



Working Paper 2013 (Draft)

**Local Exchange Trading Systems (LETS)
as a response to economic crisis:**
The case of Greece

*Dr. Thanou Eleni,
Technological Educational Institute of Athens*

*Dr. Theodossiou George,
Technological Educational Institute of Larissa*

*Kallivokas Dimitris,
Technological Institute of Athens*

Prepared for the special session on Alternative Finance and Complementary Currencies as part of the International Conference on Potential and Limits of Social and Solidarity Economy organized by UNRISD and ILO in cooperation with NGLS and other partners*

May 2013



The United Nations Non-Governmental Liaison Service

The UN Non-Governmental Liaison Service (NGLS) was established in 1975 by several UN agencies as an inter-agency programme to promote and develop constructive relations between the United Nations and civil society. NGLS aims at facilitating consistent and meaningful space for civil society participation in the intergovernmental deliberations at the UN. As part of this effort, NGLS tries to ensure that the perspectives of marginalized groups and underrepresented constituencies are better heard in processes of global governance.

NGLS, Palais des Nations
1211 Geneva 10, Switzerland

Tel: +41 (0)22 9172076
npls@unctad.org
www.un-npls.org

Copyright © United Nations Non-Governmental Liaison Service

This is not a formal NGLS publication. The responsibility for opinions expressed in signed studies rests solely with their author(s), and availability on the NGLS Web site (www.un-npls.org) does not constitute an endorsement by NGLS of the opinions expressed in them. No publication or distribution of these papers is permitted without the prior authorization of the author(s), except for personal use.

* The special session is organized by the United Nations Non-Governmental Liaison Service (UN-NGLS), in cooperation with: UNRISD, ILO, Palmas Institute Europe, The Global Fund for Cities Development (FMDV), Institute for Leadership and Sustainability (IFLAS) of the University of Cumbria, Veblen Institute and the New Economics Foundation representing the European Union Interreg project: Community Currencies in Action (CCIA).

Local Exchange Trading Systems (LETS) as a response to economic crisis: The case of Greece

Dr. Thanou Eleni, Technological Educational Institute of Athens
ethanou@otenet.gr

Dr. Theodossiou George, Technological Educational Institute of Larissa
geortheo@teilar.gr

Kallivokas Dimitris, Technological Institute of Athens
dkalliv@teiath.gr

ABSTRACT

In this paper, after defining the three basic types of Complementary Currency Systems (CCS) we present and support the view that under certain conditions, they can offer significant relief during financial and banking crisis such as the one currently underway in Greece. The CCS's under review operate in parallel and not against a county's official money and can lead to increased transactions, production level and employment. We next present the current environment in which CCS operate in Greece and briefly describe their characteristics. A survey is conducted among CCS' members using a closed type questionnaire and the results are presented and analysed. The focus of the empirical research is to identify the driving force behind CCS membership, motives, values and profile of the members as well as identify the characteristics of successful CCS's. The results are analysed for the sample as a whole but also between two subgroups, LETS and Time banks. In most questions, the differences in opinions among the two groups are not statistically significant, with the exception of a few questions. Overall, from the pattern of the responses among the two groups, the LETS members emerge as more pragmatic and less ideologically motivated than those of Time Banks. Still, it is evident from survey results that the strongest motive for participation in such schemes, in crisis stricken Greece as well as elsewhere, is not the need for goods and services but the need to participate, offer and feel empowered. Setting this finding aside, we maintain that a favourable and clear tax regime could encourage participation not only of the altruists in the society but also of local businesses and the truly needy and thus contribute to the stabilization and rebuilding of the economy.

Key words: Complementary currency, financial crisis, solidarity economy, Greek Economy.

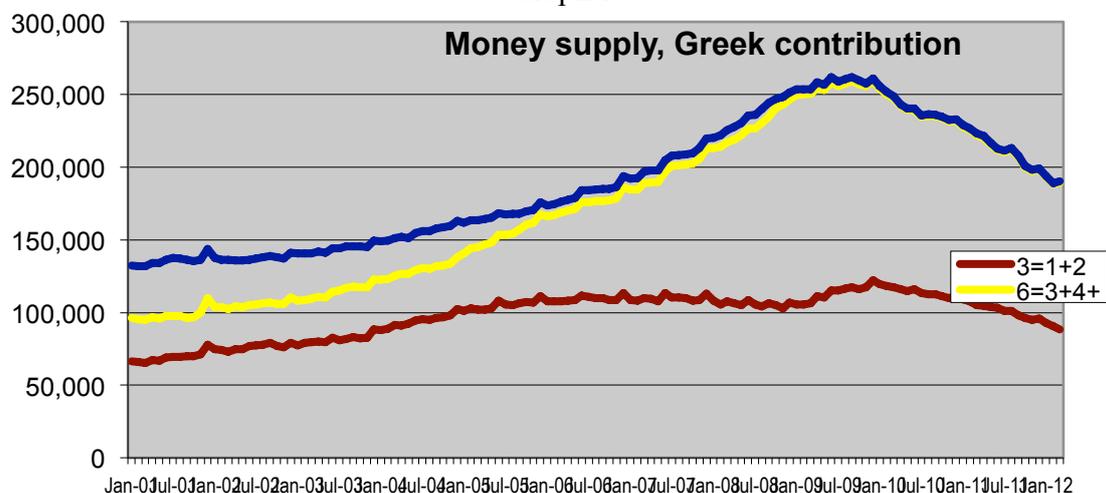
1. Background and context of the research.

The economic crisis in Greece, now in its 5th year, has preoccupied international media mostly in relation to its potentially negative effects for the Euro economy and the European banking system. The severe consequences to the Greek population of the austerity policies imposed on the country by its lenders and the exploration of alternative solutions to alleviate the hardship at the local level, have not been sufficiently researched either by academics or policymakers.

Until the debt crisis hit Greece in 2009, the country ranked 20th among 40 rich OECD countries in terms of per capita GDP, which at almost 24,000 stood at 85% of euro area level and 92% of EU level. The austerity measures aimed at reducing the public sector deficit, coupled with the severe money supply and credit contraction, resulted in a deep recession. Some figures are indicative: Unemployment now stands at 26%, while over 50% of the young cannot find work. Small businesses are closing down daily. Real disposable income shrank by 10,3% in 2010 alone with the cumulative loss of output exceeding 25% of GDP and continuing its downward spiral. Homelessness, a marginal phenomenon in this country up until 2009, is taking unprecedented proportions and 250,000 people are fed daily by charity organizations. The present crisis is projected to continue well into 2013 and beyond. Greece's membership in the euro does not make things easier, on the contrary, it excludes a number of macroeconomic policy options that could have been available otherwise. The monetary policy of the ECB is targeted at price stability (inflation target 2%) and is unsuitable for the problems of the periphery countries such as Greece. While Euro nominal and real interest rates are at record low levels, this is not helping the Greek economy at all: The interest rate is irrelevant when there is no liquidity or credit availability. The bulk of the bailout money, contrary to popular perceptions outside Greece, goes towards servicing the country's loans and strengthening the banking system. (Lapavitsas, 2010).

We maintain that the depression in Greece has been exacerbated by the contraction in both the money supply (liquidity) and credit available. As presented in Graph 1, below, the money supply available in the Greek Economy has contracted severely.

Graph 1



Source: Bank of Greece

Amid this gloom, an interesting phenomenon is quietly taking place at the grass-roots level: During the last two to three years, groups of people are discovering the merits of self organization and the potential of a solidarity economy. It started in the centre of Athens, during the “occupy” movement, in the spring of 2010, taking the form of a “time bank” organization. Since then, dozens of community currency systems (CCS) and other solidarity groups have sprang all over the country. Last October, the first “Festival of Solidarity and Cooperative Economy” was successfully organized in Athens. About 14 CCS groups and a number of other collective initiatives participated, exchanging ideas and best practices and reinforcing one another.

Several books and papers focus on the idea that modern monetary systems are prone to crises and that CCS are a solution to social economic and environmental problems. In every textbook of monetary economics, money is defined as a widely accepted means of exchange for goods and services, whose contribution is precisely to facilitate transactions among the participants of the economy. Its other functions (store of wealth, measure of value, means of future payments) are secondary, can be separated and/ or shared with other instruments. Bernard Lietaer (2009 and 2011) and Tomas Greco Jr.(2001), leading experts in money issues, have among others,¹ theorized and adequately explained the downside of current monetary arrangements. Both Lietaer and Greco argue that the way today's official monetary systems are operated and controlled defeat the very purpose of money. The artificial scarcity imposed in order to maintain price stability, contributes to financial crises, favours wealth accumulation by the few, destroys employment, businesses and productive economic activities and can cause immense hardship to societies. The fluctuations in interest rates, the very existence of interest according to many, are factors that are more detrimental to sustainable growth and social harmony than the risk of inflation. Complementary currencies are the answer to these systemic problems, irrespective of the state of the business cycle according to both above researchers. In fact, Bernard Lietaer in a recent interview posted on a Greek financial portal,² argued that complementary currencies are the answer to the Greek economy's current problems. Sally Goerner, Bernard Lietaer and Robert Ulanowicz (2010) also discuss the shortcomings of conventional approaches to managing banking crises (i.e. nationalization of problem assets), and they explain why these typically fail to address systemic causes. The authors argue that a better solution would involve the adoption of complementary currencies, and the government's acceptance of these currencies in partial payment of taxes during a period when banks are not in a position to fully finance the real economy.

2. Purpose and scope of the research.

In the theoretical section of the paper, based on a brief literature review and using historical examples from past crises in other countries, we conclude that various forms of alternative / complementary currency systems (CCS) represent a viable way to sustain local communities and businesses in financial crisis conditions, avert humanitarian disasters and maintain a degree of social cohesion.

¹ Goerner Sally, Lietaer Bernard, McLaren Nadia & Ulanowicz Robert E. (2010)

² www.capital.gr February 7, 2013

We start the theoretical section by defining and categorizing complementary currency systems based on the literature. We will focus on the organizational and environmental elements that contribute to the success of CCS in a developed country context and will propose ways to measure the degree of their success. We will then present the newly established Greek CCS, their characteristics and the legal, tax and regulatory environment in which they operate. As this movement is very recent in Greece, the institutional framework is in practice non-existent or potentially hostile.

In the empirical research section, we will present the results of a survey among the members of Greek CCS, and we attempt to establish whether the necessary elements of success are present, what are the main driving forces of the members, whether they achieve their goals, their expectations as well as any perceived shortcomings and areas for improvement.

We will conclude by making recommendations both on the organizational level of CCS's and the legal and regulatory framework.

3. Complementary currency systems- an overview

“Money matters. The way money is created and administered in a given society makes a deep impression on values and relationships within that society. More specifically, the type of currency used in a society encourages - or discourages - specific emotions and behaviour patterns.” Bernard Lietaer, (1999)

Community currencies are local initiatives which let people exchange goods and services without using conventional money. They are operated in parallel to the official currencies, therefore they are also referred to as complementary currencies. There are three main types of community currencies currently operating in different parts of the world.

1. Local Currencies. These are locally issued notes or tokens or script, in physical form, circulating freely among individuals and businesses in an area. A well-known example of this type is the ‘Hours’ system first developed in Ithaca, New York State, and now replicated in 20 cities across the USA with variants in other countries. The notes are utilized in the same way as national currencies to purchase goods and services in the locality. Participation is based purely on exchange, and is facilitated by a directory, which lists businesses that accept hours in total or part payment for goods and services. (Boyle, 1999). Such schemes have been used in periods of economic crisis and war, when national currencies were scarce or unreliable. A recent example is in Argentina with a scheme that grew very fast, was very successful³ and fell victim to its own success as the notes were eventually counterfeited and lost credibility. (Gomez, 2012). Nevertheless, one of the most successful and long living case of local currency system can be found in affluent Zurich. The WIR, turning over the equivalent of almost 2 billion CHF per year, has been active and servicing the local business community for over 80 years. Local currencies of this type are not present in Greece, it is worth mentioning though that last fall, when negotiations with the Troika seemed to fail and the risk of bankruptcy of the Greek government appeared high,

³ Researchers estimate that household consumption could be increased by up to US\$600, compared to the minimum wage of US\$300 in 2000 (Primavera, 2000:6).

several Greek and foreign economists proposed a dual currency scheme with the euro serving for international payments while IOU notes issued by the Greek government could be used to pay local public employees and suppliers and thus circulate in parallel with euros.

2. Local Exchange Trading Systems or Schemes (LETS). The second type of community currency takes the form of purely notional credits and debits in a set of accounts which keep score of trade in goods and services among members. They are a form of 'mutual credit', meaning that the currency is issued by individual users and is generated by the act of exchange itself. The best known community currencies in the North are of this type: LETS have been widely adopted in the UK and Canada, with variants including SEL in France, and Green Dollar Exchanges in Australia and New Zealand. LETS are local associations whose members list their offers and requests for goods and services in a directory and then exchange them at a price negotiated in units of local virtual currencies. Most often the virtual currency is at par with the official one in order to facilitate pricing and tax calculation. Members contact each other privately to arrange trades, notifying a central record-keeper of debits and credits to their accounts. In this way people can access goods and services in exchange for offering their own skills and time, without requiring money in the form of official currency. This is the predominant form of complementary currency schemes established in Greece in recent years.

According to Seyfang Gill, (2001) even though LETS aim to promote local economic regeneration, they have remained small and marginal to the economic needs of most members, and have not been successful in spreading into deprived areas or attracting widespread participation from socially excluded groups or from businesses. This is partly a reflection of the non-economic objectives of most members and partly the result of the policy context in which these local currencies operate --namely relatively high levels of public spending and welfare support, and the threat of loss of state benefits for unemployed LETS participants. LETS therefore responds primarily to a desire to reconnect to community, and build personal contact and reciprocity into everyday social and economic relationships. (Seyfang, 2001b). The above statement will form one of the hypotheses to be tested in the following section using the survey responses.

3. Time banks. The third type of community currency is service credits or time banks. As the name suggests, these schemes use time as the alternative currency so that a set number of Time units are earned for each hour of service offered to the scheme, from a whole range of activities. These can be stored for future use, donated to other members, spent on other services available on the scheme, or increasingly, on practical goods such as food, refurbished computers or with mainstream businesses. Time banks coordinate the supply and demand for services from participating members and enterprises. There are now about 200 time banks in the USA, and similar schemes in the UK, Germany, Sweden and Japan; (Boyle, 1999). These schemes value and reward community participation, and acknowledge the efforts of people on the margins of the conventional economy, seeking to build social capital through face- to-face contact and mutual support. There are a significant number of time banks in Greece; therefore we will compare their effectiveness in achieving their goals against LETS.

In order to assess a particular CCS of any type, we must measure its success in each of the several dimensions they serve: economic, social, ethical, and psychological. In the context of this paper, we will focus on the economic dimension, which can be

measured in a variety of ways. The most obvious used by many researchers is the number and value of transactions per member in a given period. Alternatively, we can set a threshold, in the form of a percentage of the poverty level⁴ income that can be reliably covered by network participation. Three questions (15,16 and 17) in our questionnaire serve this purpose.

3. Complementary currency networks in Greece.

Before the year 2010, Complementary Currency networks were practically unheard of in Greece. In her dissertation, Eirini Sotiropoulou (2012) lists 33 groups and as of March 2013, we have identified 20 LETS and 11 Time Banks functioning all over Greece, with a web page and contact details, listed in Annex I. Links to most CCS operating in Greece can be found at www.lets.net.gr and www.antallaktiki.gr, both of which are functioning exchange groups. The questionnaire has been sent by e-mail to all of them but the response rate has been poor (see section 4 below). The task of contacting each of the groups individually by phone, obtaining their trust and identifying their critical characteristics (time of establishment, membership, legal form, type of goods and services and volume of transactions, administration, basic rules of operation) and the level of their development is underway by one of the authors (Thanou Eleni)⁵ but is not yet complete at this stage. Therefore we will proceed by examining the institutional and regulatory context in which CCS can operate in Greece, identifying positive and negative influences.

Regarding the legal form of a CCS, three options are possible: The first is the legal form of an Association (Somateio) which requires a minimum of 20 founding members, no minimum capital but needs to be approved by court, which is a typical procedure but costly (over 500 euros, due to obligatory lawyer involvement) and time consuming (over 6 months). The second and most widespread form is that of an informal union of persons and companies. It mirrors the Association format but without court approval, hence it avoids all costs and formalities but has no legal presence, i.e. it is non-existent for the law. Both above forms require a Katastatiko (bylaws) describing the way the group will be managed, its governing bodies (general assembly of the members, management committee) and decision making process, as well as a Rulebook (kanonismos) defining transaction rules and code of conduct of the members. Member admission is subject to rules and requirements that differ among groups, as it is up to the members to decide.

The third type is the establishment of a non-profit limited liability company. This is easier and cheaper to establish, any number of persons contributing a small (nominal) capital can participate as partners. The company must have a stated purpose, in this case to establish and operate the CC network, and a Katastatiko as well. Once the company is set up, it then establishes the network, sets the rules of member acceptance and network operation and starts recruiting members. The company and the network are two separate entities, the network members do not become members of the company and the network has its own Rulebook, which must be acknowledged

⁴ There exist objective estimations of the poverty level income for each country.

⁵ Dr. E. Thanou is a founding member of one of the LETS (Free Economy) in Attica and has first hand experience of both the enthusiasm of setting up a LETS as well as of the difficulties in maintaining the dynamism and sustainable growth of such a scheme.

and accepted by the members. This form is also more flexible in terms of management and decision making and a bit less democratic, even though rules for disclosure and control are included in the Rulebook. As the verification of the legal status of all the LeTS is not yet complete, we believe that only two of the systems in our study have this form, Ovolos in Patras and Free Economy in Athens.

Another very important issue affecting membership in LETS is that of taxation. It has been established by many researchers of the field, that for a CCS to be successful and sustainable, local businesses must be attracted to participate. However, local businesses must respect tax laws: Each sale must be recorded in the firm's cash machine and a receipt must be issued that includes VAT which is payable to the tax authorities. In addition, the revenue is taxable at net profit level. Given the Greek government's current efforts to curb the shadow economy, even the farmers at open markets must now issue official receipts, while non-compliance can have serious consequences and result in heavy fines.

Legal opinions that have been sought by operating LETS on the issue of taxation, stipulate that while unemployed and non-professionals can exchange their amateur services without problem, established businesses and professionals that wish to participate in a LETS have to deal with VAT and income tax which is obviously in Euros. This is not necessarily prohibitive, but poses a severe limitation in the scope of LETS participation. The problem is addressed in our questionnaire and the responses are examined in the following section but the results are not reliable because the respondents, already members, may express opinions biased by their anti-government ideas. If the ultimate goal of the growth of CCS is to have a significant impact on unemployment and poverty, the participation of established businesses without risk is very important. Seyfang (2001) has identified the fear of participants of losing their unemployment benefits as a reason for the marginalization of LETS in the UK. This is not an issue in Greece, but the taxation is. A few months ago, the Volos TEM network which is among the oldest and most successful networks in terms of participation and transaction volumes, and which operates a weekly market with TEM (their local currency), was inspected by the Tax Police (SDOE). The visit ended without any negative implications for the sellers but the news spread quickly among LETS and the immediate response was fear. In this difficult conjuncture for Greece, the trust between the state and its citizens is at record low levels and this makes things even more difficult. In view of the benefits for the economy and the society expected to arise from the development of LETS, it is advisable that LETS representatives should act proactively and propose to the authorities a special exchange tax, which now exists only in transactions involving the exchange of real estate and which stands at a level around 3%. An upper limit in euros or as a percentage of a company's turnover for transactions of this type could be established, in order to avoid tax evasion, but no other tax should apply to LETS transactions. Such a measure could bring some extra revenues to the state and at the same de-marginalize LETS organizations and improve their membership and acceptance from mainstream businesses, making many more goods available to members.

4. The empirical research. Methodology and results.

In order to assess and investigate the issues discussed above, we created a questionnaire consisting of 24 questions, 9 demographic, 13 referring to the

characteristics of the network and the experience of the members (three of them addressed only to network managers) and the last two questions exploring values and suggestions for improvement by the members. All the questions were of the closed type, with 5 point Lickert scale responses where appropriate, facilitating statistical analysis. A pre-survey evaluation of the questionnaire allowed some improvements before distribution. The questionnaire has been created in Google documents and the Greek version can be reached at https://docs.google.com/forms/d/1V6TFUzl-oEsIYAX8ZT6ajR5xEhZp73mLRMHUaQb4JfE/viewform?sid=689807340e86f717&token=z-dtZj0BAAA.GO6JSfd2bF0xZSTzOHHylA.h6Xm9-c1oX_zG7EJUIWKcW while the English translation is available at <https://docs.google.com/forms/d/1yFwDFs9ISLYmWHvG87oUPkKFxbtz7BvLATMtmQmLtx8/edit>.

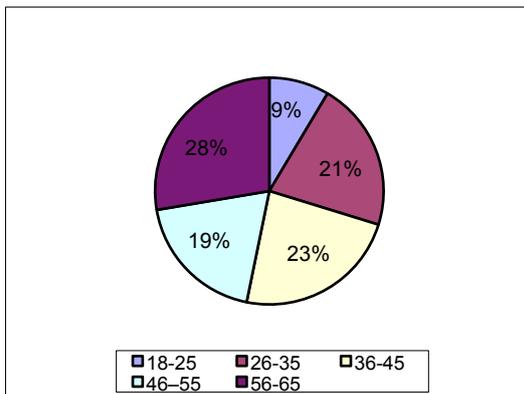
The use of an electronic link for the completion of the questionnaire ensures anonymity, however it can introduce some bias, as it excludes members with limited or no internet access. Therefore, we also arranged for printed questionnaires to be distributed to members of two of the networks during meetings and gatherings.⁶ The questionnaire has been sent in early March by e-mail to all CCS operating in Greece, 20 LETS and 11 Time Banks, with the request to be answered by an administrator of the network and to be also circulated among their members. Only 8 of them responded, with a total of 51 answers. Three of the responses had to be discarded because they had deficiencies/ errors, therefore our sample consists of 48 observations. It is understood that there is a degree of suspicion among members of CCS groups, something mentioned by Sotiropoulou (2012), the only other work on Greek CCS. In order to secure more responses, personal contact by phone is necessary. We acknowledge that the response rate and the issues mentioned above do not ensure a fully representative sample, on the other hand, considering this as a pilot study, we proceeded to design our research questions accordingly. More specifically, noticing that the ratio of LETS to Time Bank responses in our sample 2,7 is very close to the actual ratio in the population, we decided to form our research hypothesis on the basis of separating our sample in two groups, one comprising the responses of LETS members and the other including the answers of Time Bank members. This way, we were able to test a number of hypotheses regarding statistically significant differentiations among the two types of CCS. The statistical analysis was performed on SPSS statistical package. The most important findings of our results are shown below, the remaining of the data and tables are available upon request.

Men represent 62% of the respondents, the age and income distributions are quite diverse, as shown below, while families with children are underrepresented (26%). In terms of employment, 30% of our respondents are unemployed and 32% are self-employed, with the rest being private or public sector employees (15% each) plus 6% retirees. No students or farmers responded. In terms of area of residents, about half of the respondents were from Athens metropolitan area and the rest from smaller urban centers that are capitals of prefectures.

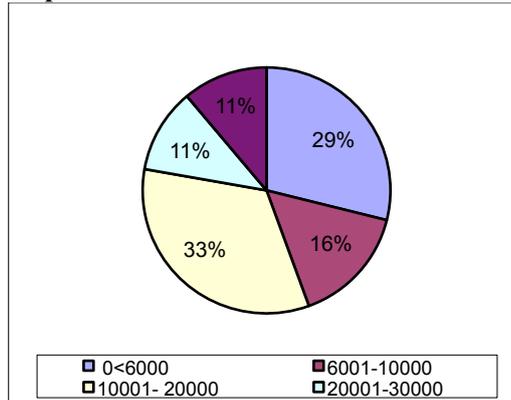
In terms of professional sector, the largest category (30%) is “other”, which included several IT specialists, next are people self characterised as artists (18%) and educators (16%). All other professions are represented in small numbers.

⁶ The two LETS are TEM of Volos and Free Economy, for the practical reason of access to their administrators, which ensures confidence.

Graph 2: Age distribution



Graph 3: Income distribution



Another interesting characteristic of our sample is that 55% of the respondents are involved in the administration/ management of their network, most of them on a voluntary basis and some (19%) are being remunerated in the network’s currency. In the following section, we present the results of a series of tests, where we test the hypothesis H0: the mean of group 1 is equal to the mean of group 2, where group 1 are the LETS members and group 2 the Time Bank members. Rejection of the hypothesis means that the answers of the two groups are different at the 95% confidence level based on t-test.

Questions 17,18 and 19 concern the number of transactions during the last year and the last month and an estimation of their value.

Table 1

	Avg no of transactions 12 m		Avg no of transactions 1 m		Avg value of transactions	
	Mean	St. Dev.	Mean	St. Dev.	Mean	St. Dev.
LETS (35)	3,23	1,77	2,43	1,56	51-100	1,83
T.B. (13)	2,62	1,45	2,08	0,87	1-50	1,18

For the number of transactions value, we cannot reject equality of the means between the two groups, however in the case of the average value of transactions, H0 is rejected and we accept that the average value of transactions of LETS members is higher (in the 51-100 currency units range) compared to the Time Bank members.

Question 20 concerns the types of goods available for exchange and those that the members would like to have. 17 types of goods and services are listed. The highest score goes to “meat, cheese and other dairy products” where there is strong demand without supply. Next are fresh produce. In this category, we record strong demand overall, but we do not record a difference among our two groups, because the difference depends on whether the network operates in a city with proximity to a producing area rather than the types of organization. We know for a fact that Volos TEM (and other networks not represented in our sample) does provide its members with fresh products since it operates an open market once a week, something not yet available in Athens’s groups. In the various services categories, supply and demand are balanced more or less. Apart from the survey results, a preliminary review on the websites of major networks reveals that the bulk of transactions and in particular member offers, is in various services, from lessons of every kind to translations,

health, construction and technical services. Inadequate supply of food is recorded as an important shortcoming of all CCS and especially those on bigger cities.

Question 21 inquires about the members' motives and expectations in joining a network. Eleven motives are listed and each one can be evaluated on a five point Lickert scale, 1 representing least important and 5 most important. Overall, the H0 hypothesis (mean score of the motives among the two groups is equal) cannot be rejected. Comparing practical motives (cover everyday needs, supplement income) and social/ ethical motives (desire to offer, desire to be involved in a community initiative, trust in the organization) the latter are far stronger in both groups, without statistically significant differentiation except in two sub questions: 21.4, "desire to offer, solidarity" where group 1 scored 4,09 vs 4,77 (the highest score across all motives and both groups) for group 2 and in question 21.5: "Trust in the network organization" with 3,86 for group 1 versus 4,69 for group 2. The statement: "CCS are a response to the crisis" was next in importance, with 4,62. In contrast, the sub-questions "cover everyday livelihood needs" 2,5 and "complement my income" 2,37 received the lowest score and are last among motives for participation. We thus conclude that the members value most the social and solidarity aspect of their participation and apparently derive more psychological and ethical benefits than financial ones. This conclusion is similar to the findings of Sotiropoulou (2012).

Question 22 asks members to assess the degree of their satisfaction from their network on 10 counts. On this set of subquestions only two displayed a statistically significant difference among the two groups, therefore we first we report the average score for the full sample, from highest to lowest: Disclosure and information availability 4,19, transaction security 3,69, clarity of the operating rules 3,67, transaction system friendliness 3,73, satisfaction from participation in a positive effort to improve the society 3,9. "I do find the goods and services I need" is relatively low with an average score of 2,56. At the lowest end are the two subquestions which differed significantly among the two groups: "I find new customers for my services", 2,46 for LETS members versus 1,08 for Time Banks and "I complement my income", 2,37 for LETS vs 1,00 for group 2. We observe again that the respondents are more satisfied from their participation as regards their social and ethical needs but less so for their financial and practical ones, with the LETS members more satisfied on this count compared to the Time Bank ones.

The last two questions explore the appeal of various ideas for improving CCS effectiveness and impact and the values embraced by the members. There are 13 plus 5 different subquestions, each evaluated on a 5 point Lickert scale. Only in three of them (marked with bold letters) we detect statistically significant differences. More specifically:

Table 2

	LETS	Time Bank	Total sample
The possibility to "borrow" currency units	2,34	2,77	2,46
Physical space for meetings and exchanging	3,71	4,77	4
More flexibility in transaction rules	2,74	3,31	2,9
More user friendly transaction system	2,83	3,31	2,96
Support for members technologically incompetent	3,71	4,46	3,92
Greater variety of goods and services	4,17	4,38	4,23

Introduction of a favourable regulatory and tax regime	2,51	2,62	2,54
Additional training in the use of the transaction system	3,11	3,38	3,19
Communicating new offers/ demand via SMS	3,00	4,23	3,33
Reduction/ abolition of any participation or transaction costs	1,71	3,23	2,13
Marketing initiatives	3,43	3,15	3,35
Motives/ bonuses for the introduction of new members	3,60	3,15	3,35
Possibility to evaluate the quality of the goods/ services acquired through the system	3,29	3,00	3,21
CC networks must be embraced and assisted by local authorities	3,91	3,69	3,85
The state must legislate favourably regarding the tax obligations of CC transactions	3,71	3,46	3,65
CC networks should avoid any relationship with institutions such as the state, church or local authorities	3,14	4,23	3,44
CC networks must focus on their growth and functionality without identifying with any ideology.	4,49	4,15	4,40
CC networks must at all costs remain independent and focus on the values of solidarity and equality among their members.	4,43	4,69	4,50

5. Conclusions

In this paper, we examined the characteristics and environment of the newly established complementary currency networks in Greece and explored their impact with the help of a questionnaire distributed among members of two types of CCS's: LETS and Time Banks. The survey examined member motivation, satisfaction and expectations as well as their views on practical and ethical aspects of CCS's. We designed and performed a series of tests exploring the existence of statistically significant differences among the responses of the two types of networks. In only a few questions were such differences detected.

Even though our empirical research is based in a relatively small, not perfectly representative sample, we consider that the results provide an insight to the current CCS movement in Greece and highlight problems and opportunities. In many aspects, they confirm the results of other researchers on CC communities operating in the developed world. More specifically, social, ethical and political (in the wide sense) considerations dominate financial ones as the driving force for participation, and these criteria are also evident when assessing the performance of CCS's. Based on these criteria, Greek CCS are highly rated by their members. There is a long way to go before CCS can contribute significantly to the economy by increasing the actual output of goods and services and subsequently employment, contributing to financial stability and improving citizen's welfare in a measurable way. Yet, we must admit that it is our conviction, along with other authors on the subject, that CCS's are a viable alternative to present monetary arrangements. In order for such an ambitious

scope to be successful, CCS cannot operate in an institutional and regulatory vacuum. The minimum requirement in the case of Greece is the introduction of a favourable tax regime which will eliminate ambiguity and reduce the regulatory risk perceived by many as serious, opening the road for the participation of established mainstream businesses and the offering of a broader variety of goods to the members of the networks, which already number in the hundreds. The irony here is that this recommendation represents the views of the authors and is not fully embraced by the survey respondents. The specific question (asked twice in different forms) received average support, lower than many other ideas proposed, most probably due to the lack of trust for the government.

The questionnaire prepared for the present study is quite comprehensive and can be used (with small modifications) to explore several other issues and questions around complementary currencies, provided that it is redistributed to a wider population of CC members.

References

- Aldridge Theresa, Lee Roger, Leyshon Andrew, Thrift Nigel, Tooke Jane & Williams Colin (2001a), "Recasting work: The example of Local Exchange Trading Systems", *Work, Employment & Society*, vol. 15, No. 3 pp. 565-579.
- Aldridge Theresa, Lee Roger, Leyshon Andrew, Thrift Nigel, Tooke Jane & Williams Colin (2001b), "The role of the Third Sector in paving a 'Third Way': Some lessons from Local Exchange and Trading Schemes (LETS) in the United Kingdom", *International Journal of Community Currency Research*, Vol. 5,
- Blanc Jerome (2011), "Classifying "CCs": Community, complementary and local currencies' types and generations", *International Journal of Community Currency Research*, vol. 15, Special Issue, Section D, pp. D4-10. Accessible at <https://ijccr.files.wordpress.com/2012/05/ijccr-2011-special-issue-02-blanc.pdf>
- Boyle, D. (1999): "Virtual Currencies: Growth prospects for the new millennium", Financial Times Finance Management Report, Financial Times Business, London.
- Bowring Finn (1998), "LETS: An eco-socialist initiative?", *New Left Review*, No. 232 (November-December), pp. 91-111.
- Brinkerhoff Merlin, Jacob Jeffrey, Jovic Emily & Wheatley Gerard (2004): "The social and cultural capital of community currency – An Ithaca HOURS case study survey", *International Journal of Community Currency Research*, Vol. 8, pp. 42-56, downloadable from the website www.ijccr.net
- Cahn Edgar (2001): "On LETS and Time Dollars", *International Journal of Community Currency Research*, Vol. 5.
- Caldwell Caron (2000): "Why Do People Join Local Exchange Trading Systems?", *International Journal of Community Currency Research*, Vol. 4, downloadable from the website www.ijccr.net
- Collom Ed (2003/2004): "Community currencies in the United States: The environments in which it emerges and survives", paper downloaded on 04.09.2004 from the website www.appropriate-economics.org/materials/cc_in_usa.pdf.
- Danson M.W. & Pacione Michael (1999): "The other side of the coin: Local currency as a response to the globalisation of capital" (Debates & Reviews), *Regional Studies*, Vol. 33, No. 1 (February), p.63 (1).
- Fitzpatrick Tony (2000): "LETS and Benefit Claiming in the UK: Results of a Pilot Project", *International Journal of Community Currency Research*, Vol. 4, downloadable from the website www.ijccr.net
- Goerner Sally, Lietaer Bernard, McLaren Nadia & Ulanowicz Robert E. (2010): "Is our monetary structure a systemic cause for financial instability? Evidence and remedies from nature", *Journal of Future Studies*, vol. 14, no. 3, pp. 89-94.
- Gomez Georgina (2012): "Sustainability of the Argentine Complementary Currency Systems: Four governance systems", *International Journal of Community Currency Research*, vol. 16, Special Issue-Section D, pp. 80-90.
- Greco H. Thomas Jr. (2001): "Money – Understanding and creating alternatives to legal tender", Chelsea Green Publishing, Vermont, USA.
- Greco H. Thomas Jr. (2009): "The end of money and the future of civilization",

Chelsea Green Publishing, White River Junction- Vermont, USA.

Hallsmith Gwendolyn & Lietaer Bernard (2011): "Creating wealth – Growing local economies with local currencies", New Society Publishers, Gabriola Island – Canada.

Hodges Josephine & Stott Martin (1996): "Local Exchange and Trading Systems – Never knowingly undersold?", *Local Economy*, Vol. 11, No. 3 (November), pp. 266-268.

Ingleby Julie (1998): "Local Economic Trading Systems: Potentials for new communities of meaning: A brief exploration of eight LETSystems, with a focus on decision making", *International Journal of Community Currency Research*, Vol. 2.

Kosmas Petros & Vatikiotis Leonidas (2011): "Nominal and Real Aims of Austerity Programs: the Greek (extreme) Case", paper presented at the 2nd International Conference in Political Economy Neoliberalism and the Crises of Economic Science (20-22.05.2011) Istanbul – Turkey, available at http://www.iippe.org/wiki/images/f/ff/CONF_2011_Vatikiotis_Kosmas.pdf.

Lapavitsas Costas (2005a): "The emergence of money in commodity exchange or money as monopolist of the ability to buy", *Review of Political Economy*, vol. 17, no. 4, 549-569.

Lapavitsas, Costas (2010): "Financialisation and capitalist accumulation: Structural accounts of the crisis 2007-2009", *Research on Money and Finance Discussion Paper No 16*, available at <http://www.researchonmoneyandfinance.org/media/papers/RMF-16- Lapavitsas.pdf>

Lietaer, Bernards Robert Ulanowicz and Sally Goerner (2009) "Managing the banking crisis" *Sapiens Revues* vol 2:1.

Lietaer A. Bernard, Dunne Jacque (2009) "Rethinking Money" self edited, available through www.lietaer.com

Lietaer A. Bernard, Belgin, Stephen (2011) "New money for a new world" self edited, available through www.lietaer.com

Longhurst Noel & Seyfang Gill (2011): "Harnessing grassroots innovations: Complementary currencies and sustainability", paper presented at the International Conference on Community and Complementary Currencies held (16-17 February 2011) at Lyon, France, available at <http://conferences.ishlyon.cnrs.fr/index.php/cc-conf/2011/paper/viewFile/64/31>.

Martin A. (2006): "Endogenous multiple currencies", *Journal of Money, Credit & Banking*, Vol. 38 pp. 245-262.

Niehans Jürg (1971): "Money and barter in general equilibrium with transaction costs", *American Economic Review*, vol. 61, no. 5, pp. 773-783.174)

Niehans Jürg (1987): "Classical monetary theory, new and old", *Credit and Banking*, vol. 19, no. 4, pp. 409-424.

North Peter (1998a): "LETS, "Hours" and the Swiss "Business Ring" – Alternative currency systems and business development programmes", *Local Economy*, Vol. 13, No. 2 pp. 114-132.

North, Peter (2010): "Local Money – How to make it happen in your community",

Green Books, Dartington & Devon- UK.

Pacione Michael (1997): "Local Exchange Trading Systems as a response to the globalisation of capitalism", *Urban Studies*, Vol. 34, No. 8, pp.1179-1199.

Pacione, Michael (1999). "The Other Side of the Coin: Local Currency as a Response to the Globalization of Capital." *Regional Studies* vol. 33, no 1, pp. 63-72.

Peacock S. Mark (2000): "Local Exchange Trading Systems: A solution to the employment dilemma?", *Annals of Public and Cooperative Economics*, Vol. 71, No. 1, pp. 55-78.

Pearson Ruth (2003): "Argentina's barter network: New currency for new times?", *Bulletin of Latin American Research*, Vol. 22, No. 2, pp.214- 230.

Polanyi Karl (2001): "The Great Transformation: The political and economic origins of our times", Boston, Beacon Press.

Powell Jeff (2002): "Community Currencies: Alternative Development at the Conjunction", *International Journal of Community Currency Research*, Vol. 6

Powell Jeff (2010): "Petty capitalism, perfecting capitalism, or post- capitalism? Lessons from the Argentinean barter experiments", *Review of International Political Economy*, vol. 9, no. 4 - November, pp. 619-649.

Schraven Jorim (2000): "The economics of Local Exchange and Trading Systems: A theoretical perspective", *International Journal of Community Currency Research*, Vol. 4, downloadable from the website www.ijccr.net

Schumacher, E.F. (1974): "Small is beautiful – A study of economics as if people mattered" . London: Abacus Edition – Sphere Books Ltd.

Seyfang Gill (1996): "Local Exchange and Trading Systems and Sustainable Development", *Environment*, Vol. 38, No. 2 – March, pp. 5-6.

Seyfang Gill (1997): "Examining Local Currency Systems: A Social Audit Approach", *International Journal of Community Currency Research*, Vol. 1,

Seyfang Gill (2000): "The euro, the pound and the shell in our pockets: Rationales for complementary currencies in a global economy", *New Political Economy*, vol. 5, no. 2, pp. 227-246.

Seyfang Gill, Ruth Pearson (2001): "Time for change: International experience in Community currencies", Society for International Development, Vol. 43:4 available at http://library.uniteddiversity.coop/Money_and_Economics/Community_Currencies/InternationalExperienceInCommunityCurrencies.PDF

Seyfang Gill (2001b): "Working for the Fenland Dollar: An evaluation of Local Exchange Trading Schemes as an informal employment strategy to tackle social exclusion", *Work, Employment & Society*, Vol. 15, No. 3, pp.581-593.

Seyfang Gill (2003): "Growing cohesive communities one favour at a time: Social exclusion, active citizenship and Time Banks", *International Journal of Urban and Regional Research*, vol. 27, no. 3 – September, pp. 699- 706.

Seyfang, Gill (2006): "Time Banks in the UK: Building Sustainable Communities", Monetary Regionalisation conference, September 28-29 2006, Weimar, Germany,

accessible at
http://files.uniteddiversity.com/Money_and_Economics/Community_Currencies/Time_Banks/Time_Banks_in_the_UK-

Sotiropoulou, (2012): “Exchange networks & parallel currencies: Theoretical approaches and the case of Greece” Phd Dissertation, University of Crete, Department of Economics, available at: http://www.academia.edu/2341923/Exchange_networks_and_parallel_currencies_Theoretical_approaches_and_the_case_of_Greece, and http://www.scribd.com/Irene_Sotiropoulou

Sotiropoulou, I. (2011): “Alternative Exchange Systems in Contemporary Greece” (Regional Review) (2010b), *International Journal of Community Currency Research*, 15: Special Issue: The State of the Art, D27-31.

Stodder, James (2009): “Complementary credit networks and macroeconomic stability: Switzerland’s Wirtschaftsring”, *Journal of Economic Behavior & Organization*, vol. 72, pp. 79-95.

Thorne L. (1996): “Local Exchange Trading Systems in the United Kingdom: A case for re-embedding?”, *Environment & Planning A*, Vol. 28, pp. 1361-1376

Tibbet Rachael (1997): “Alternative currencies: A challenge to globalisation?”, *New Political Economy*, Vol. 2, No. 1, pp. 127-135.

Wainwright, Saul (2012): “Democratizing money: The historical role of the US Federal government in currency creation”, *International Journal of Community Currency Research*, vol. 16, Special Issue – Section D, pp. 5-13.

Williams C. Colin (1996a): “An appraisal of Local Exchange and Trading Systems in the United Kingdom”, *Local Economy*, Vol. 11, No. 3, pp. 259-270.

Williams C. Colin (1996b): “Informal sector responses to unemployment: An evaluation of the potential of Local Exchange Trading Systems (LETS)”, *Work, Employment & Society*, Vol. 10, No. 2, pp.341-359.