The Economics of Local Exchange and Trading Systems: a Theoretical Perspective *

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Pecuniam habens, habet omnen rem quem vult habere.
Menger, 1892, p250

This paper sets out to describe Local Exchange and Trading Systems (LETS) in economic terms. An extensive literature describes the features of LETS in sociological and geographical terms. I will attempt to define LETS in the terminology that is commonly employed in the standard economic literature. The purpose of this exercise is to enable the analysis of the potential of LETS in strictly economic terms. Firstly, the essential features of LETS are described. Subsequently, LETS is analysed by distinguishing LETS as a monetary phenomenon from common monetary instruments, such as commodity and fiat money. In order to be able to separate the ideological and objective descriptions of LETS, I have conducted several informal interviews with members and the administrator of the Talente system in Innsbruck, Austria. My main finding from this research is that, in general, experiences in existing LETS do not provide a good basis for economic theorising because the actions and motivations of a large number of their members are based in ideology rather than self-interest. In accordance with my own findings, the rapidly growing body of research on local currencies, such as the Local Exchange and Trading Systems (LETS), has shown that the participants are not on average very similar to ‘homo economicus’ (Pacione 1998, Williams 1996d, Gran 1998, Caldwell 1999, North 1999). Although this is an indication of the success of LETS in terms of its objectives, it makes economic analysis more cumbersome. Consequently, I advocate a purely theoretical approach, where standard economic concepts and assumptions are used to model the potential benefits of local currencies in economic terms. It would be inconsistent to base such standard economic analysis on research on the actions of such people. I recognise that this type of analysis excludes some of the fundamental objectives of the founders of LETS, such as creating a sense of community and providing an alternative to global capitalism. However, a vast body of ‘alternative economics’ literature already covers these issues at length. In this paper I hope to lay the foundations for a partial and parallel economic analysis, which can add valuable insights to the debate.

The Local Exchange and Trading System was taken up and promoted by Michael Linton in the early 1980s. It was implemented first in Courtenay, a town of 50,000 inhabitants in the Comox Valley on Vancouver Island, Canada. The main trigger appears to have been a severe (local) depression, after two of the primary employers, the US airforce base moved to another province, and the timber industry went into a recession. Consequently, the able and mobile emigrated and the rest remained on public assistance. As the initiator was a practitioner of remedial exercises, demand for his services fell sharply, which gave him an incentive in organising an alternative system of exchange. Both this system and the one started by Michael Linton have since collapsed. Nevertheless, LETS have spread around the world. For example in Argentina, the LETS based ‘Arbole’ note is now accepted in 500 systems nation-wide, with an issuance of US$600,000 equivalent with a further US$200,000 being locally issued. In the similar system of ‘Creditos’ the equivalent of more than US$800,000 has been issued, with annual circulation being estimated at
US$5million (DeMeulenaere, 1999). Similarly, in Australia in 1998 there were 250 community based LETSystems in operation. Also, corporate barter in separate but similar barter exchange systems grew from 3,500 firms and AUD60 million in 1993 to over 12,000 firms and AUD350 million (Liesch and Birch, 1999). In the UK, LETS was introduced by Linton in 1984, but only ‘took off’ in the early 1990s when the number of functioning LETS rose from 5 to over 300 with a combined membership of over 20,000 (Pacione, 1998, p217). In Austria, there are currently about 40 systems with on average 100 members. The Talente system in Innsbruck is in many ways typical of LETS systems across the world. It has 120 members and a total annual turnover of about 100,000 Talente, which if valued on a par with the Austrian Shilling is the equivalent of 7,250 Euro or 60 Euro per member. Similar figures are commonplace in the UK, Williams (1995, p330) finds that in 1995 on average UK LETS had a membership of 85.6 and a turnover of 6,006 (Sterling equivalent), that is 70.16 per member. Clearly, LETS is only on the very fringe of the economic map and can hardly be seen as economically relevant in turnover terms. Similar conclusions could be drawn on the basis of products and services traded. A selection of offers from the ‘Marktzeitung’ of the Talente system is illustrative: Help in household, Reparations in house, Weather-service (Meteorological information), Horoscopes, Help with building your own solar powered warm water facility, Introduction to Internet, Dinner (once weekly), Chauffeured car, Reiki, Childcare/Baby-sitting, Puppets, Art, Remedial teaching (Mathematics), Guitar lessons, Drawing, Professional singer, Music exam preparation, Organic bread (2-4 times per month), Lamb-meat, Egg-liqueur, Lodging, Story telling. These offerings illustrate that LETS is primarily concerned with services and a few goods in the domestic atmosphere. Of these, many are in the ‘luxury’ section of the economy, namely services, which would normally only be procured by the economically well off. Pacione finds for the West Glasgow LETS that trade centres around service categories of ‘building and decorating’, ‘care’, ‘health and personal’, ‘office and computing’. Whereas, services and goods in ‘arts and crafts’, ‘household and clothing’ and ‘tuition’ tend to be offered much more than traded (Pacione, 1997, p1195).

Features of LETS in Economic Terms

But that every economic unit in a nation should be ready to exchange his goods for little metal disks apparently useless as such, or for documents representing the latter, is a procedure so opposed to the ordinary course of things, that we cannot well wonder if even a distinguished thinker like Savigny finds it downright ‘mysterious.’
Menger (1892, p239)

Although there appear to be many variations to the theme of LETS, the majority seem to operate according to the principles first set out by the founder Michael Linton. "A LETSystem is a self-regulating economic network which allows its members to issue and manage their own money supply with a bounded system" (in Ekins, pp200). This operates on the basis of a set of individual accounts, which are administered by a central unit. In a well administered system all accounts sum to zero. That is, there is no initial stock of cash in the system. Thus, instead of depositing and re-lending a stock of implicit government debt, i.e. cash, members incur debts with each other directly and subsequently trade these among each other. For example, if someone provides a service, the consumer will write a cheque. This cheque is subsequently cleared by the central administration, which debits the amount from the consumer’s account and credits it to the supplier’s. This debt is then tradable within the group, such that the consumer can repay the debt to someone else and receive a cheque to clear their account. Thus, as soon as a transaction takes place the debt created is ‘socialised’, which means that one owes or is owed by the system rather than by an individual.

To facilitate peer monitoring and allow members to check the viability of the system there is no banking secrecy. Therefore, the administration publishes the balance and turnover details of the members regularly. Moreover, before a transaction takes place the supplier has the possibility of checking the balance and turnover of the purchaser as a proxy for creditworthiness. Generally, no interest is charged on negative or positive balances. In accordance with the LETS principles the unit of account may have a different name but must have the same proportion to the value of common products, such as labour, as the national currency. However, in theory the unit of account can be of any arbitrary name and value. Moreover, by virtue of LETS being a different currency in practice, unless the system provides an on par exchange facility, there are bound to be some discrepancies in prices between the national and LETS currency, especially because some ‘products’ are only available through the LETS network. Alternatively, the common ethos that different services should be paid equally may keep a cap on price changes. For example, in the Talente system the unit of account is a Talente. Although it started out at the same value as the Austrian Shilling, the Talente has since appreciated a little in terms of commodities, such as an hour of non-skilled labour. Finally, LETS are not only (alternative) bankers, but also market-matchers of demand and supply. This function generally operates through a regular publication advertising what people have to offer or would like to buy. This publication might be supplemented by ‘community building events’, such as a bazaar. The administration is generally paid in LETS and/or national currency per transaction and/or lump sum on an annual basis.
LETS Functions

In economic terms a LETS performs three main functions, namely the provision of transaction management, credit, and ‘market-matching’ of supply and demand. Traditionally the functions of money have been described as providing a unit of account, store of value and medium of exchange. So is LETS actually money?

The store of value in a fiat currency is effectively provided by an implicit provision of credit to the agent who pays with the money. That is, because such money is not backed by any real commodity, its value lies entirely embedded in the trust that the issuing society will repay this debt by accepting the money in return for a service or product. This trust is aided by the legal enforcement of this mutual acceptance. Clearly then, the store of value function of a LETS is logically equivalent to that of a scrip of fiat currency, namely an interest free and tradable form of credit or ‘belief’ (credo in Latin). To illustrate this point, the Capitol Hill babysitting co-op (Sweeney and Sweeney, 1977) issues 30 scrip notes to each new member. Suppose the member spends all thirty scrip, at the standard rate this means a consumption of 15 hours of baby-sitting and subsequently awaits the collapse of the system and refuses to trade. Effectively, the member has been credited with 15 hours of labour, interest free. The scrip’s store of value function is provided by the trust and belief that this member will accept scrip at some point in the future, that is, that the credit will be repaid. The argument for fiat money issued by a government, is analogous, albeit on a larger scale. Thus, the store of value function of LETS money is equivalent to that of ordinary money.

The key difference lies in the supply of the currency. In the case of fiat or scrip money, this supply is centrally co-ordinated. The supplied currency is then recycled through the banking system to generate a multitude in fiduciary wealth through the ‘re-lending chain’. Within LETS, on the other hand, this supply is created in individual transactions hence moderated by the creditworthiness of the debtor, the system as a whole, and in some cases credit limits, and the ‘vigilance’ of the creditor. Clearly, there are similar concerns as with communal property rights. That is, overgrazing of the commons (Hardin, 1968) is logically equivalent to over-acceptance of LETS credits by individuals. In the case of LETS the creditor only suffers a small part of the risk of default but captures the full benefit of the transaction. The combination of this problem with the LETS directive that people are free to ‘go into commitment’, that is debt, without a formal obligation to repay, appears one of the major fears of prospective members. The administrator of the Talente system confirmed, however, that there is no trend of people joining, running up huge debts and leaving.

Another difference lies in the use of the currency. It is not generally conceived as a currency that is supposed to take over the national currency. Instead, it operates parallel to the national currency to perform as a medium of exchange (and a medium of trade protection according to some) where appropriate, leaving the national currency for transactions in non-locally traded goods. Some systems use LETS as a parallel currency in many transactions as partial payment, paying the proportion of the good that is ‘locally’ produced in local currency and the remainder in national currency. In this way, the variability of the currency proportion in a transaction:

"allows persons to recover immediately at the time of the transaction whatever fraction of the worth of the good is only available in the outside economy. For example, a person may offer to drive people or to move goods with their time being valued in green dollars and the value of the gasoline being accounted and paid for in conventional dollars. LETS will only record the green part of the transaction, leaving the pater of the conventional dollar balance entirely to the members involved."
(Rotstein, 1985, p45, as cited in Offe and Heinze, 1992, p94).

Consequently, local currencies do not provide a generally but a partially accepted medium of exchange. Despite these differences with ‘normal’ money, LETS performs the functions of unit of account, medium of exchange and store of value, hence is definitely a type of money.

The Potential Benefits of LETS: a Theoretical Perspective

In the light of these features the economist would try to find out what motivates the participants to join such a system. Without rushing into formal analysis some suggestions can be made. Above all, an economist would work from the assumption that people participate out of rational self-interest. That is, (after careful consideration) the benefits of participation outweigh the costs. In theory, one could include social considerations, such as ‘community building’ and increased ‘self confidence’ in the ‘utility function’. However, so far I have not come across a theory with clear input variables yielding definite predictions relating, for example, levels of community integration (and related individual utility) to levels of participation and penetration of LETS in economic transactions. Hence, I will omit these factors ex ante from analysis, thereby reducing it to partial analysis.
So why might an economist expect people to participate in a LETS? One reason might be that the LETS is particularly good at market matching. In this case the participant is effectively purchasing information about market opportunities. In this way, the system provides a practical and low transaction costs way to market labour time:

"It offers both the unemployed and everybody else the opportunity of transforming their labour power or working time (even small, unevenly distributed amounts of the latter) into ‘purchasing power’ without the necessity of either working for an employing firm or of possessing capital, which is a *sine qua non* of earning a living by self-employment." (Offe and Heinze, 1992, p95)

However, this begs the question why this function is not ‘sold’ separately, without the complication of starting a new currency. One possible answer is that by keeping transactions outside the formal money economy, taxation (in some countries) and more importantly some forms of regulation can be avoided. For instance, transactions within the LETS system may be legally seen as ‘gift-exchange’, hence not subject to the same degree of legal liability as commercial transactions. Perhaps, accessing cheap (zero interest) or very flexible credit might be a reason for joining also. Of course, in this case there must be an asymmetry in motivations because 50% of the ‘outstanding capital’ would not earn returns on ‘savings’. That is, for this to be a net motivator, a significant proportion of the members must not mind not earning interest on their capital. Finally, the actual features of LETS ‘money’ might yield real benefits. For example, because there is no central (over-)issuing authority and on average the individual money issuing forces (might) balance, LETS currencies (might) not suffer from the same degree of inflationary instability. This is of course only true in as far as the currency is not pegged to the national currency. If LETS is truly less inflationary, the reduced volatility risk would yield real benefits. Hence, LETS could in some ways compete with national currencies. This concept is discussed at length in Hayek’s *Choice in Currency: A Way to Stop Inflation*” (Hayek, 1976a, 1976b). In fact, the administrator of the Talente system asserted that since it was set up prices have been virtually constant for simple ‘commodities’ as one hour of unskilled labour. Alternatively, the fact that this money is not anonymous might yield implicit screening benefits, reducing transaction costs arising from ‘opportunism and guile’. Additionally, because the money, that is purchasing power, is locally contained might yield local benefits similar to direct barter. This argument works as follows: assume a stock of goods randomly divided over a group of people, who are all consumers with randomly assigned utilities for each good. In this case it is strictly preferable if complete free trade takes place between all participants (preferably with some medium of exchange to solve the indivisibilities). If, however, the participants are also producers of these goods, and dependent on production in their consumption a mutual purchase agreement, such as direct barter, may prove strictly preferable for two participants. That is, in a direct barter transaction there is a guarantee that purchasing power of one consuming participant is not is drained and subsequently dissipated in the huge economic pool that is the world, to only return when a competitive product (including labour) is supplied. It is not difficult to imagine how a small decentralised bargaining system might yield similar benefits, whilst being informationally more efficient. "The principal economic objective of a LETS is to facilitate ‘import substitution’ in its locality in order to promote a local economy that is less reliant on external sources of goods, service and money." (Pacione, 1999, p68). In this capacity LETS is supposed to play the role of alleviating welfare implications of external shocks exacerbated by globalisation (Pacione, 1997). An economist might note that this ‘benefit’ really stems from ‘trade diverting’ not ‘trade creating’, i.e. re-dividing the pie, not increasing its size. That is true, however, that merely means that such systems may not be desirable from an overall efficiency point of view but can still be desirable for a small group. However, where such arguments may have some merit for small corporate bargaining groups, they are less promising for LETS. As soon as LETS grows to levels sufficiently large to facilitate a shield against globalisation through import substitution the individual incentives become very small. The import substitution argument requires the willingness of people to sell their produce locally instead of exporting it, for LETS does depend on symmetry of this kind due to the nature of the mutual credit system. To be more explicit, imports must be substituted by local produce, which could alternatively be exported. The only (economic) reason to forego this possibility of earning national currency would be an expectation that selling locally would yield a higher probability of selling more locally through the re-spending chain (or local multiplier) than the probability of selling more nationally. This prospect can be a real incentive within a small network, but is severely weakened as the network grows. To put the potential for import substitution into perspective:

"Furthermore we must stress from the outset the supplementary, compensatory role of a ‘parallel economy’ the system is designed to play in the sphere of the domestic environment, to avoid loading it with unrealistic expectations and consequent disappointments. The objective is not to achieve near self-sufficiency of supply, but to strengthen the structure of self-help capability, in the full realisation that the vast majority of goods and services will continue to be provided by and from the formal economy with its medium of money.” (Offe and Heinze, 1992, p199).

The real potential benefit of Local Currencies, notably LETS, lies in the ability to increase trade in non-tradables. That
is, goods that can only be traded ‘locally’, thus cannot be exported. It is straightforward to construct a case where a convenient medium of exchange, such as the national currency, is drained from the local economy due to a trade deficit with the rest of the national economy. As there is a currency union, there is no exchange rate to depreciate. Additionally, prices are unlikely to vary greatly over small geographical areas, and similarly, wages are also unlikely to respond greatly to this imbalance. This leaves migration to do the adjustment, which may be an option for the economically well-off and mobile but often is not for the economically weak. Moreover, the relevant unit of analysis might not be a region but a group of people, which makes ‘migration’ an even more unrealistic option for adjustment. This means that purchasing power in the form of money and credit or savings leaves the area/group in exchange for goods. This situation could become so serious, either in a particular geographical area or a social group, that insufficient liquid purchasing power is left to facilitate the exchange of non-tradables. As direct-barter is inefficient because of information, transaction and search costs, exchange breaks down completely or partially. Establishing a means of exchanging these non-tradables, of which the store of value is only redeemable locally, prevents all purchasing power to be transferred to more successful regions. This however, is not necessarily trade diverting but can be trade creating, because it facilitates exchange of non-tradables. Dobson (1993, p62) notes: "To say that people cannot exchange value with one another because there is no money is like saying you cannot build a house because you have no feet and inches." The essence of the problem is not that there is no money but that the store of value and medium of exchange functions of money are in conflict. That is, the value or purchasing power migrates to that section of the economy, which creates most of it, leaving viable but less successful sections of the economy not only with less purchasing power but also without a medium of exchange. This problem can be solved by reducing the trade deficit by reducing the size of the less successful section of the economy, for instance through migration. Alternatively, liquidity can be pumped into this region in the form of credit. However, this option is limited, especially recognising imperfect and constrained capital markets. Finally, an alternative or parallel medium of exchange, such as LETS, can be introduced. Clearly, this list of possible reasons for participation is not exhaustive, but it is an indication of the motivations standard economist might predict on the basis of standard assumptions.

Relevance of Current Research

The research below shows that on average LETS participants are quite dissimilar to homo economicus and many do not appear to join for the reasons discussed above. The question is to what extent this research can falsify my theoretical propositions. My argument is that it cannot. To test the above, research should be conducted into a region where LETS, as defined economically above, is implemented professionally and widely, yielding a membership of economically motivated people. Perhaps more successful initiatives, such as Ithaca Hours, could provide a basis for such research. However, many of these, including Ithaca Hours, have a parallel ideology, such as equal payment for different services. These types of ideology and practice would most likely yield a different outcome than the implementation of the LETS described above.

Both the Talente members and those of UK LETS appear to be oriented to the left of the political spectrum. Pacione (1998, p222) finds for LETS in Kelvingrove and West End that over 70% of members support Labour or Greens. Similarly, Gran (1998, p5) finds in a survey of several Norwegian LETS that support for Greens, Marxists, Socialists and Green Liberals is 76.8% compared to a national average in elections of 12.7%. He summarises (1998, p1): "Prior research, and popular experience indicate that LETS systems are, in many instances, dominated by ‘Greens’. This is a group of people with a long tradition of altruistic, radical, ideological engagement.” Williams (1996) finds that on average UK LETS co-ordinators describe 72% of membership as Greens. Whether this means that LETS currently is more a vehicle of ideology or an economic tool is still being debated in the literature. My impression that most participants in the Talente system did mainly join for ideological reasons could not be definitely confirmed. The interviewees claimed a mix of reasons, invariably including ideology. Williamson (as cited in Gran, p2) finds in several studies that the majority of people joined for economic reasons. Gran finds for New Zealand and Australia that the opposite is the case, as does Pacione (1998, p222-223). Both identify ‘ethos’ as a more important factor. Caldwell (1999, p6) found for a UK LETS that economic reasons were claimed to be the most important reason for joining. However, the trading patterns revealed a different picture. That is, 28% claimed they received none of their income from LETS, 80% had never had a negative balance, and 42% said there was nothing in the directory they required, whilst only 10% believed LETS had met any of their income security needs. She concludes: "A significant proportion of members are aware of, and wish to promote, the radical Green potential of the [LETS] schemes." The picture that emerges is that LETS is seen as a tool for achieving very different things, ranging from alleviating the burden of unemployment, to increasing economic welfare, to bringing down the capitalist system.

"We are little folk – we! – too little to love or to hate. Leave us alone and you’ll see, how we shall bring down the state! … Mistletoe killing an oak! Rats gnawing cables in two, moths making holes in a cloak – how they must love what they do! Yes – and we little folk too, we are busy as they –
Indeed, these different perceptions about the potential and purpose of LETS can be viewed in terms of a ‘heterotopia’:

"LETS operates as a heterotopia in that, one, it is a space in which multiple claims about money and livelihood are raised and which then knock up against each other: in other words as a hetero(geneous) utopia. Heterotopia might then mean the existence of multiple, temporally lasting alternative economic spaces, alongside each other living by different rules."
(North, 1999, p72-73).

Both the nature of a significant number of its participants and the institution of LETS as a ‘heterotopic’ tool make analysis and research on current practice and experience an unreliable foundation for mainstream economic theory. Instead theoretical foundations must be used. As such, the economic definition given above is part of that foundation. In addition, a set of assumptions about the expected behaviour of ‘normal’ economic agents operating in a local currency system is needed. The combination of these foundations and eventual theories adds another ‘utopia’ to the heterotopia that is LETS. As economics is the skill of ignoring that, which unnecessarily complicates analysis, many of the more delicate political and ideological interactions must (unfortunately) be ignored. However, in the context of LETS, particular focus must be given to the social norms, that is behaviour that is not based in the legal system.

Conclusions

In sum, LETS performs three main functions: the provision of transaction management services, credit, and market matching. Due to the nature of the system, these functions amount to LETS being an alternative form of money. Besides many non-economic features, LETS is in theory attractive (to part of its membership) because it provides cheap and flexible credit. Moreover, it allows the marketing of labour time in small disperse quantities without the need for an employer or capital through market matching. Finally, because its money function is locally contained it can potentially alleviate some of the welfare implications of external shocks and structural interregional trade-imbalances. This feature operates through reviving local exchange of non-tradables by providing a medium of exchange. Unfortunately, current research does not provide a good basis for testing the validity of these potential functions of LETS. This is the result of LETS being a heterotopia utilised by economists, anti-capitalists, environmentalists and other pressure groups as a vehicle to achieve their goals. Consequently, the membership of LETS does not correspond even closely to the average population and transactions are often not economically but ideologically motivated. Therefore, I advocate a purely theoretical approach to analysing the economic potential of LETS.

References


Hardin, G (1968), "The Tragedy of the Commons", Science, 162: 1243-1248


**Notes**

1. I subsequently use the term freely to both mean the system and the currency. [return to text](#)

2. Many of those active in the LETS movement might rightly object that traditional economic analysis generally disregards some of the most important aspects of LETS, such as community building and providing an alternative to "exploitative capitalist practices". Moreover, evaluating the potential usefulness of the LETS movement in economic terms such as money and efficiency goes against the (alternative) spirit of the movement. I agree that standard economic analysis cannot replace more humanistic approaches. However, a rigorous and formal analysis utilising developed economic insights and analytical tools may both enhance the debate and increase its forum. [return to text](#)

3. Marx (1859) kindly justified my pursuits in terms of my nationality: "Gladstone, speaking in a parliamentary debate on Sir Robert Peel’s Bank Act of 1844 and 1845, observed that even love has not turned more men into fools than has meditation upon the nature of money. He spoke of Britons to Britons. The Dutch, on the other hand, who in spite of Petty’s doubts possessed a divine sense for money speculation form time immemorial, have never lost their senses in speculation about money." [return to text](#)

4. I am not arguing that the assumptions about the behaviour of people, such as commonly made in economics, are a correct representation. Nor that these people are acting wrongly or foolhardily. However, I am asserting that utilising standard economic analysis may yield useful insights in the potential of LETS. To build a theory based on standard assumptions but founded in research on a group of people that, for a significant part, does not base its decisions on self-interest would be inconsistent. [return to text](#)

5. This account is a synthesis from Offe and Heinze (1992, pp86-87) and Dobson (1993, p73-74). [return to text](#)

6. One commonly encounters statements that the value of a network grows exponentially with increasing numbers of members. In this case the reverse could be true: the potential benefit of selling locally in terms of potential increased sales through local re-expenditure reduces exponentially as the network increases in size. [return to text](#)

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