

# Bachelor ERM

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*Complimentary Currencies: Potentials and Success*

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## **1. Introduction**

In times of repeated financial crises, weakened community structure, increasingly apparent lack of natural resources in a foreseeable future, loss of biodiversity through continued environmental degradation and issues of climate change that the present-day generation has to deal with – we might have to reconsider the age-old socio-economic rules which constrain our creativity and true resourcefulness. On Earth as a closed living system every life form should be recognised as having a purpose and unique value. We do have enough energy, technical capabilities and incentives from community movements, organisations and even governments willing to tackle the different challenges, but there is one thing everyone seems to be waiting for – money. By definition: “Money is anything that is generally accepted as a means of payment.” (Greco, 2001: pg. 27) In the classical economy it has several important functions: a medium of exchange, a standard and store of value, a unit of account and a standard of deferred payment. It has also been defined by M. Linton as: “an information system we use to deploy human effort.” (Greco, 2001: pg. 27) When the classical monetary system effectively hinders our efforts to remedy and improve our world, perhaps it is time to design an alternative. There is a need for more democracy in economics, a free market with non-governmental and non-monopoly financial exchange, based on private initiatives and voluntary participation. Across the world groups of people are implementing new types of currencies. These alternative or complimentary currencies, sometimes also called community currencies, local currencies or common tender, are agreements to accept something other than the national currencies as payment. That means that the local community creates its own money, thus enabling more self-regulation and empowering itself to better meet the actual needs of the community members. This alternative currency is not a replacement, rather a compliment, it is meant to function in parallel with the national one, meanwhile being able to fulfil social functions that the conventional currency cannot, by design. This is a movement that continues to develop, with new complimentary monetary systems being implemented all over the globe, each presenting an opportunity to experiment and establish new markets. (Greco, 2001; Lietaer, 2002; Lietaer, 2010) I would like to explore the reasoning behind this.

## **2. Why Is The Conventional Money Failing**

Money was initially created by people in order to facilitate the exchange of goods and services in order to satisfy their needs. Since the establishment of division of labor and specialization, the society has become increasingly dependant on money and institutions like banks for this purpose. The design of this monetary system then defines how effective the

market transactions can be, as well as the kind of challenges we may have to face. (Greco, 2001; Greco, 2009) Historical research indicates that the type of a currency we use may encourage either hoarding or speculation, competition or collaboration, it can either weaken or strengthen the sense of community. It also provides the inclination for either short-term or long-term business strategies, and it may determine the degree of economic (in)stability. The conventional money is paid more often nowadays to obtain goods and services that used to be given „for free“ from neighbors, friends and family, in time it has effectively weakened our community bonds. And because the conventional money has a tendency to depreciate, it promotes the practice of making short-sighted decisions. (Lietaer, 2002; Lietaer, 2010)

Because the conventional money is so fundamentally necessary in order to perform economic interactions, it has long been a measure of power within the society. Nowadays the central bank and government monopolies of national currencies are well established worldwide. This means that the entire money supply is controlled centrally, by giving the power to decide about the overall money flow to a privileged few bankers and politicians, who may have limited knowledge, or interest, about the affairs and state of the rest. According to the typical bank policy, consistent throughout centuries, the money is issued to the elites at more favorable conditions and with respectively higher interest rates to the rest. In this way the system redistributes wealth from the middle and poor class, i.e. the producers, to the upper class, i.e. nonproducers. This means that money is poorly allocated already at its source and does not go to the ones in need, with the actual ability to use it productively. It means that money is kept artificially scarce within the community, the access to it is being limited. (Greco, 2001) For those organisations and groups that wish to work on e.g. improving their education or health care systems, creating new jobs, reducing poverty, protecting ecosystems and promoting green life-style – all to achieve sustainability of both human life and the environment – money always seems to be the key obstacle. (Lietaer, 2010) Moreover, money is being used as a modern tool of expansion within the market by the corporate and financial elites who accumulate profits by exploiting both people and resources. This may be seen as a form of neocolonialism when, unlike the past centuries of physical conflict, the national governments especially in the so-called Third World are driven to give up control of their national resources and economies when they are unable to repay their debt from a supposed development project, and subsequently the International Monetary Fund insists on “structural adjustment” programs in favor of the Western banks. Sometimes even the national currencies of such countries have been removed, e.g. Ecuador now uses U.S. dollar as their national currency. (Greco 2001; Greco 2009)

Nowadays only a small fraction of the money in circulation has a physical substance in form of coins and banknotes; the majority of it is simply an “I owe you” (i.o.u.) of a government or central bank i.e. based on the idea that money creates more money through interest rates – the so-called debt imperative. Thus its value results from monetary policies instead of being regulated by the market force. Money is supposed to carry information about the goods and services, which would allow us to decide on the kind of transaction we wish to perform. Since this information is flawed, the monetary system is malfunctioning. (Greco, 2001)

Of course, the conventional monetary system has also had a positive effect on the society. Since the rapid growth in economic output in the industrial era, the benefits, comfort and welfare has been increasing for a substantial number of people. Still, this was achieved at a cost of exclusion and exploitation of billions of others. No improvement is foreseen regarding these people in our current system, as our economy is driven onward to grow ever further – the so-called growth imperative. This is a process of exponential money making where, as put by Thomas H. Greco, Jr., a community and monetary economist, educator, writer, and consultant from the U.S.: “[..] much of the growth now is the wrong kind of growth, out of control and in the wrong places, generating ever greater disparities of power and wealth, wasting valuable resources, and producing side effects that are ultimately harmful to the earth's capacity to support life.” (Greco, 2009: pg. 49)

Bernard Lietaer, an international expert in the design and implementation of currency systems from Belgium, compares the monetary system to the functioning of a natural ecosystem. His collaborative research show that fundamental laws define all complex flow systems of a similar structure, therefore the function of money as a medium of exchange can be compared to the function of biomass in an ecosystem; both catalyze important processes, allocate resources and allow the whole exchange system to work in synergy. Sufficient circulation of biomass and likewise money is dependant on the structural properties and absolutely essential to the system, otherwise some parts would suffer increasingly from defficiencies; in the case of economy this would create shortage in either supply or demand, or both. In order to achieve long-term sustainability of any such complex flow system, two main parameters are of importance: structural diversity and interconnectivity. What is more, a balance is required between efficiency, which is the system’s capability to maintain its integrity and growth over time, and resilience, the ability to withstand shocks and adapt when necessary. The analysis of natural ecosystems, which may be seen as practical and reliable examples of enduring and vital sustainability, indicates that the resilience actually has more weight. Thus growth in size, e.g. GDP for an economy, on its own is not an appropriate measure of

system’s health. Infact, too much weight on efficiency may maximize flow and size, giving the system more power, but it denies choice, lessens connectivity and resilience, up to a point where the system loses its stability and collapses. This explains well the repeated occurance of the economic bubble bursts: according to the World Bank Statistics, there have been over 96 banking crises and 176 monetary crises since 1970s. Figure 1 illustrates the flow system, where the „Window of Viability“ is the range of the critical valuables, calculated empirically, in which a real-life ecosystem is able to function in a sustainable way, a range which is likewise desirable for a healthy and sustainable monetary system. (Goerner et al., 2010)

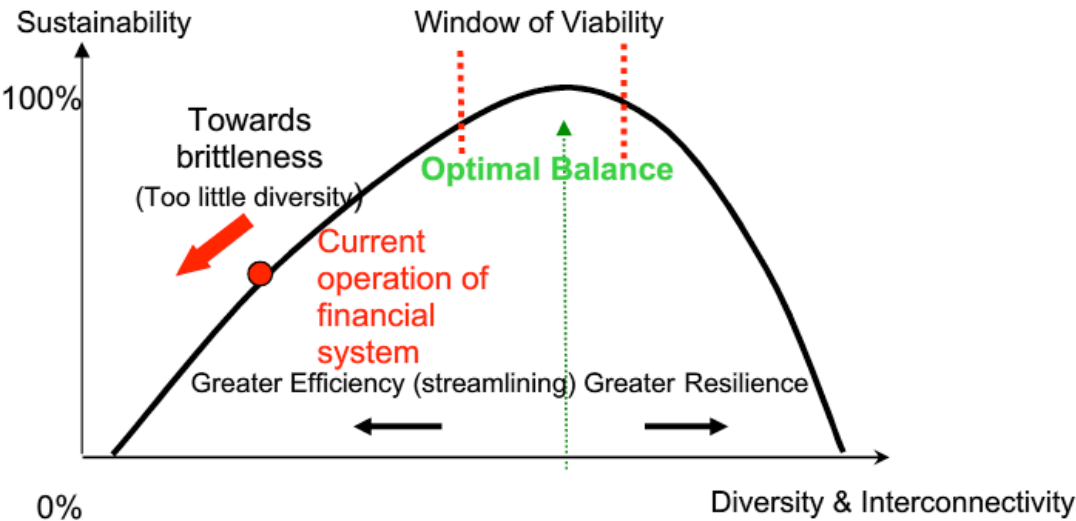


Figure 1: Sustainability Flow Model (Goerner et al., 2010)

This research reveals that the dominant monoculture of national currencies gives room to increasing efficiency, which has been strongly pursued by those in charge of our monetary system. However, this causes structural instability within the financial system. Having only one single type of currency in the global economy - debt money that grows out of interest rates – may be compared to artificially maintaining just one species on our planet, rejecting diversity because an unwanted „competitor“ might reduce the efficiency of the whole. In order to make our economy sustainable and steady state, the diversification in types of currencies is necessary. This would finally be as structural solution to a structural problem, and can be done by implementing the Complimentary currencies which may be more fit for different types of applications, present in the communtiy. (Goerner et al., 2010)

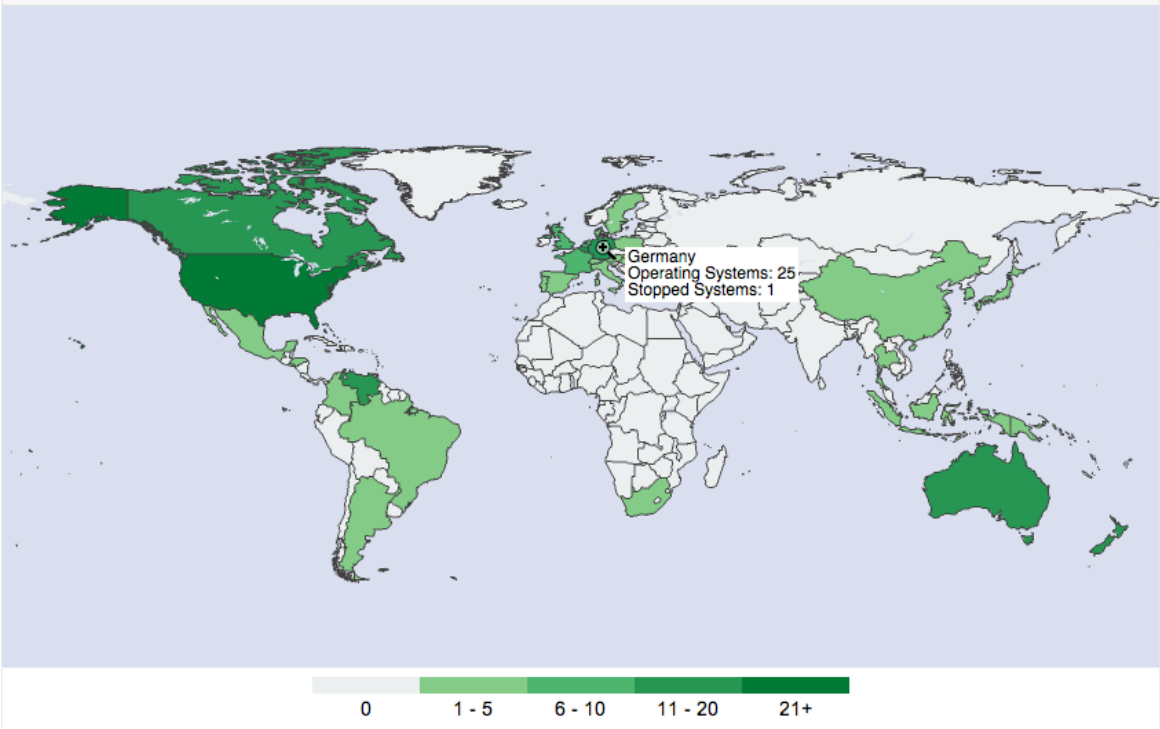
### **3. Main Characteristics of Complimentary Currencies**

For any kind of money, the general idea always is that its holder may assume ownership of a portion of the community's wealth through exchange. Therefore money should represent the value that its holder has brought to the community by providing his own goods or services, and enable the exchange for different ones, but with the same value. So the purpose of a locally issued alternative currency is to allow the community members to convert the value of their own production into a form of money, better suited because they may use their own criteria, and without the involvement of a central bank and any other financial or political institution. A complimentary currency should be issued on the basis of goods and services that flow from one community member to the other, being put into circulation among the local businesses and local customers, accepted on a voluntary principle, redeemed "in kind" instead of "cash". Therefore the flow of a complimentary currency is separate from the national monetary system, to which it is a supplement. It is not the purpose of the alternative currency to replace the national monopoly money with yet another monopoly. (Greco, 2001)

The concept of complimentary currency is not new, it had already been used in some areas of U.S., Canada, Western Europe and other regions during the Great Depression in 1930s. As one example, in the German town Schwanenkirchen an alternative currency was introduced called Wara; it was a piece of paper whose value was backed by the coal inventory in the town's mine, with additional monthly stamp fee to cover the storage costs and, more importantly, to ensure the new currency would not be hoarded and stay in constant circulation. Not only did it allow the local businesses to continue operating, it also spread to other areas, and it became the focal point in the "Free economy" (*Freiwirtschaft*) movement. In the end this complimentary currency was so successful that the central bank, through Ministry of Finance, declared it illegal. Once the local people were no longer allowed to help them selves, the unemployment returned, along with other socio-economic problems to which then only a strong centralized response could come. A similar thing happened in Austria with the Worgl stamp scrip, and even in the U.S. president Roosevelt soon prohibited the use of any "emergency currencies". Most economic historians agree that the only real centralized solution to the Great Depression was the beginning of World War II. (Lietaer, 2002)

In the last twenty years the complimentary currencies are once again regaining their popularity. If in 1984 only two such alternative currencies existed, by 1990 there were just under 200 worldwide. Their current number amounts to several thousands. In 22 countries hundreds of Time Banks have been set up; and there are 700 business-to-business

complimentary currencies with about 500,000 companies as participants in the U.S. alone. An increasing number of communities on all continents have designed and are using their own version of complimentary currencies, which are meant to improve both the social and economic aspects of their people’s lives e.g. by facilitating elderly care in Japan, or by providing work and improving the urban environment in Brazil, in all cases rising the standard of living locally, without welfare or subsidies from the government. The free access to internet and easy distribution of software nowadays also help this development. (Lietaer, 2010) A detailed database is available on the website of Complimentary Currency Resource Center (see: Reference List), with the locations of the many different alternative currency systems shown in Figure 2 below.



*Figure 2: World Map of Complimentary Currency Systems  
(Complimentary Currency Resource Center, 2011)*

A community may have several reasons to implement an alternative currency. The three main types of complimentary currencies are:

- Business-to-business currencies – designed to offset the shortages of national currency during an economic crisis, in the periods of recession. For example, in Hungary a currency called C3 is used as a working capital in the medium and small businesses and allows increase in employment, at no expense to the government, which accepts this currency also as payment for taxes and fees.



- Community currencies – as means to solve various social problems while strengthening the community ties. This may be achieved by implementing Mutual Credit systems that are based on the society's tradition of its members helping each other, granting favours or exchanging gifts, e.g. LETS which stands for "Local Exchange Trading System" or Time Dollars.
- Global complimentary currency – inflation-proof and able to provide long-term stability in the world's economy. For example, Terra currency has been proposed by B. Lietaer, in a form of countertrade i.e. international barter.

Successful implementation can be achieved first of all with good timing, by starting a circulation of complementary currency when it has become clear to the community that the conventional money is unable to solve their problems, or simply when a group of people has an incentive to improve a certain aspect of its community. Therefore another important factor is the presence of visionary, entrepreneurial and charismatic local leadership that may be accepted as trustworthy by the community. The design i.e. characteristics of the complementary currency chosen for implementation is also of great importance. For example, the creators have to decide if the new currency will be coupled with the national one, which allows easy pricing but would no longer work as a back-up at times of an economic crisis, or if it should be expressed in hours and thus is an universal, unchanging standard. There is also a choice between the fiat money type where a central authority e.g. the individual creator or a community bank decides on an exact amount of money to release in circulation, or mutual credit type, in which case the amount of currency is created and cancelled by the participants themselves and thus is flexible with respect to meeting the actual needs in the community. It may also be beneficial to establish monthly demurrage payments in order to ensure constant circulation. These demurrages should not be applied as a form of sales tax, however, because if the holder should pay for making a purchase, he might be motivated to save more and buy less often, which in turn may stop the intended circle. In any case, complimentary currencies may be experimented with to find the best fit for the region and to be adapted to the actual requirements of the community. (Lietaer, 2002)

#### **4. Benefits of Complimentary Currencies**

The long-term practice of using alternative currencies clearly shows several positive effects. First of all, they enable exchange transactions that would otherwise be limited. This means more work and wealth is made available to otherwise economically disadvantaged community members like unemployed or underemployed people, but also teenagers, elders and

housewives, who have more time and less money, and are willing to express their creativity through the use of locally available resources and their own abilities. This can be based on the fact that there is always enough of different kinds of work to be done to keep everyone busy, including previously unexplored alternative career opportunities that would not function well enough in the conventional economy. (Greco, 2001; Lietaer, 2002; Lietaer, 2010)

Secondly, this additional economic activity is directed to areas and people where it is needed the most, like providing childcare or promoting environmentally friendly behavior, without interference from outside financial or political institutions, without the government welfare, which may feel like loss of dignity to some people, and which may be acquired from raised taxes or subsidies, and with much less bureaucracy. Since this new alternative transfer of wealth is voluntary for each member as a form of mutual support, it is an entirely self-fuelling and self-running system that may promote solidarity and cooperation within the community. Anthropogenic research has shown that practicing gift exchange is an important tool for building a strong community. When we take as an example a person who requires a box of nails for repairs, he has two basic options: 1) going to the shop and buying one from the salesman, with no further change in their relationship; 2) being given one by his neighbor who had incidentally bought 6 new boxes the other day and now has a spare one, and would like to save your time, and refuses to accept payment from you at this point. The first option is the most efficient from the viewpoint of classical economics, because it would be a simple, fast and easy transaction, which can be repeated as many times as necessary. It also does not create a community. The second option might also seem great from the economic point of view because it did not cost anything, but there is more to it. For instance, this person will surely greet his neighbor the next time they meet, and if this neighbor knocks on his door because he has run out of sugar for his coffee on a Sunday afternoon, probably this person wont mind sharing his. Therefore receiving a box of nails as a gift started to create a community. While a purely monetary transaction can be seen as a closed system, a gift is an open one in the sense that it causes imbalance in transactions that can be balanced out with another transaction in the future. Complimentary currencies may have reciprocity as an integral part in their design. Cooperation among the community members is also promoted by not having any interest rates on this currency. (Greco, 2001; Lietaer, 2002; Lietaer, 2010)

For example, Time Dollars begun in 1986 in the U.S., for the retirement homes in Florida. They are measured as hours of an activity that one person may give to the other, creating a positive and a negative balance respectively. This means that the total sum of all Time Dollars within the system is always zero, even though favors are constantly granted. When a person

has a negative amount of Time Dollars he can redeem it by e.g. spending an hour working in someone else's garden. With a positive amount that person can "buy" cookies from someone, who had spent an hour to bake to repay his own negative account. Because many people participate in this, there is no need for a direct barter. As shown by several research and surveys, in the whole process of exchanging Time Dollar balances new community bonds have been created, moreover the elderly people have been able to regain their sense of value for the society. (Lietaer, 2002)

Another major positive effect of alternative currencies is that they may support the local businesses, by helping to build customer loyalty from participating more as an actor in community building, and by allowing them to withstand the competition from the larger outside chain stores, since they accept the local currencies more easily and in return spend them back into the community. This might seem like an objection to free and global trade, but most local people are not against globalization of markets per se, rather they assign higher value to goods that are more present in their lives, including clean water and air, conservation of ecosystems and respect towards other species and own right to prosper, which may be achieved by selling, buying and investing more locally. (Greco, 2001; Lietaer, 2002)

This also rises the degree of self-reliance for the society. The alternative currency systems in most cases are designed and implemented in such a way that they do not cause inflation. Simplified Mutual Credit is nothing more than a multilateral barter, and since complimentary currencies are typically used to fill in otherwise unoccupied positions, the value in the sense of price of goods and services is not meant to fluctuate. Altogether this may provide buffering capacity i.e. resilience to the market of the community as an additional benefit, which encourages long-term stability, which in turn enables the community to better realize its goals. Maximizing the local economic value will still benefit the overall economy. Especially when we consider once again that complimentary currencies provide diversity that aims at sustainability of the whole system. (Greco, 2001; Lietaer, 2002; Goerner et al., 2010)

Further more, once a complimentary currency has been implemented, it is capable to grow in scale, for example, WIR in Switzerland now has 80,000 participants and its annual trade is worth billions of euro. Although, most alternative currency systems are small by design and work well being decentralized and local and having less than 500 participants. (Lietaer, 2002; Lietaer, 2010)

## **5. Drawbacks of Using Alternative Currencies**

In most countries there is no legislation that specifically prohibits an agreement within a community to use something other than the conventional money as a medium of exchange, but the national currency is still set up as a monopoly, supervised by the central bank and generally accepted as the legal tender for all debts. Most national currencies have a long history and therefore it is a well-established habit for people to use them. Which is why the introduction of a new, previously unused and unknown alternative currency might require a lot of effort, and can only be done when the currency has enough credibility in the eyes of the community. Another practical disadvantage is that the creators of most complimentary currency systems have to ensure enough continuous sales transactions are performed in order to sustain the circulation, which may become too tiring after a while, and the system stops working. Perhaps using a time-dependant demurrage system, which would motivate the holders of the currency to pass it on via sales, is a solution to this e.g. by monthly stamps that validate the currency; but then additional organizational issues may arise. (Lietaer, 2002)

Although those complimentary currencies that are tied to the national currency pay the regular taxes in each transaction, the creators of alternative currencies do not show much interest in the functioning of the traditional financial institutions; and because the scale of complimentary currency systems is mostly small, they are not yet noticed by most policy makers and banks, which consider them to be either beneath contempt, or as a potential disturbance in the economy. As a result, the true potentials of implementing such currencies are not yet realized, and the empirical measurement of their macro-economic impacts is also not yet performed. (Lietaer, 2002; Goerner et al., 2010)

## **6. Case Study: Curitiba, Brasil**

Curitiba is the capital of the SE state of Parana, Brazil. The population in the city was growing rapidly, characteristic to the region, reaching more than a million in 1971 when Jaime Lerner became the mayor. The majority of the city's inhabitants lived in shantytowns, also called favelas, which are typically constructed from cardboard and scrap metal. In addition to the poor housing situation, they created a serious problem with ever-growing piles of trash, because there were no streets wide enough for garbage collecting trucks to access them. This attracted rodents and resulted in a major outbreak of infections. Instead of the regular solution to bulldoze these favelas and build new streets, partially because the city simply could not afford it, Lerner implemented a different approach: on the streets around the

favelas large metallic bins with visible labels, additionally color coded for the people who cannot read, were installed; here people could bring their plastics, paper, glass, bio-waste etc. and for each trash bag that was pre-sorted they were given a token for the local bus, which the parents use to go to their jobs in the city centre. There was also a rubbish collection programme where the poorer students from school were given notebooks from the recycled paper. Because the locals recognized these tokens as an alternative currency, having an actual value, they had enough motivation to start collecting rubbish off their streets, learning to recognize the different types of trash in order to sort it, and soon the rubbish problem was solved for Curitiba. Although Lerner's programme was named "Garbage which is Not Garbage", it might as well have been called "Garbage which is Your Money". Currently around 70% of all households in Curitiba participate; from the 62 poorest parts of the city about 11,000 tons of waste is exchanged for 1,200 tons of food and almost 1,000,000 bus tokens. Over the past three years about 200 tons of waste have been traded for 1,900,000 notebooks by more than 100 schools, altogether the amount of thus recycled paper is equal to saving 1,200 trees daily. Even though more than 1,000 tons of waste is generated in the city each day, Curitiba has no need for a mechanical waste separation plant – more costs are saved. (Lietaer, 2002)

There is also another kind of complimentary currency system used in the same city, called *sol criado* (lit. "created surface"). Its purpose is to enable the restoration of historical buildings, creation of public parks and social housing, without any financial costs to the city. This can be done, based on the city's zoning plan where each area in Curitiba has the allowed number of built floors according to two different standards: the normal allowed standard and the maximum level, which states how many more floors can be added using *sol criado*. To illustrate how this system really works, consider a hotel with 10,000 square metres ground plan in an area with the normal allowed standard set to 10 and the maximum level up to 15 floors. In order to be allowed to build the maximum 15 floors, the owner of the hotel is obliged to purchase  $5 \times 10,000 = 50,000$  square metres from the *sol criado* market, which in return has a beautiful historical building in need of renovation like the Garibaldi House owned by Club Italiano with 25,000 square metres ground plan and two floors still free to be built, therefore in total  $2 \times 25,000 = 50,000$  square metres available for sale. When the Club Italiano sells its theoretically available floor space to the hotel owner, the money is then used for restoration work. Consequently the hotel is permitted to have 5 more floors. The city's administration's only task is to put together the supplier with a buyer. Other possible conditions in such transfer of "available space" may be that the green areas with trees have to

be protected. For example, when a large land-owner decides to develop his property, he is allowed to do so on one side of the road, if he agrees to build a public park on the other side. This adds value to his private housing, which is now close to a green area, meanwhile the city inhabitants have another nice park. By now, several of the 16 newest public parks have been built with this system, that is, no taxes had to be raised and no loans from the banks had to be taken in order to finance this. This form of complimentary currency system enables Curitiba to acquire public goods, which for any other city would mean high costs and possibly rising debt. (Lietaer, 2002)

This integrated systems approach for creating complementary currencies was not only able to solve those problems for which it was intended, it also improved significantly the state of the public transport and the urban environment. The bus travel is encouraged by issuing tokens, and it has now become the preferred mode of transportation, even though one fourth of the passengers own a car, because it has been improved and made more convenient. It can now be considered as one of the more up to date bus lines worldwide. Although there are more than 2 million inhabitants in Curitiba now, it still has no need to build an expensive metro system that the conventional city planning suggests. Since the public transport has become so efficient, several streets in the city center have been converted to pedestrian zones, e.g. the Main Boulevard where local musicians can play, theatre can be performed and children's art festivals are organized. More shops and restaurants have also flourished in the downtown, which make the city more vital. The environmentally friendly policy in this city is carried further, by offering practical courses to homemakers, building superintendents, shopkeepers, and taxi-drivers at no cost in the Free University for the Environment, where these people may learn about the impact of their daily activities on the environment. The building itself was constructed from recycled telephone poles. On an old inner city landfill a botanical garden was created as a centre for research and recreation, easily accessible via the public transport. Altogether there are now 52 square metres of nature per inhabitant in the city, comparable with the 48 square metres ideal standard that has been set by the United Nations, which is hardly ever reached in other developed and developing countries. Curitiba is also the first city in Brazil that has a low level of pollution. Likewise, it has the best social welfare system in Brazil, a lower crime rate and a higher educational level than the other big cities in the country; yet it does not have a higher tax rate and it is the only city that has actually rejected subsidies from the government. (Lietaer, 2002)

It might also be interesting to know that Jaime Lerner was re-elected twice to be the mayor of Curitiba, and afterwards he also held the prominent position of the governor of Parana. The

two mayors who succeeded him were Rafael Greca and Cassio Inaguchi, both previous members of Lerner's original planning team at the time when the complimentary currency systems were implemented. This is a sign that political careers too can be advanced in the process. (Lietaer, 2002)

In 1992 Curitiba was nominated by the UN to be the world's model ecological town. City planners from e.g. Santiago de Chile, Montreal, Prague and Mexico have all been impressed by its achievements in waste management, public transportation network, state of architecture and availability of public green areas. This is a case of implementing well-designed complimentary currency systems that has shown, over a period of 20-30 years, just how beneficial it can be to the whole community, including the users of conventional money who did not participate directly. The best identification in traditional economic terms may be the significant amount of money that has been saved in the process. A Third World city has reached the living standards of the First World in time of just one generation. (Lietaer, 2002)

## **7. Conclusions**

There are several reasons why our conventional monetary system is not suitable to help us tackle today's problems. It is operated in a way of short-term, isolated, impersonal transactions, promoting competition rather than cooperation and loosening the integrity of the community. The conventional money is typically used as a power tool to expand and dominate, and it has been made artificially scarce. While being a centralized monopoly it may have a high potential for efficiency, but it is severely deficient in diversity and resilience, which makes it vulnerable to destabilisation and subsequent breakdown. Its design is not sustainable, because, even though it has been proven to be directly comparable to the functionality of the Earth's natural systems, it often fails to consider our planet as a whole, and does not recognize the intrinsic value of each individual. Yet it is clear that the political, economic, social and environmental aspects relate to each other.

To get pass this bottleneck in the system, and to better use the potential creative capacity of each member in the society, the alternative currency systems have been introduced in various communities worldwide. This is a bottom-up approach that uses a participatory principle. It may empower the local people, strengthen their community ties and allow them to solve their problems, like unemployment, urban environmental degradation or poverty, in the way that may be best suited to their situation, achieving a local development. After all, the specialization in the individual tasks has been beneficial to the society at large; a

specialization in money may have the same positive effect. Especially when the complimentary currency system is founded on shared favours, mutual reliance, fairness and personal creativity. It may also benefit the local businesses. Those complementary currencies that are not tied to the national ones are also buffered from inflation and the repeated economic crisis, which means that the local market may retain its stability at all times. In time, the complimentary currency systems may spread to other areas, too.

Even though alternative currencies may be difficult to implement, the political and financial institutions have no reason to ignore and much less fear them. The success story of Curitiba, Brazil shows the wonderful potential of integrated complimentary currency systems that is able to benefit all sectors, even when they are not directly involved in the programme.

There is still further research and experiments to be done in order to fully understand the macro-economic implications, but the concept of complimentary currencies does look promising.

## **8. Reference List**

- Complimentary Currency Resource Center. World Map of CC Systems,  
<http://www.complementarycurrency.org/> (Last access date: 06.12.2011)
- Goerner, S.J., Lietaer, B., McLaren, N., Ulanowicz, R.E., 2010. Is Our Monetary Structure a Systemic Cause for Financial Instability? Evidence and Remedies from Nature, *Journal of Future Studies*, <http://www.lietaer.com/2010/05/is-our-monetary-structure-a-systemic-cause-for-financial-instability-evidence-and-remedies-from-nature-april-2010/> (Last access date: 06.12.2011)
- Greco, T.H., Jr., 2001. *Money: Understanding and Creating Alternatives to Legal Tender*, Chelsea Green Publishing Company, USA.
- Greco, T.H., Jr., 2009. *The end of money and the future of civilization*, (pg. 1-54), Chelsea Green Publishing Company, USA.
- Lietaer, B., 2002. *The Future of Money*, Random House.  
<http://www.lietaer.com/writings/books/the-future-of-money/> (Last access date: 06.12.2011)
- Lietaer, B., 2010. *The Call of Our Times; Bird's Eye View; Community Solutions: An Overview*, <http://www.lietaer.com> (Last access date: 06.12.2011)