and human poverty at about 40% of their population affected. While many Middle-Eastern states have made remarkable progress in reducing income poverty, now a mere 4%, they face a large backlog of human poverty affecting 32% of their population. Latin America and the Caribbean, with a

Human Poverty Index of 15%, has reduced human poverty in many countries, but income poverty is still affecting 24% of their population.

The report identifies six major priorities for action to reduce poverty in the majority world:

1. Empowering women and men to participate in decisions that affect their lives and to enable them to build on their strengths and their social, political, evironmental, economic and personal assets. A people-centered strategy for eradicating poverty must start by building the assets of the poor by securing the civil, political and economic rights of citizens, reforms that enable people in poverty to acquire assets such as housing and land, education, health care and proper sanitation, and social safety nets to rescue people from disaster and to give people the tools they need to help themselves.

2. Ensuring gender equality to empower women in the struggle to eradicate poverty. Women are on the front line, in their homes and communities, of efforts to escape poverty, but are denied a role in decision-making in political, social and economic decisions in countries where woman come second to men.

3. Economic growth in favour of the poor is essential to reducing poverty. The report calls for faster growth in poor countries, not necessarily industrially, but in favour of the poor. "In the past 15-20 years more than 100 developing and transition countries have suffered disastrous failures in growth and deeper and more prolonged cuts in living standards than anything experienced in the industrial countries during the Great Depression of the 1930s." The report cites Argentina, which grew 2% per year in the 1950s, yet poverty rose. Honduras grew 2% a year from 1986-9 and saw income poverty double. Even in the wealthy countries of the United Kingdom and the United States, which experienced good average growth from 1975-1995 saw the proportion of its population in poverty increase. This is why economic growth should be focused not at corporate economic growth, but growth in small scale activity.

As three-quarters of the world's poorest people live in rural area, pro-poor growth means raising agricultural production and income. This is achieved by creating an environment for small-scale agriculture, microenterprise and the informal sector, which inturn generates economic activity, employment and the meeting of basic needs.

4. Globalization must be checked and managed with more concern for distribution of wealth. Even though trade and foreign investment is expanding, there is a widening gap between economic winners and losers, with unemployment in industrial countries rising to 1930s levels, and while the ratio of global trade to GDP has been rising over the past decade, it has been falling for 44 developing countries, with more than a billion people.

5. Governments must provide an environment that supports efforts made by the poor on their own behalf, and support pro-poor policies and markets. Governments are responsible for providing basic education and health care,

6. International support is needed to help reduce the poorest countries' debt, to increase their share of aid, and open markets for their exports.

The report concludes by stating that by working to improve the situation of poor countries, especially those in Sub-Saharan Africa, many military conflicts can be avoided. Debt relief would be very beneficial to those countries that are incapable of exporting due to conflict, and to give them the confidence to continue without the yoke of debt hanging around their necks.

Part I An Introduction to Money and the Conventional Economy

A Brief History of Pre-Money Currency

Money has come to play such an important role in our lives, and we are all so subject to its functions that we often forget its definition, what it is, and how it works. We can say that money has become "reified", that it is a human construct that has come to have power over humans, rather than working in the service of people.

Money is generally defined as what is offered or received, and accepted, in exchange for goods and services. Currency is the form that money takes to distinguish it from others. The earliest money took a variety of currency forms, usually as 'commodity money', money that is interchangeable with a particular tradeable commodity such as livestock, sea shells, tobacco, salt, and etc., depending upon the commodities produced in the region in which the goods or services are being traded. Before the introduction of metal currency, items such as clay tablets, shells, bags of valuables, and semi-precious stones among many other currency types were used, depending on what was locally available.

The widely held view is that money arose to facilitate three way transactions, such as when a barter transaction failed because what one person was offering, the other did not want. Money arose to allow two dealers to engage a third person in the exchange so that they all could be satisfied.

Soon, the use of money came under the control of those in power, and began to take on a value independent of a particular commodity, so that a variety of commodities could be used to back the value of the currency. Certainly, those in power saw the opportunity of even greater profit through issuing their own currencies.

Gold, silver and gems rose to become the new currencies, partly because advances in metallurgy allowed these coins to be diluted with other metals, shaved or otherwise altered to generate additional profits. Also the use of coins to represent commodities eliminated the problems of spoilage, damage and transport of weighty items. The oldest known metal coins come from ancient Sumeria, where in 3000 BCE bronze coins were issued with one side depicting a bushel of wheat, and the other showing the goddess of fertility. This coin, called the 'shekel' or "bushel of wheat" represented shares in food stocks in storage(2).

These stores of food were also the basis of the Egyptian monetary system. Each farmer who contributed to the stockpile would receive a piece of pottery having an inscription of the quantity and date of delivery of his contribution, which he could then use to purchase something else. These receipts, or 'ostraca', have been found by the thousands and were in fact used as currency, and depreciated in value over time. For instance, if someone wanted to redeem an 'ostraca' of ten bags of wheat after six months, he would only receive nine bags. This charge reflected the costs of guarding the depot and quantities lost to decay, pests and rodents(3).

In order to reduce the risk of theft, and alteration, vaults were built to safeguard valuables. Others became able to deposit their valuables there for safekeeping. To avoid having to transport large amounts of gold, the custom of writing 'cheques' began to allow others to receive gold from the holder's account. More and more people began to accept and use these notes as a means of payment rather than carry around a lot of weight.

Creation of Money in the Conventional Economy

The increasingly common use of 'cheque-notes' allowed for the making of loans from the reserves held in the vault. Soon, more was lent out than was held in reserve, beginning the creation of fiat money, money issued with only partial backing. Eventually, it was found that as much as ten times the value of gold in the vault could be circulated as notes. The bank only needed enough gold in reserves to redeem the few notes that were presented for redemption into gold. This practice became known as Fractional Reserve Banking, and is the method of issuing money that is at the foundation of the global monetary system.

With the rise of monarchies and centralized government, Governments stepped in to regulate the creation of money, creating the first central banks and issuing money either by simply printing it, by selling government bonds to commercial banks and the public, or simply by borrowing it from the bank at interest. Thus, in order to ensure an expanding money supply, money is issued as interest-bearing debt. As there is not enough money in circulation to pay off all outstanding debts at once, the money supply must increase in order to allow businesses to stay above water. If the money supply does not expand, businesses go bankrupt and the economy corrects itself by going into recession.

Or if the money supply expands too quickly, such as by printing money and issuing it into the economy, inflation will increase and the value of each unit decreases.

In 1944, shortly before the end of World War II, the major Western powers considered monetary stability as a absolute condition for the reconstruction of their war-ravaged economies. At the Bretton Woods meeting, out of which the modern global monetary system was born, it was agreed to use a "gold standard" by which all the world's currencies would be measured against the value of one ounce of gold in US Dollars. The IMF and World Bank were created to assist in the management of this US-led global system.(4)

The destabilizing effects of currency speculation and the persistent US balance-of-payments deficit were seen as the immediate causes of the system's demise in 1973. Because the US dollar was the currency against which the world's gold reserves were measured, the United States was reluctant to devalue it despite persistent government deficits. As these deficits persisted, reducing the value of the US Dollar, the stock of US dollars held abroad ballooned relative to the amount held in reserve to back the currency. Some countries viewed the United States as abusing its privilege to issue reserve currency and felt they were being forced to finance persistent US deficits. In 1971, President Nixon suspended convertibility of the Dollar in gold and introduced a system of floating exchange rates two years later.(5)

Today, only a small part of the money in circulation takes the form of coins and banknotes. In France coins and banknotes represent 5% of the total money mass in the country. In developing countries this proportion is much higher, estimated to be as high as 30% in the West African Monetary Union(6). The rest of the monetary mass takes the form of bank accounts and other methods of storing value, such as bonds, stock shares and real estate. Only a small part of the money in circulation, therefore, is backed by gold or any other valuable commodity. A shift from the use of gold reserves (which do not generate interests) to foreign exchange reserves (which do generate interests) has contributed to the fact that the value of money today depends more than ever on the confidence the public has in it. This confidence, as history has shown, can decline very rapidly, and it can soar very high, depending on the general mood of people at a particular time, rather than upon other more stable factors relating to reality such as stocks of food, energy resources, etc.(7)

Fiat Parallel Currencies at the National Level

Almost all of the conventional money issued by national central banks is issued 'fiat', which is to say that a small fraction of it is backed by gold and by foreign exchange reserves. The rest is subject to valuation by other means, such as the productive capacity and available natural resources of the country, the strength of its military, and the opinion of participants in the stock exchanges and international money markets. Central banks control the internal stability of the currency, such as inflation, and the external stability, such as the exchange rate with other currencies, by managing the supply of money.

A variety of methods are at the disposal of central banks to manage the stability of the system, by buying or selling their own currency, setting prime lending rates, fixing interest rates, and setting reserve requirements for the private or chartered banks.(8) As more and more fiat funds are injected into the global market, and moved in and out of domestic economies at high speed, central banks are increasingly unable to affect the value of their currency. They are thus dependent upon the opinion of market players, as well as the confidence in other currencies in the region, for their stability.

The practice of Fractional Reserve Banking, arguably without sufficient reserves in a global monetary system that has recently adopted new technologies that allow for rapid transfers of large volumes of capital, have led recently to serious financial instability in Asia, Russia and in the developing countries. As investment funds poured into these countries, the banks were free to issue many times that volume in money, and as soon as the money pulled out, the government could not recall its currency in time, leading to a devaluation of the currency. This is the same process that is now happening in South Korea, Thailand, Malaysia and other countries in Asia. These crises now seem to be affecting the value of the US dollar, In case these confidence crises would spread over to one of these hard currencies, one can only guess how deep the resulting world wide economic depression would be.

Currency speculation and derivatives trading is taking an increasingly important and dangerous role in determining the value of a national currency. In 1995, the average daily volume of currency that was exchanged globally was 1.3 trillion US$(9). This corresponds to 30 times the daily gross domestic product (GDP) of all of the developed countries (OECD) together. The annual GDP of the United States is turned over in the market every three days. Only 2 or 3 percent of that volume has to do with real trade or investment; the remainder is speculation (on stock markets, currency markets, hedge funds, etc.). Twenty years ago, the proportion of speculation in total trade volume was only a few percent.(10) The implication of this development is that monetary stability depends more and more on speculative markets than on what is actually being traded; the interventions of governments or central banks in central markets can give signals at the best, but the funds they have available for interventions are only a fraction of the total trading volume. Overreactions in the financial markets will therefore have an increasingly destabilizing effect on the real economy, unless some forms of capital controls are imposed, as has successfully been done in Taiwan in Malaysia.(11) Part of the problem is using money to fulfill a number of different, and often contradictory functions.

The Functions of Money

The functions of money have expanded over time. The most essential functions of any kind of money are:

1. medium of exchange: money facilitates multi-party exchange;
2. a standard of value: in order to compare the value of goods and services, we express money in the form of Dollars, Pounds, Marks, Yen, etc. Historically, money represented (and often given the name) of the commodity it was created to represent.

Money can also be used to fulfill a number of secondary functions such as:

3. A store of value: this has historically been a minor function, since the facilities for secure storage were rare and no (interest) incentive existed to postpone spending of the money. Savings were invested in the form of cattle, land (improvements) and housing where improvement and development was considered profit. The storage function became more important with the development of the modern banking system during the past two centuries, to the point now where money earns interest by sitting.
4. A Standard of Deferred Payment: Because money can be stored, it is convenient for credit operations, the building of capital, and for investment purposes.
5. A tool for speculative profit: today more than 95% of all currency transactions are motivated by speculation; less than 5% are for trades of goods and services(12).
6. A Tool of Empire: Money is used by powerful countries to undermine the currency of weaker countries to force dependence upon the stronger currency. The Russian Ruble during the communist era, and the US dollar are examples of this(13).

The secondary functions are often in conflict with the essential ones. For example, speculation leads to unstable and unpredictable exchange rates, which undermines the currencies ability to be a stable standard of value in international transactions.(14) Using currency as a store of value, to generate interest or for expected profits at a later time means that others cannot use it as a medium of exchange, which works against the interests of the economy.

Although it is important to understand that only the first two functions are essential in order to be defined as money, any secondary functions that interfere with the essential ones have to be avoided if the monetary system is to be stable over time.

Problems with Conventional Money

In addition to the conflicts between the primary and secondary functions of money, there are four main reasons(15) why conventional money is unable to fully meet human needs coupled with its ability to destroy environments:

1. Conventional money has unlimited mobility. It can go anywhere, and it goes to where it can earn the greatest return of profit. This interferes with the ability of a currency within a specific area to function with enough money in circulation. As stated previously, if the currency of an area does not have enough in reserves to offset the fluctuations in liquidity, then the currency may devalue, causing a recession.

With the high-speed transaction systems that are now being used, large amounts of money move from place to place. Whereas in the 1930s, shareholders and account holders themselves stampeded from place to place to try to get their money out of the bank or stock market, today's stampede is electronic, with hundreds or thousands of investors money running from place to place seeking a better return, or seeking to get out of a bad economic situation.

2. Conventional money is scarce. The volume of money is limited by factors that are out of the control of a specific local area. The scarcity of money prevents inflation, and motivates people to work harder to earn it. In developing countries, money is often more scarce than it needs to be. The supply of money in circulation does not reflect the community's need for it as a medium of exchange, but the national economy's use of it as a store of value, upholding the currency's standard of value.

3. Conventional money is centrally issued. Referring to the previous description of Fractional Reserve Banking, at any given moment in time, the total amount of debt in a conventional money system always exceeds the total amount of money available in the system. The money needed to pay the interest over these loans can only come from some other similar circuits, i.e. money issued by some other borrower. If that happens the second borrower will not be able to earn back enough money to pay his debt. In order to prevent an economic stagnation, the money supply must be continuously expanded: there is need of a perpetual borrower that can never go bankrupt despite the fact that he never pays his debt. Since the 1950s, governments have assumed this role.

In order to stay above this debt, economic growth must exceed the growth of debt. However, in reality the global economy is not catching up with the exponential growth of interest bearing debt. Statistical information confirms this: worldwide debt has been growing by 2% per year faster than the world economy as a whole since 1950, and the total debt in the world is now equal to the value put on almost three years of all economic activity, compared to one year in the 1950's.(16) Add to this the enormous public debt of many governments, and increasing speculative instability and we may be looking at a recipe for disaster.

4. Interest is charged on it. Conventional money is issued as debt, often from the central bank who borrow it from chartered banks. Thus people must compete for the limited amount of conventional money, and if they have debts to pay, they must pay back more than they borrowed. Essentially, there is a problem with conventional money being used both as a store of value and a measure of exchange. Its relative scarcity gives it a higher value, but does not sufficiently meet the demand for a measure of exchange.

The Misallocation of Money in the Conventional Economy

The origin of the maldistribution of money and the persistence of dual economies (formal and informal, high-income and low-income) at all levels (nationally as well as internationally), arises from the undemocratic and unsound method of issuance. Rather than seeking social harmony and averaging by reducing the gap between the rich and the poor, it is designed to reinforce a system of social stratification which alienates people from each other and from the environment in which they live.

In addition to the previously described misallocation of economic resources, the results of which lead directly to a theory of parallel currencies and reform of the monetary system, money is being misallocated in the mobilization of human and environmental resources.

The Misallocation of Human Resources

Neoclassical economists argue that economic growth automatically reduces the rate of unemployment, because jobs are created to meet the demands of a growing economy. However it is becoming clear that this assertion does not ring true. As industries seek to increase productivity and profits, workers are replaced with labour-saving machinery, and the rate of economic growth necessary to have an impact on unemployment rates would quite likely be environmentally unsustainable (17).

In the conventional economy, money is loaned if the person applying for the loan is considered credit-worthy, that is to say, that the lender is reasonably certain to recover the loan plus profit. Loans are generally made with property as collateral to guarantee at least partial recovery in the case of a default in loan repayments.

Those who are unable to borrow must work for those who are able to borrow in order to earn the money they need, to purchase the things they need that they cannot make themselves. This puts the working person in competition with others for limited amounts of money and for the collateral needed to be given the opportunity to borrow.

While this is the same the world over, the gap is clearer in the developing countries. The commercial banks ration the scarce loanable funds to very credit-worthy medium and large-scale enterprises in the modern commerce and manufacturing sector.(18) Often these enterprises are jointly, or entirely foreign loaned, and more often than not lend heaviest to resource-extraction industries.

Therefore, in these countries where typically more than 80% of the population depends on small businesses for their income (mostly informal sector and farming), the term "dual economy" is often used to indicate the relative separation between the formal and the informal sector of the economy, primarily due to the issue of lending. Under these circumstances, it seems certain that very little of the money created through bank loans to the medium and large-scale businesses in the formal sector will trickle down to the informal sector, which is left to struggle with a chronic shortage of cash.

If loans from a commercial bank are unavailable, there are middlemen and "loan sharks" to fill the market niche, putting even greater competitive pressure on the borrower to do whatever it takes to repay the loan.

The requirements of a conventional economy, in which money is issued centrally as debt, has created a game of winners and losers (described in behavioural economics as "motivation"), for whom the government's role is to step in and help where the economy leaves off, assuming that the government is able and/or willing to do that.

The old dream of technological and productivity advances leading to increased leisure time and wealth is being rudely interrupted by the marketplace's tenet that income is derived from paid employment and not idleness. There is increasing room for a new economy to fill this niche.

The Misallocation of Environmental Resources

Conventional economic assertions, statements about the role of natural resources ('Land') in the productive process, rest on the premise that the environment is a commodity, measurable and exchangeable with other commodities in the productive process. The environment is not seen as a life-support system, or as having value in itself. By weighing economic values (production) against environmental values (conservation), conventional neoclassical economists invariably come out on the side of economic values.

In their view, a properly functioning economy is one in which consumer's wants are met, and which the economy is always growing, because growth means progress and development. The environment, along with labour and capital is just one factor in the process(19).

With the pressure on people to do whatever they can to make ends meet and on borrowers to repay loans, great pressure is being placed upon the environment, simply because of the method used to issue and distribute money in the conventional economy.

Because money can begin to generate interest as soon as it is earned, there is little incentive to protect the environment. A tree cut today is worth more money than five years from now, for the interest that can be earned compared to the tree growth that can be achieved in that time.

In recent years, a new discipline within Economics has argued for a proper accounting of natural resources, the environment, in understanding and evaluating the productive process. "Ecological Economics", as this discipline is called, holds a holistic view of the environment economy system, seeing the economic system as a subset of the natural system of the earth, with a greater concern for natural resources, many of which are either limited or have long regeneration cycles, and with human resources and values, such as health, dignity, and moral/ethical obligations, including those towards future generations(20).

If part of the goal is to reduce environmental destruction, we must go to the root of the problem of why people are engaging in these activities. When we see the reasons, it is easy to conclude that the source and method of issuing money is at the root of the problem.

Usury: Christian and Islamic Views

Both the Christian and Islamic religions have been opposed since their earliest beginnings to the charging of usury, a rate of interest above what was considered acceptable. Whereas in the Christian church the payment of interest is acceptable, Islam goes further by equating usury with interest and condemning it outright, unless the lending has resulted in profit for the borrower, for which a portion of the profit is shared.

In his encyclical of November 1, 1745, "On Usury and Other Dishonest Profit", Pope Benedict XIV countered the rise of usurious interest. Borrowers, being unable to pay the rate of interest on their loans, turned to the Church for assistance and asked to have the Church to invalidate their contracts. Appalled by the scale of the outstanding interest owed on these debts, the Vatican laid down the theological position, and the canon law on the matter of usury. The Vatican asked its Cardinals, some of whom held degrees in law to establish a fixed teaching on usury, "since the opinions recently spread abroad seemed to contradict the Church's doctrine."(21)

The Vatican's lawyers returned with the following statement:

"I. The nature of the sin called usury has its proper place and origin ina loan contract. This financial contract between consenting partiesdemands, by its very nature, that one return to another only as much as he has received. The sin rests on the fact that sometimes the creditor desires more than he has given. Therefore he contends some gain is owed him beyond that which he loaned, but any gain which exceeds the amount he gave is illicit and usurious."

The Vatican strictly opposed usury, and in fact suggest that they are opposed to the charging of interest at all. However, they did not rule out parallel agreements that may involve additional benefit to the creditor, or to profit from industrious activities.

In the end, the Vatican conceded that as long as the amount was "fair" to both parties, then interest would be acceptable. "There are many different contracts of this kind. In these contracts, if equality is not maintained, whatever is received over and above what is fair is a real injustice."

The Vatican argued that to charge usurious interest not only went against the Catholic Church, but also against common sense and natural reason. "Everyone knows that man is obliged in many instances to help his fellows with a simple, plain loan. Christ Himself teaches this: 'Do not refuse to lend to him who asks you'."

The modern Church remains opposed to usurious interest. Pope John Paul II, in his weekly address on September 10, 1997(22), denounced usury and applauded an Italian organization devoted to abolishing the practice. The Pope spoke out against "unscrupulous usurers" engaged in the "pitiless exploitation" of families who are in need after suffering from downturns in the economy.

Islamic religion prohibits the charging or paying of interest, "riba" regardless of the purpose for which the loan was made and regardless of the rate of interest charged by non-muslims(23). Recently, efforts are being made to bring the principles of Islam back into banking, where banks have strayed from Islam and are charging interest on their loans to other Muslim people. Whereas there have been attempts, like in Christianity, to distinguish between acceptable interest and usurious riba, the muslim academic community is united in its reading of the Qur'an as being in complete oppositon to both ways of taking advantage of others through loans.

The prohibition of interest and riba, which are used interchangeably in Islam, is mentioned in four different revelations in the Qur'an. The first revelation emphasizes that interest deprives wealth of God's blessings. The second revelation condemns it, placing interest in juxtaposition with wrongful appropriation of property belonging to others. The third revelation enjoins Muslims to stay clear of interest for the sake of their own welfare. The fourth revelation establishes a clear distinction between interest and trade, urging

Muslims to take only the principal sum and to forgo even this sum if the borrower is unable to repay. It is further declared in the Qur'an that those who disregard the prohibition of interest are at war with God and His Prophet. The prohibition of interest is also cited in no uncertain terms in the Hadith (scriptures). The Prophet condemned not only those who take interest but also those who give interest and those who record or witness the transaction, saying that they are all alike in guilt.

Some scholars have put forward economic reasons to explain why interest is banned in Islam. It has been argued, for instance, that interest, being a pre-determined cost of production, tends to prevent full employment. Others contend that international monetary crises are largely due to the institution of interest, and that trade cycles are in no small measure attributable to the phenomenon of interest. None of these studies, however, has really succeeded in establishing a causal link between interest, on the one hand, and employment and trade cycles, on the other. Still others have argued that interest is not very effective as a monetary policy instrument even in capitalist economies and have questioned the efficacy of the rate of interest as a determinant of saving and investment.

A common thread running through these opinions is the exploitative character of the institution of interest, although some have pointed out that profit (which is lawful in Islam) can also be exploitative (which is not lawful). One must distinguish between profit and profiteering, as it is the latter that is prohibited in Islam.

Some writings have alluded to the 'unearned income' aspect of interest payments as a possible explanation for the Islamic doctrine against the taking of interest. The objection that rent on property is considered lawful is then answered by rejecting the analogy between rent on property and interest on loans, since the benefit to the tenant is certain, while the productivity of the borrowed capital is uncertain. Besides, property rented out is subject to physical wear and tear, while money lent out is not. The question of erosion in the value of money and hence the need for indexation, such as a form of negative interest, or timed-depreciation such as that proposed by the German economist Silvio Gesell could be interesting.

The Islamic ban on interest does not mean that capital is costless, or does not earn profit in an Islamic system. Islam recognizes capital as a factor of production and while it does not allow the lender of capital to make a contractual claim on future profits of the borrower in terms of interest, there may be other ways, such as profit-sharing. Profit-sharing can be a viable alternative with is lawful in Islam. Whatmakes profit sharing permissible in Islam, is that with interest it is the rate of return that is predetermined, whereas with profit-sharing, it is the ratio that is predetermined, with the lender linked to the borrower in case of loss, similar to that supported by the Vatican.

It has been argued that profit-sharing can help allocate resources efficiently, as the profit-sharing ratio can be influenced by market forces so that capital will flow into those sectors which offer the highest profit sharing ratio to the investor, other things being equal. While some Islamic economists are opposed even to profit-sharing as just a front for profiteering, mainstream Islamic thinking on this subject is looking for ways to replace interest with something else.

Politically, the Islamic Party of Great Britain supports the introduction of LETS to the Islamic community as a way to foster economic activity in accordance with Islamic Law(24). In a statement on LETS issued by the party, they state(25):

"In our attempts to engineer a practical return to trading without usury, in line with Islam's prohibition of interest (Riba), members of the Islamic Party of Britain have faced the toughest opposition from 'Muslim' economists and 'Islamic' bankers, in areas of the Muslim world desperately in need of a halal (just) monetary system, through which, it was hoped, that the Sharia (God's word) could be seen to be working in the interests of ordinary people.

At the moment, we see the sanctioning of Islamic punishments devoid of Islamic Justice. The laws concerning theft, for example, must first be applied to those in the society who cause the conditions in which people find the need to steal, or seek other illicit escapes from the inexorable, unbearable pressures of debt. Because, as Ali, the cousin of Allah's messenger, pointed out: "We withstood the weight of the Iron, the Stone and the Lash, but we could not endure the weight of debt." Understanding the destructive nature of poverty he also stated: "If poverty were a man I would kill him". If, therefore, Islamic Justice was the basis of the punishments meted out in those countries which outwardly profess to be guided by the Glorious Shariah -- there would be few dextrous, let alone ambidextrous bankers around."

There are many good non-Islamic books and leaflets on the subject of interest and its consequences. And many groups in the world already create money for themselves when they involve themselves in interest-free, L.E.T.S (Local Exchange Trading Systems). These demonstrate clearly that money can be a useful servant - the role specified for it by Allah.

In the second Surah of the Qur'an, entitled Al-Baqarah, Verse 282, significantly the longest in the entire scripture, He spells out the warning to all those who claim to be believers. "0 you who believe! When you deal with each other, in transactions involving future obligations in a fixed period of time, reduce them to writing. Let a scribe write down faithfully as between the parties: Let not the scribe refuse to write: as Allah has taught him. So let him write. Let him who incurs the liability dictate, but let him fear Allah his Lord and not diminsh anything of what he owes...and get two witnesses.... The witnesses should not refuse when they are called on for evidence. Disdain not to reduce to writing (your contractual obligations) for a future period, whether it be small or large: it is more just in the sight of Allah, more suitable as evidence and more convenient to prevent doubts amongst youselves..."

The compatibility of Local Exchange Trading Systems and Verse 282 of Surah Al-Baqarah is quite remarkable. For example, Allah informs us earlier, in verses 275-279 of the same chapter that, He permits trade but condemns outright -- usury/interest/riba -- in any shape or form. "Those who devour usury will not stand except as stands one whom Satan by his touch has driven to madness. That is because they say: "Trade is like usury", But Allah has permitted trade and forbidden usury...Allah will deprive Usury of ALL blessing.... 0 you who believe! Fear Allah, and give up what remains of your demand or usury if you are indeed believers. If you do not (desist), take notice of War from Allah and His Messenger."

Footnotes:

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2 Bernard Lietaer. Beyond Greed and Scarcity. Unpublished Manuscript. http://www.transaction.net/money/book/index.html

3 Bernard Lietaer. Community Currencies: A New Tool for the 21st Century. http://www.transaction.net/money/cc/cco1.html

4 See internet http://www.syn-rj.fr/RAB/Relinter/AnnMnd/BretWood.htm and http://ps.ucdavis.edu/classes/pol129/SWE/bw2.htm

5 Robert Carroll. Fool's Gold. http://www.transaction.net/money/community/index.html

6 Peter Moers. Community Currency Systems: A Cooperative Option for the Developing World? Geneva: International Labour Organization. http://ccdev.lets.net/moers.html

7 See the Global Resource Bank argument at http://www.globalresourcebank.net

8 See Transaction.net: http://www.transaction.net/money/glossary.html

9 Sarah van Gelder: An interview with Bernard Lietaer. YES! A Journal of Positive Futures. April 1997. http://www.transaction.net/press/interviews/lietaer0497.html

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23 Mohamed Ariff. Islamic Banking. University of Malaya. http://www.uio.no/~stvhoy11/islbank.html

24 Islamic Party of Britain. Http://www.muslims.net/islamparty/islamparty.htm

25 Statement posted to the newsgroup: uk.religion.islam, Subject: Islamic View on Local Exchange Trading - letsarab.jpg (0/1) on Sun, 10 Nov 1996 at 21:59:43 GMT by the Islamic Party of Britain.

Introduction to Parallel Currencies

In this century, there have been two major bursts of parallel, local and community currency activity, in the 1930s following the Crash of 1929 and resulting Great Depression, and in the 1980s and 90s. Interestingly, whereas the systems that emerged in the 1930s were a direct result of the harsh economic conditions at the time, the systems that emerged in North America, Europe and the British Commonwealth countries in the 1980s and 90s are more the result in an ideological shift towards a sustainable, steady-state ecological paradigm coupled with the introduction of new technology such as the personal computer and software such as database programs, in addition to new methods of communication such as the telephone, the fax, and the internet.

In this report, we generally refer to parallel currencies, that is to say, currencies that are designed or intended to circulate in parallel, or complementarily, with the national conventional currency. Alternative currency systems are generally defined as those which are designed or intended to supplant or replace the national conventional currency. Our goals are not political, per se, rather they are concerned with regional development.

The General Theory of Parallel Currencies

The theoretical foundation and practical design of parallel and alternative currencies is based upon shortcomings in conventional money: if conventional money corrected these shortcomings, alternative forms of currency might be unnecessary. However, some community currency proponents argue that decentralized local currencies have a permanent place alongside currencies which can move from locality to locality. Thus, from the inability of conventional money to satisfy people's needs come new developments to fill the gap.

During the 20th century, we have struggled with several large and persistent problems: unemployment, environmental degradation, military conflict, hunger and poverty. Neither governments, international bodies, nor the market have been able to produce solutions to solve these problems. These problems, some argue, can be traced to money, and particularly to its design as a conventional national currency.

Proponents of parallel currencies assume that most people want to do good things, to do what they feel is right. Unfortunately, however, these human activities, efforts that are of real value to the community often do not happen because those who do have the desire and the will do not have the money with which to carry them out. And conversely, those who do not have the money are willing to do things that are harmful to the environment or to other humans or even harmful to themselves simply to earn the money with which to buy the things they want or feel that they need.

In addition to existing economic measures to put the monetary resources where people hearts and minds are, such as with microcredit, local/community economic development, funded programs and the like, we argue that parallel currencies also have an important role to play in giving people the resources to do what they feel is right, and what is in the interests of society and ecology.

In response to the problems with conventional money, these currencies generally respond with four main opposing points in addition to the benefits discussed at the end of this section(26):

1. Local currencies are limited to the local area, and community currencies are limited to the community of traders in which they are issued Local currency systems seek to limit the mobility of the currency so that it stays local to fulfill its function as a measure of exchange.

2. Local currencies are issued in quantities sufficient to meet the needs of the users of the locality. Although there are different methods for issuing local and/or community currency, the idea is to have enough in circulation and supply as needed, with no more and no less. Otherwise, the up-and-down cycles of the conventional economy are merely replicated.

3. They are issued by a local authority, or by the participants in the system. This decentralizes the operation of the system to the local level, giving the participants of the system a say in how the system operates. This is the foundation of a democratic economy, and conversely, an economic democracy.

4. No interest is charged on negative balances, nor paid on positive balances. However, a number of economists have proposed that interest be charged on positive balances, or on the storage of money to encourage its circulation.

Local and community currency theorists see money, therefore, as an "information system we use to deploy human effort"(27) according to Michael Linton the designer of the LETS. In this view, money is primarily as a measure of exchange, and secondarily as a store of value representing the social wealth in the community, a value which only has value in circulation and not in hoarding.

Regional, Local and Community Currencies

Parallel and alternative currency systems are almost always considered to be internal currencies--their currencies are limited in some way, whether by geographic region or social group. Depending upon the region or group served, the type of system used is designed to fulfill a particular function or set of functions.

Regional currencies are generally issued and managed by state, provincial or regional governments in the area, such as the example of the currency bonds issued by the Argentine province of Salta, and the recent "merchant coupon" local currency issued in Japan.

Local currencies are generally issued by local governments or organizations. Local Exchange Trading Systems are considered to be both local and community currencies. The HOURS system is an example of a common type of local currency which circulates between members and non-members of the system within a specific geographic area.

Community currencies are generally issued by local organizations to serve a specific social group, rather than all people in a locality, with the LETS system as the priary example. As we will see, they can also expand to serve a group of groups at the regional level. And taking this further, a regional currency system serving everyone within a regional area can be entertained, although it has not yet been tried.

Fiat, Backed and Mutual Credit Currencies

In addition to dividing systems by geographic area or social group, we can theoretically divide them into three types: fiat, backed and mutual credit currencies.

Fiat currencies, including partially-backed currencies (conventional money) are those that are issued without backing by commodities or other resources, and by a central authority, not by their users. Use of this type of currency is dependent upon trust in the value of the currency by the users, and by a willingness to receive the parallel fiat currency. Fiat currencies are geographic currencies, circulating at the provincial, regional or local level.

Backed currencies are those which are fully backed by either commodity goods, or by a reserve fund in conventional money, and thus can be distinguished as "value-backed" and "commodity-backed" currencies. Value-backed currencies are those which can be spent as a discount on purchases, such as 'air miles' or bonus credits. Commodity-backed currencies represent the value of a particular commodity or set of commodities(28). Both types can be used as money. Backed currencies can be limited to either the geographic area or the social group within which they circulate.

Mutual Credit currencies are those which are issued by their members, without any creation of money by the system's administration. There also may be nothing physical backing the currency's issuance, however the mutuality of the system provides a strong reason for receiving or earning as many units of the currency as one has spent. The Local Exchange Trading System, or LETS, is the most common form of Mutual Credit system, and in fact, the most common form of parallel currency in use today, with over 2,000 systems worldwide. As the currency is issued by members of the system in the course of trading, there is generally no non-member use of the system, circulation occurs within a defined social group of members. However, a recent change in the transaction method to allow for "cheque-notes" has created a new branch in the mutual credit area: The Tianguis Tlaloc system in Mexico City, which allows the currency to circulate between both members and non-members who are willing to receive the currency.

General Benefits of Parallel Currencies

Building upon the theories of the past, modern alternative currency proponents built strong links with elements of the economy which were not previously considered to be an important factor. With parallel currency systems, the local area (community) and the environment (ecology) were factored into the new designs.

As these systems began to generate results, the many benefits of them became clearer, drawing a number of academics to begin to concentrate on this new field of economics. Including many non-quantfiable benefits like "increased sense of well-being"(29), the following benefits have been noted by researchers as well as the users of the systems. In addition to the specific benefits that will be raised in the course of focusing on particular systems in following sections, we can state a number of general benefits of these types of systems.

Increased volume of currency in a local area

Given that the volume of conventional money in a local area is scarce, evidenced by the level of underutilized human and material resources in a given area, local currencies increase the volume of money in a local area to mobilize these resources. By tying a local currency to the conventional currency when making a purchase, it can be assumed (and in some cases measured) that the velocity of money in circulation is increased.

Increased liquidity in a local area

Parallel currencies are designed to circulate within specific areas and not leave that area for another, and by staying local work to create more wealth for those in the community. Whereas the national currency drains out of the economy when it is spent at a non-locally owned business, or on goods that are sourced from outside of the community, local currencies remain where they are, increasing the liquidity of money. The effect of parallel currencies working to keep money within a specific area longer is called a "multiplier effect".

Increased access to the local market

By creating a new free market for the exchange of goods and services, participants in local currency systems have a new and stable market for the goods and services that they offer.

Increased possibility of local import substitution**[(30)](#)**

By encouraging locally-generated business, goods and services that were formerly sourced from outside the locality may be substituted by goods produced from within the locality. National and multinational corporations are unlikely to accept local currency in payment, due to the impossibility of repatriating profits.

Increased employment opportunities

By providing a new market for goods and services, the participants in the system offer what they want, rather than being forced to perform work that they would prefer not to do if they had the choice. As well as discouraging harmful activities simply for the money, local currencies give their participants a safe way of trying out their new employment choices.

Increased importance of traditionally undervalued activities

Community members themselves decide the value of such things as childcare, artisan skills or community organizing. In particular, this gives them the opportunity to reassess the value of women's work, either undervalued or unvalued in the larger market economy. (Salverda & Powell, 1998)

Discouragement of environmentally destructive activities

Without the payment of interest to encourage environmentally destructive activities for its monetary value, there is no incentive to cut down a tree today in order to begin accumulating interest from its sale. Indeed, in some systems where a negative interest rate is used, future units of local currency are worth more than those exchanged today. This encourages activities which will facilitate future exchanges, such as planting trees.(Salverda & Powell)

Increased support for small enterprise development

Rather than relying solely on a high interest commercial loan, entrepreneurs are able to procure at least part of the goods and services they need for startup simply by making a commitment to supplying the fruits of their labour to the community sometime in the future. (Salverda & Powell)

Increased strengthening of social relationships

Community currencies are designed and intended to help the members of a society to overcome social inequities based on wealth. An intricate social network is reinforced/created as a by-product of members meeting to value and exchange each others' goods and services. In an indirect way, it may be exactly these social benefits which determine economic success over the long run, such as has been shown by the lending circles program and resulting community cohesion. (Salverda)

Exhibition of a counter-cyclical economic tendency

According to Professor James Stodder, who did a study of business intertrading systems in America, alternative currencies exhibited a tendency to increase during economic downturns, which he concludes by supporting the introduction of alternative currencies in areas hit by economic recessions.(31)

Arguments against Parallel, Local and Community Currency Systems

The arguments that are made against these systems are used mostly by large-scale business, foreign-owned business or government representatives to argue that either such parallel efforts are a danger to the well-being and economic stability of a community, or that they are simply ineffective at remedying the problems they were designed to solve. The following are some key arguments against parallel currency systems.

Parallel currency systems cause a reduction in economic efficiency

Since the circulation of a community currency is restricted to a relatively small area, it can be argued that little competition exists between producers of the same goods and services. Moreover, since producers depend on a much smaller market, they will not be able to achieve the same scale advantages as larger producers. This may give rise to higher prices for consumers due to the lack of competition-driven efficiency.

However, rather than replacing the national currency with the parallel currency, consumers generally trade using a portion of the parallel currency in combination with the national currency, therefore producers taking part in the parallel currency systems are not insulated from outside competition. Because usually only a portion of the purchase is made using the parallel currency, producers are not dependent upon the alternative currency system for their income; it is often only the excess capacity that is sold through this system. By making use of this idle capacity, producers actually see their unit price decrease, thus increasing their efficiency.

Even if a parallel currency system grows in economic importance and consumers and producers become dependent on the system for a large proportion of their needs and income, one can enter the discussion of trade-off between economic efficiency and economic stability: at which point economic efficiency (through specialization) starts to endanger economic dependence. Adversaries of these systems emphasize the economic efficiency effect of specialization and consider them to be a disguised form of protection, whereas on the other hand proponents of alternative currency systems emphasize the reduced economic dependence and higher self-reliance as result of participating, and see economic dependency as a potential source of not only economical instability, but also political and social unrest.

One of the fundamental principles of neo-classical economics is division of labour through specialization. Persons, communities, regions and even countries have become increasingly specialized and therefore dependent on external trade. In a dynamic world market, a comparative advantage today is not a guarantee for the same advantage tomorrow. Although it is undeniable that globalization has lead to more products available at lower prices, it has also lead to increased inequality of wealth distribution, more income instability and enormous transitions costs for communities that have lost their competitive advantage. These transition costs include not only a loss of income and employment, but also social costs such as rising crime rates, drug abuse, prostitution etc. The main form of specialization in developing countries is in agricultural exports. Local economies are left to the mercy of international markets that are completely out of their control(32).

A certain degree of specialization is beneficial and community currency systems certainly do not pretend to bring communities back to interdependence with other communities: products which demand a high degree of specialization and in which scale advantages play an important role, are simply not traded within the parallel system. New computers, cars, and other highly specialized products consist of so many specialized elements, that they cannot possibly be developed at the level of a community unless all the various factors of production are in place at a cost which is competitive with other sources.

As said earlier, parallel currencies are not intended as an alternative to the national currency. However as a result of specialization, communities have lost a great deal of their skills diversity, making them more vulnerable to outside shocks. If skills in such essential areas as agriculture, housing and clothing are lost because many people specialize in tasks that are only of value in the world market, the community degrades from an economically productive unity into a subsidized collection of individual households that have no viability on their own. A new balance has to be found between the dependence on outside markets and self-reliance at community level. It is easy to loose a skill; it is much more difficult to acquire one. Parallel systems can help to employ and retain skills within the community, thus contributing to their very right of existence.

Parallel currency systems are a source of inflation

This concern is closely related to the question of whether the new currency system is parallel or alternative to the national currency and the conventional economy. Do local currencies create new trade or are they rather a substitute for trade formerly handled in the national currency?

If there is a large trade substitution effect, this could mean that prices will rise due to an expansion in the money supply. This is especially true if the parallel currency is issued as Fiat, in which the money supply is expanded greater than if the parallel currency was issued as partially backed by conventional money or as a mutual credit system. Fiat parallel currency systems can cause inflation if there is too much money in circulation and if this money can not be removed in time. However, only in the case of the Salta Bonds in

Argentina has the issue of inflation being caused by a fiat parallel currency been raised. It appears to not be an issue with Hours systems at this stage, however this is one of the reasons behind arguments for what are called "demurrage", "negative-interest" or "depreciating" currencies which terminate after a period of time(33).

Trade creation is seen as a way to possibly reduce the effects of expansion in the money supply by providing an expanded range of locally produced goods and services with which to pull excess money out of the local economy.

Parallel currency systems encourage tax evasion

In most countries, no taxes are payable on purchases of goods or services unless the income is earned in connection with a business(34), or amounts to a certain income threshold. Thus many of the transactions that take place are non-taxable. If the money comes through a business, it must be recorded as income for the businesses own purposes, as well as for taxation purposes.

Since the turnover and profits of local businesses may be expected to rise after joining a parallel currency system, an increase of tax revenues may even be expected. Moreover, if transactions are registered (as is common in most mutual credit systems), tax evasion of local currency income is practically impossible, even though the system itself may not divulge this information to a government's Revenue Department. In this case the parallel currency system actually works in favour of the tax collector because an active economy generates tax revenue.

Parallel currency systems abuse the Social Security System

Some issues have raised on the issue of receiving Social Security benefits like welfare and unemployment insurance while earning an income in a parallel currency. Given that the social security system was never designed for the modern reality of marginal, occasional and temporary employment opportunities, there have been instances of individuals losing their Social Security benefits because of their participation in a parallel currency system. More and more governments understand that benefit legislation is difficult to apply against individuals who are trying to lift themselves out of welfare dependence by participating in such systems. Recent efforts in Australia and England are showing signs that federal governments are willing to do whatever is necessary to help people get off of welfare and into work, including allowing people to exempt their local curency income from their Social Security benefits.

However, governments may experience a drop in tax revenues if sales of certain enterprises fall because people prefer to buy services and products from individual members (who are tax-exempted) using the local currency. More research would be necessary to examine the importance of this substitution effect and to which degree this tax loss is compensated by overall higher sales elsewhere and decreased expenses on welfare.

In developing countries, the tax evasion argument (and even less the benefit evasion problem) is hardly valid since in many cases such systems do not exist, the incomes earned in the informal sector (one of the main target groups for parallel currency system) are so minimal that it is improbable that they would be taxable. Thus the issue varies from country to country.

Instead of regarding parallel currency systems as a tax evasion problem, many local and national governments now acknowledge the useful role that such systems can play in reducing the costs of Social Security system, providing income opportunities for people at the lower end of the socio-economic spectrum, and increasing individual well-being and the meeting of needs. In Australia, income in local currency is not applied against Social Security benefits; in England, the government has employed civil servants to install systems; in New Zealand people who register as unemployed and looking for work are encouraged to join a system; in the USA income from Time Dollars are exempted from tax(35).

In developing countries, where formal social security systems are underdeveloped or even non-existent, government support for parallel currency systems is even more desired. In Argentina, the government has implemented a special program that supports the development of parallel currencies(36). Today there are an estimated 100,000 people participating in such systems nationwide(37). Furthermore, it permits tax exemptions on income earned in local currency. Some local governments even accept people paying taxes in commodities such as potatoes and milk (38) which some might consider even more extreme than accepting local currency. One possible argument for governments giving preferential treatment to parallel currency systems is that such systems are a financial instrument that reduces the need for government expenditures on income transfers or subsidies, thus liberating public funds for other, truly productive investments such as education and infrastructure.

In short, arguments against parallel currency systems as a way of avoiding taxes are difficult to defend, especially in "developing" countries, and in "developed" countries where governments are going in new directions. Levying taxes on enterprises that use scarce resources (energy, natural resources, space, environment, waste storage and/or transformation, etc.) are a new direction in which some governments are heading, such as Germany. This would make labour cheaper and environmentally destructive products more expensive. Discussions on the introduction of this so-called 'eco-tax' in the European Union are in the final stages.

Parallel currency systems are unable to finance investments

At an early stage in the development of modern parallel currency systems, some argued that the zero-interest policy makes it unattractive for the participants to save money, which deprived participants the savings they need to finance investments.

At first, parallel currency systems argued that they do not pretend to substitute the conventional currency systems, and that they may even enhance the individuals ability to save money for investment purposes. As explained in earlier, the main function of money is to facilitate transactions, not to accumulate wealth. One of the strong characteristics of parallel currency systems is that accumulation of money is discouraged, thus preventing any interference with the function of money as an exchange medium.

Recent developments are shattering this myth. The microcredit concept, in which funds may be contributed from outside, or pooled between the participants and lent in turn have won significant mention for their effects in Bangladesh and India. As will be presented later, joining a parallel currency system to this concept can be very beneficial.

Parallel currencies are easily counterfeited

It can be argued that local currencies are easy to falsify, because the high-tech anti-counterfeiting measures taken in the case of national currencies are too expensive for local currencies.

While this may be true, no exchange medium, whether local or national, is completely safe from counterfeiting. From the golden coins of previous ages that were shaved or reduced, to fake credit cards: the fact that money is something that can be counterfeited is and will always be an issue of concern. Nevertheless, the number of cases of counterfeiting of local currencies is very small (although not nonexistent(39)) for several reasons.

The counterfeiting of local currencies is not very interesting for criminals looking for an easy profit while keeping a low profile. As the circle of people that accepts the local currency is limited, and because it is usually spent in combination with the national currency, the would-be thief would need some money of his own if he wanted to spend the money. The chance of being caught is considerably higher than in the case of national currency. Moreover, people within the system are not likely to undermine the system, since they benefit from it. Finally, it is rare that people spend large amounts of money in a short while within the system. People who spend large amounts into the system without having earned them first are easily detected.

Several simple and low-tech measures can be take to reduce the risk of counterfeiting:

1. periodic recall (timed expiration and/or depreciation and new design of the paper money;
2. use of special colours and/or types of paper, difficult to find or specially made for the purpose;
3. use of off-set rather than photocopying techniques for reproduction;
4. serial numbering the notes;
5. stamping and signing the notes;
6. making an impression on the note (such as the system's logo) using a special stamp or plier.

Other, more high-tech measures can be used, but they require the financial means available for this purpose and on the technical possibilities locally available. The investment made in anti-counterfeiting equipment has to be seen not only in the light of reducing the risk of counterfeiting, but also as a confidence building measure, which is especially important during the early stages of the introduction of the currency. Some community currencies have surpassed some national currencies in their anti-counterfeiting protection. As Paul Glover, founder of the Ithaca Hours says, "multi-colored HOURS, some printed on locally-made watermarked cattail (marsh reed) paper, or handmade hemp paper, some with non-photocopiable thermal ink, all with serial numbers, are harder to counterfeit than dollars."(40)

Mutual credit systems don't have these problems--they can't be lost, stolen or forged. Any misuse of the system will appear in the records.

Parallel Currency Systems Lead to an Informalization of the Economy

This argument also touches the tax-evasion problem dealt with previously. If a substitution takes place from activities formerly done by formal enterprises (who pay taxes) to individuals (who do not pay taxes), one can speak of a Informalization of the economy. This would probably mean that one (taxable) full time job would be lost and replaced by many (untaxed) part-time jobs. Enterprises can regard this as unfair competition because the individual part-time producers do not carry business overheads such as insurance and rents, nor do they comply with requirements for health, safety and fire regulations, food hygiene laws, public liability insurance etc.(41)

On the other hand, it is questionable that this Informalization effect exceeds the new employment and income created as a result of better utilization of the excess production capacity of formal enterprises: while some enterprises might have to cut certain jobs, many enterprises will be able to employ more people as a result of increased sales. The overall effect on employment (and thus income tax revenues) might be positive and the job-loss could be considered a readjustment of the local economy.

Secondly, the term Informalization only means that the income is not considered taxable and that it does not figure in the GDP of the country. It says nothing about the value of that income for the socio-economic well-being of the community. Paying taxes or contributing to the GDP are no objectives in themselves. Taxes are paid in order to correct a skewed income distribution and to pay for goods and services that are not produced by the private sector. If a parallel currency system can redistribute one full time job over many part-time, it contributes to a better income distribution just as taxes do, but in a natural way. Jobs are not lost; they are redistributed, which reduces the need for corrective socio-economic measures by government, such as welfare.

Bad parallel currency drives out good conventional currency

Sir Thomas Gresham, financial agent for Queen Elizabeth I(42) was not the first to recognize the effects of weak currencies driving stronger currencies for circulation, but his elucidation of the principle that "bad money drives out good" became known as Gresham's Law.

When depreciated "bad" money circulates concurrently with "good" money of high value, the good money is hoarded and "driven out" of the market. This was first noticed when silver and gold were used in coinage--silver was used instead of gold because of its weaker and more unstable value. Speculators would make purchases of gold using silver, and on the mint market (the rate paid by the mint) silver often fetched a lower price than on the currency market, meaning a profit for the speculator. "Bimetallism"(43), as it is known, was the method of using Gresham's Law in speculation.

Although economists rarely make such claims about parallel currencies, it could be argued that parallel currencies, especially fiat currencies circulate in preference to the national currency because they are weaker, driving the national currency from circulation and resulting in monetary problems if the use of the weaker currency becomes widespread.

Proponents of parallel currencies argue that their currency frees scarce national currency for trade creation through partial substitution of the parallel currency for transactions that formerly took place in the national currency. By tying the two together in a parallel, rather than alternative system, they argue, Gresham's Law is not entirely applicable. Instead, it may be better to say that the parallel currency pushes the national currency around with increasing benefit to the economy as a whole.

Trade Creation and Trade Substitution

The trade creation and substitution effects of a parallel currency are well known, providing some strong reasons for participating in such a system.

However the effect has not been adequately studied. We will now look at a theoretical example of the process

Trade creation involves a transaction that would not have taken place without the parallel currency. The economic benefits of parallel currency systems (in terms of extra revenues and employment) are expected to derive from this effect. Excess production capacity that is left idle within the present monetary system is employed within the parallel system: restaurants accept local currency during low activity hours, under and un-employed people are hired for gardening services, excess stock is sold at "regular" prices (parallel + conventional currency) etc. These are clear cases of local demand creation: transactions that would not have taken place without the parallel currency.

Trade substitution involves a transaction in the parallel currencythat substitutes a transaction formerly made in national currency. A transaction in local currency that substitutes a transaction in national currency has no direct net economic effects in terms of income and employment generation in the national currency. However, since the local currency is created (and not earned at the expense of a hard currency earning activity), national currency has been saved. These savings can be spend on other products and services, which leads thus indirectly to a net higher volume of trade, while encouraging the conventional money to circulate locally when tied to the parallel currency.

The following figures demonstrate the income generating effects of the introduction of a parallel currency. Four persons are participating in this hypothetical parallel currency system: A, B, C and D, and trade the same amount in each transaction, two units of national currency. In figure 1 the initial situation is represented: no parallel currency is introduced: the aggregate income is 8 units of national currency (8$).

Figure 1

A pays to B, two units of national currency
B pays to C, two units of national currency
C pays to D, two units of national currency
D pays to A, two units of national currency
total= eight units of national currency in circulation

In the second case, A has introduced a parallel currency which is accepted by B, C, and D. None of the transactions in parallel currency are entire substitutions of transactions formerly made in national currency, but make up 50% of each transaction. A completely new parallel economy in local currency is created besides the existing economy in national currency. The new aggregate income of this virtual economy is 12 units: 8 in national currency and 4 in local currency.

Figure 2

A pays to B, one unit of parallel + one unit of national currency
B pays to C, one unit of parallel + one unit of national currency
C pays to D, one unit of parallel + one unit of national currency
D pays to A, one unit of parallel + one unit of national currency
sub total= four units of parallel and four units of national currency
plus savings= four units of national currency
total= 12 units of combined currency in circulation

According to this figure, the income gain would have been much larger (a 33% increase in currency volume) if all 4 participants had been able to spend a the national currency that they had saved back into the system. We can assume that trade creation and substitution will occur in order to take up the slack in the money supply.

Figure 3 represents, the situation in which A introduces a parallel currency, accepted by B, C and D. However, in this case all transactions are substitutions of transactions in local currencies. It is supposed that national dollars are spent half locally and half outside the community. The extra purchasing power generated by the fact that each participant can save two units of national currency each, (assuming that they have these two units) will eventually leak away, unless it is tied to future purchases using a combination of the currency as in figure two.

A pays to B, two units of parallel currency
B pays to C, two units of parallel currency
C pays to D, two units of parallel currency
D pays to A, two units of parallel currency
sub total= eight units of parallel currency
plus savings= eight units of national currency
total= sixteen units of combined currency in circulation

From this figure 3 example, one can assume that the increase in money in circulation will result in trade creation, or be used for non-local purchases which will result in the eventual draining away of the national currency unless the parallel currency is spent as a portion of a purchase which will keep the national currency circulating longer. This is the idea behind trade substitution, and trade creation. And as mentioned before, if there are no additional ways to absorb the increase in currency volume (such as through trade creation and substitution), then inflation may be the result.

In parallel currency systems, the general idea is to encourage trade using a portion of the local currency, as this "middle way" is the best way to increase the money supply while at the same time working to keep the national currency circulating locally. In this way, it is expected that the use of parallel currencies in conjunction with the national currency will work to keep inflation in check while expanding the money supply.

Although figures one, two and three are hypothetical, the experiences of systems supports this conclusion, however almost no scientific research has been done to look into into the trade creation and trade substitution effects of the introduction of local currencies. A study by Professor James Stodder of Reinseller Polytechnic in New York on Corporate Barter Systems suggests a counter-cyclical economic tendency results from the participation of businesses in commercial parallel currency systems(44). Due to the early phase of development in the introduction of parallel currency systems in developing countries, such studies are nonexistent, although some initial results are intended through the study of the Tianguis Tlaloc system. The method of issuing mutual credit (LETS) community currencies will be looked at in the section on Mutual Credit Systems.

In the developed countries, non-commercial parallel currency systems are primarily used by individuals. Recent studies(45) suggest that the primary motivation for participating is ideological rather than economic. However, as low-income participants are drawn to the system for "trade creation" (employment generation) reasons, these studies also show that trade creation in the form of employment generation is noticeable, and a good reason to participate in the system. On the other hand, it has also been noted that the local currency is often spent on transactions that would not have taken place without the local currency, either as unmet needs or as activities that were formerly within the realm of the gift economy. As will be argued later, the conditions for trade creation, for individual producers and small businesses are better in developing countries.

The Legality of Parallel Currencies

Subject to certain conditions, it appears that local currency systems are entirely legal. The American Internal Revenue Service (IRS) has said there is no prohibition of local currency, as long as it does not look like dollars, as long as denominations are at least $1.00 value, and as long as it recorded as taxable income.(46)

As mentioned previously, LETS credits are exempt from Australia's Department of Social Services income test, meaning that credits earned in LETS are not applied against social security benefits, as long as the LETS is a non-profit, community-based organization which has a proven record of providing a service to keep individuals in contact with the job market(47).

As far as taxation is concerned in Canada and many other countries, barter or community currency transactions are considered taxable if the trades are regular, are part of capital liquidation, business activity, income generation and the like(48).

Footnotes:

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Parallel Currencies in North America and Europe

Most of the parallel currency systems operating in the world today are in the "developed" world of North America, Europe and the British Commonwealth countries of Australia and New Zealand. Partially, this is due to advances in technology that make operating such systems simple and cost-efficient. This may also be due to the number of well-known parallel currency theorists of the late 19th and early 20th centuries, as those countries with well-known theorists have well-developed parallel currency groups such as Robert Owen, Karl Polyani and Major Douglas in England, Silvio Gesell in Germany and Argentina, Irving Fisher, Robert Borsodi and Paul Glover in America, Michael Linton in Canada, etc.) Finally, it may be simply because conditions warrant it, and people have risen to the challenge.

We will now look at the parallel currency systems that once operated or are now operating in North America and Europe, according to the distinction between fiat, backed and mutual credit systems.

Fiat Parallel Currencies at the Local Level

In the context of North America and Europe, there have been no experiments with fiat parallel currencies at the regional level, and so we will move directly to the local level.

During the Great Depression of the 1930s, a number of communities began experimenting with fiat local currencies, as resources for full backing were limited, and mutual credit parallel currency systems had yet to be fully invented. Based upon the ideas of prominent theorists such as John Maynard Keynes, Silvio Gesell and Irving Fisher, systems were established throughout the United States and Canada, as well as Germany and Austria at that time.

The Wara currency in Germany

The German businessman and economist Silvio Gesell proposed a new type of currency that became known as "stamp scrip". Two systems were initiated and despite the severe conditions in neighbouring areas, these communities prospered due to the new currency.

A friend of Gesell's, Hans Timm, formed an association for the purpose of implementing the scrip idea. Timm had a type of bill printed which he called Wara, a name derived by combining two words - "Ware," the German word for goods, and "Wahrung," the German word for currency, and called his organization the "Wara Exchange Association."(49)

The village of Schwanenkirchen had a population of about 500 and its only industry was a coal mine which had been closed due to the depression. The village was barely surviving on government support. The coal mine owner had heard about Wara stamp scrip and decided to try it. He got a loan of official currency (Reichsmarks) and with it bought Wara stamp scrip from the Wara Exchange Association. Then, according to a report in The New Republic for August 10, 1932(50):

"Herr Hebecker assembled his workers. He told them that he had succeeded in getting a loan of 40,000 Reichsmarks, that he wished to resume operations but that he wanted to pay wages not in Marks but in Wara. The miners agreed to the proposal when they learned that the village store would accept Wara in exchange for goods.

When the workers brought home their pay for the first time in a long time, they immediately went to pay off their debts. Although the shopkeepers were pleased by this, they felt a little hesitant about Wara, they had no choice but to accept it. The shopkeepers then forced it on the wholesalers, the wholesalers forced it on the manufacturers and so on. Or, they could redeem the notes for the coal which underwrote the issuance of the currency.

Another reason behind its rapid circulation was a two percent stamp tax that was charged on a regular basis. The Wara mobilized the wealth of the community to such an extent that after just a few months the difference from the pre-Wara times was very noticeable.

According to Irving Fisher:(51)

"The news of the town's prosperity in the midst of depression-riddenGermany spread quickly. From all over the country reporters came to see and write about the 'Miracle of Schwanenkirchen'. Even in the United States one read about it in the financial sections of most big papers. But no explanation was given as to the real cause of the miracle - that non-hoardable money was being tried out and that it was working marvelously."

Acceptance of Wara subsequently spread to various parts of Germany, as it was limited only to those who wanted to receive it, and many people did. About two thousand shops and one or two entire communities recovered by means of it.

The Wara Currency in Austria

The Wara was also a success in the Austrian town of Woergl. In this town of about four thousand people, many of the factories had closed and unemployment was high, leaving the town's treasury empty.A local social-democrat, Michael Unterguggenberger, proposed a "Local Action for Self-Help" program and decided to try the Wara currency with the support of a number of local merchants and a small bank. The town began to pay its employees half in Wara and half in the official currency.

After some initial resistance, the Wara began to be accepted and soon became another success. Again, according to Irving Fisher:(52)

"After the scrip was issued not only were current taxes paid (as well as other debts owing to the town), but many arrears of taxes were collected. During the first month alone 4,542 schillings were thus received in arrears. Accordingly, the city not only met its own obligations but, in the second half of 1932, executed new public works to the value of 100,000 schillings. Seven streets aggregating four miles were rebuilt and asphalted; twelve roads were improved; the sewer system was extended over two more streets; trees were planted and forests improved."

The economic crisis was diagnosed as a "deficiency in circulation of official money", which tended to be hoarded and withheld from circulation, resulting in its declining value and in unemployment. The partial substitution of the official money with the parallel heterodox currency, the Wara, allowed the function of money as a medium of exchange to continue. The stamp tax, with a yearly depreciation of between 7 and 13% annually, was used to build up hard currency funds.(53)

North American Depression Scrip

Depression Scrip programs, based upon the models and ideas of Silvio Gesell and Irving Fisher were set up in hundreds of communities in America and Canada during the 1930s. Scrip was generally accepted and used to do business within a limited local area, but as our example of the Larkin Merchandise Bonds shows, it could also be issued and used in the area wherever a participating business was located.

As for Scrip issued in a local area, the farther it circulated from the locality, the more uncertainty there would be about its origin, and there would be a point at which it would not be accepted. While the limited range of circulation of the Scrip may be considered a disadvantage, it had a significant effect within the locality. When the American and Canadian economies had sufficiently recovered, the Scrip programs faded away.

Scrip systems, barter systems and cooperatives flourished during the Great Depression, an example of which is shown in the movie of John Steinbeck's novel, The Grapes of Wrath. By 1933 there were an estimated160 barter/scrip organisations involving 1 million people in 127 USA cities. A common feature of these barter/scrip organisations was the central issuing of local currency. The risk of this system was that more currency was issued that the value of the goods they represented. This, in turn, would result in a loss of confidence in the local currency among the participating public, which had been known to happen in some cases. Despite the dangers, the precedent set in Austria and Germany, coupled with the difficulties faced by people at the time were more than enough motivator to continue. While such systems declined after the economy improved, along with a little help from the government in shutting them down, it has to be emphasized that is was these factors, rather than internal difficulties, that caused these programs to end.(54)

The HOURS System

Communities can also issue their own fiat money, money that is backed simply by the willingness to receive the currency. We will now look at the most prevalent example of this type of currency, the Hours system.

The Hours system is the most widely used type of fiat currency issued at the local level. The first Hours system was initiated by Paul Glover in 1991 in Ithaca, New York, and almost simultaneously a system was started in Nelson, British Columbia, Canada. The Hours system was seen as an improvement on some of the shortcomings of LETS.

The systems uses one hour of time as unit of account, which corresponds to the prevailing hourly wage of semi-skilled labour. This has the advantage of being able to revalue the national unit of currency in case of prolonged inflation, which happens with any national currency. In Ithaca, the HOUR is valued at 10 US$, but other systems use different standards, such as $12cdn in Kingston, Ontario, Canada or $12 US-value in Brooklyn, New York. Ithaca HOUR notes have been issued in denominations of 1/4, 1/2, 1, and 2 HOURS. HOURS are negotiable, which means that some people can charge more than one hour for an hour's work, such as in the case of highly-skilled labour or people who consider their work to be more valuable--however they must first justify it. In the first 6 years of its existence, some $57,000 worth of HOURS have been issued, and an estimated $540,000 trade volume was generated within the community between 1,500-2,000 people(55). Monthly trade volume is estimated at 6,000 HOURS (60.000 US$)(56).

The issuing institution is normally an association that holds regular (generally monthly or bi monthly) member meetings to decide how much currency to issue, which community projects receive grants and which participants or projects receive a loan in the local currency. A board of directors, which is elected by the members, oversees printing and issuing the currency.

The currency is issued in various ways. Most HOURS are put into circulation through new members: every new member receives a number of HOURS for placing ads (Offers or Requests) in the HOURS Newsletter. Every eight months members may apply to be paid an additional two HOURS, as reward for continuing participation.

A second source of HOURS are the grants given to community projects. The grants are allocated by the members during the community potluck meetings, where the main decisions are made. About 10% of all HOURS issued go into circulation as grants to local organizations. In Ithaca, by the summer of 1995, over $4,000 of local currency had been donated to 22 community organizations by the governing body. A third source of new currency are the interest-free loans. Loans are generally issued for periods up to six months.

Other HOURS communities, such as the Brooklyn Greenbacks also reward persons who recruit local businesses, members who attend community reserve meetings, and directors who attend board meetings.(57)

It is not necessary to be member of the community, to be able to accept or earn HOURS, use of the currency is open to anyone, making this a truly local currency.

The income to finance all operations come mainly from the HOURS Newsletter, which places listings of Offers and Requests, features articles on local issues, and sells advertising space to participating businesses. The display ads are paid for either in dollars or in HOURS.

One of the secrets behind the success of the HOURS system is the strong participation of local businesses. In Ithaca, HOURS are accepted at many small businesses in the town: stores, landlords, restaurants, movie theaters, a bowling alley, two large locally-owned grocery stores, 30 farmers' market vendors as well as a local Credit Union. Private citizens see the value of the HOURS and accept them as a payment for their work. For businesses, accepting HOURS offer a way of making use of their idle capacity or excess stock. It's also good PR to participate in the system.

Other explaining factors are the dedication and energy of its participants, the simplicity of the system (transactions are not registered, so no complicated computer programmes are necessary), as well as the location of the system in small socially progressive towns. Moreover the fact that people do not have to be member to be able to participate in the system, reduces considerably the entrance barrier.

Currently about 40 Hours systems operate in the USA, 6 in Canada and 1 in the United Kingdom.(58)

Criticisms of Fiat Parallel Currencies

The same criticisms levelled against fiat conventional currencies are also made against fiat local currencies. While recognizing that local currencies are beneficial, some community currency proponents are suggesting that HOURS change how their currency is issued.

Issuing fiat currency is dangerous

By issuing the money whenever someone new lists their Offers or Requests in the Newsletter, the supply of local currency is increasing in proportion to the number of people who participate. This no problem as long as the supply of goods and services in the community increases accordingly.

However, like in any fiat currency system, a careful management of the money supply is very important in order to maintain the confidence of its participants.(59)

Lack of circulation creates "wells"

Another problem is when Hours are accepted but not spent, creating a "well" of local currency. Because no records are kept, it is difficult to know where this money is going, and thus where it is getting stuck, starving the system of cash. Or, if too much money is issued then the willingness to receive the Hours currency is reduced, meaning a slowdown in the system. There have been cases of theft of the currency, which can pull large amounts of money out of the system. In Nelson, BC, a robber emptied the till of cash, but threw the Hours away, removing a significant amount of money from circulation.(60)

Improvements in the Hours system design

Recently, community currency theorists have proposed that the Hours system use the LETS method of issuance, that money be issued when it is spent, with a promise to receive back the same amount that one spends. This means, in effect, to install a system of accounts through which the money is issued. People do not have to be members to spend or accept the currency, only to issue it. The advantages are numerous, from a more secure form of issuance, to greater guarantee of circulation, to recording of where the money is and how fast it is circulating, to allowing people greater access to credit when they need it. A system of this type is being used in Guelph, Ontario, and in the focus of our study, the Tlaloc system in Mexico City(61).

Fiat Parallel Currency Systems at the National Level

Because of the dominance of conventional national currencies, no parallel currency of similar scope has ever been able to rise to the challenge. However, the idea has been considered.

Polyani's Proposal for a National Domestic Currency

Karl Polyani, an Austrian-born economic historian, published "The Great Transformation" in 1944, which was a study of the impact of the industrial revolution and emerging capitalism on society during the rapid political, economic, social and philosophical developments from 1780-1944.(62)

In his book, Polyani includes a study of the first experiment of the Guaranteed Annual Income, which was the Speenhamland Bill of 1795, enacted in the UK at the beginning of the Industrial Revolution. Speenhamland, Polyani argues, taught lessons about the effects of welfare that remain valid today, that lead us to consider new tools in relieving poverty and unemployment. For Polyani, it led him to consider parallel currencies.

After presenting the attempts that were made to find a synthesisbetween the dichotomies of unemployment amidst economic growth, and the growing gap between rich and poor, Polyani argued for returning the economy under the control of society, through a domestic "token" currency. What Polyani alludes to is a relationship between his idea and Robert Owen's labour-notes: localizing the money and building a network of community currencies. When we discover the primacy of society, he argues, that inclusive, coherent unity of human interdependence, we can then hope to solve and transcend the complexity of other crises, such as the impending ecological, social and economic crises that we now face.

Inflation is prevented by giving the token currency a place besidethe national currency, rather than driving up prices by completely replacing it. However, Polyani's idea was never enacted.

Backed Parallel Currencies for Commercial Enterprises

Long ago, before Fractional Reserve Banking became the standard international method for issuing fiat national currency, national currencies were backed with an equivalent amount of gold or stocks of food, or other valuable commodity. If the currency is backed by a commodity (like tobacco, sugar, gold, etc.), we can call it a commodity currency. Because of the disadvantages of commodities being perishable and often difficult to transport, commodity currencies are quite rare. If the currency is in fact a claim to a given quantity of a commodity, we can call it a commodity standard.

While there are no examples of backed parallel currencies at the national level, there are those that have been considering the idea.

Current examples of commodity standards at the national level take the form of Merchant Credits, which are slightly different than the Merchandise Bonds mentioned above. These are either paper notes or credits recorded on magnetic-strip cards. Merchant Credits are most often used as a bonus for customers in order to increase sales, such as a coffee card at a coffee shop, or frequent flier miles given out by airlines and participating businesses. Participating businesses can buy these miles from the airlines at a discount to pass them on to their customers, and/or receive these "mile credits" as payment.

Whereas Merchandise Bonds are issued through the business as pay to employees, merchant bonds are issued to customers in exchange for a discount on future purchases.

Larkin Merchandise Bonds

One example of Depression scrip was the Merchandise Bonds offered in 1933 by Larkin and Company of Buffalo, New York. Larkin was a large company with diverse operations including wholesale merchandising, a chain of retail stores and a chain of gasoline stations. When President Roosevelt declared his infamous "bank holiday," the Larkin company issued $36,000 worth of "merchandise bonds" which it used to pay its employees.(63)

These "bonds" consisted of certificates bearing the image of the company's founder and a guarantee that they would be accepted in payment for services or merchandise at any Larkin business. The "bonds" were endorsed on reverse side and spent into circulation by the company as pay. They were subsequently accepted by many Larkin customers and even other businesses. As the dearth of official currency eased, Larkin gradually retired the bonds. Company accountants estimated however, that while the bonds circulated, the original $36,000 issue had turned over enough times to allow the sale of $250,000 worth of merchandise, providing a significant boost to its business.(64)

The Larkin Merchandise Bonds were issued specifically to address the problems faced at the time, whereas modern backed parallel currency systems seek to fulfill a number of different functions. Let us look at three types of fully-backed parallel currency programs, Merchant Bonds for financing upgrades, Merchant Credits for generating business and funding Non-Profit activities, and a system for establishing a Merchant Credits program to issue a backed currency.

Switzerland: The WIR Currency

The WIR economic circle cooperative, a name shortened from Wirtschaftsring or "business circle" was founded October 1934 in Zurich, Switzerland and it is still in operation today(65).

The founders of the WIR economic circle cooperative, Werner Zimmermann and Paul Enz were supporters of economic theories of Silvio Gesell and also concerned about nutrition, exercise and environmental conservation issues.

Motivated by the economic situation at the time, and having visited business exchange organizations in Scandinavia, they sought to apply their experiences and findings to the situation in Switzerland.

In the beginning, the WIR economic circle was not limited to the commercial middle class with farmers, civil servants and white-collar workers participating in WIR. They paid cash into their account, and after having been credited a bonus of 5 % could go shopping with WIR. But it was mainly the interest free WIR-credit, which increased the holder's buying power that served to stimulate the slow turnover of goods. Following Silvio Gesell's free money theory, the clearing credits did not earn interest, which effectively kept them from being hoarded.

The WIR organization grew at an amazing rate. By early 1935, it listed more than 1000 account holders actively exchanging goods and services.

Soon after, the Swiss government brought the WIR system under its banking laws, and the organization was forced to reorganize. Following this reorganization, the WIR has flourished to the present day. Almstedt and Greco.

The Toronto Dollar

The Toronto Dollar is a system modeled on the HOURS system with a number of improvements. Each Toronto Dollar, worth one Canadian dollar, is exchange for Canadian dollars with the public, who can then spend that dollar in the St. Lawrence Market. The currency is backed by 90% Canadian dollars, with the other 10% going to low-income groups and other beneficial projects.

The currency is a legal, taxable, and interest-free money that supports local businesses, creates local work and builds community. (66)

"Deli Dollars": Business financing through Merchant Bonds

Merchant Bonds are bonds for future merchandise that are issued and retailed to customers of the business. These Bonds are generally retailed at a discount, and repaid with about 10% interest at a later point in time.

The process is vividly described in the following excerpt from a 1995 article in Z-Magazine.(67)

"In 1989, a local deli, well loved by many people in Great Barrington, had to relocate because its lease was running out and a new lease would double the rent. Frank, the owner of the deli, went to several banks to borrow money to move to another location and was turned down. Finally he approached SHARE (Self-Help Association for a Regional Economy), the Schumacher Society s loan-collateralization program. Susan Witt, SHARE's administrator, suggested that he issue his own currency, "Deli Dollars" and sell them to his customers to raise the money he needed. Each note sold for $9 and could be redeemed for $10 worth of food, and was dated so that redemption was staggered over time."

"I put 500 notes on sale and they went in a flash. It was astonishing," Frank said. Before long, Deli Dollars were turning up all over town as people exchanged them instead of U.S. dollars for goods, services, or debts. In effect these paper notes, which were essentially nothing more than small, short-term loans from customers, became a form of community currency. They so excited the people of Great Barrington that they were followed by Farm Preserve Notes issued cooperatively by Taft Farms and the Corn Crib. Each farm raised about $3,500 the first year and issued new notes in succeeding years. Five other businesses also issued scrip, including the Monterey General Store and Kintaro (a Japanese restaurant and sushi bar). Together, these businesses raised thousands of dollars to finance their operations that they couldn't t have obtained through conventional sources. These success stories drew the attention of the New York Times, Washington Post, ABC, NBC, CNN, and Tokyo television and have inspired projects around the country."

The Community Way Funds-Generation Program

The designer of the LETS system, Michael Linton, recently announced a new economic design for using Merchant Credits to generate loyal business while raising funds for non-profit organizations, service delivery agencies, educational and cultural organizations or for local projects. This program is called "Community Way".

Community Way is a way of generating funds for these social agencies by forming a relationship between businesses, these agencies, and the public. In return, business is generated and the local economy is stimulated.

In many countries, central government funding for social agencies and non-profit organizations is in decline. In addition, donations from individuals and business to these organizations are also declining. Community Way is a way to put these agencies back into the loop, in order to ensure their continued survival.

The program starts by forming a group to launch the Community Way program. A portfolio is produced of the participating social organizations which is then presented to business. Business is asked to make a contribution, in Merchant Credits, to these agencies. The agencies, or the representative Community Way group, markets these Merchant Credits to the public, asking for a 1-for-1 exchange with an equivalent unit in the national currency. The agencies receive hard cash, and the public has the same amount of money to spend as a portion of a purchase at a business.

Thus additional business is generated, the social agencies receive hard cash funding, and it has taken no money to launch the program, only a willingness to direct one's money in a particular way. It does not cost any of the participants anything to participate.

The process is described in the following diagram(68):

Backed Parallel Currencies at the Local level

There are a number of examples of backed parallel currency systems being used at the local level. Most often, these are inter-business systems which give the participant certain benefits while reducing the risk involved.

America: The "Constant" Currency of Ralph Borsodi

In the early 1970's, Dr. Ralph Borsodi, political economist, social philosopher and founder of the School of Living(69), together with Robert Swann, developed and launched a currency experiment called the "Constant." Concerned about the chronic inflation resulting from official debasement of the dollar, Borsodi conceived a privately issued currency which would hold its value, and be immune to inflation.

Borsodi's plan for making his currency inflation-proof was to make it redeemable for a set of basic commodities. The development of the Constant never progressed that far, but the Constants that were issued were backed by bank deposits of dollars(70).

At its peak, the equivalent of about $160,000 in Constants was circulating throughout southern New Hampshire and elsewhere, both in the form of paper currency and as checking account balances at several area banks.

Germany: Railway Money

There are a number of examples of bus and train tokens being traded as money. Dr. Walter Zander, in his paper, Railway Money and Unemployment(71), presents the example of the Leipzig-Dresden Railway which in the mid-19th century was authorized to issue one third of its capital in the form of "railway money certificates". These certificates, he says, remained in circulation for about forty years.

Zander follows this example by proposing that rather than waiting for people to get money with which to buy a business' services, the business should issue the currency itself. When an economic entity, such as the Railway, must pay for what it needs in official currency, it must first acquire the currency to get what it needs. Alternatively it might purchase what it needs on credit in anticipation of having the cash it needs to pay at the time the bill comes due. In doing this, it commits itself to delivering the promised good, service or money. As Zander points out,

"Whether its hope will materialize is uncertain. The undertaking to pay at maturity contains, therefore a speculative element, which is particularly hazardous in times of depression. But the railway can promise to pay something else, namely, to transport commodities and persons; that is to fulfill its function as a railway. There is nothing speculative about that. The means required for this, rolling stock and other plant, are available. This is therefore fundamentally different from a promise to pay cash at a future date, for in the latter case the means of payment have yet to be secured, and this by having transported passengers and goods. The capacity of the railway to act as a carrier is, on the contrary, unquestionable.(72)"

The essential features of the Zander plan are:

1. The Railway makes payment for goods and services, not in legal tender, but in transport certificates.
2. The Railway certifies that it will accept the certificates at their face value like ready money, in payment for its services.
3. The certificates are made out to the bearer.
4. They are issued in convenient denominations.
5. No one need accept them.
6. They have no legal value.
7. The market rate in relation to official currency is freely determined.

The promise by the Railway to accept the certificates at face value works to maintain their value.

Issuing a Commodity-Backed Local Currency

This program, based upon the Community Way program described above, is designed to generate a backed local currency in addition to the benefits of generating funds for social agencies and increasing business activity. This program suggests that the significant amount of funds that are generated could go towards underwriting a local currency by establishing a monetary fund for that purpose. This program is designed to keep money local -- a fully backed currency that can be redeemed for cash, issued into the local economy as part of a funds-generation program for local charity, education and art organizations, and redeemable at local businesses as a portion of a purchase. The main difference between this program and the Toronto Dollar is that 55% of the funds raised will go to beneficial projects, instead of 10%, with the fund built by a timed-devaluation.

How it Works

A series of bills, equivalent to two, five and ten dollars are designed with the themes of the community and surrounding area, and designed by local artists. On the front of the bill are spaces for two signatures of the issuing parties, and on the back are 12 squares for dating the bill.

As with Community Way, charities, education and arts organizations produce a portfolio of their programs and their financial needs. This portfolio is taken to local businesses who decide which organizations to issue 'local dollars' to the benefit of. These organizations then receive these not-yet-activated bills, and market them to the public on a one-for-one exchange--two dollars for two 'local dollars', five for five, ten for ten.

These 'local dollars' can then be spent as part of a purchase at a local participating business, taxed and recorded just like cash on the business' ledgers. Business can then spend these dollars on local business or give 'local dollars' to their employees, re-contributed to charity or arts organizations, or otherwise recirculated as they are as good as Canadian dollars in the local economy. Businesses are obliged to receive only as many 'local dollars' as they have initially contributed.

Underwriting the Currency

In the first year, charities and arts organizations will receive 55% of the funds raised. 25% of the remainder will go into a fund specifically for underwriting the currency, and 20% to the issuing agency for printing and administrative costs.

After one year, a percentage of the 'local dollars' in circulation will be redeemable for cash, subject to a fee of 25c for 2-notes, and 50c for five-notes and one dollar for ten-notes. These fees will cover printing costs directly related to the bills, and to the fund for underwriting the currency.

On the back of each note are 12 date stamps, which must be valid for the period in which the note is spent, and validated 4 times in a year. This is to encourage the increased velocity of the 'local dollar', and to generate funds for underwriting the currency.

2 dollars:	10 cents every four months	15% yearly
5 dollars:	15 cents every four months	9% yearly
10 dollars:	25 cents every four months	7.5 % yearly

The redemption will be the first day of the months of February, May, August and November. These amounts can be paid at the business when a purchase is being made, and paid to the issuing agency when the money is collected from businesses for recirculation, or they can be paid at the agency's office.

How many coupons should business issue?

As these trade dollars will only be spent as a portion (15-40%) of a purchase, it is unlikely that they will speed up business so much as to deplete inventory. This is not a discount program, so the idea is for businesses to profit from this program. The following calculation is suggested for determining a general figure for the first contribution.

Average monthly sales x % of purchase accepted in coupons x 6 =

For example:
3000$ x 25% x 6 = 4500 credits in the first 6-10 month period.

By substituting a portion of the national currency, which can go anywhere and often drains out of local economies towards larger towns and cities and to where they can find the best price or greatest return, 'local dollars' will help to increase liquidity and generate business in the local economy, while adding to the funds of charity, education and arts organizations in a local area.

Local dollars will increase community spirit while increasing the disposable income and employment opportunities of local residents. Through this program, many of the funding problems that small communities now face can be overcome.

Footnotes:

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Mutual Credit Parallel Currencies at the Local Level

In the early 1980s, the re-introduction and development of local and community currencies is built upon the foundation of the older theories, adding technological elements that would help these new systems flourish in the modern world. The development of the personal computer, and the internet facilitated this new wave of parallel currency systems. We will look at the system that started the latest wave of local and community currency systems, the LETS system.

The Local Exchange Trading System (LETS)

The Local Exchange Trading System or LETS was designed in 1982 by Michael Linton, in the town of Courtenay on Vancouver Island, British Columbia, in Canada. Skilled in the use of computers, and having acquired a new IBM 286, Linton took the opportunity to program the LETS using a new database program, called Dbase.

His pilot program in Courtenay confirmed his theories of alternative local currencies, and he reported these findings over the precursor to the internet, the BBS. Soon, he was travelling to different countries distributing his system, presenting his ideas, and making a clear and compelling argument for the introduction of community currencies. Community currencies for Linton are currencies for use within a specific community within a specific local area, the community being defined as the users of the system who open an account.

His LETS became the model for the Hours system, and his theories and arguments defined the field of new economics and revolutionized the study of alternative currencies.

Today, there are approximately 2000 LETS systems worldwide, primarily in North America, Europe and Australia. Recently, however, LETS-type systems have been appearing in the so-called "developing world" of Asia, Africa and Latin America, notably in Argentina.

Due to the heterogeneous and parallel development of LETS systems, a number of variations have appeared, of which the Tlaloc is one variant. In response, Michael Linton has produced a manual which defines his design, the LETSystem, so that it can be distinguished easily from these variants. Please note that we will distinguish between Linton's LETSystem, and the LETS systems which vary on a number of points.

We will present the elements of the LETSystem, then present some ways of altering the design of the system to take a variety of local realities into account.

The Fundamentals of the LETSystem

The LETSystem, as with all alternative currencies, seeks to deal with the problems associated with conventional money. It is designed to fill a particular economic niche that is not satisfied by the conventional economy.

There are three underlying considerations which define the field of the LETSystem, and they are community, personal and practical considerations. Community refers to a finite group of people who decide to participate in the LETSystem. Personal refers to the commitment made by the participant to receive the local dollars that he or she has spent. It also means that there is no third-party control over the money that is issued, and that the money cannot leave the system. Thirdly, the LETSystem adopts a practical stance by tying its currency to the unit of measure of the national currency. Thus the name of the local currency in the LETSystem may be associated with the national currency while making the difference clear. For example, the LETSystem currency has been called "Green Dollars", "Green Pounds", or names that reflect the local culture or the character of the community like "Watts", "Bobbins", and etc.

The LETSystem is a parallel currency. Rather than proposing to replace conventional money, the LETSystem is designed to integrate with all aspects of economic and financial activity.

From the three underlying considerations, there are five fundamental principles. Firstly, the "cost of service" principle, which establishes that the system will charge the members only what is needed to cover the costs of operating the system. Secondly, the principle of "consent" results in the flat start of zero for all accounts, and is later defined further in the account holder's agreement. Thirdly, the principle of "disclosure" establishes certain rights to information about the system and its users to each other. Fourthly, is the principle of the LETSystem currency being equivalent to the national currency. Fifthly, and perhaps most importantly, the principle of "no interest - no commission" which means that no interest is charged, nor paid, on either positive or negative balances.

These principles are enshrined in the account holder's agreement, the contract of commitment between the user of the system and the community of traders.(73)

1. A LETSystem is operated as not-for-profit agency whose rights and authority are vested in a Trustee who acts as an agent for the members who are principals. The LETSystem provides the service that allows members to make offers or requests for goods and services for exchange with other members of the system, and to maintain such accounts of trading as members request.
2. The LETSystem maintains a system of accounts in the system's currency, the unit of value being equivalent to the prevalent legal tender.
3. All member's accounts start at zero.

4. The LETSystem acts only on the authority of a member in making a transfer of units of currency from that member's account to the account of another member.
5. There is never any obligation to trade, but member's must be willing to consider trading in the local currency.
6. A member may know the balance and turnover of another member.
7. No interest is charged or paid on balances.
8. Administrative costs are recovered from member's accounts on a cost-of-service basis.
9. Accountability for taxes incurred by members is the obligation of those involved in an exchange. The LETSystem assumes no obligation to report to taxation authorities or to collect taxes are on their behalf. (In many countries, exchanges that take place using the system currency are considered taxable).

How LETS Works

When a person opens an account in a LETS, they list the goods or services that they are offering or requesting. This is added to the existing Noticeboard or catalogue of Offers and Requests, sorted by subject with the person's name and contact information.

They receive an account identifier, which can be either an alpha password or number.

Transactions in the system's community currency are recorded by the person making payment, using one of three methods: telephoning the transaction into the LETS Office, recording the transaction on a cheque, visiting the LETS Office to record the transaction in person. The currency does not exist on paper, but simply as electronic credits recorded in a computer.

Thus, a free market is created in which the members trade with each other using the community currency, or the community currency in combination with the national currency. If the two parties to an agreement have what the other wants, they may exchange the goods as with traditional barter.

On a regular basis throughout the year, the account holder will receive a statement detailing their trading during the previous period.

How LETS Currency is Issued

With fiat systems, money is issued to the user of the system upon registering trades in the Newsletter. Value-backed currencies are issued when a purchase is made. Commodity-backed currencies are issued when some commodity backing the item is deposited in storage. With LETS, currency is issued in the course of trading.

All accounts in LETS start at zero, and in the course of trading account balances move between positive and negative, negative movement signifies the creation side of money, and positive movement suggests earning money that has already been created.

The following diagram describes how this process works. Four people, A, B, C, and D engage in trades with each other in increasing amounts, so as the transactions progress, some new money is created and issued, along with money that was previously issued.

	volume of currency in system
A pays B 25 trade dollars.	25
B pays C 50 trade dollars.	50
C pays D 75 trade dollars.	75
D pays A 100 trade dollars.	100
total:	100

In this example, the currency volume expanded by 25 trade dollars during each trade, issuing 100 trade dollars into the system.

The following diagram shows how this LETS system with four hypothetical members looks:

	In	Out	System Balance	Turnover	Volume
Member A	100	25	75	125	25
Member B	25	50	-25	75	50
Member C	50	75	-25	125	75
Member D	75	100	-25	175	100
Total:	250	250	0	500	100

In this example, 500 trade dollars of economic activity was created from the 100 trade dollars in circulation, because of the expansion in each successive purchase by 25 trade dollars. This increasing trade generated a higher turnover which in this case is 5 times greater than the volume. Thus it is not volume that is of concern in the system, rather it is the turnover which more accurately describes the level of economic activity. This is also true with the regular economy, where economic health is equated with circulation. In this hypothetical system comprising four members, calculating the currency volume is easy, however it is very difficult to calculate in real LETSysems and so is generally not done.

As the trades started and ended with Member A, Member B's turnover is low because She/He is the next in line. Member A has a positive balance because the sum of successive trades was spent by Member D on the final purchase with Member A, which balances the system at zero. The resulting trade creation and substitution effects follow the pattern described in the previous section.

An Economic Analysis of LETS

We can also analyze LETS according to the American Economist Irving Fisher's Quanity Theory of Money(74). Considering the formula:

$$MV = PT$$

In this formula, M represents the volume of money in the system, V the transaction velocity, P the average price of all transactions and T the number of transactions that take place during a specific time period. Both MV and PT measure the total value of all transactions in different ways and are thus always equal. We can say that:

1. The money supply (termed above as volume) or "M" is theoretically unlimited because members of LETS issue their own money according to their own needs. As no interest is paid on positive balances, there is no need to create more money for the purposes of saving--all money in LETS comes into existence in the course of trading, as we saw above, and because it is created immediately, there is no possibility of creation of LETS Credits for speculative purposes as well.

2. The velocity or "V" is high in relation to the money supply or "volume" because the money comes into existence in the course of trading, as we saw in the first example above.

3. The average price of all transactions or "P" remains stable as long as the national currency to which LETS Credits are referenced remains stable. LETS Credits tied only to the national currency will follow inflation and deflation in the national currency accordingly unless stabilized by tying its value to other standards. As members are alternatively buyers and sellers, producers and consumers (or "prosumers" as Alvin Toffler proposed(75)) and do not have cash flow problems in the LETS currency because it is created through trading, it is not possible to drive up prices using the LETS Credits to make profits in the national currency. Secondly, in a no-interest system, where the money supply is theoretically unlimited, purchasers are not forced into paying unfair prices, and can wait out any potential fluctuations in the cost of the desired good or service.

4. The number of transactions over a specific period of time, or "T" is dependent upon the number of members, and the level of active use of the system. Theoretically, the number of transactions tends to increase over time and then level off in the long term because of the expanding range of goods and services in the short term following start up, then because of trade creation

effects, and then because of efficiency enhancing measures such as those which encourage business activity at typically slow times, or to reduce inventory.

From this basic formula, we can derive another way of looking at the LETS economy:

$$M\bar{V} = \bar{P}T$$

We can say that M, the money supply or volume of money in the system is dependent upon the number of transactions that take place. This is the complete opposite of how money works in the conventional economy, where the number of transactions that can take place depends upon the money supply: if the money supply of national currency is scarce, then the number of transactions that can take place is reduced. Instead of a fixed and scarce money supply, through LETS we have a entirely new monetary system which measures economic activity as being at the root of the money supply. In LETS, the only limiting factors preventing transactions are the imagination of people, the willingness and ability to trade, and the environmental factor which guides people away from resource extraction activities and into human needs activities. This is a clear demontration of the perfect connection between the money supply of LETS and the meeting of human needs.

The LETS Economy

The LETS is a system of accounts in which the members issue their own money in the course of trading. Therefore, the LETSystem economy is balanced at zero, with the amount of money on one side of the balance sheet being equal to the amount of money on the other side. When money is transferred from one account to another, the system is balanced accordingly. If there is ever an error made, the problem can easily be traced.

The LETS is managed using a computer database on an IBM machine, but there is software available for the Macintosh. In places where such technology is unavailable, it is possible to run a system by hand, which is presented in a following section.

Variants of the LETS System Design

Taking a variety of local factors into consideration, a number of LETS systems have added or changed aspects of their system. While this is generally discouraged by its designer for reasons of stability, the possibility of future interaction between systems, and basic uniformity between systems that share the same name, some of these options are gaining wider acceptance while retaining the basic elements of the design. The following are aspects of the systems which may vary from locality to locality.

The Noticeboard of Offers and Requests

The Noticeboard of Offers and Requests, although it is of a very simple design, has been altered to take additional forms of information into account, such as details about the product or service offered, or the individual making the offer or request, etc. The Noticeboard need not be printed, nor electronic, but can simply be a Bulletin Board set up in some central location. In some places, what is being offered or requested is communicated by word of mouth.

The Type of Currency Used

Recent developments in LETS software allows for the use of multiple currencies. Normally this is intended to allow trading within a few different communities. However, it may also facilitate trading using a few different currencies. These currencies may take the form of Hours of time, or in units representing another standard of value which goes against the principle of complementarity and equivalence to the national currency.

Or, the currency may take a more physical form such as a bill or card or cheque. As with the system in Guelph, Ontario which was originally a LETS, and with the Tlaloc system, which uses a cheque-note, the currency can circulate outside the community of account holders, something which is not a part of the LETSystem, which serves a defined community.

Negative Interest

While it is generally agreed that interest must not be paid to people with positive balances, as this encourages hoarding, there is disagreement on the issue of whether interest should be charged on these positive balances.

Proponents of "demurrage" or "timed devaluation" of the system's currency argue that it encourages increased circulation, and discourages hoarding of the system. Opponents argue that it is an unnecessary interference in trading, and can actually discourage participation. However, such "rusting" of the currency's value was a common aspect in the alternative currency systems of the 1930s, and it was found to work quite well when managed properly.

The Account Holder's Agreement

This is the agreement between the account-holding members of the system and the system's administration.

1. A LETSystem is operated as a non-profit agency whose rights and authority are vested in a trustee who acts as an agent for the members who are principals. LETS provides a service that allows members to exchange information to support trading, and maintains such accounts of that trading as members request.

2. The agency maintains a system of accounts in a quasi-currency, the unit of value being related to the prevalent legal tender.
3. Member's accounts start at zero.
4. The agency acts only on the authority of a member in making a transfer of credit from that member's account to that of another.
5. There is never any obligation to trade, but members must be willing to consider trading in the quasi-currency.
6. A member may know the balance and turnover of another member.
7. No interest is charged or paid on balances.
8. Administrative costs are recovered from member's accounts on a cost-of-service basis.
9. Accountability for taxes incurred is the obligation of those involved in an exchange, and the agency assumes no obligation or liability to report to taxation authorities or to collect taxes on their behalf.

A number of LETS systems have added another item to the Account Holder's Agreement to satisfy the concerns of those who fear that people will join the system, spend a lot of money, then leave the system. This item calls for the member to be responsible for returning their balance to zero before leaving the system, and in some cases this can even take the form of a credit arrangement, requiring that the negative balance be made up with either conventional money or local credits, which may also be announced publicly. While this puts the proponents and the members of the system at ease, the opponents argue that such a rule is an unnecessary interference, that it shows a lack of trust in the honesty of a participant, and that it is not necessary to close a member's account.

Benefits of LETS Systems

1. LETS Credits stay local, increasing the local money supply, generating employment and economic activity at the local level. They can not leave the locality for another area.
2. LETS provides a new market that gives new and local businesses an advantage over large and non-locally owned enterprises.
3. LETS encourages neighbourly behaviour and an increased sense of well being among the participants.
4. LETS is a non-profit organization run at the cost of providing the service, and so the fees are very low for participants.
5. LETS reduces pollution. Transportation of goods between areas is a major source of pollution. By trading locally, and by encouraging local production and repair, goods operate more efficiently and last longer.
6. LETS encourages cooperation, bringing people with similar skills together to form cooperative enterprises to take on larger projects.
7. LETS Credits are interest free, and available without limit, as long as the individual issuing the money is willing and able to make up that credit at a later time.

8 LETS Credits cannot be lost, forged or stolen, have no value to non-members of the system and are legal.
9. LETSystems build trust between people by giving them responsibility for issuing and backing the value of the LETS Credits.
10. LETS encourages local import substitution, taking advantage of an increase in the money supply and economic activity, cooperation between participants, and access to a new local market.

Criticisms of LETS Systems

Previous studies have revealed a number of criticisms of LETS, criticisms which focus on the promotion of the system rather than its fundamentals. Criticisms of some aspects of the design have led to the deviations presented above.

Researcher Sidonie Seron(76) identified a number criticisms of LETS in her 1995 study of the Manchester LETS system, including:

1. Limited Impact. The lack of research and adequate funding is slowing down the development of improved designs. Participation in LETS is rather small.
2. Strong Alternative Image. The logic and language aims at a particularly "alternative" group of people, rather than stressing more general benefits which may encourage broader participation.
3. Vulnerability to Potential Abuses. Although the system is not responsible for the abuses committed by members, the freedom it gives members leaves it open for potential abuses. These abuses may take the form of reneging on one's committment to earn local dollars, trade in poor quality goods or services, to not fulfill contracts with another member, or some members taking advantage of another for their own benefit.
4. Lack of Formal Organization. The LETSystem is generally an unregistered organization, and the registration of some systems has led to arguments over the issue of formal incorporation as a society. The lack of formal organization of LETSystems, it is argued, may deter honest people, and those concerned about potential abuses, from participating.
5. Possible Take Over by Commercial Interests. Seron argues that a commercial interest, properly funded and professionally administered may either take over the LETS system, or establish a better alternative.

While it is true that many LETS systems remain small, if numerous, these criticisms have led to a number of changes to be made to the design and function of these systems.

Low-Tech LETS: Running a LETS system by hand

The vast majority of LETS systems are managed using a computer database. However, in localities where such technology does not exist, or where the users of the system do not want it to exist, a LETS can be run by hand quite easily.

The following section outlines how to start up and operate such a manually-run system.

A Local Exchange Trading System (LETS) is a system of accounts which allows its users to issue and manage their own personal currency for use within a defined community network of traders. LETS is intended to increase the volume and liquidity of currency within this network of traders, providing its members with increased access to a wide variety of goods and services. As it is a system of accounts, money changes hands on recording ledgers or by cheque or by visiting the place where the ledgers are kept.

The currency used in a LETS is issued interest-free. It is thus essential to keep administration costs down. The principle which maintains this interest-free status is called the 'zero-balance'. The system starts at zero, all accounts start at zero, and all accounts are closed at zero. To be sure that the system stays in balance, the administration must not create green dollars and spend them into the system. To be sure that the system is in balance, the sum of positive balances minus the sum of negative balances must equal zero.

Outline

1. Membership and Accounts
2. Noticeboard of Offers and Requests
3. Acknowledgments (Transactions)
4. Maintaining Ledgers
5. Periodic Account Clearing (Period End)
6. System Analysis
7. Administration
8. Development

1. Membership and Accounts

As LETS is a system of accounts, each member is assigned a trading number upon joining, for which they may pay an account opening fee which is used to pay for any hard-currency costs of operating the system. They receive information about how the system works, and what goods and services are currently being offered by the other members in the Noticeboard.

Their account ledger is made up and put in an Account Holder's Accounts binder. The first three accounts in the System should be reserved for use by the administration. These are the Administration Account #1, Balance Account #2, and System Fund #3. The Administration Account receives money from the membership at each Period End to use for its internal expenses. The Balance

Account receives a portion of this to be used in case of a system imbalance (see System Analysis, Section 6.). The System Fund is used for grants, loans, membership development and other expenses related to developing and correcting the system.

Example of Account Ledger:

Name: Account:
Date | With | Account # | Description of Trade | In | Out | Balance

2. Noticeboard of Offers and Requests

The Marketplace can be in person or on paper, either methods nearly always results in personal contact between the traders. Each member, upon opening an account and at any time they wish, lists the goods or services they are Offering or Requesting, which is catalogued by subject and distributed to each member, or posted in a central location where all members can see it. A Newsletter may be attached to this Noticeboard.

Example of Noticeboard:

Offers:	Phone:	Requests:	Phone:
Bicycle Repair--Stephen	74-3601	Fresh Vegetables--Barbara	74-2540

3. Acknowledgments (Transactions)

The members of the system consult the catalogue and contact each other to trade. They may trade using the internal currency, the national currency, or decide to barter good-for-good, or a combination. Trade in the internal currency is generally the most preferred option, and is the only transaction that is recorded by the LETS.

The transaction is first recorded on an Transaction Ledger, and is next recorded on the trader's individual account ledgers. Transactions can be recorded in a variety of ways: on a telephone answering machine, in person, by cheque or by printed currency--any way a transaction is made using the internal currency, it is recorded on the Transaction Ledger. National Currency and barter transactions are not recorded.

The individual making payment is responsible for recording the transaction, and the recipient has a right to ensure that this has been done.

Example of Transaction Ledger:

Date | Name | # | Recipient Name | # | Description of Trade | Amount

4. Accounts

As transaction are recorded, the information from the Transaction Ledger is used to update the member's individual account ledgers. The individual account ledger should be duplicated using a photocopier or carbon copy so that the administration always has a master copy.

As the Transaction Ledger is also a valuable record, it should also be duplicated (photocopy or carbon paper) and kept in a separate location.5. Periodic Account Clearing (Period End) Periodically, every two or three months is suggested, the System should be cleared. Administration charges are applied to each account. The Noticeboard is prepared, and both the Account Ledger and Noticeboard are distributed to the members.

Once every year, usually at a General Meeting, national currency charges can be applied on next years accounts. Expired accounts are cleared, and the System is renewed for the next year. Before closing an account, the Member should return their account balance to zero--otherwise it will have to be cleared from the Balance Account #2. Every Period, a System Analysis must be conducted to ensure proper account keeping.

6. System Analysis

After all transactions have been processed, total the positive balances and subtract them from the total of negative balances, which should be produced on a second sheet of member names and balances. This number should equal zero. If it does not, an accounting error has occurred and the Transaction Ledger should be audited to find the error.

As accounts go dormant or are terminated, their balances should be brought to zero and removed from the general ledger. They should bring their balance to zero themselves, but if not then money should be drawn from the administration's #2 balance account.

7. Administration

The following positions are needed to efficiently and cheaply operate a LETS:

1. Administrator. Organization Leader and Coordinator. Registers new accounts, maintains the noticeboard, and coordinates delivery of Account Ledger and Noticeboard to the membership.

2. Accountant. Maintains internal and national currency books. Maintains accounts and completes both Period End and System Analysis duties.

3. Transaction Recorder. May also be administrator or accountant.

4. Trustee. Usually a popular member, the trustee upholds the integrity of the system, acts as ombudsperson on behalf of the membership, and has the right to disallow inappropriate transactions.

The members themselves may also form committees to carry out any activities they feel are necessary and for the benefit of the members of the LETS.

Mutual Credit Parallel Currencies at the Regional Level

In recent years, LETS systems have started up in close proximity to one another, leading to close trading relationships being formed between the two geographic systems. These developments have resulted in a reclassification from a "local" currency to a "community" currency.

At first sight, joining mutual credit (LETS) systems together looks to be a simple matter of adding more ledgers into the system. However it is a bit more complicated than that. Simply combining membership lists between the traders in two different areas can have serious implications which not only contradict the essence of LETS as being a local or community currency system, but can actually cause one or both systems to fail.

At first, this was what was done. 'Intertrading'(77) as it is called, is based on the idea that if neighbouring systems are using the same units of the same value, then the units can simply be exchanged between the two systems through a clearinghouse. As was quickly found, the same problem that was found in the conventional economy was replicated: the money moved to where it could earn the greatest return, resulting in bloated positive balances in one of the systems and price inflation in the system.

The next step in the learning process was called 'interlinking'. This modified version of intertrading involves systems having accounts in each other's systems. While this overcomes the difficult of money moving from a strong system to a weaker one, it helps to ensure that accounts in each system add up to zero through a reserve fund attached to the administration's account.

This creates perhaps an even more serious problem, the loss of personal committment backing the currency. If a participating administration account goes into committment to underwrite losses to another system, then the participants as a whole in that system are responsible for making up the balance, rather than individual responsibility.

In response to the problems associated with these two designs, and the increasing need to link systems together, a third design has successfully filled the gap, the Multi-LETS Registry. With this design, it is the individuals themselves who open accounts in other systems. They are responsible for maintaining their balances in each system. Thus, the ability to participate in mutual credit parallel currency systems at the regional level has been achieved.(78)

In the future, this may even be extended to Multi-Registry Trading to allow for transactions to be made over large areas, at ever increasing economies of scale(79)Mutual Credit Parallel Currencies for Commercial Enterprises: Commercial Trade Exchanges

Commercial Trade Exchanges are mutual credit systems for commercial enterprises. Interest is charged on negative balances in these systems to generate profit for the operator of the system, and to give the participant the feeling that the money is the same. High entry fees, transaction fees, brokerage fees and interest make these exchanges almost exclusively for businesses.

The trade exchange sets a credit limit in the internal currency, which is usually called "trade dollars"(80), and a debt limit, with the debt limit being based on the expected demand for the goods and services offered. The credits that circulate are backed by the promise of each participant to accept "trade dollars" as part of a purchase from a participating member, along with interest charged on negative balances to encourage acceptance of the currency.

Transactions are recorded through the Trade Exchange, which also manages the accounts of the participants and builds the internal marketplace. Transactions often take place as a combination of national currency and "trade dollars". As in most mutual credit systems, these "trade dollars" are electronic credits in a computer, no notes are brought into circulation because this would undermine the Trade Exchanges ability to record, and profit from, transactions. Some systems now used advanced email transaction programs, or actual credit cards with Point of Sale systems like Interac in North America.

Thus there are three main functions to all mutual credit commercial trade exchanges.

1. An Exchange Clearinghouse. The Trade Exchange records transactions and keeps accounts.
2. Facilitates the Exchange of Goods and Services. Either through a catalogue, on-line network or brokering, the exchange provides the service of connecting traders.
3. By acting as a trader, the trade exchange itself may buy merchandise from their own account for later sale.

Mutual Exchange Canada(81)

Mutual Exchange Canada was launched in Vancouver in 1994 as one of Canada's first large-scale commercial trade exchanges. It was in financial difficulties one year later and was purchased, re-organized, and re-launched in 1996.

According to company executives, "The avenues of opportunity and advancement for the corporate executive have steadily shrunk. Corporate downsizing, acquisitions and mergers have created a new breed of Canadian, the 'corporate refugee'. More and more corporate managers have no alternative but to go into business for themselves in order to control their destiny."

Each trade dollar can be seen in three different ways by a participating business:

1. As additional revenue from business that would not have occurred unless they were a member of the trade exchange.
2. As a smart way to buy without using cash.
3. What may be the most appealing of all, interest-free financing in trade dollars.

Benefits of Participating in Mutual Credit Trade Exchanges

While excess stock, declining liquidity, reduced cash flow and increased costs are some of the reasons why businesses participate in commercial trade exchanges. there are also a number of considerable competitive advantages, such as:

1. Capturing the local market.
2. Increasing cash flow and operating surpluses.
3. Access to local credit at zero interest.
4. The security of risk protection. A business failure ofa creditor in conventional money system threatens your businessviability. All transactions are paid on the spot, in advance.
5. Provide a money-back guarantee. Purchases in the internal currency create more money which cycle to increase demand for your goodsand services, once again generating increased income from sales.
6. Competitive advantage to local businesses. Local value-adding means goods can be priced with a higher local-money component than non-locally owned businesses. By sourcing locally (trade creation), transport and communication costs can be cut, while generating local business.
7. Participating in mutual credit trade exchanges may reduce taxes. In Australia, trade dollars spent on legitimate business expenses, are recognised as legitimate business deductions.

The Local Economy's "Balance Sheet"

Let us consider a hypothetical community of 4,000 people(82), comprising about 1,000 families, earning the typical average income of $500 per family per week(83).

Multiplying the number of households by the average income reveals that this community has about $500,000 of economic activity a week, nearly $2 million a month or $24 million a year. Also typically, there is one business for every 20 individuals, or about 200 business enterprises in this community.

In such a community it is not uncommon that a basket of goods that would cost you $100 in the regional center, would cost you $120 in your neighbourhood. It is in your interest, rather than buying locally to wait until you go to the regional center to make all your purchases. Thus, for many communities, it is not uncommon to have 66c in every dollar leave the community at the time of the first purchase. Of the 34c remaining, 22c leaves at the time of the 2nd purchase, leaving 12c and so on. At such a rate each dollar spent circulates a maximum of 5 times through the local community before it has totally gone, and generates a maximum of about $1.50 of economic work for the residents.

To maintain a local economy of $24 million a year at this rate requires an input of $16 million each year, earned by local community members in its dealings with other communities or countries. If more than $16 million leaves this community on a yearly basis, it grows poorer, if less than this amount leaves, then it grows richer. Thus the community as a whole has a balance sheet just like a business, and the continued profitability of a business depends upon the economy of the community as a whole. In times of recession, more money is leaving the community than arriving. As business recovers this reverses.

Often, when businesses are faced by such dilemmas, they argue for three things:

- A reduction in environmental safeguards,
- A reduction of worker's wages or working conditions, and
- A reduction in government controls and taxes

However, if a local currency were to be introduced into the community, the likelihood of money circulating many more times over a longer period of time is increased. This means that the community does not need to take in so much money from outside (to the detriment of other communities) in order to maintain its overall "balance sheet". In short, an insulation blanket has been provided, protecting the community from the ups and downs, the hots and colds of the conventional economy.

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Parallel Currencies in Africa, Asia and Latin America

In sharp contrast to the broad and rapid spread of local and community currency systems in the Northern hemisphere, there are but a handful of such systems known to be operating in the majority world. This is due to a number of factors, factors which will be looked at in detail in this section. Primarily, the transfer of knowledge and experience with these systems is just beginning to happen. Secondarily, the lack of technology to facilitate international communication and gain knowledge and virtual experience without having to travel. Thirdly, a somewhat common belief that it would not be possible to implement such systems within the majority world context, an implementation that would result in the system being tailored to suit a specific location. Fourthly, a lack of research and funding for the implementation of such systems. Fifthly, the belief that such projects should self-generate without outside support, to give fledgling systems the feeling that these are their own ideas that are being generated.

Fiat Currencies at the Local Level: Senegal's "Bons de Travail"

In the Grand-Yoff district of Senegal's capital of Dakar, an initiative is underway to introduce a local currency(84). This project of GRAF (Groupe Recherche Action Formation) and ENDA Tiers-Monde, both west African NGOs, uses an existing network of credit unions through which to implement the project. The coordinator, Mr. Hassan Aslafy, became experienced with LETS systems in France and after returning to his home country decided to start a system there.

After several workshops promoting the concept, the first community exchange group was formed in March of 1998. The group, called Doole, means "force" in the main local language. A coordinating group of 6 people were formed, and a list of offers and requests produced. The group then began to organize monthly markets through which to introduce the currency, the first taking place two months later, in May. The market has now blossomed from 52 participants in May to over 150 one month later.

With funding from ENDA, notes were printed and began to circulate in April. The currency notes, called "bons de travail" are denominated in hours. One hour is equal to 1000 francs CFA or about $1.50 in US dollars. It costs 500 f CFA (.75 US) to join the system, and in return receive "bons" with a value of 5 hours, 5000 francs CFA or $7.50 US.

The currency has not yet come to be substituted for national currency on a large-scale in the area, instead it is being used as payment for education, as the Doole group is planning to open a Popular University. After publishing the bulletin of Offers and Requests, it was discovered that the demand for education and training was very high. During the market in June, 5 priority areas were identified: computer literacy, language skills, commercial skills, agriculture skills, and local production skills. The plan is to seek trainers from the local community to begin teaching students at a ratio of about 1:10. Every student pays one 'bon' for one hour of training, which will go towards paying the trainer, and to finance administration, promotion and local projects such as planting trees, building a community centre, etc.(85)

As the Credit Unions that are participating in this project are mostly run by and for women, the Coordination Group of Doole is primarily composed of women. This group makes the key decisions, and carries out the activities of the Group. They decide when and where to hold markets, how much currency to issue, how to best serve the needs of participants, etc. The members are currently self-chosen volunteers, those with time and knowledge or experience to contribute. As the project grows, regulation will be introduced to ensure democratic representation and function.

An Administration Committee, advised by an ENDA economist, supports the Coordination Group's efforts by carrying out tasks such as maintaining the bulletin of Offers and Requests, organizing training sessions, and engaging in promotional activities.

The program is now beginning to expand to other parts of Dakar, and even to the neighbouring country of Mauritania. Soon it may be possible to circulate 'bons' across international borders. However the intention is to expand to 30 districts in Senegal before seeking to expand into the neighbouring countries of Guinea, Mali, Mauritania and the Cote d'Ivoire.

The 'bons' currency is clearly a fiat currency, as currency is issued unbacked into the community with the hope that it will circulate. One does not have to be a member to participate, anyone can receive 'bons' if they choose. However, the potential acceptability is high as paper money is being used, and there is no administrative involvement in recording transactions.

Disadvantages of the 'Bons' program

The disadvantage of the 'bons' program, as with any fiat currency, is the inability to obtain accurate trading information, which is a very important element in determining the circulation and through that the income-generating effect, which is the main reason for starting such a system in the first place.

Secondly, the method of issuing places people at risk of losing the value of their labour if the currency was to become undesirable, or unstable. As there is no limit to circulation of the currency beyond the locality, the danger of currency imbalances between currencies can threaten the stability of the system. If the products of one community are more in demand than the products of another, 'bons' will drain from one to the other, returning the community to a state of monetary scarcity. On other hand, by issuing as much as is desired into a weak system will push down the value of the currency, as there is nothing backing it. It is hoped that by using hours of time as the primary method of valuing the currency will reduce the possibility of devaluations, but as the value of the 'bons' against other currencies will also be considered, this may be unlikely.

Fiat Currencies at the Regional Level: Salta Provincial Bonds

The most well-known example of a provincial government issuing its own parallel currency is in the province of Salta in Argentina.

Previously, attempt were made in Canada and Australia to issue a Social Credit currency, special money issued by the provincial government to increase consumption within a fixed period of time. These experiments of the depression years were shut down by the federal government and banks before they began. However, they are not ruled out. Japan has recently considered issuing a short term parallel currency to encourage domestic consumption.(86)

During the recession in Argentina in the mid-1980s, several provincial governments were faced with a chronic shortage of cash with which to pay employees, because the federal government, with its own financial problems, were failing to transfer the funds on time.

So, in early 1984, the provincial governor Roberto Romer decided to issue its own "deficit-covering bonds" in units of national currency with which to pay its employees.(87)

The bonds, issued in units of 10, 100 and 1,000 australes, could be used for the purchase of goods or services, or exchanged at par value for australes at a later date. The bond-money was issued for circulation only within the province, and were retired 4 years after the date of issuance.

Since no interest was paid on the bonds (meaning a declining value compared to the high rate of inflation), the bonds were almost worthless after 4 years of between 95 and 1000% annual inflation. This discouraged use of the bonds as savings: they were treated like a "hot potato" and spent as quickly as possible. However, market conditions meant that in 1987, the bonds were being traded at a 20% discount, and in 1991 at a 5% discount.

The central government of Argentina, as well as the International Monetary Fund (IMF) became worried that the successful example that was being set

The Argentine central government, as well as International Monetary Fund (IMF) were worried that the example set by Salta would begin to spread to other provinces in Argentina and elsewhere. Although there was no proof that the bond-money caused inflation, the IMF argued that the parallel currency should be considered a serious danger for the central governments efforts to curb inflation (and perhaps for future funds transfers from the IMF). Thanks to an austerity program and restrictive monetary policy for the national currency, the central government had been able to bring inflation down to 3% a month, a record low in the period that the bonds were actively circulating. The IMF brought up the issue in talks with the Argentine government, but no measures were taken to stop issue of provincial bonds.

Two years later, in 1986, the three neighboring provinces of La Rioja, Jujuy, and Tucuman joined Salta and started issuing their own bond-money. The amount of bonds issued grew and by the end of 1991, the bonds represented an estimated 60% of all currency in circulation in the Salta region, which may be considered to be an over-issuance. In the neighboring province of Tucaman, this proportion was estimated at 43% of the currency in circulation in 1997.(88)

The central government did not take action against the bond issues, partly because of its share of the responsibility for failing to bring money on time, and partly because of the positive effect that the bond-money had on the region's economy. Although important at provincial level, the proportion of the provincial bonds in the national money supply remained very modest, protecting the national currency from inflation.(89)

There were several reasons behind the success of the provincial bond-money:

1. Public employees could choose between receiving their salary right away in provincial bonds, or receiving their salary later in australes. Since the bonds were widely accepted, many employees choose to receive their pay in the bond-money.
2. The bonds could be exchanged at the local banks for official currency at any time and at a 1:1 rate.
3. Until 1987, the provincial government organized a lottery in which the bonds served also as lottery tickets.
4. The provincial government accepted its bonds in payment for provincial taxes and services.

Once perfected, the bond-money reduced inflation and acted as a 'whip' to circulate money. However, excessive issuance of the money caused a devaluation with respect to the national currency, thus when one redeemed bonds at par, the government took a loss. It seems, however, that in the final analysis the provincial government considered the program beneficial.

Backed Currencies at the Local Level
Brazil's Curitiba Scrip

A similar system of value-backed scrip has also been used in Brazil, in the city of Curitiba(90). In the early 1970s, the mayor of the city became concerned with increasing waste disposal problem in the city. Lacking the money to hire people to clean up the streets, he devised a low-cost plan to alleviate the problem with existing resources.

Residents could exchange one bag of waste for one public transport token. Soon, these tokens became an accepted medium for exchange between the residents, increasing economic activity. In a similar program, the city bought organic waste from slum dwellers in exchange for tickets which could be used to buy food from special warehouses stocked with food purchased by the city from around the area. The organic waste was composted and sold to farms.

India's BONUS Scrip

In India, a project is underway to initiate a commodity-backed local currency as part of a community project. The concept, devised by Bruno Jehle, is dependent upon a hard-cash fund and a labour-intensive community project, such as a building project, digging of a drainage canal, etc.

The fund is split into two parts, a reserve fund and a microcredit program. The reserve fund backs a portion of the currency in either hard-cash and/or food. The idea is that this backing will increase confidence in the currency, but conversion of the local currency, called "bonuses" is discouraged by a high commission. The other half of the fund is issued as loans to small enterprises, with a portion of the loan being repayable in "bonuses".(91)

The idea is that over time, and as confidence in the new currency grows, more people will offer their goods or services in exchange for the local currency, rather than changing their bonuses for national currency at a high commission. Over time, this will mean that more bonuses can be brought into circulation with the same reserve, and may even mean that the reserve will grow over time to fully back the currency at some point in the future. However, Mr. Jehle believes that through this project confidence in the currency should be sufficient that only a small portion of the fund is sufficient to cover conversions of bonuses into national currency at an unfavourable rate. New microcredit loans, he believes, could be issued as interest-free bonuses.

Success of the 'bonus' system depends on effective management of supply and demand of the local currency, requiring considerable understanding of local economic conditions. Thus this system is quite a bit different than the method using local businesses to underwrite the issuance of a currency, as a large amount of external hard-cash is needed, hence the idea of a labour-intensive project as the "wedge" or motivator.(92)

Backed Parallel Currencies at the National Level
The Democratic Republic of Congo Proposal

Following the overthrow of Mobutu Sese Seko in early 1997, the government was considering issuing a new currency. Advising the new Finance Minister at the time, Mwana Mawampanga, proponents of parallel currencies in

North America offered extensive advice, including designs for the new currency.(93)

A system was first designed for Kivu Province, and later for the whole country, both of which were shelved after the war under IMF pressure.

The new scrip was intended to be backed by 12 local commodities, some of which traded internationally. It was proposed that 3 varieties of fish, palm oil, maize meal, kilometres of transport, coffee beans, copper, gold, petrol, paraffin. This mix would put the dola in a stronger position than if it was merely floated against the US dollar, tying the value of the new currency to local conditions, rather than to foreign currencies or gold reserves which fluctuate in value. This may be tested by tracking the values of the commodities over a fixed period of time, compared to currency values during that same period.

The new currency was to be printed on cotton/linen currency paper for heavy durability and was designed to be accessible to the blind and to non-literates, featured four languages, and used simple anti-counterfeiting measures.(94) The currency was also designed to be easily recognized by people with partial or complete blindness. Size, color & Braille script were used, with size and color helping the visually-impaired distinguish one note from another, with Braille text for completely blind people. This is an important consideration in localities where many people suffer from river blindness and other vision impairing conditions such as war injuries, old age, etc. The differences would also make it easier for illiterate people to uses the money.

Mutual Credit Currencies at the Local Level

The three kinds of mutual credit systems that are in use in Latin America are modeled on the LETS system, in which the parallel currency is issued and backed by the participant in the system.

Argentina: Red Global de Clubes de Trueque Multireciproco

On May 1, 1995, the first "barter club" was formed in Buenos Aires, Argentina(95). Some three years later, 200 clubs with an estimated 100,000 participants are operating in many parts of the country. Rather than a market separated from the economy, the founders of this system see their network as operating alongside the economy, with the purpose of reinventing the market by reintroducing people that have been excluded by globalization(96). The Dutch new economic research group Aktie Strohalm reports that an estimated $5 million dollars US has been issued as of July 1998.(97) The system is now spreading to other South American countries including Uruguay and Colombia.

The "Red Global de Clubes de Trueque Multireciproco" or literally "Global Network of Multi-Reciprocal Exchange Clubs" or more simply "Global Barter

Network" developed as a grassroots response to economic, social and political changes in the country. The movement grew out of the P.A.R. (Programa de Autosuficiencia Regional -- Regional Self-Sufficiency Program) which was primarily involved in environmental efforts, but soon discovered that it was necessary to make a shift at a deeper level by relating ecologically-sound practices to economic and social issues, such as unemployment, poverty, hunger and democracy.

The first "Barter Club" was initiated in the suburb of Bernal in Buenos Aires by 20 people living in a neighbourhood. The original participants were interested in a "green" quality of live, and an attitude of "shy entrepreneurship" in order to slightly improve their income through exchange.

After one year, about 200 people were involved in the as-yet unorganized group. All trading information was kept in a notebook, and soon a computer was brought in to manage the increasing volume of transactions. They experimented with a number of different methods, such as "double-way tickets", receipts, bonds and vouchers which introduced the varieties and complexities of available methods. A few months later, a "credit" system was established, using a currency called "nodine"--no money which was tied to the US dollar. However, they soon found other problems such as inflation, centralization and other problems that would destroy the system unless operating principles were introduced and observed by the participants. Soon, some people began trading within a number of different clubs, and forming virtual cooperatives to start businesses capable of serving the increasing barter market, as well as participating in the regular economy. The networks trade in goods and services such as food, clothes, artisan products, health care, tourism, and education and training.

The efforts then began to meet with support from the government, rather than resistance. The Department of Social Affairs in Buenos Aires began to provide support for their efforts.

The System of Exchange is held up by four supports, these being confidence in one's abilities and in the network, a sense of reciprocity, a sense of community and lastly the desire to trade, not for profit but for well-being(98).

The principles used by the various clubs are not standard, they are defined by the users of the system within a set of general principles, which are contained within the following list:

"1. Our fulfillment as human beings need not be conditioned by money, and people ought not want for their needs to be met.
2. We aim not to promote products or services, but our mutual help in accomplishing a better way of life, through work, solidarity and fair trade.

3. We believe in the possibility of replacing competition, profit and speculation by reciprocity among people.
4. We assume that our actions, products and services may respond to ethical and ecological standards more than to the will of the market, the consumerism and short term profit.
5. The only conditions to be a member of the Global Barter Network are: assisting and participating at the weekly group meetings for trade, being trained permanently and being "prosumers" (both producer and consumer) of goods, services and knowledge. These "conditions" are within the recommended framework set by the Circles of Quality and Self-Help (Circulos de Calidad y Autoayuda--CCA) which aims to improve the network.
6. We assume that every member is the only responsible for her/his actions, goods or services bartered in the Network.
7. We believe that belonging to a group means no relationship of dependence, since individual participation is free and common to every member of the Network.
8. We claim that groups are not necessarily due to be formally organized, in a permanent way, since the network model implies permanent change of roles and functions.
9. We believe it is possible to combine the autonomy of groups (Clubs or Nodes), in the management of internal affairs with all the principles of the Network.
10. We recommend not to support, as members of the Network, moral or materially, any activity that might keep us apart from the main goals of our Network.
11. We believe our best example is our behavior in and out of the Network. We keep confidentiality about our private lives and prudence in the public treatment of those matters that might alter the growth of the Network.
12. We deeply believe in an idea of progress as a consequence of a sustainable welfare of the great majority of people of all societies.(99)"

The Global Network of Multi-Reciprocal Exchange Clubs is working to introduce its system to other Latin American Countries. They argue that by introducing reciprocal exchange systems in Latin America and elsewhere can:

-"contribute to immediate satisfaction of needs in different social sectors;
-allows the reconstruction of social tissue inside the Nodes or Clubs;
-recovers and develops vulnerable people's self esteem;
-gives back the potential of producer/consumer lost in the project of social exclusion from the last decade;
-allows a permanent development of creativity, sometimes in the very opportunity of "fairs", when we practice the Exchange of Knowledge;
-allows a gradual process of re-design of career and job search for the "prosumers";
-tends to the self-regulation of offers and requests in every Club or Node;
-gives back local government and the small scale to the level of familiar life;

-reinforces the inclusion of different social actors gathered by their specific interest;
-develops small enterprises that solve the critical issue of any enterprise: the need for a stable market;
-reinvents a new market, complementary to the old one and not alternative to it.
-Finally, we believe barter is an effective tool to rebuild the market, when it allows us to re-shuffle cards to build democratic life with equity and solidarity instead of competition and exclusion. What means to build a new social game.(100)"

Ecuador: Sistema de Intercambio y Transacciones Locales (SINTRAL)

There are two SINTRAL systems operating in Ecuador, one in a suburb of Quito and the other in a small town near the city. Both systems are identical, operating almost exactly like a LETS, except they differ from each other, and from the North American context, by the particularities of the situation in which they are operating. The systems are being supported by Professor Jurgen Schuldt, Vice Rector of Pacifico University in Lima, Peru, and by Mr. Alfonso Gandarillas who works directly with the projects through the NGO Hombres de Tierra(101).

Rumihuaico SINTRAL

Rumihuaico is a small community in the Tumbaco Valley, near to Quito, where the first SINTRAL system was started by the NGO Hombres de Tierra with funding support from the Italian Pestalozzi Educational Foundation. As this community is basically self-supportive, with its goods readily accepted at market, most of the participants of this system belong to the Ecuadorean middle class.

The currency of the Rumihuaico SINTRAL is called "recurso" or "resource" which is at par value with the Ecuadorean Sucre. Just as with a LETS, all member's accounts start at zero, and no interest is paid on negative or positive balances. Any member can verify the account balance of any other member at any time. Accounts are kept on computer as with LETS systems in North America. Administration costs are recovered through a transaction fee, and sometimes by yearly fee if necessary. A regularly updated list of offers and requests is printed and distributed to the participants.

As most of the participants are reasonably well-off, there is no excessive dependence upon the system for the meeting of needs--accounts stay within the balance of zero and there are no major difficulties.

Toctiuco SINTRAL

However, it is a different story with Toctiuco SINTRAL, a system operating in a ghetto suburb of Quito.(102) Launched in late 1995, the 84 members of the system trade in very basic needs, using a parallel currency equal to Ecuador's Sucre, which is called a "comprimiso" or "connection".

Trading generally takes place on Sunday, at one of 30 locations throughout the suburb. Transactions take place using a cheque book, and the cheques are turned in by the end of the market for recording and keeping of accounts. Due to the limited number of items being traded, and the small number of participants, as well as the cost of printing, a bulletin of Offers and Requests is not being printed, rather it is circulated by word of mouth.

Toctiuco is a very low-income neighbourhood. In the 1950s, landless peasants immigrated to the city, and occupied the unused land in the hills on the outskirts of the city. Nowadays, the 30,000 residents make a subsistence living producing small items, or working as street vendors or as manual or domestic labourers. Although the infrastructure has improved considerably, including recent electrification and paved roads in some parts, the problems typical with "ghettos" are also to be found here: low levels of education, cramped conditions, chronic unemployment, theft and violent behaviour, as well as drug, alcohol and sexual abuse are parts of the daily reality.

There have been some problems in the operation of the Toctiuco SINTRAL. Some members have high negative balances, and seem unable to bring them back to zero, which is working to undermine confidence in the system. Others have problems spending their compromisos, resulting in "wells" of stalled currency, which is devaluing along with the national currency which is suffering from high inflation. Attempts are being made to fix these problems, but as yet no one solution has entirely worked. One can not simply terminate people's accounts for spending more than they earn in this no-interest free credit system.

Both systems are in very different situations, and so it has been interesting to see what happens when the two trade with each other. Because Rumihuaico is in a rural area, it produces food items which cannot be grown in the suburbs, items which are very much in demand in Toctiuco, which can be paid for in local currency in combination with Sucres. However, the Toctiuco community mainly offer labour and domestic services in return. Thus, familiar patterns of dependence are appearing, such as women from Toctiuco working as domestic labour in the homes of people in Rumihuaico and paid in the local currency). Although it is better than not having a job, it is clear that as an economic tool, LETS is unable to solve these problems by itself. Rather, additional social measures are needed to help the Toctiuco people to learn the skills they need in order to trade. Hombres de Tierra is doing just this by organizing skills training and knowledge exchange programs.

From what has been learned, they are sharing a number of recommendations to groups planning to start a mutual credit system in a location with similar conditions:

"In the first place, it is necessary to develop the internal conditions that are indispensable for the community of Toctiuco to generate the production of the services necessary to activate the local economy from within. This requires installing education and capacity building systems, especially for those members who show the greatest difficulty in becoming more involved or using the system so that they are able to expand the range of goods and services offered.

Secondly, it is essential that accounts are added, not only for transactions of small amounts (as we have now), without being concerned about the type of goods and services, -in quantity, quality and value- which is traded daily among the members. For they can record, on the back of each cheque, noting the amount traded of each product or service (many also note the quality of good or service received in the extra space).

Thirdly, we must consider the use of cheques in order to reduce transaction costs. It has been decided that a member who receives a cheque for 1,000 compromisos can then re-endorse the cheque for buying goods or services for the same or another value, without the transaction disrupting the counting system.

Fourthly, we think that initially and while the people become familiarized with the system, over three or four months they ought to work to keep their accounts balanced, in order to avoid excessive credit or debit. After three or four months, the differences ought to be eliminated with the payment in coin (sucres) for part of the deficit. We believe that after this correction of a lapse the members adjust their standards of buying and selling, with the system building solidarity and confidence among the members.

Fifthly, to attract a large number of members and increase use of the "compromisos", one ought to be able to buy basic goods (rice, sugar, cooking oil, medicine, construction materials, etc.) which can be sold directly to the members and in "sucres". Of course, one must consider the possibilities, costs and risks of storing. In the end, securing the values for the goods is inferior to the providing the service to the people of the community.

Sixthly, it will be necessary to install similar systems in other low-income communities in Quito with similar living standards, where one may be able to produce other basic products which cannot be made in Toctiuco, to generate a network of intercommunity exchange: bricks, corn, frijoles, bread, livestock, textiles, pottery, metalwork, etc. This requires a background study to assure a larger-scale interaction between the low-income communities of Quito and the rural peasant communities. This allows for the creation of an interdependent system between people without subordinating their communities to the large commercial centers, while eliminating a large part of the middlemen."

So by combining education, skills and capacity-building measure alongside (or in advance of) the introduction of a local currency systems can the best elements of the new community be brought out. In addition to this, it seems very important to have a sense of self-ownership in the system. Perhaps it is the lack of such self-ownership that comes with outside support that leads people to disrespect the system, and to not seek to use it to its full capacity.

Mexico: The Tianguis Tlaloc

The "Tianguis Tlaloc" (meaning open-air market currency) is a system designed to combine the best of the LETS and Hours system to fit the situation as it is found at the local level.

The program, initiated as part of "La Otra Bolsa de Valores" or "The Other Stock Exchange", the Tlaloc currency was first launched in the Mezquital valley in Oaxaca state in 1994, where the founding organization, Promocion del Desarrollo Popular (PdP)(103) had been active for 20 years. The new currency was working well, too well perhaps, for the experience was halted by the Mexican Army which feared that the new economic system was linked to the recent rebellion by the Zapatista Army of National Liberation in neighboring Chiapas state.

In 1996, the currency was introduced to Mexico City, one of the largest cities in the world, and a polluted, alienated metropolis, under less than ideal conditions. Rather than being concentrated in a local area, participants come from all over the city, linking individuals with organizations, semi-rural with urban people, and the middle-class with the poor. In addition, the project was started with existing resources, no funds were received to support this project until the IDRC agreed to fund the project in June of 1998 with the funds arriving later that year.

The Tlaloc currency, inspired by the LETS and Hours systems, is named after one of the highest divinities in Aztec cosmology, related to water, rain, thunder and life. The Tlaloc is valued at one hour of social labour, 25 pesos, or 3 US dollars. Bills are denominated in 1/2, 1, 2, 3, 4, and 5 Hour notes(104).

As with many parallel currency systems, a Noticeboard of Offers and Requests is published, every 4 months and distributed by itself or along with the organizations Newsletter "La Otra Bolsa de Valores" which features articles on economic, social, political and environmental issues.

How the Tlaloc Currency is Issued

The Tlaloc Community Currency System is a combination between the HOURS system and the LETS System, taking the advantages of both while removing the negative aspects of both.

When a member joins the system, they receive 15 hours in Tlaloc notes, and a 40 hour credit to their account. When they spend the Tlaloc, their account is recorded as a debit when the bill returns to the administration after passing through ten people's hands.

Thus the currency is issued into circulation when it is endorsed by the two parties to a transaction who sign the front of the bill. Subsequent recipients of the bill sign their name on the back, where there are 10 slots, after which the bill is turned in and a new one is issued.

There is also a triplicate chequing system which must be signed by both parties three times, with one piece going to each of the parties and third piece going to the administration for account-keeping.

Thus the method of issuance is the same as that in LETS, a system of accounts in which the currency is issued by the participants in the course of trading. This is combined with the medium of exchange being a note, and the unit of currency being one hour as with the Hours system, allowing transactions to take place between people who may not be members.

A catalogue of Offers and Requests is printed for the members, identical to those offered by both LETS and HOURS systems, and published every 4 months.

In the states of Yucatan, Oaxaca, San Luis Potosi, and Michoacan, groups have been, or are in the process of being formed to emulate this program. As well, a related system is the Tianguis Tlaloc generating interest in Los Angeles, California and in Sao Paulo, Brazil.

The Tlaloc is also being planned for re-introduction to the indigenous communities of Oaxaca state, with a Tlaloc system recently being initiated in Xochimilco.

As with the system in Argentina, the participants in the Tlaloc also believe that the real solutions cannot come from the outside, but only from the participation of society, and those with the same basic and just interests in their own economic liberation.

Benefits of Tlaloc

The benefits of the Tlaloc system include the sound method of issuance by using a system of accounts through which to issue the currency. The use of accounts makes it simple to collect and anlyze information about trading volume and velocity to assess the performance of the system. The use of notes expands potential use of the Tlaloc beyond the system of accounts, while increasing the efficiency and lowering the cost of transactions.

Drawbacks of the Tlaloc

The design limit of 10 transactions per bill shortens the lifespan considerably, and is a bit of a waste of money. The use of initials or trading numbers could expand the life of the bill, while saving money on printing. The cheques are unnecessarily complex and unwieldy, and could be simplified for convenience.

Implementing a Parallel Currency System

In this section, we will look at the factors underlying a successful launch of a local or community currency system. For a system to be successful, an analysis of the local area must be conducted to assess the specific aspects of the locality to determine whether or not to start such a system in this locality to deal with a particular or series of problems, and to determine which type of system would best serve the people living in that locality.

In spite of their impressive growth during the past years, Community Currency Systems have received very little attention from mainstream economists, from researchers, and from major media outlets. The first scientific magazine focused entirely on community currencies issued its first edition in 1997 in Australia, called the International Journal of Community Currency Research. Since most of the research that has been conducted on these systems is done on systems in developed countries, the identified factors for success will have to be re-examined and compared with the conditions in developing countries, as a subject for future research.

Analyzing the local area: identifying key factors

Analysis of a prospective locality must be conducted from the outside, as well as from the inside. Of course, it is essential that there be a group of people willing to organize and operate such a system. In addition, factors relating more to the appropriate design for a particular locality must be assessed. Some of these factors are presented in the following.

A Sense of Purpose, A Reason for Being: The Wedge

Many local currency developers agree that having a sense of purpose provides a strong motivation for a project to succeed. This reason for being, or "wedge", provides a way, a strategy, for starting a system by tying in with some other popular effort. This effort should be a common goal, like a community centre, a school, a warehouse, a factory, or a social project like a lending circle, environmental cleanup, collective planting or harvesting, and the like.

Understanding the life-styles of the people in the locality is essential to determining what the wedge in a particular locality could be.(105)

One suggestion is the opening of a used-good store. Items could be purchased from system members in the local currency, perhaps in combination with a small cash component. The goods are then retailed for cash to non-members of the system, generating operating funds, and returning as dividends to those who sold their goods to the store.

A Sense of Community

Community can be defined as an ongoing collection of interactions and continuing relationships between people in a defined geographic area, or within a defined social or ethnic group. In a well integrated community, people are close, not alienated, which means there are few difficulties with communicating one's needs, and thus few barriers to trade. Not every geographic unit (neighbourhood, village, city etc.) is automatically a community. Although it is impossible to generalize in this respect, two important factors seem to be positively correlated with the degree of community sense:

1. stability of the population composition: a highly mobile population, as a result of seasonal or permanent migration, is less likely to engage in continuous interactions;
2. dispersion of the population: in communities with a geographically dispersed population, contacts are less regular.

Research in Australia confirms that the social and/or economic impact of local economic systems depends on their geographical location(106). Systems operating in smaller neighbourhood areas of towns and cities have higher trading levels than spread over a large area, such as in an urban context (eg. the Tlaloc in Mexico-city) or more rural systems which may already have existing mutual reciprocity/mutual aid networks.

In larger cities one can observe the concentration of trading in a number of smaller geographic areas with little outside trade. The reason being that much of the trade is in goods and services is most conveniently accessed close to home.

It would be wrong to start by assuming that a local or community currency system is not a good idea for areas that suffer from a low degree of community sense. To the contrary: the introduction of such a system can make an important contribution towards more and better communication within the community, which is a benefit in itself.

The most adequate type of local currency system to introduce may be determined by this degree of community sense. In an impersonal environment, in which people are more alienated from each other, the introduction of a currency based on the promise of each member to deliver as much goods and services as he or she consumes may have difficulties gaining wide acceptance, in which defaulting on the system (as is the case in Ecuador) provides a self-fulfilling prophecy of failure. In this case a backed local currency may be a better alternative to build the trust that would make a community currency easier to accept. A funded local currency is backed by assets that are readily accepted, such as goods from a warehouse or enterprise.

The lack of community sense may be an important factor in the limited development of such systems in the North. Even if all conditions for a successful trade are present (the demand, the offer, the money and the time), people are often too timid or distrustful to contact each other. Or, as research has suggested(107), people's basic needs are met within the regular economy, and participation in community currency systems is more for ideological reasons. In places where communal bonds have remained strong (ethnic, religious networks etc.) - this problem may be of minor importance, although in urban areas with a relatively mobile population these bonds may have lost much of their strength.

Starting such a system would necessitate additional social work to break down the barriers of shyness and alienation that keep people apart.

Availability of Time

Research on these systems in the North suggests that most trading takes place on weekends and evenings, with the unemployed and housewives trading during the day. This may be the same in the south, with many people working long hours to earn the money they need. However, for the marginally employed, and for those employed at low wages, the introduction of a community currency (with its potential trade creation benefits) can raise wages and generate more economic activity.

As most trade takes place between individuals, one can assume that it will take more time to complete trades, factoring in transportation and etc., than if one was located at a particular site. This may change as the system grows in size and importance, but initially one may assume that in this respect, prospectives for growth in Asia, Africa and Latin America may be better than in the North.

The Need to Trade

If the conventional economy already provides full employment and a high standard of living, then there may not be a need for people to participate in parallel currency systems. The theory argues that due to a deliberate scarcity of money, there is an almost permanent need for at least the existence of a parallel currency system to fill this gap between existing monetary resources and actual needed monetary resources. In times of economic downturn, research shows that these systems boom, displaying a counter-cyclical tendency. As people's need to trade increases, so does participation in the parallel system.

It is clear, then, that a great need to trade, to acquire basic needs exists in Asia, Africa and Latin America, as well as in the North. This hints at a misallocation of resources, a maldistribution of wealth that leaves a majority of the world's population with unmet basic needs, while the human and renewable natural resources with which to meet these needs are in sufficient supply. Again we may suggest that the prevailing situation in these continents suggest there to be fertile ground for the introduction of parallel currency systems to these places.

Diversity of Available Goods and Services

If many people offer the same services, and if the products of the region are severely limited by climate and the existing market situation (such as mono-crop regions) then the possibilities for trade are significantly reduced, creating dependence by one locality or whole country on others. At the local level, the diversity of goods and services available also depends upon the general level of education, and the vocation or primary skills of the people.

As with the Toctiuco SINTRAL system in which the range of goods and services offered is very small, efforts must be made to encourage trade creation through skills development and capacity building. This requires a detailed social survey to assess these needs.

This does not mean that areas with limited goods or services to offer are not good candidates for a parallel currency system. On the contrary, the availability of essential goods such as agricultural produce is important in reaching "critical mass", the point at which the range of goods and services attracts people for that reason, without having to engage in extensive promotional efforts(108). Since labour is a significant component of almost all agricultural production, significant potential exists by using parallel currencies to integrate rural and urban economies and improve distribution methods.

Involvement of Local Business

The lack of business participation is noted as one of the most significant shortcomings of most LETS systems in the North. The acceptance of the parallel currency by business is seen as almost essential to the good functioning of the system, and is certainly a sign of a well-integrated parallel currency. HOURS systems have less of a problem integrating businesses, perhaps because of the use of printed money which simplifies things at the point of sale immensely. However the Tlaloc system pointing a way forward to integrating businesses into a Mutual Credit system.

In the first section of this report, a number of advantages were listed as reasons for businesses to become involved in a local parallel currency system. Some more advantages are obvious:

1. A wider range of products is made available.
2. Participation by businesses increases legitimacy of the parallel currency.
3. Attracts increased business and encourages broader participation.
4. Increases opportunities for trade creation and substitution for inter-business trade.

Existing Local Capacity to Manage a Parallel Currency System

Ideally, parallel systems should be started with minimal outside involvement. When considering the introduction of a currency, it is essential to have the trust and participation by grassroots civil organizations, and most importantly, one willing to carry out the administration of the system. As has been suggested about the Toctiuco SINTRAL, administration of the system from 'outside' has led to a lack of personal responsibility in the system, whereas projects that actively involve exiting grassroots resources are showing greater successes.

What is needed is a group of people with the potential to introduce, educate, lead, organize, control and assure the continuity of the system(109).

Availability of Technology

The type of system used may be determined by the availability of technology, although it may be argued that there are ways around lacks in technology. In the North, most parallel currency systems are managed with the aid of computers, fax machines, photocopiers and telephones, items which require skills as well as a stable supply of electricity. However, these items may be very costly, or impossible to acquire in the context of a developing country.

A thorough consideration of the availability of technological resources is also essential in determining the type of system to implement.

Designing a Parallel Currency System

Thus far in this paper, we have described the three main types of parallel currency system, a fiat system, a system of backed currency, and a mutual credit system. We have looked at one such system in detail, and suggest it as an example of simple, cost-effective and advanced design. And, we have presented the underlying factors to analyze and consider in deciding which type of system to implement.

Now, let us look at some more practical matters relating to designing a parallel currency system, such as:

- The type and physical appearance of the parallel currency
- Methods for disseminating information about Offers & Requests
- Managing the system and the money supply
- Entrance and user fees
- The unit value

The Type and Physical Appearance of the Parallel Currency

After a study of the local area has been conducted, it should be clear as to what type or types of system to introduce. Depending on the method of issuance used and the type of currency that is issued (units of time, commodity or national currency equivalent) the form the currency takes is the next practical consideration.

Space must be left on the bill for negative interest squares, for endorsement boxes and for any other design elements that have been introduced into the currency, as we will see in the following samples.

Alternatively, cheque books may be used which reduce the cost of producing notes significantly, but may meet with problems in areas with high written illiteracy. Others may be wary of the idea of every transaction being recorded. Or, a simple score sheet can be given to every member, with 100 squares on each side, with one side measuring the units spent and the other side the units earned. When a transaction takes place, the value in units is crossed out on the "units spent" side of the buyer's card, and the "units earned" side of the seller's card, with the name of the opposite party to the transaction in the spaces. When the sheet is full, it is taken into the administration for recording. This would prevent people from spending more than they have on the sheet, and is also simple for levying fees(110).

The appearance of the currency may have a large role to play in legitimizing its acceptance by the public in localities where the citizens are not so used to a variety of methods of engaging in transactions. However early versions of HOURS currencies have been significantly improved, using advanced printing techniques and top-quality local artistic designs, which shows that looks are important.

Methods for Disseminating Information about Offers & Requests

Depending on available technology, there are a variety of options for informing the users of a system of what goods and services are being offered and requested at a given point in time.

In North America and Europe, this catalogue takes the form of a newsletter, newspaper, or Internet bulletin board. The first section is devoted to Offers, listed by subject heading, followed by Requests.

In countries without these capacities, there are some very simple and cost-effective methods for disseminating this information, including a centrally-located chalk or bulletin board where members can check and update listings themselves. Or, as in Ecuador, offers and requests can be disseminated by word of mouth, although this may turn out to be unreliable and inefficient.

Managing the system and the money supply

Managing a parallel currency system is not a very complex task, but there are a series of functions to be fulfilled. People are needed for:

- Recording transactions, keeping account and books.
- Updating the catalog of offers and requests.
- Representing and promoting the system.

A group of participants is needed for helping to run markets and other large-scale promotion activities.

Managing the money supply in a LETS system is very simple. As the system is balanced at zero, proper accounting will not cause any problems. However, if an imbalance appears an audit must be done to find the error.

Managing the money supply in an HOURS system is much more difficult. The administration has to monitor the economy, and gather feedback about how the money is circulating to see if signs of inflation appear. Inflation may not be noticeable in a small system with a large regular economy, however it may be much more significant if the parallel currency makes up a significant portion of the economy. As with the Bonds issued in Salta province of Argentina, the issuers must be vigilant that their currency does not end up causing more problems than it solves. In this case, managing the money supply involves devising ways of removing the parallel currency from circulation, or alternatively, encouraging people to spend money to avoid the money stalling in 'wells'.

Entrance and User Fees

Parallel currency systems are generally funded through entrance and user fees that may be in the national currency, or in combination with the parallel currency. Or as has been suggested, funds can be generated by fulfilling some large task while launching the new money at the same time.

These systems are almost always non-profit, in which case fees and charges are meant only to cover costs, not generate profit. Since we are talking about these types of non-profit systems, we will look at the four basic types of service charges.

Fixed Period Fee

This can be a one-time entrance fee, a yearly fee, or a monthly fee. Sometimes, all three types can be charged: an entrance fee in national money upon joining, a yearly fee at the start of the second year in either national or parallel currency, and a monthly fee which is usually charged in the local money.

Negative-Interest "Demurrage" Fee

This is a fee (about 7-12% yearly) charged to positive balances to discourage hoarding, or to reduce positive balances that are out of proportion to those held by other users of the system.

In a LETS, this can be a charge applied automatically. In printed currency systems this can be applied through stamps applied to the bill, for which a small fee is charged.

Either way, it is important that the users of the system are well informed about this fee so that they do not feel they are being taken advantage of by this fee.

Fixed or Variable Fees Per Transaction

Account-based systems like LETS can easily charge transaction fees, or even a percentage of the amount traded, but both of these methods work either to discourage recording trades through the system, or to discourage trading altogether. This type of fee is not worth applying to printed currency systems.

The Unit of Value

The function of a unit of value is to compare prices between different products at a given time, as well as for the same product at different times, as well as value of the unit itself in comparison to other currency units.

The ideal unit of account is one which is generally known, the value of which is generally accepted and reasonably stable. With LETS systems, the unit of value is always tied to the national currency. While this is reasonably safe in North America and Europe, it is risky for the context of an unstable currency that is often subject to inflation. The HOURS system's unit is valued at one hour of unskilled (minimum wage) labour. Or, the unit of value can be based upon the value of certain amounts of a variety of commodities.

While tying the value of the parallel to the currency has a number of advantages such as ease of use, ability to network localities and regions, it may be a good idea to use a number of values. In Mexico, for example, the Tlaloc is valued at one hour, 35 pesos or $1.50 US. This offers a strong platform for stability.

Parallel Currencies and Existing Local Development Initiatives

Parallel, local and community currencies can be used in a complementary strategy to improve the operation of a number of existing Local Development Initiatives (LDI) to increase their reach, benefit and impact.

Parallel Currencies and Tontines or Credit Unions

Parallel currencies which utilize a system of accounts, such as LETS, are ideal for uniting with an existing Credit Union. The savings of parallel currency members can be used for a lending circle program, the turnover of trading can be used to assess creditworthiness, loans can be repaid in the parallel currency, funds can be used to back the value of the parallel currency, the options and the benefits show great potential for a relationship between the two.

LETS principles and Credit Union principles are identical.

Parallel Currencies and Microcredit

Micro-Finance Initiatives, usually called microcredit, is rapidly filling the gap left by banks that are often unwilling and incapable of loaning small amounts to small-scale enterprises and individual producers. Where loan sharks used to take advantage of this, microcredit is giving people the opportunity to purchase capital without having to borrow at usurious interest rates.

Since the micro-credit approach is founded upon resources generated from within the informal sector, small businesses, household enterprises and community initiatives have discovered that they can become financially independent without having to borrow from outside lenders. Borrowing from money pooled by neighbours, rather than from an impersonal institution like a bank, has guaranteed a near 100% repayment rate.

Trying to loan money in a system where money is scarce is a paradox(111). What if you can't borrow because there is no money? And if you can borrow, what if the goods made from material purchased on loan don't sell because there is no money?

The microcredit and community currency systems thus form an interesting complementarity(112). The community currency system helps to increase the money supply and frees money needed for loans for fixed capital purchases.

Parallel Currencies and Labour-Intensive Projects

Parallel currencies can be used to offset the costs of large labour-intensive construction, agricultural or environmental restoration projects. The BONUS-scrip project suggests how this might be done. In short, the workers are paid in local currency, backed by the fund that would normally be paid to them as wages. Part of the fund is used for loans which can be repaid in the local currency, closing the loop. Thus two objectives can be achieved with one amount of money. Donors and project managers interested in multiplying the impact of their contribution may find supporting a parallel currency system in the course of undertaking a project to be worthwhile.

Parallel Currencies and Community Health Promotion

The increase in personal and community well-being noted by participants in local and community currency systems is already well known and documented(113). More research suggests that LETS would be very beneficial in the promotion of community health.(114)

In addition to a national-currency denominated local currency, LETS can also record exchanges made in hours of time. Thus the ability to record trades such as child care, personal therapy and nursing, and other activities could be used in the promotion of community health.

Parallel Currencies and Skills Development

As the system in Dakar, Senegal discovered, parallel currency systems are significant in their ability to identify specific education and training needs and meeting them within a market framework. They discovered an immediate need for training in skills that could be marketed, as well as general education for those that may not be directly marketed but could provide the foundation for future skills development.

The need for marketable skills development is immediately identified through the use of a Noticeboard of Offers and Requests. Individuals willing to provide training (mentors) may be found in the Offers section who would benefit by having an apprentice. The trade creation effects of the local currency may also open up new areas for which there is no local expertise, requiring outside educators. If skills are imported then some national currency funds will be required, so a better option may be to seek out local expertise. Skills that cannot be directly marketed can be identified through the community markets. Some education, such as mathematics, construction, agriculture, and computer skills can be learned in productive activity, again providing an outlet for expected trade creation or cooperative development activities.

The experience in Senegal suggests that the demand for training in marketable and non-marketable skills is high, along with the willingness to pay for it in local currency. This is because training offered by private institutions is often too expensive for low-income people to be able to attend, and because they don't have time to devote entirely to study. Tying skills and basic education into productive activity would be very beneficial for the people in the community. The initiative to set up a Popular University will be of extreme interest in this respect.

Parallel Currencies and Environmental Programs

With increasing concern about the environmental impacts of economic activity in poor countries, the use of parallel currencies could be a very good way of guiding projects so that they meet environmental as well as economic objectives. By shifting demand from imported to local products, by improving the efficiency of the local economy and by re-directing economic decisions to meet local needs and concerns, a parallel currency system could have a very important role to play.

Since community currencies are only good within the locality in which they are circulating, members of the system will look for possibilities to substitute purchases formerly made in the national currency with those made in the local. The increase in local production reduces the pollution caused by import activities, and the development of local repair services may result in the increased working lifetime of equipment, resulting in further savings. The activities that are carried out for economic gain become issues of concern for people who see greater economic benefit in preserving resources than in turning them into short-term economic values.

The example of the Curitiba scrip, where bus tokens were given in exchange for those who collected garbage, which could be exchanged for money with bus riders is a good example of how parallel currencies and environmental objectives can work for the mutual benefit of the environment and the economy.

Parallel Currencies and Appropriate Technology (AT) Initiatives

The failure of aid policies in the 1960s and 70s, involving the transfer of large-scale capital and energy intensive industrial mega-projects was clearly identified by E.F. Schumacher in his book "Small is Beautiful(115)", followed by his proposal for Appropriate Technology (AT) Initiatives.

Schumacher argued that such projects, although they may have worked to pull North America out of the depression, and drove the boom years of the 1950s and 60s, they were not transferable to the context of poor countries. This is because the investment needed to open a workplace was high, created social elites, located manufacturing near cities which resulted in a draining of people from rural areas looking for work in the city. Once the technology was established, the developing country would be dependent upon rich countries for spare parts, skills training, markets and capital.

By the time of the publishing of Small is Beautiful, the evidence of the failure of the old model of development was mounting. Large industries were going bankrupt, were far in debt, and could only operate with regular injections of external capital. The trickle-down effect did not work, the living standards of the rich and the poor did not increase. Instead, it became increasingly clear that small scale, localized industry and agriculture was a more efficient and effective way of distributing income. This changed the perspective from straight technology transfer to the development of technology appropriate to the situation, such as technology that can be manufactured, operated and maintained locally, operated by its owners, using local renewable materials and energy, with high reproducibility.

Through AT organizations, many appropriate technologies are now operating, from agricultural equipment and food processing machinery to water supply methods, small-scale textile and manufacturing plants, water-energy machinery and human-powered transport. The IDRC, the funding organization of this project is a known AT supporter, along with UNICEF and the ILO at the international level.

Appropriate Technology activities may have a strong affinity for parallel currencies because of their common view that the strengthening of the local economy is essential to improving people's lives. As with the other potential collaborations mentioned above, collaboration between Appropriate Technology and Parallel Currency would by synchronous by diversifying the range of products that are produced and available at the local level, improving on-the-job skills training and education, increasing the range of AT activities through no-interest loans, and etc.

Parallel Currencies and Appropriate Technology share a very similar design philosophy concerning international development, seeing the need for self-help tools being created at the local level, factored by local conditions and appropriate to the society and environment of the area, rather than as a straight copy and transfer from North America or Europe.

Parallel Currencies and Fair Trade Organizations

Fair Trade Organizations (FTOs)are those which operate trading networks for goods from the majority world countries which seek to achieve fairness, social justice, cultural promotion and preservation, improved working conditions, high environmental standards, democratic involvement in workplace decisions and fair pay. Some organizations go further than others, providing a guaranteed minimum price, low-interest loans, long-term relations and other benefits. In return, the use of a special label identifies for consumers of the socially, ethically and environmentally sound quality of these products.(116)

FTOs and local currency groups share the objectives of increasing and stabilizing the incomes of people in poor countries, but they do this from different sides with the FTO in a wealthy country and the local currency group operating at the local level. Although their motives may clash because the local currency group seeks to eliminate dependency upon the export market, the ability to export may be enhanced through an alliance with the local currency group.

Parallel currency organizations are able to trade over long distances using the internet, meaning that advantages may be found by using a parallel currency for fairer international trade, and could result in an international marketplace for fair trade goods using a stable standard currency.

Parallel Currencies in Post-Conflict/Disaster Reconstruction Initiatives

The benefits of introducing parallel currency systems to local areas suggests a strong potential for encouraging the stability of local services, infrastructure and society in post-conflict or natural disaster situations. In the absence of regular activities following conflict or disaster, microcredit and community currency can quickly take a major role in rebuilding a shattered economy and healing a disrupted society. The possibility of introducing training programs, of engaging in large projects can assist in demobilization and disarmament while giving former soldiers and/or displaced people the tools with which to rebuild their lives again.

It has to be remembered though that community currencies do not create new resources, they only mobilize existing resources, so depending upon the extent of the damage both geographic/environmental and social, it may take a long time to heal the wounds of war. Local currencies also need a basis of social trust, thus the ability to stay in one place for a long time is an absolute necessity. However, in that case the community currency can be used to mobilize resources in conjunction with other initiatives, rather than be used solely as a financial micro-initiative.

Footnotes:

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30,000 for Each and Every One

Japan's Prime Minister Keizo Obuchi may have realized he cannot be choosy about how he tries to bring the economy back to life. Now, he is prepared to consider an opposition party's idea of handing out gift certificates to spur consumption. "There may be procedural difficulties, but I would like to have it considered", Obuchi told the Upper House of Parliament in response to a member of Komeito Party, who proposed handing out certificates to urge people to shop and spend. The Komeito has proposed handing out certificates worth 30,000yen to every one in Japan.

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http://www.eirelink.com/trueque/index.html

99 Heloisa Primavera, Carlos De Sanzo and Horacio Covas. Ibid.

100 Heloisa Primavera, Carlos De Sanzo and Horacio Covas. Ibid.

101 Jurgen Schuldt. Dineros Alternativos Para El Desarrollo Local. Lima: Universidad del Pacifico. 1997. P.271-287.

102 SINTRAL (Sistema de INtercambio y TRansacciones Locales) is the Spanish translation of LETS (Local Exchange Trading System)

103 Http://ccdev.lets.net/pdp.html

104 Notes can be seen at http://ccdev.lets.net/incambio.html

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