

A MIXED-METHOD CASE-STUDY OF THE LEWES POUND AND ITS  
CAPACITY TO BUILD RESILIENCE IN THE COMMUNITY OF LEWES

by

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## ABSTRACT

Phase one of the Lewes Pound ran from September 2008 to July 2009 with clearly defined economic, social and environmental objectives. Developed in the context of the Transition movement this complementary currency aims to build resilience in its local context by increasing local wealth, building new social relationships and changing consumption patterns. The Lewes Pound represents a new complementary currency model in the UK and there has yet been no empirical studies assessing the socio-economic impacts of such schemes. This dissertation addresses the need to understand how well such currencies function and the extent to which they are capable of building resilience. It evaluates effects of the Lewes Pound on the local community and assesses its ability to achieve its aims based on a social audit methodology. Drawing on concepts from ecology and resource management and situating the research within the wider literature on complementary currencies, a framework for measuring impacts in terms of resilience is developed and applied to the Lewes Pound. Indicators for economic, social and environmental outcomes were explicated and data was collected using a combination of quantitative and qualitative methods. The research presented here examines impacts in each of the mentioned areas and integrates these findings to create an overarching narrative of phase one of the Lewes Pound.

## **Contents**

1. Introduction and research question	3
1.1 Background on the Lewes Pound	4
2. Literature review	7
2.1 Permaculture and resilience	7
2.2 Money in conventional economics	12
2.3 The ecology of money and complementary currencies	15
3. Methodology	22
3.1 Research methods	22
3.2 Creating a framework for estimating resilience	23
4. Research findings	27
4.1 Economic indicators	27
4.2 Social indicators	33
4.3 Environmental indicators	37
4.4 Discussion	38
5. Conclusion	43
References	45
Appendix I	53
Appendix II	57
Appendix III	62
Appendix IV	73
Appendix V	77

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## 1. Introduction and research question

The Lewes Pound (LP) launched in September 2008 as the second Transition currency in the UK with the aim of enhancing the resilience of Lewes. Set in the context of the Transition movement the LP was conceived as a way to localise trade and increase the capacity of Lewes to deal with future consequences of a peak oil and climate change. By setting up a complementary monetary system that keeps money circulating in Lewes local wealth could increase via the multiplier effect while shopping with local money could create focus on local produce and build new social relationships. This follows ideas and research within new economics showing that the design and creation of money determine its functions and shape the social outcomes of exchange. There is ample evidence from the literature on complementary currencies that different forms of exchange embody distinct social relationships and influence the behaviour of users. Local Exchange Trading Schemes (LETS), Time Banks and commercial 'green rewards' currencies such as the Dutch Nu Spaarpas have been shown to support sustainable consumption patterns (Seyfang, 2009). Paper currencies like the American Berkshares and the German Chiemgauer have proved capable of increasing regional wealth through the multiplier effect (Gelleri, 2009). The LP scheme has clearly defined economic, social and environmental objectives underpinning its goal of creating long-term local resilience. It is a new complementary currency model in the UK and there has yet been no empirical studies examining its ability to achieve these objectives.

This dissertation addresses this gap in knowledge by investigating the socio-economic impacts of the LP and assessing its effectiveness in terms of building resilience. It takes the form of a mixed-method case study and evaluates the LP on the basis of surveys, interviews and fieldwork observations conducted towards the end of the first phase of the scheme. An outline of phase one of the LP is given here followed by a chapter reviewing the literature on resilience and complementary currencies. Chapter 3 specifies the methodology employed in the research and the research findings are discussed in chapter 4. Chapter 5 concludes the research and suggests avenues for future studies of this type of complementary currency. Given the broader aim of Transition Initiatives to create stronger social and economic networks and the objective of the LP to build resilience in Lewes, the focus of this dissertation is the ways in which the LP contribute to a resilient community:

*How does the Lewes Pound strengthen the resilience of the local community in Lewes?*

## **1.1 Background on the Lewes Pound**

Assuming that the challenges of peak oil and climate change require a large-scale and accelerated transformation towards a low-energy society, the Transition movement envisages a future where production and consumption take place as close to the local level as possible. The Transition approach to facilitating this energy descent is informed by permaculture principles and builds on a radical critique of the current socio-economic system (see chapter 2). The broader aim of transition is “[t]o support community-led responses to peak oil and climate change, building resilience and happiness” (Hopkins and Lipman, 2009: 7) through a process of awareness raising, re-skilling, and positive visioning. The concept of resilience is central to the vision of building communities that thrive in an energy constrained world and the underlying ethos is one of self-reliance and localisation (Brangwyn and Hopkins, 2008). As of August 2009 there are 193 official Transition Initiatives in England, Ireland, Northern Ireland, Scotland, Wales, Australia, Canada, Chile, Finland, Germany, Italy, Japan, the Netherlands, New Zealand and the USA. Transition Town Lewes was 'unleashed' as the 7th of its kind in April 2007.

Lewes is a small town in East Sussex of around 16,000 inhabitants with a long history as a market town and a reputation as an 'alternative' place (famous for the often rowdy bonfire festivities and for being residence to Virginia Woolf and Thomas Paine – the latter featuring on LP notes). Situated in the South Downs, seven miles north-east of Brighton, the town is an attractive location for professionals and academics working in Brighton and London, and Lewes is a net exporter of workers (East Sussex County Council, 2001). The majority of the population work in the service sector but a large group of people – more than 10% – is employed in the manufacturing industries (East Sussex County Council, 2001). Tourism is an important part of Lewes' economy because of its history and location. Lewes has a wide range of local retailers and has escaped the 'ghost town syndrome' of many other English towns of a comparable size. It is a popular shopping destination on weekends and attracts customers from a large catchment area. However, smaller shops are struggling to compete with the larger chain stores – Tesco accounts for nearly two thirds of all retail in the area (Montagu Evans, 2008) – and a number of local shops have closed down in recent years.

The Transition Town Lewes Business Group formed in the spring of 2007. Following the example of the Totnes Pound, launched in March that year, discussions on creating a local currency commenced in October. For a long time it stayed at deliberations but when a local journalist, in April 2008, contacted Adrienne Campbell, instigator of the idea, what had up to then been a discussion among a small group of people went public: “this local journalist got

me to talk [...] and then it went on the wire” (Adrienne Campbell, own interview, 21.05.09). With public exposure and promotion for the scheme the idea gained momentum.

”They had a five minute chat and next thing we knew he put it in the local paper, The Argus, and he put it on the news wires. So within no time we had the BBC, we had CNN, you know, a number of different press bodies who wanted the story [...] The credit crunch was really kicking in and this was kind of the opposite story: money is going bad and then this money is suddenly appearing. What's the point, what's the idea? And that made us realise that actually there is a big appetite for this.” (Oliver Dudok van Heel, own interview, 08.05.09)

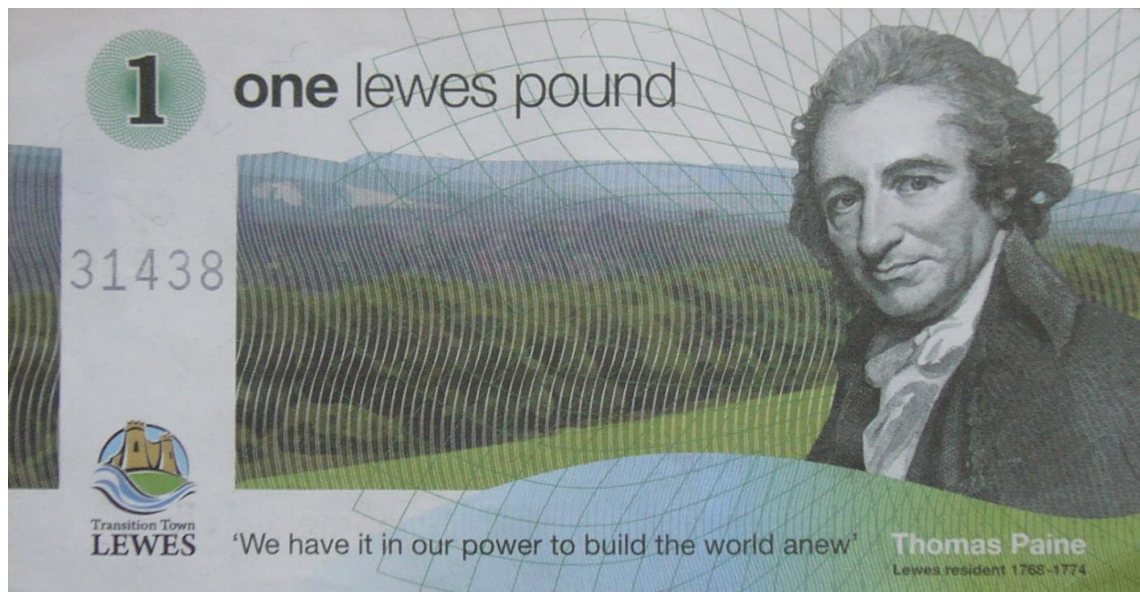
The journalist reported that the group “was aiming to have it up and running by the autumn” (Barrett, The Argus, 30.04.08) and indeed phase one of the LP was launched in September with six sponsors covering initial costs and fifteen businesses agreeing to accept it.

The scheme was planned to run as a pilot for the first year with the first notes expiring at the end of August 2009. In phase one LPs were printed in denominations of one and exchanged on a 1:1 basis with sterling. The currency functions as a voucher that can be used alongside sterling in participating businesses and can be traded back into sterling at any time. In phase one LPs were exchanged for sterling through three main issuing points as well as at the monthly local farmers market. Initial interest in the scheme was enormous, both from the media (the LP has been covered by the major national news corporations and become news as far away as Mexico, Brazil, Japan and South Africa) and from users. Within a few days of the launch the first print of 10.000 Pounds ran out and a second print was run taking three weeks to enter circulation. A total of 40.000 LPs were printed during phase one and at present the LP is accepted by around 140 businesses as well as traders at the farmers market. Set in the context of Transition the objective of the scheme is to build resilience in Lewes (Oliver Dudok van Heel, pers. comm.). The Lewes Pound website states that “The Lewes Pound is driven by three main considerations:

- **Economic:** According to the New Economics Foundation, money spent locally stays within the community and is re-used many times, multiplying wealth and building resilience in the local economy.
- **Environmental:** Supporting local businesses and goods reduces the need for transport and minimises our carbon footprint.

- **Social:** By spending money in local outlets we can strengthen the relationships between local shopkeepers and the community. It also supports people finding new ways to make a living initiatives.” (<http://www.thelewespond.org>)

By restricting circulation of the LP to local shops there is a possibility of increasing the local multiplier and preventing money from flowing out of the local economy if the scheme becomes used widely. Phase two of the LP was launched on July 3rd 2009 with new denominations of five, ten and twenty one pounds. This also saw the introduction of a different exchange mechanism where five percent of any exchange into LPs is pledged to a community fund that provide funding for initiatives supporting the local community.



The Lewes Pound

## **2. Literature review**

The Transition movement is inspired by permaculture and its holistic approach to design science integrating a variety of subject areas spanning ecology, agriculture, the built environment, technological innovation, ethics, and systems theory. Hopkins (2008) states that permaculture principles are implicit in the Transition approach and the idea of resilience guides both the theoretical outlook and the practical projects of the Transition movement. Permaculture and the concept of resilience are thus central to understanding the objectives and methods of Transition Initiatives. Concurrently, the Transition movement developed in response to the resource-intensive capitalist system of production and is a critique of this socio-economic structure as well as a strategy for change. Similarly, the literature on complementary currencies evolved from critiques of conventional economics and its growth imperative. This chapter will consider the concept of resilience and outline the role of money in conventional economic theory and policy before examining alternative theories and uses of money as a way of building stronger local economies.

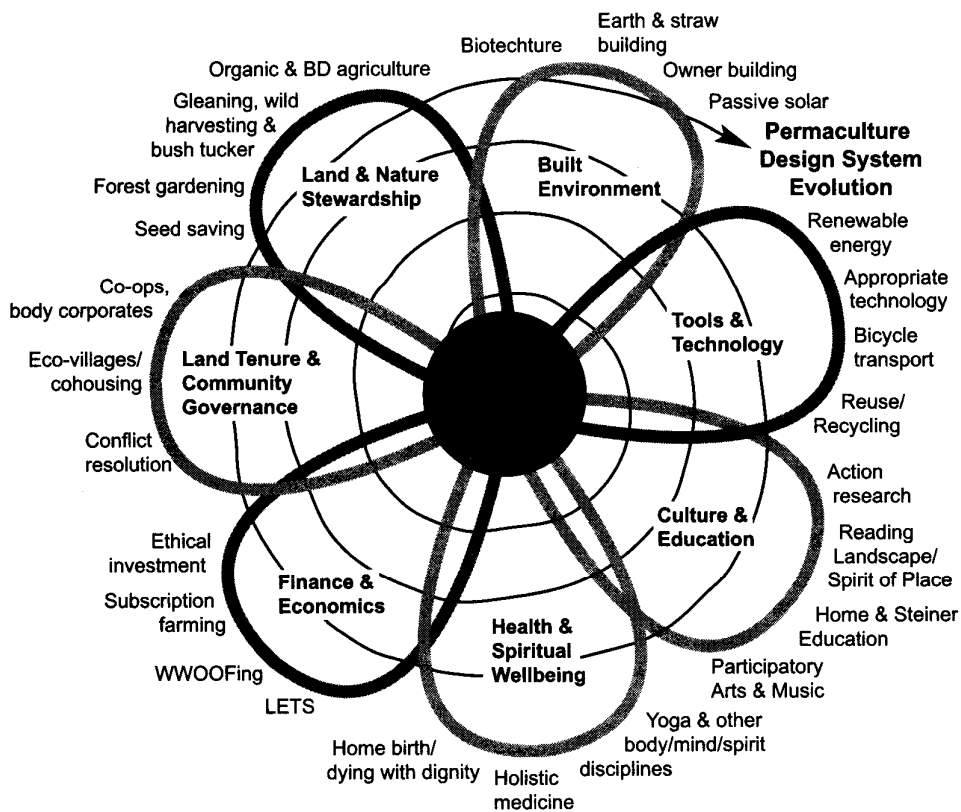
### **2.1 Permaculture and resilience**

Permaculture originated in the writings of Mollison and Holmgren and developed during the 1970s and 1980s to become an international movement seeking to build self-sufficient human settlements. Through a core set of design principles permaculture aims to create “[c]onsciously designed landscapes which mimic the patterns and relationships found in nature, while yielding an abundance of food, fibre and energy for provision of local needs” (Holmgren, 2002: xix). Permaculture principles are thus conceived according to observations of self-organisation in living systems and energy flows in and between ecosystems. Holmgren describes permaculture as an applied science concerned with “improving the long-term material well-being of people” (2002: 3) visualising it as an integrated and evolving framework covering all aspects of life (see Fig. 1). As a discipline permaculture emerged out of ecology, systems theory and design science but has developed to become a subject area of its own as well as a counter-culture and global network of practitioners. Taking a holistic view of human societies and their environment permaculture examines interactions and connections at all levels of social-ecological systems (SESs) to foster the creation of ecological support systems. Understanding the various components of a system and their connections is key to the design process:



“The basic principle of permaculture is to make useful connections between different elements in a system, so that as many inputs as possible are provided from within the system, and as many of the outputs as possible are used within it” (Whitefield, 1993: 53).

Modelling permaculture design on living systems, self-reliance and self-regulation are important aspects. Just as self-regulation in organisms adjust growth rates and behaviour at the global level, self-regulation in human systems implies striking a balance between immediate needs and long-term objectives. Simple and small interventions that maximise energy catchment and storage while minimising waste generation are generally preferred.



**Figure 1: The Permaculture Flower**

Source: Holmgren (2002)

In living systems feedback between components communicate changes throughout the whole system and allow for self-regulation and a dynamic response to change (Kump et al., 1999). Feedback mechanisms between organisms and their material environment explain self-

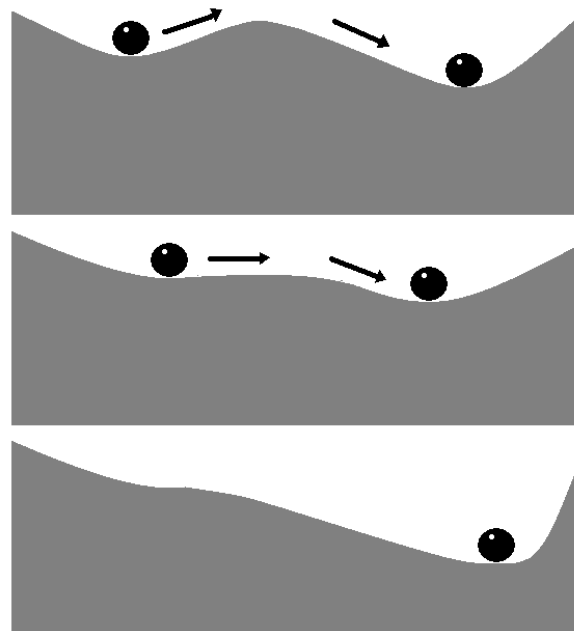
organisation in ecosystems (see e.g. Lansing et al., 1998) and enable the system to persist in conditions of change. Camazine et al. provide the following definition of self-organisation:

“Self-organization is a process in which pattern at the global level of a system emerges solely from numerous interactions among the lower-level components of the system. Moreover, the rules specifying interactions among the system’s components are executed using only local information, without reference to the global pattern” (2001: 8).

Self-organising systems tend to operate close to a point of equilibrium within a certain domain of stability but have the potential to move to a qualitatively different state in the event of external perturbation.

“If a hierarchical level is self-organizing, thresholds can be crossed such that the signals transmitted to lower levels change abruptly. If such a change exceeds the bounds of adaptability of lower levels, cascading effects can rapidly move the entire system to a new domain that may itself be self-reinforcing” (Perry, 1995: 244).

The capacity of a system to return to an equilibrium state after a transitory disturbance delineates its stability while 'stability domain' refers to the domain that contains this equilibrium state (see Fig. 2).



**Figure 2: Illustration of system stability.** Balls represent the system, valleys denote stability domains and arrows show disturbances. Adapted from Gunderson (2000)

The term 'resilience' was introduced into ecology by Holling to denote “a measure of the persistence of systems and of their ability to absorb change and disturbance and still maintain the same relationships between populations or state variables” (1973: 14). Resilience is thus an expression of a system's capacity to maintain its essential characteristics while experiencing change. Broadly, two definitions have emerged in ecology: one assuming a single equilibrium state and another assuming multiple equilibria (Gunderson, 2000). In a single equilibrium scenario resilience is defined as the return time to a steady state following perturbation. If multiple equilibria exist for a system then resilience “refers to the width or limit of a stability domain and is defined by the magnitude of disturbance that a system can absorb before it changes stable states” (Gunderson, 2000: 427). The limit beyond which a system moves to a different equilibrium state is rarely directly observable or apparent – the notorious 'tipping point'. Diversity of species and functions within ecosystems are crucial elements in maintaining resilience (Walker, 1992) and functions operating across spatial and temporal scales have been found to be equally important (Peterson et al., 1998). Focus on processes and analysis of complex and non-linear relationships are central to understanding the resilience of a system.

Resilience is increasingly applied in resource management as a conceptual tool for adapting to environmental change. In this context Walker et al. (2004) has identified four fundamental aspects of resilience in SESs:

1. Latitude; relates to the amount of change a system can undergo before crossing a threshold after which recovery becomes impossible.
2. Resistance; describes how susceptible a system is to change.
3. Precariousness; denotes the distance of a system from a threshold.
4. Panarchy; cross-scale interactions influencing the system from above or below, e.g. political and socio-economic structures or environmental changes.

The first three elements refer to factors internal to the system whereas the fourth concerns external influences. The description of these variables for a society is naturally approximative on the background of unpredictable social developments and the uncertainty surrounding dynamic, teleconnected ecosystems. Given such uncertainties, building capacity to respond to change within institutions and improving networks and communication infrastructure is central to enhancing the resilience of a population (Longstaff and Yang, 2008). Gunderson notes that “surprises are the rule, not the exception” (1999: na). A resilience framework for adaptation to environmental change must therefore account for the dynamic development of SESs

and confront uncertainty to “[allow] managers a margin of failure” (Gunderson, 2003: 38). Nelson et al. suggest that “systems need to be managed for flexibility rather than for maintaining stability” (2007: 399) and find that “the strong normative message from resilience research is that shared rights and responsibility for resource management [...] and decentralization are best suited to promoting resilience” (409). Social-ecological resilience in this way “involves enhancing the capacity for self-organization” (Folke et al., 2003: 354) to reduce vulnerability to environmental change.

The application of resilience in permaculture design is evident given Holmgren and Whitefield's remarks above. Permaculture aims to develop resilience in SESs by conscious design. Hopkins (2008) employs the concept directly in his Transition Handbook and outlines three important areas in building resilient communities: a) diversity of elements and functions within settlements; b) a modular structure with more internal connections and increased self-reliance; and c) tightening feedback loops bringing the consequences of resource consumption closer to home. This follows the suggestion by Nelson et al. that shared responsibility for resource management and decentralisation foster resilience. In terms of the resilience framework developed by Walker et al. the common viewpoint of Transition Initiatives is that our present energy-intensive society has conspicuously undermined its own life support systems, that the consequences of peak oil will alter society drastically, and that this change is imminent. The fourth aspect relating to cross-scale interactions is connected with the Transition movement's wider critique of the dominant socio-economic structure, here summarised by Davidson-Hunt and Berkes:

“[s]table commodity production systems and centralized resource management may be efficient and desirable, but it [sic] also necessary to recognize that they may increase society's long-term vulnerability to uncertainty and surprise” (2003: 68).

The logic of competitive, unregulated markets that favour high but short-term yields in production processes and which support unsustainable levels of consumption is reducing variability and diversity in SESs and increasing vulnerability to social, economic and biophysical disturbances. The Transition movement is as much a reaction to the current capitalist socio-economic structure as it is a vision for a low-energy society. To understand the arguments for using complementary currencies to build resilience in local communities it is necessary to examine the debate on economic growth and consider the rationale behind localisation.

## **2.2 Money in conventional economics**

The point of departure for environmental critiques of conventional economic models is their treatment of natural resources as a free good that only attains value from appropriation by humans so that damage to the natural environment is absent in the prices of goods. This assumption originated in 18th century economic thought when Smith and Ricardo developed classical economics and the natural world may have seemed limitless. But the idea has survived, along with a reductionist view of the economy (Henderson, 1991), at the heart of economic theory. Freely available natural resources and inexpensive forms of energy laid the foundation for the wealth of industrial societies which have come to view economic growth as the means to foster well-being. Growth is inherent to economies where money, subject to interest payments, is created by incurring debt in the commercial banking system (Douthwaite, 1999) and as economic growth is associated with continual material throughput it implies continued expropriation and degradation of natural resources (Jackson, 2009). Thus most modern governments define policy objectives in terms of a logic depending on unsustainable levels of resource consumption. Further, as the creation of money is tied to interest payments there is an implicit tendency to disregard the future (Lietaer, 2001). A brief outline of how money is conceptualised and functions in orthodox economics is necessary in order to see how complementary currencies have emerged as an alternative to neoliberal economics.

The development of neoliberal politics and the emergence of a globalised market economy is strongly associated with neo-classical economics and the theory of monetarism (De Long, 2000) championed by economists such as Friedman, Hayek and Greenspan. The underlying logic in neoliberal notions of economic rationalism and optimal allocation of resources in free markets has been criticised from perspectives across the political spectrum – here we are interested mainly in the conceptual role of money in economic theory. Classical economics views money as a neutral means of facilitating trade between agents with incommensurate needs, serving the principal functions of exchange, standardising value, accounting for and storing value as well as facilitating deferred payment (Greco, 2001). Money enters economic theory as public “holdings of demand deposits plus currency” (Andersen and Jordan, 1968: 32). In mainstream economics the relationship between money and the economy is typified by the debate between monetarists and keynesians which has “[focused] on the extent to which money can and should be created when the supply is too tight [...] or limited when it is too loose [...] and whether changes in the quality of money will affect the economy” (North, 2007: 13-14). Money thus enters the circular flow model of general free-market equilibrium as a neutral mechanism of exchange and is seen as a representation of the 'real' econ-

omy and the goods and services exchanged within it. Money as a measure of the quantity of goods and services in an economy is significant because it affects “the efficiency of operation of the economic mechanism, [...] how wealthy people regard themselves as being and, indeed, [...] how wealthy they actually are” (Friedman, 2005: 1). Securing the optimal amount of money in the economy is crucial to avoiding inflation or deflation and the creation of money is hence an important element in achieving economic growth. But while monetarism regards money supply as a matter for public policy its location and circulation is left to the markets. Demand for loans sees the creation of money by commercial banks and the role for governments is to control lending through reserve requirements or bond trading. The function of money in the economy is essential: “[i]f goods did not exchange for money, economic activity under capitalism would cease” as “production is initiated for private financial profit” (Hutchinson et al., 2002: 32), but analysis focuses almost exclusively on its effects. More money, in a growing economy, equals more wealth, and, assuming that this wealth trickles down to benefit the least wealthy, societies prosper as they grow. In the framework of an abstract model that takes static equilibria as its starting point and has growth as its objective, conventional economic theory has ignored wider social aspects of money (Linton and Sautar, 1994; Douthwaite 1996, 1999; Greco 2001; Lietaer 2001; Hutchinson et al., 2002; North, 2007; Lietaer et al., 2009; Seyfang 2006a, 2006b, 2009). Monetarism and neo-classical economics have been central in the development of today's globalised economies.

The end of the fixed exchange rate regime of the Bretton Woods in 1971-3 marked the beginning of extensive financial liberalisation and established one of the largest and most liquid markets, the foreign exchange market. Floating exchange rates meant that the value of national currencies became increasingly determined by speculation. Ending an era of Keynesianism “[m]onetarism took over by default” (Bonefeld, 1995: 36) and the economic objectives of the US and UK governments turned to financial stability rather than employment and growth. Liberalisation, privatisation and establishment of global markets for goods and services characterised this era along with new forms money and increased access to credit. With innovations in the IT sector the movement of capital accelerated and new financial products became available. Since 1980 the value of financial assets have grown from an amount roughly equal to global GDP to about three and a half times its size totalling \$196 trillion in 2008 (McKinsey, 2008). Around 98 per cent of foreign exchange transactions are speculative with only 2 per cent related to the real economy (Lietaer, 2001) and volatility has become a defining feature of a financial system where profits depend on large movements in currency prices. The financial markets of today have been likened to a 'casino' where the value of na-

tional currencies is largely determined by investors whose collective behaviour is “erratically manic at one moment, unreasonably depressive at others” (Strange, 1998: 1). The combination of deregulation, increasingly complex financial products and the search for short-term profits created the culture of excessive lending that led to the phenomenal losses of the 'credit crunch'. As commercial banks have monopoly on creating money this immediately tightened money supply and caused recession. In this unstable environment “market prices [...] determine what is produced, in what quantity, by what method and where, because it is 'un-economic' and 'inefficient' to take other factors into consideration” (Douthwaite, 1996: 35).

As noted above, in an economic system where money is created through debt serviced by interest payments growth is internal – expansion is built in by credit and capital expecting a pay-off in the circulation of money. Another element of growth is that “if the trickle-down effect is to be achieved eventually, the model must expand to meet the needs of all those within the potential economic community” (Hutchinson et al., 2002: 41). The high level of throughput necessary to maintain growth in an economic system where natural resources are all but free, means that degradation of the environment becomes a defining feature of the economic system as “there is as yet no credible, socially just, ecologically sustainable scenario of continually growing incomes for a world of nine billion people” (Jackson, 2009: 8). Growth of the global economy “by its very nature [...] poses a fundamental challenge to the environment's capacity to provide sufficient resources and absorb wastes without serious degradation” (World Resources Institute, 2000: v). A consequence of the resource-intensive production system is ecological crisis. The unsustainable nature of the global capitalist system is illustrated by the current excess in human demands on natural resources of 30% compared to the planet's regenerative capacity (WWF, 2008) while the vulnerability of local communities was explicated by the blockades of fuel deposits in 2000 and the realisation that the UK effectively has food provisions for only three days in the event of a supply chain breakdown (Simms, 2008). In terms of the resilience discourse the resistance to shocks in the global economic system is low due to a high level of connectedness at the global level at the cost of diversity and weakened feedback loops at the lower, or local, level. Economists working outside the framework of neo-classical economics have used the systems perspective employed in natural sciences, ecology and permaculture to build models that internalise the environment in economic theory while entrepreneurs and activists have invented different forms of currencies that embody alternative relationships between the persons involved in exchange.

### 2.3 The ecology of money and complementary currencies

Around the same time of the demise of the Bretton Woods system new critiques of the logic of growth emerged. Georgescu-Roegen published his magnum opus “The Entropy Law and the Economic Process” in 1971 and Schumacher's seminal work “Small Is Beautiful – A Study of Economics as if People Mattered” came out in 1973. Both authors applied the observation from natural systems that “[t]here can be 'growth' towards a limited objective, but there cannot be unlimited, generalised growth” (Schumacher, 1974: 26). Georgescu-Roegen incorporated insights from the natural sciences on energy flows to build a theoretical framework based on the premise that “the entropy law is the root of economic scarcity in a much stronger sense than simple finiteness” (1986: 8). He developed an open economic model embedding the human economy within the natural environment. These ideas evolved into the field of ecological economics and the theory of the steady-state economy “that develops without growing, just as the planet Earth, of which the economy is an open system, develops without growing” (Daly, 1991: 27). At the heart of this theory lies a critique of the assumptions in standard economic analysis of unlimited availability of resources and ecological capacity to cope with the destruction entailed in their extraction. Schumacher described the logic of the circular flow model thus:

“taking various alternative fuels, like coal, oil, wood or water-power: the only difference between them recognised by modern economics is relative cost per unit. The cheapest is automatically the one to be preferred, as to do otherwise would be irrational and 'uneconomic'” (1974: 50).

Failing to distinguish between renewable and non-renewable resources the growth imperative of economic calculus defines rationality in terms of short-term gain. The meeting of economists interested in alternatives to neo-classical economics at the The Other Economic Summit in 1984 saw the creation of a 'new economics' framework for exploring alternative solutions to economic problems. In this tradition the role of money has received renewed attention and become popularised (Boyle, 2002). Although the theory and experience of complementary currencies have a long and multifaceted history it is the new forms of money that has emerged within the later discourse on transition and localisation which are examined here.

Employing an analysis similar to the resilience framework discussed above, Douthwaite (1996) explicates how the high level of inter-linkage in the world economy combined with the volatile nature of finance make local economies vulnerable to movements in the financial



markets. If a community produces non-essential goods for export while relying on imports for fulfilling primary needs a breakdown in the supply chain could be devastating. The best option is to increase self-reliance by establishing an independent currency system:

“A community wishing to minimise the hardships it would suffer if the world financial system collapsed should obviously make monetary independence its first priority. A currency and banking system which can continue to serve a particular area regardless of whatever financial convulsions take place outside that area is fundamental to the construction of a self-reliant local economy” (Douthwaite, 1996: 47)

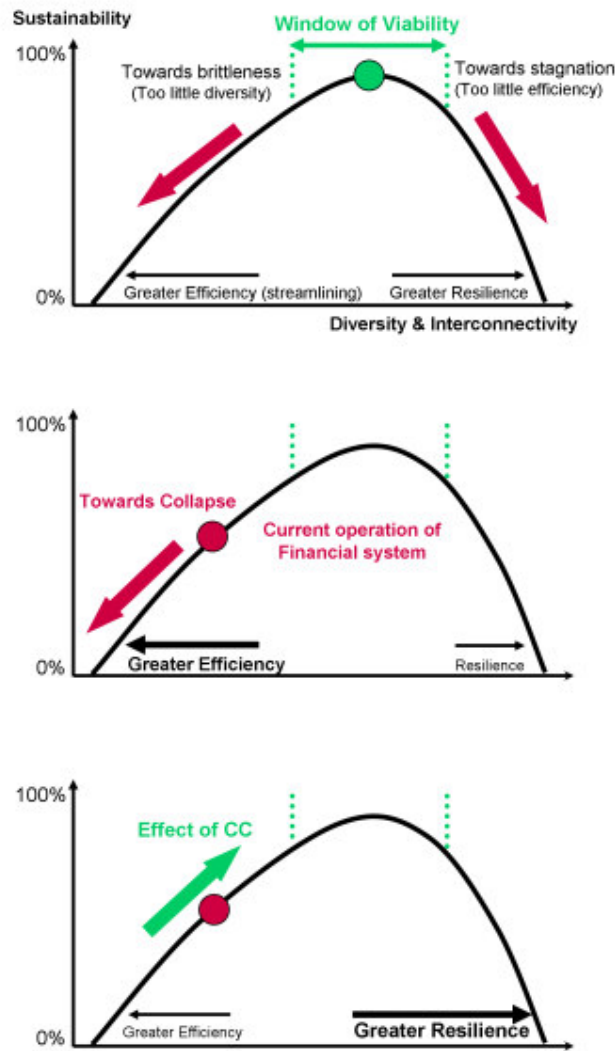
In this way a community will have a degree of leeway should the money supply tighten in the wider economy. At the same time it is a way of building a more modular structure, in the discourse of ecology, to increase capacities within local communities and engage citizens in community goals. This accords with Dauncey's 'rainbow economy' that employs a community's resourcefulness to “[allow] the members of a community a more direct and participative involvement in creating their own future” (Dauncey, 1988: 89). As such a local currency is not an expression of isolationism, rather, it is a process that is complementary to participation in the wider economy. Indeed, a local currency could operate in a global multi-level system with “a world currency for use in international trading, national currencies for use in national trading, together with regional and continental currencies” (Robertson, 1990: 125).

Douthwaite (1999) has likened such a monetary system to an 'ecology of money' where consideration of the complex parts of the economy guides the conscious design of human societies.

“As each money system tends to lead to a particular set of consequences, we are likely to have to use three or four money systems simultaneously to produce the combination of characteristics that we want our society to possess” (Douthwaite, 1999: 10).

Diversity of money, in this view, is a key feature of a healthy economy. Such thinking has recently been developed by Lietaer et al. (2009) into a theory of money that draws explicitly on ecology and systems theory. In this perspective, the condition of the economy is regulated by two key attributes: efficiency and resilience, defined as “capacity to perform in a sufficiently organized and efficient manner” and “reserve of flexible fall-back positions” (Lietaer et al., 2009: na). Efficiency and resilience pull in opposite directions and creating a healthy economy means balancing the two:

“we propose that sustainability is the optimal balance of systemic efficiency and resilience [...] research shows that placing too much emphasis on efficiency leads to centripetal pull that automatically drives both increasing size and consolidation and loss of diversity, connectivity, and resilience until the entire system becomes unstable and collapses. In short, excessive focus on efficiency and GDP growth tends to create exactly the kind of bubble economy we now face” (Lietaer et al., 2009: na).



**Figure 3: Sustainability mapped as a point between efficiency and resilience.** The ball represents the state of the economy. The stability domain is represented by the window of viability.

Source: Lietaer et al. 2009

Hence building resilience in the economy is directly related to increasing diversity of money (see Fig. 3) countering conventional wisdom that efficiency, mobility, and universal acceptance of money are indicative of good performance. Efficiency as an indicator of well-functioning monetary systems is challenged in the new economics approach on different grounds: the functions of money can conflict, e.g. by removing money from circulation (storing value) when it is needed for transactions (means of exchange), the mobility of money can be detrimental to local economies, the pricing mechanism prioritises financial wealth while externalising social and environmental costs, and conventional money actively discourages behaviour that has social value, e.g. by rewarding employment in the formal economy and devaluing voluntary community labour (Seyfang, 2009). Taking a broader conception of money as “an information system we use to deploy human effort” (Linton in Greco, 2001: 28) and acknowledging that “money systems affect the world in different ways” (Douthwaite, 1999: 10) by embodying different social relationships, this approach sees “money systems as social infrastructure with in-built incentives, behaviour framings and value” which “can be structured to deliver sustainable consumption outcomes” (Seyfang, 2009: 144). Different types of money should thus be used according to the function and objectives of exchange and designed to complement each other to integrate different aspects of the social economy.

The literature on complementary currencies is extensive and covers a wide range of exchange regimes reflecting the fact 'complementary currencies' is a “generic term for a wealth of contemporary alternative exchange systems which exist alongside mainstream money” (Seyfang, 2006a: 784). Complementary currencies cover a range of exchange mechanisms from commercially sustained schemes like loyalty cards and air miles to government sponsored behaviour change programmes and grass roots initiatives. Complementary currencies facilitate exchanges using an alternative to legal tender but exist in addition to, not as a replacement of, national currencies. Grass roots currencies are typically created to engage underutilised social resources in a community. The most common type of community currency in the UK is the LETS, created by Linton, a community credit money enabling members to exchange goods and services without hard currency backed only by “a promise by some members of the community to give service to others” (Linton and Sautar, 1994: na). LETS is essentially an accounting system tracking where money has been created by buying a good or service and where it is owed. Another widely used community currency is Cahn's time banking which uses a credit accounting system denominated in hours to facilitate exchange of small services. Time banking has proved effective at strengthening reciprocal networks and

building social capital, especially in deprived communities, by redefining the conventional economic conception of wealth: “the real wealth of a society is its people – and the time they are prepared to devote meeting their own needs by meeting the needs of others” (Cahn in Boyle, 2002: 244). Community currencies have direct social benefits in terms of building new social networks and institutions (Seyfang, 2006b). In their 'Community Currency Guide' Lietaer and Hallsmith (2006) identify five important aspects of creating a community currency:

1. Setting the objectives; identifying where there are unmet needs and underutilised resources in a community.
2. Choosing the type of currency; this will depend on who is involved in the exchange.
3. Building support in the community; having a dedicated team behind the scheme and making sure that the main stakeholders are involved.
4. Choosing an appropriate exchange mechanism; determining the functions of the currency and deciding on issuing procedures and cost recovery mechanisms.
5. Establishing a circulation system; ensuring that the currency flows effectively and does not pool in one area.

Matching needs and untapped resources in this way circumvents the tendency in the formal economy to value only those skills and assets that can be marketed.

In the context of the Transition movement complementary currencies emerged as way to facilitate energy descent by localising the provision of essential goods and services. It should, however, not be seen as isolationism. Rather, it is 'intentional localisation' which “means managing the connections between places in such a way as human freedom and connection are maximised, along with local distinctiveness and resilience” (North, 2009: na). A complementary currency that can be used only within a limited locality might increase the benefit of investments in regeneration as “pouring money into an area has minimum long-term impact if the wealth flows straight out again because there is nothing to hold it in the area” (Ward and Lewis, 2002: 2). By enhancing the circulation of existing money within a community a local currency can facilitate an increase in the local multiplier because money “re-spent in a local area is the same as attracting new money into that area” (Sacks, 2002: 6). Experience from the Chiemgauer, a regional currency in Germany, suggests that complementary currencies can build a strong monetary infrastructure supporting the local economy as “[r]egional business cycles are stimulated and a regional network evolves” (Gelleri, 2009: 71). Localising production and stimulating consumption of local goods also have direct bene-

fits for the environment. Communities that produce most of the goods and services they require will rely less on imports and hence have a smaller ecological footprint (WWF, 2008). In the long-term, local systems of provision alter the socio-technical framework in which consumption is embedded removing some of the environmentally harmful effects of inconspicuous consumption (Røpke, 1999; Burgess et al., 2003). Transition currencies thus aim to achieve both environmental and socio-economic benefits by re-localising the economy.

As the second Transition Town to introduce their own currency Lewes drew on experience from the Totnes Pound (TP). The TP was launched in March 2007 in denominations of one being worth 'roughly' one pound sterling. The idea was to create a currency that would be used both by customers and businesses for transactions within Totnes to encourage higher circulation of money in the community. It ran as a pilot scheme until June when a conversion rate of £0.95 to 1 TP was introduced. Being backed by sterling ensured that people felt they could use the TP on the same basis as conventional cash and the 5% devaluation encouraged circulation and provided an incentive for customers to shop in TPs. However, businesses began to accumulate Pounds and when the third phase was launched in January 2008 the 5% was dropped. The main obstacles have been managing people's perception of the currency, getting businesses to use the currency creatively and finding the resources to run the scheme sustainably (Noel Longhurst, pers. comm.). Some people would not accept the TPs in change while businesses needed encouragement to offer their own incentives to use TPs. Professionalism and managing public perception turned out to be crucial to create a sense that the money is 'real' and provides tangible benefits for the community. Running the TP has also required time and effort, and considerable resources are needed for the scheme to sustain itself in the long-term. Totnes found inspiration in the American Berkshares and the Canadian Salt Spring Dollar (Hopkins, 2008) and as Lewes similarly modelled their Pound on Berkshares (Oliver Dudok van Heel, pers. comm.) this currency warrants mention here.

Berkshares is a local currency for the Berkshire region in Massachusetts which has been running since autumn 2006 to “strengthen the regional economy, favoring locally owned enterprises, local manufacturing, and local jobs, and reducing the region's dependence on an unpredictable global economy” (<http://www.berkshares.org>). It is run by a non-profit corporation and is supported by five local banks that offer exchange services in thirteen branches. Berkshares are issued in denominations of 1, 5, 10, 20 and 50 and currently exchange a rate of 0.95 Berkshares to \$1 effectively offering a discount for using the currency. This is paid for by whoever exchanges Berkshares back into dollars. The TP followed this model (although the 5% devaluation was dropped) but the difference is the scale at which the two schemes run.

Over two million Berkshares have been issued, 360 businesses participate in the scheme and in early 2009 it was found that 180,000 Berkshares were circulating in Berkshire's economy of 19,000 people (North, unpublished manuscript). The success in establishing Berkshares as a widely used complementary currency is partly due to the reputation of the organisers, uptake of the idea by local banks and businesses and a receptive environment with a long-standing tradition of supporting local initiatives (North, unpublished manuscript). The problems encountered have mainly to do with establishing a circulation system: to the average trader the number of Berkshares taken in has been low and re-circulating them has been difficult, while popular businesses focusing on local produce have been overwhelmed by the influx of Berkshares and have had to bank a large proportion of their Berkshares. These businesses had their earnings in Berkshares devalued and notes were taken out of circulation defeating the purpose of the exchange mechanism. However, experience with the Berkshares shows that it is possible to run a local complementary currency on a large-scale, sustainable basis.

Although it is perhaps too early to evaluate the effects of such new forms of money in terms of localising production, it is possible to measure their impact on consumption patterns and wider social networks. The ability of local currencies to build resilience depend on their design, function and usage. It is the purpose of this dissertation to investigate these aspects of the Lewes Pound scheme to understand its effects on the community of Lewes.

### **3. Methodology**

The Lewes Pound aims to build resilience in the economy and the social sphere while achieving environmental benefits from changing consumption patterns. Therefore, I have developed a framework for evaluating the economic, social and environmental effects of the LP against a set of indicators measured by mixed methods. Although the economic outcomes of the scheme are small relative to the size of the Lewes economy and the direct impacts in terms of localisation take longer than one year to materialise, it is possible to assess the effectiveness of the exchange mechanism and the system of circulation. These aspects, along with uptake of the idea in Lewes, are vital to the long-term economic effects of the LP because “if the ideas are not out there and you still roll the presses, or roll them too long, you might just end up printing 'monopoly money'” (North, unpublished manuscript). While there may be immediate economic benefits in terms of changing spending patterns, enhancing awareness, social networks and communication infrastructure are equally important in creating resilience.

This research takes the form of an in-depth case-study utilising different methods to develop a narrative of the first phase of the LP. Although it explores first-hand phenomena that is context-specific, I argue that “the case study contains a greater bias toward falsification of preconceived notions than toward verification” (Flyvbjerg, 2006: 241) and attempt to construct a robust, open-ended narrative that allows the reader to enter what Flyvbjerg likens to a 'virtual reality' and acquire a sensitivity to the LP that theory alone cannot produce. This view rejects the ontological foundationalism of realism and positivism (Marsh and Stoker, 2002) and embraces a 'moderate' social constructivist position of epistemological relativism (Jones, 2002). My object of study is conceptualised as embedded within patterns of culture and values that are 'constructed' and any observations do not amount to an 'objective' account of social phenomena. However, this does not imply that generalisations are not possible, rather it is a contention that multiple methodological frameworks are valid and that each implies different kinds of knowledge, not more or less objective knowledge.

#### **3.1 Research methods**

Estimating the economic, social and environmental impacts of the LP calls for different methods to obtain the relevant information for each of these areas. An integrated approach to qualitative and quantitative analysis is therefore appropriate ensuring that the most suitable technique is used for capturing distinct aspects of the LP (Tashakkori and Teddlie, 1998).

'Integration' here refers to generating data by different means and bringing these strands together to produce an overarching account of the first phase of the scheme (Moran-Ellis et al., 2006). This strategy will enable triangulation and mutual corroboration between overlapping areas of research and can perhaps bring a deeper understanding than anticipated at the outset (Bryman, 2006). A combination of surveys and semi-structured interviews allows for data that is both specific and open-ended to capture a wide range of behaviours while a grounded theory approach to the fieldwork permits integration of emerging concepts (David and Sutton, 2004). Also, since this research is evaluating the LP in terms of the overall objectives of the group behind the scheme my investigation utilises a social audit methodology “involving a blend of qualitative and quantitative indicators which are defined with reference to the organisation's 'mission statement' and value base” (Seyfang, 1997: 3). In addition to measuring the 'intangible' values that are left out by conventional auditing methods (Nicholls, 2007) a framework of multi-criteria indicators can help build strategies for improving the functioning of the LP (MacGillivray et al., 1998). It is my hope that this research will contribute to understanding what makes a complementary currency like the LP work effectively.

I recognise that this choice of methods may leave questions as to whether my findings can estimate a definitive difference between the resilience of Lewes 'before and after the LP'. To this, I contend that such an estimation is not intended and that my area of interest is solely the ways in which, if any, the LP creates resilience in Lewes.

### **3.2 Creating a framework for estimating resilience**

To operationalise the concept of resilience in economic, social and environmental terms, I developed a range of indicators for each area to elicit information on the questions I had about the ability of the LP to strengthen the connections and functions between different elements of Lewes viewed as a social-ecological system (see Table 1). The indicators were chosen on the background of the literature review and the objectives of the LP.

I then decided which aspects of each indicator were most interesting to examine and defined a set of proxies that were indicative for these aspects (see Appendix I). The proxies delineated where to look for the relevant data and who to include in the data collection. From this I found that I would need to investigate business use and opinions, user sentiments and practices as well as the organisers' experience. I thus have six sources of data (the LP group were collecting information from businesses and users around the same time):



- 1) Surveys of businesses
- 2) Surveys of users
- 3) Interviews with users
- 4) Interviews and information from organisers
- 5) LP group surveys of businesses and users
- 6) Observations from fieldwork

Once the source and methods to obtain the data were clarified, I specified what information I needed to retrieve and formulated questions where this was relevant (see Appendix II). Finally, I created the surveys and interviews from this table. (see Appendix III-IV for an overview of the survey questions and answers). There is some overlap between the information derived from the proxies and hence some proxies apply to more than one indicator.

<b>INDICATORS</b>	
<b>Economic</b>	<b>Questions</b>
Localisation	<i>In what ways does the LP facilitate localisation of goods and services?</i>
Infrastructure	<i>Does the LP help create new infrastructure for the provision of goods and services?</i>
Uses	<i>Does the LP encourage new uses of money?</i>
Changing consumption	<i>Is the LP affecting the consumption patterns of its users?</i>
Function	<i>What are the main obstacles for diffusing the use of the LP?</i>
<b>Social</b>	
Community building	<i>How does the LP strengthen the local community?</i>
Awareness raising	<i>Does use of the LP contribute to enhanced awareness?</i>
Values and attitudes	<i>What are the effects of the LP on the values and attitudes of its users?</i>
Local identity	<i>Does the LP strengthen local identity?</i>
Well-being	<i>Does using the LP bring benefits in terms of well-being?</i>
<b>Environmental</b>	
Ecological footprint	<i>How does the LP affect the ecological footprint of Lewes overall?</i>
Sustainable consumption	<i>Does the LP shift consumption patterns in the direction of sustainability?</i>
Environmental side-effects	<i>Are there any unforeseen environmental benefits from using the LP?</i>

**Table 1**

The business survey was constructed as a self-completion survey which I delivered and collected in person to enhance the response rate. Although around 140 businesses figure on the LP website as registered traders only around 70 of these are located in the town centre and could be immediately accessed (the rest are services, e.g. yoga or therapy, and traders, e.g. vegetable box schemes or the farmer's market, which do not have a permanent presence on the high street). I delivered 65 surveys and received 62 responses. For the user questionnaire-surveys I addressed people on the high street outside May's General Store (which is an issuing point) to increase the possibility of reaching users of the Pound. I approached 150 people of which 51 were users and received a response from 41 of these. I filled out the questionnaires in conversation with the respondents to ensure that the questions were interpreted consistently. I received the raw data from the LP surveys from the LP group. There were 64 user and 65 business responses. Answers from users were obtained online using Survey Monkey while businesses were approached directly to fill in the questionnaire together with a researcher (see Appendix IV). The data from all the surveys were uploaded to SPSS for analysis.

My interviews were designed as semi-structured interviews and to reach regular users I sent out a request for interviewees via the '100 Club' mailing list (this is a regular newsletter for the first 100 people to sign up to using the LP). There was thus a high degree of self-selection but this was an advantage as I was interested in interviewing people who use the Pound extensively and the interviews are not intended to be representative of the general LP user. I also enlisted one interviewee from conversation on the street. I have 5 semi-structured interviews. Although this is a relatively low rate of participation and I could have wished for more respondents, the interviews seemed to reach a point of saturation as the last interviews touched on themes similar to the earlier ones. This is of course a mere assertion. However, as the purpose of these interviews were to assess the effect of the LP on regular users within a set range of topics, any conclusions drawn from these conversations are a lower-bound estimate of any behaviour change attributable the LP scheme. All my interviews were taped using digital voice recording and transcribed (see Appendix V for extracts of interview transcriptions).

While the data produced by these surveys and interviews ensured that I would have the desired information for each of the indicators, I also allowed fieldwork observations and conversations to inform my analysis. This permitted emerging concepts generated during the data collection to capture aspects of the LP that I could not have conceptualised before travelling

to Lewes. Interviews with business owners and unanticipated conversations around Lewes provided information that helped build a more nuanced picture and informed my overall understanding of the scheme. This has been particularly valuable in assessing the circulation of the Pound because there was a lack of data for a quantitative estimation. I attempted to track 10 LPs by sending them into circulation with a sticker requesting that people recorded when it changed hands. None of these have come back in time for this dissertation. So my evaluation of the circulation of the LP is based on exchange accounts from the Town Hall and data from other issuing points, traders and users.



Cliffe High Street, Lewes

## **4. Research findings**

This research was conducted in May 2009, some eight months after the launch of phase one of the Lewes Pound. The absence of a clearly defined baseline does not mean that the research cannot evaluate the qualitative impact of the LP as the data presented here is intended to measure only the direction in which the Pound bear upon each of the indicators. A detailed discussion of each proxy is infeasible given the space available and I refer to Appendix III and IV for a complete overview of the survey data. Further, as my research design allowed for emerging concepts to inform my findings some estimations are based on my own observations and are not expressed directly in the dataset. The analysis is structured around each type of indicator and the results are explicated and drawn together in the succeeding discussion.

### **4.1 Economic indicators**

The perhaps most instructive economic indicator of the LP scheme's capacity to build resilience is its effect on local wealth, yet the local multiplier was the most difficult proxy to obtain reliable data for given the time and resources available. As mentioned above the attempt to measure circulation directly did not yield any results. Therefore, a quantitative approximation of the local multiplier was unattainable and the estimate presented here relies on data from the issuing points, businesses, and users and a descriptive account of the scale and flow of the circulation system. A total of 33,000 Pounds were issued and the organisers' estimation of the number in circulation at the time of this research varied between five and twenty thousand. There were three permanent issuing points during phase one: the Town Hall, May's General Store and F. Richard's and Sons Butchers. There was also an issuing point at the monthly farmers' market. The Town Hall was the only of the three that kept a record of exchanges – I had access to accounts for the period between November 10th 2008 and June 19th 2009. This revealed a modest total flow of LPs into the the economy (see Table 2).

On average 10 new LPs entered circulation per week via the Town Hall. It is interesting to note that the first and second half of this 31 week period differ significantly from this pattern. From early November to late February a weekly average of 165 LPs went into circulation while only 100 were taken out. From late February to late June only 85 LPs went into circulation while 126 went out. This most likely reflects the fact that the notes expired after phase one so that people were changing back into sterling towards the end but the decreasing 'novelty value' and publicity of the scheme might also go some way in explaining

Period	Sterling in/LPs out	LPs in/sterling out	Weekly average*	
Nov. 10 <sup>th</sup> – Dec. 24 <sup>th</sup>	1639	934	234	133
Jan. 5 <sup>th</sup> – Feb. 26 <sup>th</sup>	832	565	104	71
Feb. 27 <sup>th</sup> – Apr. 24 <sup>th</sup>	812	1156	102	145
Apr. 25 <sup>th</sup> – Jun. 19 <sup>th</sup>	548	867	69	108
<b>Whole period</b>	<b>3831</b>	<b>3522</b>	<b>124</b>	<b>114</b>

\*Rounded to nearest integer

**Table 2**

this. The two other issuing points confirmed the trend. May's General Store, probably the most popular issuing point, reported issuing up to 500-600 LPs a week in the beginning of phase one dropping to around 200 in early May (with more Pounds entering than leaving circulation). F. Richard's and Sons Butchers estimated about £55 exchanged into LPs per week with noticeably more LPs being changed back into sterling during the spring.



Exchange at the Town Hall

By design every LP stays within Lewes (although there was a substantial leakage when the Pound became a collectors item) and the multiplier effect is therefore potentially large as there was an overall influx of Pounds into the economy. However, this depends entirely on whether LPs are used merely as a substitute for spending that would have gone to local businesses anyway. The online survey conducted by the LP group suggests that using the Pound

affects spending in local shops positively: 51.6% responded that they have used local shops more since the beginning of the scheme and 43.8% reported that their overall spending in local shops has increased. This is confirmed by my own survey which found that 39% reported an increase in their spending on local produce. Although almost half of the users surveyed estimate that they pay only 1-2% of their shopping in LPs a large number of people pay for a significantly larger proportion this way; more than one in ten pay for 30% or more of their shopping in LPs. Nearly every LP held by users stay in circulation: only 4.9% of users change LPs back into sterling. A further outcome that is not observable directly in the circulation system may contribute to the local multiplier. This relates to a behaviour change on the part of users. One interviewee explained:

”When it first came in, I got the Lewes Pounds and used them. But now that I've got into the habit [of using local shops] I don't necessarily use them as much. But I've got into the habit of using those small shops and that's the key thing.”

By changing spending habits the LP could enhance the local multiplier indirectly. However, the extent to which this occurs is not directly measured in this research.

Most businesses cannot pay their suppliers in LPs, either because their suppliers are not local or because they do not accept it. Although 1 in 5 businesses respond that they have considered (part-)paying their suppliers in LPs only two businesses report that they actually do. Likewise only two businesses are known to pay their staff in LPs. Thus, the primary ways for businesses to keep the Pounds in circulation are using them for personal purchases or giving them back in change. Of the businesses surveyed by the LP group, 10.7% use LPs for personal purchases (6.2% spend all their Pounds this way). On the question on how large a percentage of their LPs are given back in change 40.5% answered that half or more than half is given back to customers. While 51.4% of businesses state that they exchange none of the LPs they hold back into sterling, 45.9% say that they change half or more and 32.6% that they exchange more than 90% of their holdings. Thus a relatively large proportion of LPs is taken out of circulation by the traders. This happens because businesses feel they have no immediate use for the Pounds they accumulate, the two main reasons being that they cannot use them to pay their suppliers or that customers will not accept them as change. However, the LP does seem to have some effect on the attitudes of shop owners as 14.8% say that they have considered substituting some of their imported products with local ones since they started accepting LPs.

The main benefit to businesses appears to be a sense of supporting the local economy (see Table 3). Interestingly, two newly opened shops explained that accepting the LP also made them feel part of the local business community. Half of the businesses feel there is a benefit in terms of advertising and one fifth believes that the LP is providing new opportunities for selling their products. A similar 22.4% also believes that accepting the Lewes attracts

<b>Do you think the Lewes Pound provides you with new opportunities for:</b>		
<b>Selling your products?</b>	Frequency	Percent
Yes	13	21.7
No	47	78.3
Total	60	100
<b>Advertising your business?</b>		
Yes	31	52.5
No	28	47.5
Total	59	100
<b>Reaching new customers?</b>		
Yes	18	30
No	42	70
Total	60	100
<b>Supporting your local economy?</b>		
Yes	14	22.9
No	47	77.1
Total	61	100

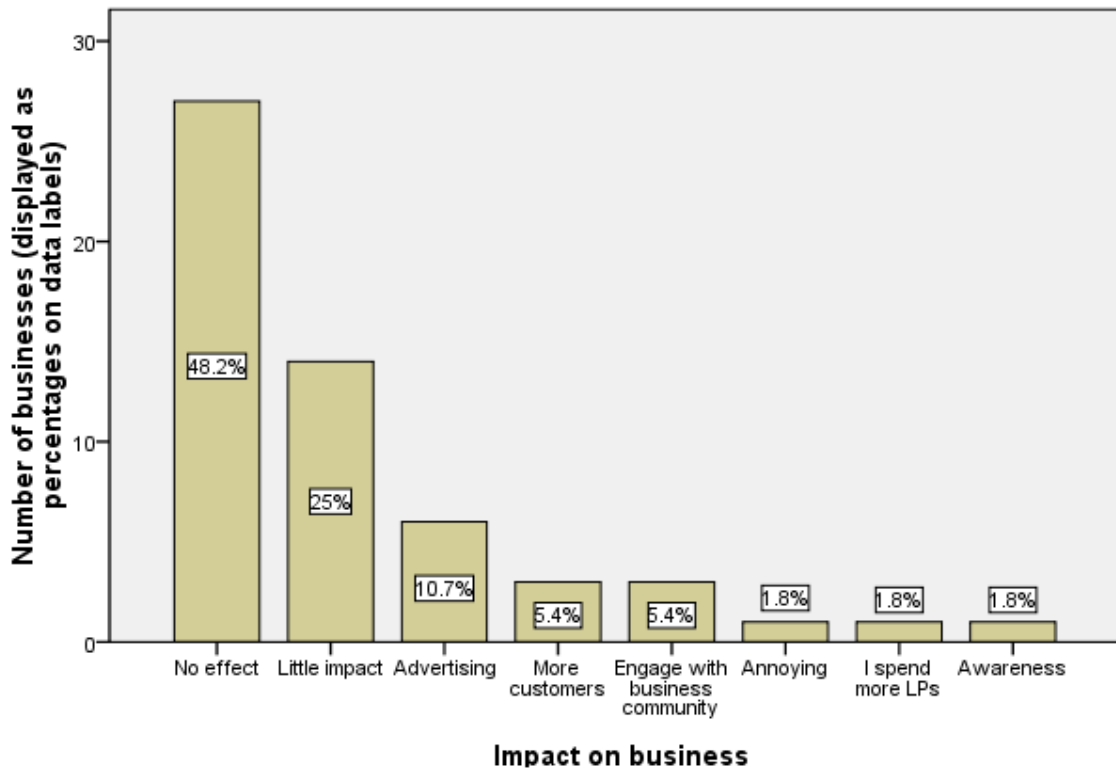
62 businesses took part in this survey

**Table 3**

more customers. It is perhaps surprising then that 73.2% of traders state that they believe accepting the LP has 'no effect' or 'little impact' on their business (see Fig. 4). This indicates that the LP has a small impact on turnover while there is a more tangible benefit in terms of promoting, advertising and reaching customers. One shop owner explained that she believed the overall impact of the scheme was positive for Lewes, attracting media attention and bringing in more customers, while it had made little difference for her particular shop. There is a noticeable difference in the benefits to shop owners depending on the what type of products a

business sell. Traders in local produce, especially food, report a direct economic benefit (they can also use their Pounds to pay some of their suppliers). This is confirmed by the type of goods purchased by users: two thirds spend 70% or more of their LPs on food and nearly 40% say they spend all of their Pounds this way. I found that the divergence in benefits between different types of shops reflects in the attitudes towards the LP with some businesses being very positive and interested in promoting its use while others are indifferent to the scheme. At one end of the spectrum a shop owner commented “[i]t's great publicity. It has certainly brought me more business and I think it's brought more business to Lewes” and at the other end someone told me that ”I will take them because people will expect me to take them. But there is no benefit.”

**Figure 4: How do you think accepting LPs affects your business?**



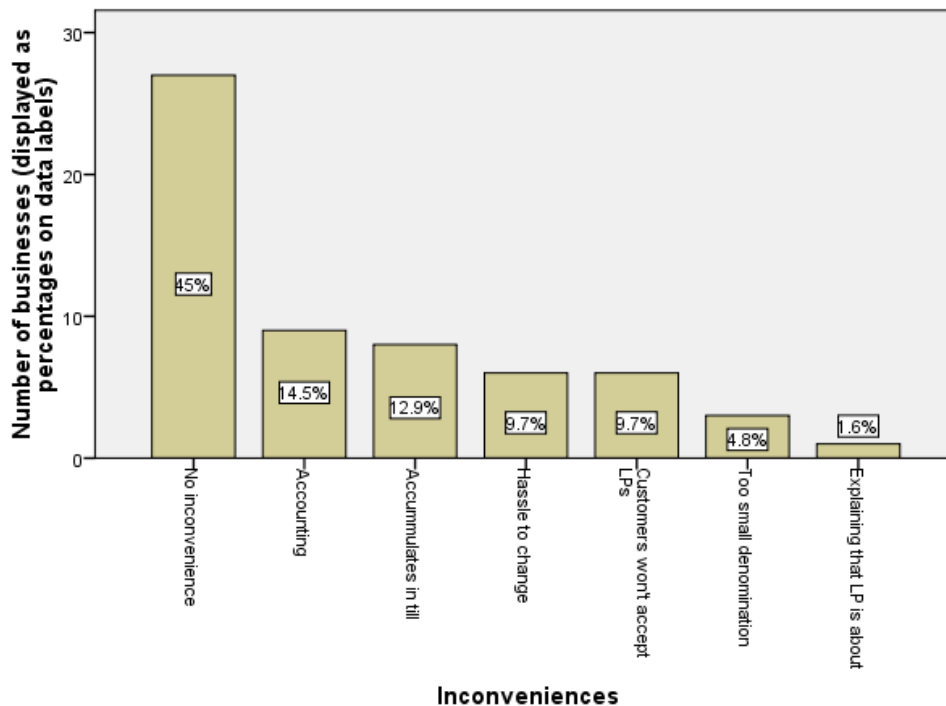
56 of 62 responded to this question

Because LPs were exchanged on a 1:1 basis with sterling in phase one the main economic benefit to users is through discounts. However, such profits have been almost entirely lacking. While 16.4% of businesses have offered at least one discount for paying in LPs, 90.2% of users have never used the discounts and only 4.8% use them on a regular basis (i.e.



'once a week' or 'all the time'). Many users were surprised to hear that there were any discounts. The effect on purchasing power is thus negligible. If any change has occurred it has made users' shopping slightly more expensive as local produce usually sells at a higher price (12.5% state that their weekly shopping has become more expensive while 85% say that their spending has not been affected). Some customers have found other ways to use their Pounds: 26.8% use them as payment outside the shops, mainly for services and paying friends. Acceptance of LPs on equal terms with sterling is very high, 80% of users maintain that they would accept LPs as (part-)payment for work and 9.8% state that they have on occasions taken LPs as payment for informal work. The major obstacles for wider use of the Pound among users thus appear to be the small scale of the scheme and the impracticality of dealing in denominations of one. For businesses 55% report that there is some inconvenience in accepting LPs mainly to do with accounting, accumulating and exchanging Pounds (see Fig. 5). From my conversations with non-users I found that the main reasons for not using LPs were a belief that the money made no difference to Lewes. Non-users commented that the scheme is 'a gimmick', that 'I don't really believe in it', or that 'I haven't really come across it'. The absence of a clearly defined advantage of using the scheme when traders do not offer a direct reward make such opinions seemingly axiomatic.

**Figure 5: Are there any inconveniences in accepting LPs?**



60 of 62 responded to this question

## 4.2 Social indicators

The ability of the LP to 'engender a sense of community spirit' is most visibly manifest in the attitudes of businesses and users and this section examines how the LP affects infrastructure as well as the values, well-being and identity of participants in the scheme. As noted above, few businesses use LPs to source goods while there is some evidence that the Pound is used as a form of payment outside the high street shops. But the scheme has provided some businesses with new opportunities to reach customers and nearly half of participating traders report that the LP is a topic of conversation with customers at least once a week. 36.6% of users say that they have a conversation about the LP once a week or more. Hence there appears to be an effect, if only moderate, in terms of building new relationships between businesses and users and among users themselves. This effect is likely to be stronger in those areas of retail where the largest amount of Pounds is spent, i.e. local produce in food and speciality shops. The owner of one such shop commented: "there are certain people that just buy their shopping with [Lewes Pounds]. They don't use shops that won't have them [...] If they can't get the Lewes Pound they won't bother". Among the users I interviewed there was a strong sentiment that using LPs conveys a wish to redefine the relationship with local retailers. This view was expressed by an interviewee in the following way:

"When I hand my money in Lewes Pounds to somebody it is like I am creating... I'm building my relationship with them. It means that I value them, and I'm responsible for them, just like they're responsible for feeding me. It reminds us that that its the kind of relationship that we have."

Although this example is taken from a small section of users who spend LPs frequently and is not representative of the general user, it is clear that customers who use the LP favour shopping in smaller stores that give them a sense of closeness to the trader. 78% of users maintain that they prefer shops that accept the LP to shops that do not. And 68.6% stipulate 'supporting the local economy' as their main reason for using the Pound (see Fig. 6).

As a kind of trademark for the town itself the LP has generated publicity for Lewes in national and international media and in this way has helped shape the identity of Lewes externally. The comments from traders on publicity and bringing in more customers attest to this effect. Within Lewes there are two discernible impacts on local identity. One is that among some users the LP becomes associated with what they feel is unique about Lewes as a place of living:

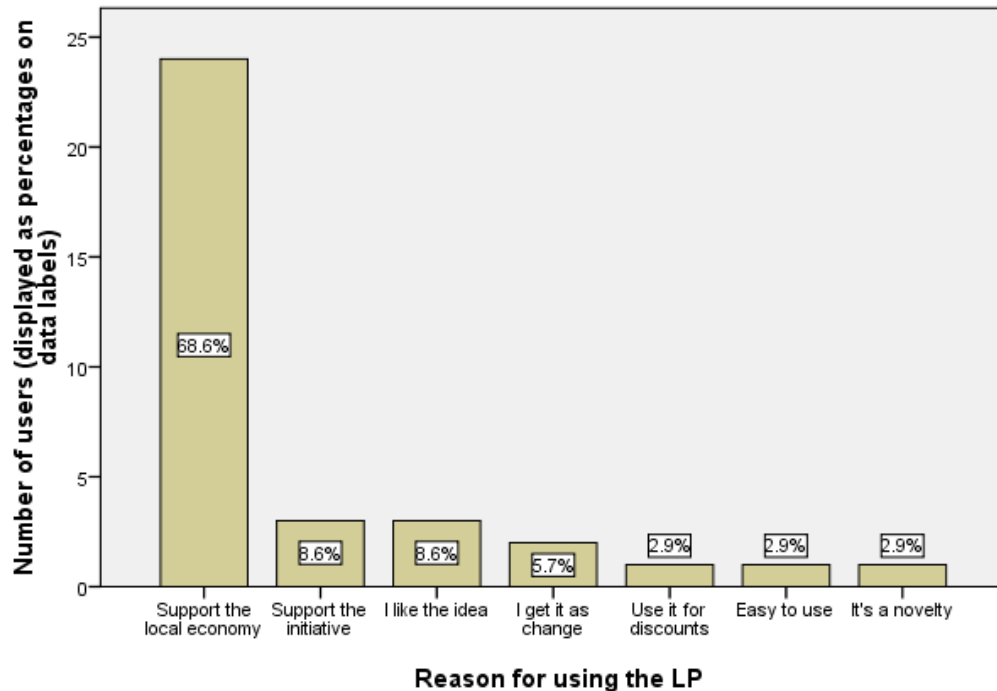
”It's given me something that I like, and have a sense of, and when I've got friends that say 'I've heard about the Lewes Pound in the paper'... Whether that affects other people in Lewes in the same way I don't know. It has certainly given me a sense that this is an unusual and special place.”

In this way the LP is conducive to a sense of 'home'. Another user remarked: ”Last year I was going up to London every other week. When I got back to Lewes I exchanged my Lewes Pounds and I really felt 'right, I'm here'”. The other effect is that using the LP becomes a way of indicating to other Lewesians that the user values the local community:

“There is a kind of feeling that goes with spending and receiving Lewes Pounds [...] it is like a signal to people, and a signal from them to you, that they are concerned about [the community].”

Thus the LP embodies specific values and ideals to users who spend the money frequently. These users prize local identity, sustainable living, active participation in the community and

**Figure 6: Why do you use the LP?**



35 of 41 responded to this question

see the scheme as a 'political act' or as part of a wider 'consciousness'. Using the Pound expresses an identity that "compared to the say the 'Tesco identity' [...] is a very different kind of identity". The LP is perceived as a means to "support the community as a whole, particularly farmers and traders" and to convey goodwill towards community projects and efforts to increase economic independence.

Whether the LP cultivates such attitudes or simply reinforces already held beliefs is difficult to estimate on the background of this research which only conveys peoples' current values. However, it is possible to examine the values of people who use the Pound and the perceived benefits of scheme to assess whether usage simply relate to affirming personal attitudes and the motive of supporting local business. Perhaps unsurprisingly, every single user surveyed here responded that it is important to them that people in Lewes support the local economy. Similarly, every user maintained that it matters whether a product is locally produced. Environmentally friendly and organic products are also highly rated with 95 and 82.5% of respondents respectively stating that these dimensions matter. This fits the 'green' or 'ethical' consumer profile of making consumption choices based on moral or political grounds, and users do seem to choose shopping in LPs for other than economics reasons: 82.9% do not believe that they get 'more for their money' by using the Pound. But 'green' consumption is practicable without the effort of using a complementary currency and yet 63.4% *prefer* to spend LPs when shopping locally. Although slightly more than a third of users state that using the LP affects their shopping 'very little' or not at all, the remaining two thirds receive direct benefits in terms of awareness or well-being. 24.4% report that using the LP increases awareness of their spending habits. And 26.9% say that they either focus more on local produce or use local shops more frequently while 12.2% see a benefit either to their personal well-being or sense of community. This suggests that while the LP may be a way of asserting personal attitudes there are factors beyond this motive attached to using the scheme. Affirmation of personal values will naturally contribute to enhanced well-being but there appears to be additional motivations pertaining to awareness and a sense of empowerment. This came across in conversation with one user:

"One thing that happened that really shocked me, I think it was about the time of the launch of the Lewes Pound but I can't remember for sure, is a few shops closed [...] There was one close to me and I thought [...] 'This is silly I could have used them. I could have done something'. That made me think. With the Lewes Pound coming in I thought I must try and make an effort."



May's General Store accepts Lewes Pounds and is also an issuing point

Another user said that the LP "is like a reminder in my purse all the time". In this way it is felt that the consequences of consumption choices become more apparent and that the user take "responsibility in a different way than just putting the cost on a credit card".

An unexpected outcome observed during the research was that the LP also seemed to expound certain social divisions within Lewes. Some non-users see the scheme as 'quaint' and perceive users as group with a 'head-in-the-air' attitude. One person identified usage of the Pound with a certain type of people referred to as 'lentils': "Lewes lentils [...] 'oh, we mustn't have this... oh, it's so wonderful not to have an incinerat... no, I walk everywhere... no, I grow all of my own clothes... oh no, I...' lentils. You get the idea". This likely reflects the finding that many LP users typify the ethical consumer and can be charged with assuming a moral high-ground. At the same time users tend to be relatively affluent, politically motivated and form a fairly homogeneous faction. As one interviewee described it:

"Lewes is a town of strong communities [...] Lewes is very multi-layered. Not only in class terms [...] Lots of layers of different communities all involved in different things. [The Lewes Pound] sits mostly within the alternative middle-class."

The presence of strong social groupings can thus have a negative impact on the effectiveness of the LP if it becomes associated with a strong in-group. In some circles I encountered considerable misunderstandings of the scheme. Some people assumed that the LP group profited from selling notes on eBay and that the scheme was imposed on Lewes by 'outsiders'. However, the majority of non-users I spoke to neither objected to the scheme itself nor derided its participants, they merely lacked belief in the ability of the LP to achieve its objectives. Hence it is apt to conclude that the LP does not sustain any social dissension but merely that latent divisions were exposed to the probing outsider.

#### **4.3 Environmental indicators**

The environmental benefits flowing from use of the LP are difficult to measure and any estimate will have to be based on inferences from business and user behaviour. Although 14.8% of the traders have considered substituting imported goods with local ones there has been no direct impact on sourcing. Because most businesses sell products that cannot be sourced locally, e.g. tobacco, fabrics, toys, cards or books, it is not possible for traders to substitute with local goods – in this way Lewes is an integrated part of the national and global economy. But the LP aims to bolster local trade and will effect businesses that deal with local produce to a larger extent. The businesses that do pay their suppliers in LPs are shops that can source food locally: a grocery store, a café, a vegetable box scheme and traders at the monthly farmers' market. Food is also the main good on which users spend their Pounds: 66.7% of users spend 70% or more of their Pounds on food and 38.5% spend all their Pounds this way. Also, 59.5% of users report that their the food they buy with LPs is different from the food they buy with sterling and 70.3% state that they buy more local food as a result of using the scheme. It is pertinent to conclude that there is a change in spending habits and that users' overall food miles are likely to be reduced as a result. 55.3% assert that they buy more environmentally friendly products after beginning to use the LP and 43.2% say that they buy more organic produce. Hence there seems to be a noticeable change in consumption patterns from users' self-reported appraisals but the extent to which decreasing food miles and changing spending habits affects users' ecological footprint is uncertain.

If there is a greening of consumption on behalf of users it is not possible to measure the magnitude of this effect. But it is reasonable to expect that there is a real benefit to the environment from a focus on local produce. This tie in with the changes in awareness and atti-

tudes described above. A change in consumption patterns come through a combination of cognitive changes, alteration of habits and an milieu that supports consumption choices that are better for the environment. The LP provides the infrastructure and the 'reminder in the purse' to facilitate these changes and brings the consequences of consumption closer to home. The perhaps most significant impact of the LP in this respect is that by building awareness, empowering sustainable consumption choices and strengthening community spirit it becomes easier to break patterns of unsustainable consumption. This facet of the scheme was highlighted by one interviewee:

”People turn to processed things when their lives are less meaningful and when they don't have community [...] When I'm happy and I'm bonded with my community and my family then I tend to eat things that are healthy for me and the planet. There's a big element of that. I'm not compensating for being unhappy by needing to consume more.”

The primary spill-over effect of the LP in environmental terms is enhanced awareness and empowerment of green consumption which could lead to behaviour change in other areas of users' lives. But such effects of the LP will need time to take root and any indirect environmental benefits are better estimated in the long-term.

#### **4.4 Discussion**

The above analysis presents the principal findings related to assessing the indicators specified in the methodology. I encourage the reader to consult Appendix III and IV for an exploration of the larger dataset. In this section an evaluation of the direction moved for each indicator is presented and further aspects of the ability of the LP to create resilience are discussed. Table 4 gives an overview of each indicator along with an estimate of any change generated by the LP. The evaluation of the strength of a change is given on a three point scale where ✓ is a small impact, ✓✓ conveys that a considerable change has taken place and ✓✓✓ indicates that a strong impact is demonstrable (absence of a ✓ means there has been no measurable change). These ratings are suggestive and should not be taken as absolute, they are merely a means of communicating complex content in an easily accessible format. Explanatory remarks are given for each area justifying the valuation.

HOW DOES THE LEWES POUND AFFECT THE RESILIENCE OF THE LOCAL COMMUNITY IN LEWES?				
Indicator	Change			Remarks
Localisation	✓			Although an increase in local wealth can be attributed to the LP through the local multiplier and increased spending in local shops is additive there has been no change in how businesses source their goods
Building infrastructure	✓	✓		Businesses have found new ways to reach customers and there is some evidence that relationships between shops and customers have strengthened. 8 in 10 users would accept LPs as part of their salary
New uses of money	✓	✓		Despite the lack of discounts and incentives to exchange into LPs they are widely used and 1 in 4 have found ways to spend them outside the shops
Changing consumption	✓	✓	✓	There is a noticeable impact on consumption patterns with users spending a significantly larger amount on local produce and more environmentally friendly products after using the LP
Functioning of the scheme*	✓	✓		The LP circulates easily between users and businesses but some shops accumulate notes and have no immediate way to re-spend them
Community building	✓	✓		There is a strong sense of community among users but the presence of strong social groupings requires that the scheme avoids association with any one group
Awareness raising	✓	✓	✓	There is a clear impact on awareness of the scheme itself, spending habits and community issues
Values and attitudes	✓	✓	✓	The LP embodies distinct values and attitudes of responsible resource consumption, active citizenship and sustainable living to its users
Local identity	✓	✓	✓	The media attention has given businesses a sense that the LP has brought more customers through publicity for the town. Shops and users alike associate the scheme with what is unique about living in Lewes
Well-being	✓	✓		Although these benefits may be limited to those who use the scheme regularly, LP users report enhanced well-being and a sense of empowerment
Ecological footprint	✓			There seems to be a real impact in terms of low food miles for LP purchases but exactly how this translates to users' ecological footprint is uncertain
Sustainable consumption	✓	✓	✓	The LP encourages and affects purchases of sustainable products
Environmental side-effects				These effects are long-term and cannot be evaluated

\*See discussion

Key: none = no measurable impact  
 ✓ = small impact  
 ✓✓ = considerable impact  
 ✓✓✓ = large impact

**Table 4**



On the background of this assessment there is clear evidence that the LP contributes to the resilience of the wider community in Lewes. This is especially the case with changing consumption patterns, awareness raising, building positive attitudes and values and strengthening local identity. It could be argued that there is a larger impact on infrastructure, community building and well-being but I have chosen what I consider a lower-bound estimate here on the account that I have mainly examined the impact on users and that non-users are not directly represented (1 in 3 of the people I approached on the street used the scheme). Although there is a measurable increase in local wealth via the multiplier effect there has been little impact on localisation because most businesses cannot source their goods locally. An increase in demand for locally produced goods could eventually stimulate local production but phase one of the LP scheme was far too marginal in terms of scale to bear on this aspect. Functioning of the scheme is in itself not an indicator for the resilience of the wider community but is included as it underpins all the other indicators. This indicator relate to three of Lietaer and Hallsmith's five aspects of a community currency: the circulation system, building support in the community and the exchange mechanism. It is not possible to discuss these in detail here but a few comments are requisite as they affect the sustainability of the scheme itself.

Judging from the Town Hall accounts and conversations with the other issuing points a larger number of LPs have entered the economy than have been taken out. However, there is a distinct tendency of a reversal in this trend over spring 2009. This can in part be explained by a decreasing novelty value, a levelling off in interest from non-regular users and anticipation of the end of phase one. But publicity and communication are equally significant. Public perception is fundamental to recruiting new users as well as keeping existing users involved – dealing in a complementary currency can be extra effort. LP notes come with the promise that the LP “supports local traders”, “keeps money circulating locally” and “helps cut CO2 emissions” and if users and businesses perceive this to be a hollow claim they are likely to leave the scheme. There may therefore be a need for continual affirmation when users are not convinced of the effectiveness of the scheme. I found this to be the case with some of the businesses that either do not receive many LPs or feel like they have no use for them and take them back to the issuing points. There seemed to be a gap in expectations between these businesses and the organisers which requires direct management. This relates to the aspect of building support and assuring that the main stakeholders are involved. The resources of the LP group, which relied entirely on volunteer effort during phase one, is a crucial issue.

If businesses support the scheme simply by taking LPs as payment they will need

encouragement to engage in actively promoting the scheme. The Pounds will only circulate smoothly if businesses remember to offer them as change and find other ways of spending them. The lack of discounts suggests that businesses may need some aid in using the Pound creatively. One particular trader was disappointed with the lack of communication and complained that no news had been disseminated about the launch of phase two: "If I am going to be an ambassador of the Lewes Pound... Are they going to tell me [about the new notes], or will I have to learn about it when people bring it in?" This remark also indicates that there is scope for building the scheme through the traders: if they perceive themselves as 'ambassadors' and take responsibility for the scheme more users will be enlisted through the shops. It is interesting that some businesses also saw the LP as a way to connect to the business community at large. There seems to be some scope for businesses to network around the LP. If the LP emerged as a platform for businesses to share experience with circulating the pound, debate new ideas and discuss the issues that are important to local shops, the difficulty with getting businesses to provide incentives to use the Pound and the sense of a lack of communication could vanish. It would also be a way of getting more traders interested and promote the scheme to customers without demanding a great deal of resources.

A last point to mention is that this research should be seen according to the scale of phase one of the LP. With 5-20,000 LPs in circulation the overall economic impact is small, even assuming that every LP is spent five times before it leaves circulation. 78% of business state that purchases in LPs are for items costing less than £10 (55% that purchases are smaller than £5). These findings thus represent an economic microcosm within Lewes. Expanding the scale of the scheme hold some interesting prospects. The higher denominations of phase two and a larger influx of LPs into local businesses could almost automatically solve some of the problems encountered during phase one. First of all, traders will be reminded to circulate the Pounds simply by seeing more of them in circulation and some of the reservations surrounding the economic impact might vanish. Second, businesses that cannot source locally will also be encouraged to find alternative uses for the Pound by having a steady flow of LPs through the till. Third, the publicity generated by the launch of the second phase could stimulate users to spend a larger amount in LPs and expand the user base. Fourth, the introduction of a new exchange mechanism and a 5% donation to a community fund for every pound sterling exchanged provides an added incentive to spend LPs. And last, the second phase may provide the LP group with new opportunities to secure the funding and resources necessary to run the scheme on a sustainable basis.

What appears to be the crucial element in scaling up the LP is persistent management of

public perception and careful attention to the circulation of the money. The capacity of the LP to build resilience during its first year running suggests that there is a real potential to build a more diverse and self-reliant community that is better able to resist disturbances through the use of a complementary currency.



Revealing the new notes at the launch of phase two of the Lewes Pound

## 5. Conclusion

This research affirms that complementary currencies can enhance social-ecological resilience by raising awareness, supporting local infrastructure and changing consumption patterns. The principal way this occurs relates to the second dimension of resilience in SESs identified by Walker et al. (2004): changing susceptibility to external shocks. By instigating the process of localisation and building new connections within the community the LP strengthens resistance to disturbances in the wider economy and decreases vulnerability stemming from dependency on external infrastructure which lack fall-back options. Although immediate localisation is absent, there is evidence that the LP has increased local wealth, developed social interactions and changed consumption patterns of its users. In the framework of Lietaer et al. (2009) this can be seen as a process of reconfiguring the balance between systemic efficiency and resilience in the economy of Lewes by shifting focus away from growth towards development based on diversity and connectivity. And because the LP is designed for circulation within a limited area and has a strong social aspect it strengthens the function of money as a means of exchange while discouraging the storage of value function and limiting its mobility. Further, by embodying distinct values and encouraging behaviour that has social value the LP can be seen as a social infrastructure that drives sustainable consumption (Seyfang, 2009).

The findings presented here are based on data obtained from a range of sources using mixed methods and it is thus reasonable to expect this evaluation to be representative and veritable. The research design allowed corroboration of findings for different areas and a comprehensive dataset offered the possibility for analysis of impacts at different scales. However, it would have been interesting to incorporate a closer study of the attitudes and opinions of non-users as the prospect of expanding the reach of the LP is directly related to its capacity for building resilience in the wider community. Including semi-structured interviews with non-participants could have accounted for this aspect and provided a better indication of the possibility for extending the scheme. And a quantitative assessment of the local multiplier effect would have afforded a more accurate estimation of the localisation indicator and given better insight as to how using the LP translates into increases in local wealth. In hindsight I would also have modified my surveys slightly expanding some of the answer categories and including a question on use of the Pound over the year to see how publicity and novelty value affect use of the scheme.

If decentralising money systems can enhance the resilience of local communities there is a strong motive for other towns and communities to follow suit. Similar initiatives are un-

der way in other Transition Towns with both the Brixton Pound and the Stroud Pound launching in September 2009. It remains to be seen whether this type of currency will work on a large scale and provide long-term benefits in terms of localisation. Further research is needed to examine how such currencies function once the initial phase of building support and the circulation system is complete and the scheme is scaled up to become an established complementary currency. It is unclear if localisation is possible simply by encouraging local demand through a complementary currency without direct policy intervention. If the aim is to create an independent currency that is fully resistant to shocks in the (inter-)national economy, options for backing the money by other means than sterling should be explored. It will also be necessary to compare different exchange mechanisms, investigate the possibilities for enhancing circulation (e.g. by introducing demurrage as is planned with the Stroud Pound) and the role of public perception in creating a successful currency in order to understand how complementary currencies of this kind best build resilient communities. There might also be a role for banks or building societies as with the Berkshare currency (the Brixton Pound will involve local building societies). The first phase of the LP was too small to stimulate local production but it has shown that there is a possibility for future localisation. There is still a long way to Douthwaite's four currency world and the question arises whether Transition Initiatives can create localisation of the magnitude and time-scale on which the disturbances of peak oil and climate change will ripple through the global economy. Setting up local currencies is a step in the right direction but to localise in the short term will require a strong change in public policy and involvement of policy-makers at both the national and local level. In Lewes the appearance of a local currency has strengthened relationships between businesses and users as well as raised awareness around the issue of sustainable consumption. Long-term economic benefits of localisation is real possibility but the LP still works on too small a scale to bear directly on increasing local production of goods. As one interviewee expressed it:

”It is going to take some time before it actually emerges whether it has made a difference or is capable of making a difference. With these things if you don't start, you are never going to find out.”

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## APPENDIX I

ECONOMIC INDICATORS							
Indicator	What is measured	Proxy	Data collection				
Localisation			Shop	User	Org.	Obs.	LPS
<i>In what ways does the LP facilitate localisation of goods and services?</i>	Increase in local wealth?	1) Local multiplier		X	X	X	X
	Demand for local goods/services	2) Are LPs substitutive or additive?					X
	Supply of local goods/services	3) Does the LP encourage businesses to sell more local products?	X				
Infrastructure							
<i>Does the LP help create new infrastructure for the provision of goods and services?</i>	Building new relationships?	4) Between shops and suppliers 5) Between shops and users	X X	X		X	X
	Rewarding local shopping	6) Incentives to use the LP	X		X		
	Creating new business opportunities?	7) Business use	X				X
Uses							
<i>Does the LP encourage new uses of money?</i>	New forms of exchange?	8) Exchanges made possible by the LP		X	X	X	
	New ways of making a living?	9) New ways of earning 10) Effect on user income/spending power		X X			
Changing consumption							
<i>Is the LP affecting the consumption patterns of its users?</i>	Changing spending habits?	11) Types of goods/services purchased		X			
	Changing shopping habits?	12) More/less spending in local shops?					X

<b>Function</b>							
<i>What are the main obstacles for diffusing the use of the LP?</i>	Use by businesses	13) Marketing, promotions and discounts 14) Paying salaries in LPs? 15) Using LPs as payment externally	X			X	X
	Ease of participation for businesses	16) (Dis-)advantages of using the LP	X			X	X
	Ease of use for customers/users	17) (Dis-)advantages of using the LP		X		X	X
	Acceptance	18) Coverage: range and type of shops				X	

<b>SOCIAL INDICATORS</b>							
<b>Indicator</b>	<b>What is measured</b>	<b>Proxy</b>	<b>Data collection</b>				
<b>Community building</b>			Shop	User	Org.	Obs.	LPS
<i>How does the LP strengthen the local community?</i>	Building new relationships	19) Between users		X	X	X	
	Collective action	20) Does using the LP express a desire to take action on community issues?		X			
<b>Awareness raising</b>							
<i>Does use of the LP contribute to enhanced awareness of...</i>	Peak oil and climate change	21) Awareness of peak oil/climate change		X			
	Transition	22) Awareness of Transition Town Lewes		X			
	Localisation	23) Awareness of benefits of localisation		X			

<b>Values and attitudes</b>							
<i>What are the effects of the LP on the values and attitudes of its users?</i>	Importance of supporting the local economy	24) Support for the local economy		X			
	Importance of minimising ecological footprint	25) Effort to reduce ecological footprint		X			
	Importance of the local community	26) Participation in the local community		X			
<b>Local identity</b>							
<i>Does the LP strengthen local identity?</i>	Identification with the local community	27) Sense of belonging in Lewes		X			
	Sense of pride in the local	28) Sentiment towards Lewes		X			
<b>Well-being</b>							
<i>Does using the LP bring benefits in terms of well-being?</i>	Why use the LP?	29) Reasons for (not) using the LP 30) Beliefs and feelings attached to the LP 31) Affirmation of personal values		X X X			X

ENVIRONMENTAL INDICATORS							
Indicator	What is measured	Proxy	Data collection				
			Shop	User	Org.	Obs.	LPS
<b>Ecological footprint</b>							
<i>How does the LP affect the ecological footprint of Lewes overall?</i>	Reducing food miles	32) Type of food sold/purchased	X	X			
	Stimulating trade in local goods and services	33) Sourcing locally	X				X
	Promoting more sustainable products	34) Type of products sold/purchased	X	X			



<b>Sustainable consumption</b>							
<i>Does the LP shift consumption patterns in the direction of sustainability?</i>	New systems of provision?	35) Does the LP facilitate new ways of providing goods/services?	X	X	X	X	
	Greening of consumption?	36) Change in consumption patterns		X			X
	Ecological citizenship?	37) Does using the LP affect the users' wider attitude and behaviour?		X			
<b>Environmental side-effects</b>							
<i>Are there any unforeseen environmental benefits from using the LP?</i>	Wider impact of LP in Lewes	38) Spill-over effects? E.g. does using the LP lead to other kinds of community action?			X	X	

Key to data collection

Shop = Survey of business use and opinions

User = Surveys and semi-structured interviews with users

Org. = Interview and information from organisers

Obs. = Observations from fieldwork

LPS = Lewes Pound survey on the Lewes Pound website

## APPENDIX II

PROXIES FOR INDICATORS		
Proxy no.	Source	Information/question
1) Local multiplier	User sur.	<ul style="list-style-type: none"> <li>~ Do you accept LPs as change?</li> <li>~ Do you exchange £s for LPs? (How many?)</li> <li>~ Do you exchange LPs for £s?</li> <li>~ How often do you have LPs on you?</li> <li>~ How often do you spend LPs?</li> <li>~ What percentage of your shopping is in LPs?</li> </ul>
	Org.	Information on circulation
	Obs.	<u>Issuing points</u> How many pounds Sterling are exchanged for Lewes Pounds on average? How many LPs are exchanged for £s on average?
	LPS	<ul style="list-style-type: none"> <li>~ Of the Lewes Pounds you receive what percentage (roughly) do you?</li> <li>- Give out as change</li> <li>- (part)- pay your suppliers</li> <li>- (part)- pay your staff</li> <li>- Use for personal purchases</li> <li>- Exchange back into Sterling</li> </ul>
2) Are LPs substitutive or additive?	LPS	<ul style="list-style-type: none"> <li>~ Since September 2008 has your spending in local shops changed?</li> <li>- Increased</li> <li>- Decreased</li> <li>- Same</li> </ul>
3) Does the LP encourage businesses to sell more local products?	Shop	<ul style="list-style-type: none"> <li>~ Do you think customers who pay in LPs prefer local produce?</li> <li>~ Have you considered substituting some of your imported products with local ones since accepting LPs?</li> </ul>
4) New relationships between shops and suppliers	Shop	<ul style="list-style-type: none"> <li>~ Do you have personal contact with your suppliers on a regular basis?</li> <li>~ Do you have more contact with your local suppliers compared to geographically distant suppliers?</li> <li>~ Have you considered (part-) paying any of your suppliers in LPs?</li> <li>~ Have you thought about using more local suppliers since accepting LPs?</li> </ul>
	LPS	See proxy 1 (percentage used to pay suppliers)
5) New relationships between shops and users	Shop	<ul style="list-style-type: none"> <li>~ How do you think accepting LPs affects your business?</li> <li>~ How often do you have a conversation with a customer about LPs?</li> </ul>
	User sur.	<ul style="list-style-type: none"> <li>~ Do you prefer to spend LPs or £s when shopping locally?</li> <li>~ Do you prefer shops that accept LPs to shops that don't?</li> </ul>
	Obs.	Interaction between shops and customers

6) Incentives to use the LP	Shop	What are the incentives provided by the shops using the LP? See also proxy 13 (business survey)
	Org.	What are the incentives provided by the design of the LP?
7) New business opportunities?	Shop	~ Do you think the LP provides you with new opportunities for? - selling your products - advertising your business - reaching new customers - supporting your local economy - other See also proxies 13-15
	LPS	~ How can you use the Lewes Pound to promote your business?
8) New forms of exchange made possible by LP	User sur./int.	~ Do you use LPs as payment outside the shops?
	Org.	Particular uses designed for the LP
	Obs.	Other forms of exchange emerging during phase 1
9) New ways of making a living?	User sur./int.	~ Would you accept LPs as (part-) payment for employment? ~ Have you ever accepted LPs as payment for work outside your formal job?
10) Effect on user income/purchasing power	User sur.	~ How often do you use the discounts offered for using LPs? ~ Do you think you get more for your money when you use LPs? ~ Is using the LP making your weekly shopping? - more expensive - less expensive - not affecting your spending
11) Changing spending habits?	User sur.	~ Do you buy more local products after using the LP? ~ Do you buy more environmentally friendly products when after the LP? ~ Do you buy more organic food after using the LP?
12) Changing shopping habits?	LPS	~ Since September 2008 do you use local Lewes shops? - More - Less - Same
13) Business use: marketing and discounts	Shop	~ Does your business offer discounts for using LPs? (How?) ~ Do you use the LP to advertise your business? ~ Do you think accepting the LP attracts more customers?
	Obs.	What discounts are offered around Lewes? Is the LP employed as a promotional tool in shops?
	LPS	See proxy 7
14) Business use: salaries	LPS	See proxy 1
15) Business use: suppliers	Shop	See proxy 4 (paying suppliers/using more local suppliers)
	LPS	See proxy 1

16) Businesses use: (dis-)advantages of using the LP	Shop	~ Are there any inconveniences in accepting the LP? ~ What are the advantages?
	Obs.	Does the LP cause extra work or training in shops? In what ways does the LP affect businesses overall?
	LPS	~ How do you think the Lewes Pound and its use could be improved?
17) Ease of use for customers?	User int.	~ Are there any inconveniences in using LPs? ~ What are the advantages?
	Obs.	What are non-users reasons for not accepting the LP? What are the obstacles for using LPs compared to £s?
	LPS	~ How do you think the Lewes Pound and its use could be improved?
18) Coverage	Obs.	What types of shops accept the LP? How many shops participate? Why do some people prefer using £s over LPs? What other uses does the LP have in Lewes?
19) New relationships between users	User sur.	~ How often do you have a conversation about the LP with other users? ~ Do you ever pay your friends in LPs? See also proxy 8
	Org.	Are there any social objectives built into the design of the LP?
	Obs.	Have new forms of relationships emerged since the launch of LP?
20) Does using the LP express a desire to take action on community issues?	User int.	~ Do you think that using a local currency is a way of addressing current economic problems? ~ Do you feel that using the LP addresses community issues in Lewes? See also proxy 29
21) Awareness of peak oil and climate change?	User int.	~ Have you heard of peak oil? ~ How well do you feel you can explain climate change? ~ In your view is there any connection between using the LP and these issues?
22) Awareness of Transition Town Lewes?	User int.	~ Have you heard of Transition Town Lewes? ~ Is the LP related to TTL? (How?) ~ Have you learnt more about TTL by using the LP? ~ Have you got involved with TTL since August '08?
23) Awareness of benefits of localisation?	User int.	~ Do you think it is better for the economy of Lewes to localise trade? ~ Do you feel the LP has helped you understand your local economy better?
24) Importance of supporting the local economy	User sur./int.	~ Do you think it is important that people in Lewes support the local economy? See proxy 29 (why use the LP)
25) Importance of minimising ecological footprint	User int.	~ Do you know what 'ecological footprint' means? ~ Is the ecological footprint of the products you buy important to you? ~ Do you think that using the LP reduces your ecological footprint?

		~ Do you think that using the LP has made you more aware of the ecological footprint of the produce you buy?
26) Importance of the local community	User int.	~ Is your local community important to you? (How?) ~ Do you think the LP supports your local community? ~ Have you become involved in any community projects since August '08? (Related to the LP/TTL?)
27) Sense of belonging in Lewes	User int.	~ How do you feel about living in Lewes? ~ Do you think the LP strengthens local identity in Lewes?
28) Sentiment towards Lewes	User int.	~ In your opinion what does the LP convey about Lewes? See proxy 27
29) Reasons for (not) using the LP?	User sur./int.	~ Do you use the LP? (Why/why not?)
	LPS	See proxy 20
30) Beliefs and feelings attached to the LP?	User int.	~ Do you think there are any benefits for Lewes in using the LP?
31) Affirmation of personal values	User sur.	~ Does it matter to you whether a product is locally produced? ~ Does it matter to you whether a product is environmentally friendly? ~ Does it matter to you whether your food is organic? See also proxy 29
32) Reducing food miles: products purchased with LP	Shop	See proxy 3 (substituting imported products)
	User sur.	~ How big a percentage of you spending in LPs is on food? ~ Is the food you buy with LPs the same as the food you buy with £s? ~ Do you think you buy more local food as a result of using LPs?
33) Stimulating local trade: business sourcing	Shop	See proxy 4 (using more local suppliers)
	LPS	See proxy 1 (percentage used to pay suppliers)
34) Promoting more sustainable products	Shop	~ What type of products do you usually receive payment for in LPs?
	User int.	~ What type of products do you buy with LPs? See also proxy 11
35) Does the LP facilitate new ways of providing goods/services?	Shop	See proxies 4, 5, 7, 13
	User	See proxies 8, 9, 19
	Org.	Is the LP designed to encourage alternative systems of provision? What are the observed effects of the way the LP works currently?
	Obs.	Have new systems of provision emerged since the launch of LP?
36) Greening of consumption: change in consumption patterns?	User sur./int.	~ Overall, how do you think using the LP affects your shopping? See also proxies 2, 11, 12, 32, 34
	LPS	See proxy 2 (spending in local shops) and 12 (use of local shops)
37) Does using the	User	Are there any indications that the LP in some way has

LP affect users' wider attitude and behaviour?	int.	<ul style="list-style-type: none"> <li>- made the interviewees more aware of their ecological footprint?</li> <li>- made the interviewees more active in the local community?</li> <li>- increased the interviewees' understanding of your local economy?</li> <li>- changed the way the interviewees think about shopping?</li> <li>- enhanced the interviewees' understanding of Transition?</li> </ul>
38) Spill-over effects?	Org.	Have there been any unanticipated benefits emerging from the LP project since its beginning?
	Obs.	E.g. does the LP lead <ul style="list-style-type: none"> <li>- to other kinds of environmental action?</li> <li>- to new ideas/projects (e.g. transport)?</li> <li>- to political or social changes in favour of the environment?</li> <li>- to networking with other environmental groups?</li> <li>- to increased awareness of environmental problems?</li> </ul>

Key to sources

Shop = Survey of business use and opinions

User surv. = User survey

User int. = Semi-structured interviews with users\*

Org. = Interview and information from organisers

Obs. = Observations from fieldwork

LPS = Lewes Pound survey on the Lewes Pound website

\* The questions as phrased here were followed up by a discussions around the topic.

## APPENDIX III

### BUSINESS SURVEY

**Do you think customers who pay in Lewes Pounds prefer local produce?**

		Frequency	Percent	Valid Percent	Cumulative Percent
	No	10	16.1	16.1	16.1
Valid	Yes	52	83.9	83.9	100.0
	Total	62	100.0	100.0	

**Have you considered substituting some of your imported products with local ones since accepting LPs?**

		Frequency	Percent	Valid Percent	Cumulative Percent
	No	52	83.9	85.2	85.2
Valid	Yes	9	14.5	14.8	100.0
	Total	61	98.4	100.0	
Missing	No reply	1	1.6		
Total		62	100.0		

**Do you have personal contact with your suppliers on a regular basis?**

		Frequency	Percent	Valid Percent	Cumulative Percent
	No	10	16.1	16.4	16.4
Valid	Yes	51	82.3	83.6	100.0
	Total	61	98.4	100.0	
Missing	No reply	1	1.6		
Total		62	100.0		

**Do you have more contact with your local suppliers compared to geographically distant suppliers?**

		Frequency	Percent	Valid Percent	Cumulative Percent
	No	26	41.9	45.6	45.6
Valid	Yes	31	50.0	54.4	100.0
	Total	57	91.9	100.0	
Missing	No reply	5	8.1		
Total		62	100.0		

**Have you considered (part-) paying any of your suppliers in LPs?**

		Frequency	Percent	Valid Percent	Cumulative Percent
	No	49	79.0	79.0	79.0
Valid	Yes	13	21.0	21.0	100.0
	Total	62	100.0	100.0	

**Have you thought about using more local suppliers since accepting LPs?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	51	82.3	85.0	85.0

	Yes	9	14.5	15.0	100.0
	Total	60	96.8	100.0	
Missing	No reply	2	3.2		
Total		62	100.0		

**How do you think accepting LPs affects your business?**

		Frequency	Percent	Valid Percent	Cumulative Percent
	No effect	27	43.5	48.2	48.2
	Little impact	14	22.6	25.0	73.2
	More customers	3	4.8	5.4	78.6
	Engage with business				
Valid	community	3	4.8	5.4	83.9
	Annoying	1	1.6	1.8	85.7
	I spend more LPs	1	1.6	1.8	87.5
	Advertising	6	9.7	10.7	98.2
	Awareness	1	1.6	1.8	100.0
	Total	56	90.3	100.0	
Missing	No reply	6	9.7		
Total		62	100.0		

**How often do you have a conversation with a customer about LPs?**

		Frequency	Percent	Valid Percent	Cumulative Percent
	Often	16	25.8	26.2	26.2
	Once a week	13	21.0	21.3	47.5
Valid	Every other week	9	14.5	14.8	62.3
	Once a month	20	32.3	32.8	95.1
	Never	3	4.8	4.9	100.0
	Total	61	98.4	100.0	
Missing	No reply	1	1.6		
Total		62	100.0		

**Do you think the LP provides you with new opportunities for selling your products?**

		Frequency	Percent	Valid Percent	Cumulative Percent
	No	47	75.8	78.3	78.3
Valid	Yes	13	21.0	21.7	100.0
	Total	60	96.8	100.0	
Missing	No reply	2	3.2		
Total		62	100.0		

**Do you think the LP provides you with new opportunities for advertising your business?**

		Frequency	Percent	Valid Percent	Cumulative Percent
	No	28	45.2	47.5	47.5
Valid	Yes	31	50.0	52.5	100.0
	Total	59	95.2	100.0	
Missing	No reply	3	4.8		
Total		62	100.0		



**Do you think the LP provides you with new opportunities for reaching new customers?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	42	67.7	70.0	70.0
	Yes	18	29.0	30.0	100.0
	Total	60	96.8	100.0	
Missing	No reply	2	3.2		
Total		62	100.0		

**Do you think the LP provides you with new opportunities for supporting your local economy?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	14	22.6	23.0	23.0
	Yes	47	75.8	77.0	100.0
	Total	61	98.4	100.0	
Missing	No reply	1	1.6		
Total		62	100.0		

**Other new opportunities?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Engage with customers	1	1.6	25.0	25.0
	Way of supporting local economy	1	1.6	25.0	50.0
	Attract tourists	1	1.6	25.0	75.0
	Reinforces local clientèle	1	1.6	25.0	100.0
	Total	4	6.5	100.0	
Missing	No reply	58	93.5		
Total		62	100.0		

**Does your business offer discounts for using LPs?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	51	82.3	83.6	83.6
	Yes	10	16.1	16.4	100.0
	Total	61	98.4	100.0	
Missing	No reply	1	1.6		
Total		62	100.0		

**What kind of discount?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No discount offered	52	83.9	85.2	85.2
	Reduction on membership	1	1.6	1.6	86.9
	Reduction on special items	5	8.1	8.2	95.1
	Reduction on all in shop	3	4.8	4.9	100.0
	Total	61	98.4	100.0	
Missing	No reply	1	1.6		
Total		62	100.0		

**Do you use the LP to advertise your business?**

		Frequency	Percent	Valid Percent	Cumulative Percent
	No	48	77.4	80.0	80.0
Valid	Yes	12	19.4	20.0	100.0
	Total	60	96.8	100.0	
Missing	No reply	2	3.2		
Total		62	100.0		

**Do you think accepting the LP attracts more customers?**

		Frequency	Percent	Valid Percent	Cumulative Percent
	No	45	72.6	77.6	77.6
Valid	Yes	13	21.0	22.4	100.0
	Total	58	93.5	100.0	
Missing	No reply	4	6.5		
Total		62	100.0		

**Are there any inconveniences in accepting the LP?**

		Frequency	Percent	Valid Percent	Cumulative Percent
	No	27	43.5	45.0	45.0
Valid	Yes	33	53.2	55.0	100.0
	Total	60	96.8	100.0	
Missing	No reply	2	3.2		
Total		62	100.0		

**What are the inconveniences?**

		Frequency	Percent	Valid Percent	Cumulative Percent
	Hassle to change	6	9.7	10.0	10.0
	Accounting	9	14.5	15.0	25.0
	Accummulates in till	8	12.9	13.3	38.3
Valid	Customers won't accept LPs	6	9.7	10.0	48.3
	Too small denomination	3	4.8	5.0	53.3
	Explaining that LP is about	1	1.6	1.7	55.0
	No inconvenience	27	43.5	45.0	100.0
	Total	60	96.8	100.0	
Missing	No reply	2	3.2		
Total		62	100.0		

### What are the advantages?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid None	9	14.5	21.4	21.4
Benefits local community	5	8.1	11.9	33.3
Conversation topic	3	4.8	7.1	40.5
Awareness raising	4	6.5	9.5	50.0
Supports local businesses	7	11.3	16.7	66.7
Feel part of business community	3	4.8	7.1	73.8
Advertising Lewes	8	12.9	19.0	92.9
Support a good initiative	1	1.6	2.4	95.2
Creates goodwill	2	3.2	4.8	100.0
Total	42	67.7	100.0	
Missing No reply	20	32.3		
Total	62	100.0		

### What type of products do you usually receive payment for in LPs?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid All kinds	2	3.2	3.6	3.6
Items <£5	11	17.7	20.0	23.6
Items <£10	17	27.4	30.9	54.5
Items <£15	13	21.0	23.6	78.2
Don't get LPs	10	16.1	18.2	96.4
Total	2	3.2	3.6	100.0
Missing No reply	55	88.7	100.0	
Total	7	11.3		
Total	62	100.0		

## USER SURVEY

### Why do you use the LP?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Support the local economy	24	58.5	68.6	68.6
I like the idea	3	7.3	8.6	77.1
Use it for discounts	1	2.4	2.9	80.0
Easy to use	1	2.4	2.9	82.9
Support the initiative	3	7.3	8.6	91.4
It's a novelty	1	2.4	2.9	94.3
I get it as change	2	4.9	5.7	100.0
Total	35	85.4	100.0	
Missing No answer	6	14.6		
Total	41	100.0		

**Do you accept LPs as change in the shops?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	1	2.4	2.4	2.4
	Yes	40	97.6	97.6	100.0
	Total	41	100.0	100.0	

**Do you exchange £s for LPs?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	8	19.5	19.5	19.5
	Yes	33	80.5	80.5	100.0
	Total	41	100.0	100.0	

**Sterling exchanged for Lewes Pounds (weekly average)**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	£2.50	4	9.8	9.8	9.8
	£5.00	6	14.6	14.6	24.4
	£9.00	1	2.4	2.4	26.8
	£10.00	3	7.3	7.3	34.1
	£12.50	1	2.4	2.4	36.6
	£20.00	1	2.4	2.4	39.0
	£25.00	1	2.4	2.4	41.5
	£50.00	1	2.4	2.4	43.9
	£60.00	1	2.4	2.4	46.3
	N/A	8	19.5	19.5	65.9
	Don't exchange regularly	14	34.1	34.1	100.0
	Total	41	100.0	100.0	

**Do you exchange LPs for £s?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	39	95.1	95.1	95.1
	Yes	2	4.9	4.9	100.0
	Total	41	100.0	100.0	

**LPs exchanged for Sterling (weekly average)**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	£5.00	1	2.4	2.4	2.4
	N/A	39	95.1	95.1	97.6
	Don't exchange regularly	1	2.4	2.4	100.0
	Total	41	100.0	100.0	

**How often do you have LPs on you?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Always	8	19.5	19.5	19.5
	Most days	13	31.7	31.7	51.2
	Once a week	8	19.5	19.5	70.7
	Once a month	12	29.3	29.3	100.0
	Total	41	100.0	100.0	

**How often do you spend LPs?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Always	3	7.3	7.3	7.3
	Most days	7	17.1	17.1	24.4
	Once a week	19	46.3	46.3	70.7
	Once a month	11	26.8	26.8	97.6
	Never	1	2.4	2.4	100.0
	Total	41	100.0	100.0	

**What percentage of your shopping is in LPs?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1%	8	19.5	19.5	19.5
	1.5%	4	9.8	9.8	29.3
	2%	6	14.6	14.6	43.9
	5%	9	22.0	22.0	65.9
	10%	4	9.8	9.8	75.6
	12%	1	2.4	2.4	78.0
	20%	4	9.8	9.8	87.8
	30%	1	2.4	2.4	90.2
	33%	1	2.4	2.4	92.7
	35%	1	2.4	2.4	95.1
	40%	1	2.4	2.4	97.6
	65%	1	2.4	2.4	100.0
	Total	41	100.0	100.0	

**Do you prefer to spend LPs or £s when shopping locally?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	5	12.2	12.2	12.2
	Yes	26	63.4	63.4	75.6
	Indifferent	10	24.4	24.4	100.0
	Total	41	100.0	100.0	

**Do you prefer shops that accept LPs to shops that don't?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	2	4.9	4.9	4.9
	Yes	32	78.0	78.0	82.9
	Indifferent	7	17.1	17.1	100.0

Total	41	100.0	100.0
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**Since using the LP has your spending on local produce:**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Increased	16	39.0	39.0	39.0
Valid Decreased	1	2.4	2.4	41.5
Valid Stayed the same	24	58.5	58.5	100.0
Total	41	100.0	100.0	

**How big a percentage of your spending in LPs is on food?**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0%	2	4.9	5.1	5.1
Valid 1%	1	2.4	2.6	7.7
Valid 1.5%	1	2.4	2.6	10.3
Valid 2%	1	2.4	2.6	12.8
Valid 5%	2	4.9	5.1	17.9
Valid 10%	2	4.9	5.1	23.1
Valid 20%	1	2.4	2.6	25.6
Valid 40%	2	4.9	5.1	30.8
Valid 50%	1	2.4	2.6	33.3
Valid 70%	1	2.4	2.6	35.9
Valid 75%	2	4.9	5.1	41.0
Valid 85%	3	7.3	7.7	48.7
Valid 90%	3	7.3	7.7	56.4
Valid 95%	2	4.9	5.1	61.5
Valid 100%	15	36.6	38.5	100.0
Total	39	95.1	100.0	
Missing No reply	2	4.9		
Total	41	100.0		

**Is the food you buy with LPs the same as the food you buy with £s?**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid No	22	53.7	59.5	59.5
Valid Yes	15	36.6	40.5	100.0
Total	37	90.2	100.0	
Missing No reply	4	9.8		
Total	41	100.0		

**Do you think you buy more local food as a result of using LPs?**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid No	11	26.8	29.7	29.7
Valid Yes	26	63.4	70.3	100.0
Total	37	90.2	100.0	
Missing No reply	4	9.8		
Total	41	100.0		

**Do you buy more environmentally friendly products after using the LP?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	17	41.5	44.7	44.7
	Yes	21	51.2	55.3	100.0
	Total	38	92.7	100.0	
Missing	No reply	3	7.3		
Total		41	100.0		

**Do you buy more organic food after using the LP?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	21	51.2	56.8	56.8
	Yes	16	39.0	43.2	100.0
	Total	37	90.2	100.0	
Missing	No reply	4	9.8		
Total		41	100.0		

**How often do you use the discounts offered for using LPs?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	37	90.2	90.2	90.2
	Weekly	1	2.4	2.4	92.7
	Monthly	2	4.9	4.9	97.6
	All the time	1	2.4	2.4	100.0
	Total	41	100.0	100.0	

**Do you think you get more for your money when you use LPs?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	34	82.9	82.9	82.9
	Yes	7	17.1	17.1	100.0
	Total	41	100.0	100.0	

**Is using the LP making your weekly shopping:**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	More expensive	5	12.2	12.5	12.5
	Less expensive	1	2.4	2.5	15.0
	Not affecting your spending	34	82.9	85.0	100.0
	Total	40	97.6	100.0	
Missing	No reply	1	2.4		
Total		41	100.0		

**Do you use LPs as payment outside the shops?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	30	73.2	73.2	73.2
	Yes	11	26.8	26.8	100.0
	Total	41	100.0	100.0	

**If yes, for what?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Between friends	2	4.9	20.0	20.0
	Services	7	17.1	70.0	90.0
	Gifts	1	2.4	10.0	100.0
	Total	10	24.4	100.0	
Missing	N/A	31	75.6		
Total		41	100.0		

**Would you accept LPs as (part-) payment for work?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	8	19.5	20.0	20.0
	Yes	32	78.0	80.0	100.0
	Total	40	97.6	100.0	
Missing	No reply	1	2.4		
Total		41	100.0		

**Have you ever accepted LPs as payment for work outside your formal job?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	37	90.2	90.2	90.2
	Yes	4	9.8	9.8	100.0
	Total	41	100.0	100.0	

**How often do you have a conversation about the LP with other users?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	2	4.9	4.9	4.9
	More than once a week	5	12.2	12.2	17.1
	Weekly	10	24.4	24.4	41.5
	Once a fortnight	2	4.9	4.9	46.3
	Monthly	16	39.0	39.0	85.4
	Every couple of months	6	14.6	14.6	100.0
	Total	41	100.0	100.0	

**Do you ever pay your friends in LPs?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	32	78.0	78.0	78.0
	Yes	9	22.0	22.0	100.0
	Total	41	100.0	100.0	

**If yes, for what?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Money I borrowed	3	7.3	50.0	50.0
	Gifts	2	4.9	33.3	83.3
	Services rendered	1	2.4	16.7	100.0



	Total	6	14.6	100.0
Missing	N/A	35	85.4	
	Total	41	100.0	

**Does it matter to you whether a product is locally produced?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	40	97.6	100.0	100.0
Missing	No reply	1	2.4		
	Total	41	100.0		

**Does it matter to you whether a product is environmentally friendly?**

		Frequency	Percent	Valid Percent	Cumulative Percent
	No	2	4.9	5.0	5.0
Valid	Yes	38	92.7	95.0	100.0
	Total	40	97.6	100.0	
Missing	No reply	1	2.4		
	Total	41	100.0		

**Does it matter to you whether your food is organic?**

		Frequency	Percent	Valid Percent	Cumulative Percent
	No	7	17.1	17.5	17.5
Valid	Yes	33	80.5	82.5	100.0
	Total	40	97.6	100.0	
Missing	No reply	1	2.4		
	Total	41	100.0		

**Do you think it is important that people in Lewes support the local economy?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	41	100.0	100.0	100.0

**Overall, how do you think using the LP affects your shopping?**

		Frequency	Percent	Valid Percent	Cumulative Percent
	Doesn't affect my shopping	6	14.6	14.6	14.6
	Makes me focus on local produce	7	17.1	17.1	31.7
	Affects my shopping very little	9	22.0	22.0	53.7
Valid	Feel part of the community	2	4.9	4.9	58.5
	Increases awareness	10	24.4	24.4	82.9
	Use local shops more	4	9.8	9.8	92.7
	Makes me feel better	3	7.3	7.3	100.0
	Total	41	100.0	100.0	

## APPENDIX IV

### LEWES POUND GROUP BUSINESS SURVEY

#### Do you accept Lewes Pounds?

		Frequency	Percent Valid	Percent	Cumulative Percent
Valid	No	23	35.4	35.4	35.4
	Yes	40	61.5	61.5	96.9
	Did but stopped	2	3.1	3.1	100.0
	Total	65	100.0	100.0	

#### How can you use the Lewes Pound to promote your business?

		Frequency	Percent Valid	Percent	Cumulative Percent
Valid	Don't know	4	6.2	9.5	9.5
	Advertising	4	6.2	9.5	19.0
	Special offers	7	10.8	16.7	35.7
	Engage with customers	2	3.1	4.8	40.5
	N/A	25	38.5	59.5	100.0
	Total	42	64.6	100.0	
Missing	No reply	23	35.4		
Total		65	100.0		

#### Do you offer Lewes Pounds in change?

		Frequency	Percent Valid	Percent	Cumulative Percent
Valid	Yes	39	60.0	60.9	60.9
	N/A	25	38.5	39.1	100.0
	Total	64	98.5	100.0	
Missing	No reply	1	1.5		
Total		65	100.0		

#### Of the Lewes Pounds you receive what percentage (roughly) do you give out as change?

		Frequency	Percent Valid	Percent	Cumulative Percent	
Valid	0%	7	10.8	18.9	18.9	
	1%	2	3.1	5.4	24.3	
	2%	1	1.5	2.7	27.0	
	5%	4	6.2	10.8	37.8	
	7%	1	1.5	2.7	40.5	
	10%	4	6.2	10.8	51.4	
	20%	1	1.5	2.7	54.1	
	25%	2	3.1	5.4	59.5	
	50%	2	3.1	5.4	64.9	
	90%	1	1.5	2.7	67.6	
	95%	2	3.1	5.4	73.0	
	100%	10	15.4	27.0	100.0	
	Total		37	56.9	100.0	
	Missing	No reply/Not applicable	28	43.1		
Total		65	100.0			

**Of the Lewes Pounds you receive what percentage (roughly) do you use to (part-) pay your suppliers?**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0%	35	53.8	94.6	94.6
Valid 5%	1	1.5	2.7	97.3
Valid 50%	1	1.5	2.7	100.0
Total	37	56.9	100.0	
Missing No reply/Not applicable	28	43.1		
Total	65	100.0		

**Of the Lewes Pounds you receive what percentage (roughly) do you use to (part-) pay your staff?**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0%	36	55.4	97.3	97.3
Valid 5%	1	1.5	2.7	100.0
Total	37	56.9	100.0	
Missing No reply/Not applicable	28	43.1		
Total	65	100.0		

**Of the Lewes Pounds you receive what percentage (roughly) do you use for personal purchases?**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0%	30	46.2	81.1	81.1
Valid 2%	1	1.5	2.7	83.8
Valid 5%	1	1.5	2.7	86.5
Valid 25%	1	1.5	2.7	89.2
Valid 100%	4	6.2	10.8	100.0
Total	37	56.9	100.0	
Missing No reply/Not applicable	28	43.1		
Total	65	100.0		

**Of the Lewes Pounds you receive what percentage (roughly) do you exchange back into sterling?**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0%	19	29.2	51.4	51.4
Valid 10%	1	1.5	2.7	54.1
Valid 50%	2	3.1	5.4	59.5
Valid 75%	1	1.5	2.7	62.2
Valid 80%	1	1.5	2.7	64.9
Valid 85%	1	1.5	2.7	67.6
Valid 90%	4	6.2	10.8	78.4
Valid 93%	1	1.5	2.7	81.1
Valid 95%	4	6.2	10.8	91.9
Valid 98%	1	1.5	2.7	94.6
Valid 99%	1	1.5	2.7	97.3
Valid 100%	1	1.5	2.7	100.0
Total	37	56.9	100.0	

Missing No reply/Not applicable	28	43.1
Total	65	100.0

**What impact has the Lewes Pound had on your business?**

	Frequency	Percent Valid	Percent Cumulative
Valid 0	1	1.5	1.6
Positive	16	24.6	25.4
Negative	1	1.5	1.6
Neutral	22	33.8	34.9
N/A	23	35.4	36.5
Total	63	96.9	100.0
Missing No reply	2	3.1	
Total	65	100.0	

**Would higher denominations be beneficial to your business?**

	Frequency	Percent Valid	Percent Cumulative
Valid No	19	29.2	41.3
Yes	27	41.5	58.7
Total	46	70.8	100.0
Missing No reply	19	29.2	
Total	65	100.0	

**How could the Lewes Pound be improved?**

	Frequency	Percent Valid	Percent Cumulative
Valid Don't know	1	1.5	2.9
Increase number of traders	5	7.7	14.7
More publicity	14	21.5	41.2
Higher denominations	9	13.8	26.5
Discount for exchange	3	4.6	8.8
Invent cheque	1	1.5	2.9
More issuing points	1	1.5	2.9
Total	34	52.3	100.0
Missing No reply	31	47.7	
Total	65	100.0	

**Percentage of LPs given back in change**

	Frequency	Percent Valid	Percent Cumulative
Valid 0%	7	10.8	18.9
1-5%	7	10.8	18.9
6-10%	5	7.7	13.5
20-29%	3	4.6	8.1
50%	2	3.1	5.4
90-99%	3	4.6	8.1
100%	10	15.4	27.0
Total	37	56.9	100.0
Missing No reply/Not applicable	28	43.1	
Total	65	100.0	

**Percentage of LPs exchanged for sterling**

	Frequency	Percent Valid	Percent Cumulative	Percent
Valid 0%	19	29.2	51.4	51.4
10%	1	1.5	2.7	54.1
50%	2	3.1	5.4	59.5
75%	1	1.5	2.7	62.2
80-89%	2	3.1	5.4	67.6
90-99%	11	16.9	29.7	97.3
100%	1	1.5	2.7	100.0
Total	37	56.9	100.0	
Missing No reply/Not applicable	28	43.1		
Total	65	100.0		

**LEWES POUND GROUP USER SURVEY**

**Do you use Lewes Pounds?**

	Frequency	Percent Valid	Percent Cumulative	Percent
Valid Yes	64	100.0	100.0	100.0

**Do you use independent Lewes shops?**

	Frequency	Percent Valid	Percent Cumulative	Percent
Valid Yes	64	100.0	100.0	100.0

**Since September 2008 do you use local Lewes shops?**

	Frequency	Percent Valid	Percent Cumulative	Percent
Valid More	33	51.6	51.6	51.6
Same	31	48.4	48.4	100.0
Total	64	100.0	100.0	

**Since September 2008 has your spending in local shops changed?**

	Frequency	Percent Valid	Percent Cumulative	Percent
Valid Increased	28	43.8	43.8	43.8
Decreased	1	1.6	1.6	45.3
Same	35	54.7	54.7	100.0
Total	64	100.0	100.0	

## APPENDIX V

### EXCERPTS FROM USER INTERVIEWS

#### **Interviewee 1**

”I think it is a good thing for Lewes. And I also think in these times of so-called financial worry... I think it has given Lewes a bit of a lift and, you know, make people not just believe everything they say on the radio and television and actually think for themselves. We can do something for ourselves.”

”It will be nice to have bigger denominations, definitely. It will make it easier to spend. And more to just count it in amongst your currency so whether it's a pound or a Lewes Pound becomes irrelevant. It's just money that you're spending.”

”It's been easier for me to shop online with either Tesco or Asda, get the week's shopping and have it delivered. And what the Pound has made me do is, I still do use Asda or Tesco to deliver heavy stuff, but I do make an effort to go locally. Mainly for food shopping. So I do spend a proportion, perhaps a third, on local produce in small shops.”

”Part of me feels this is all a drop in the ocean. And part of me feels that in a very small way I'm doing something [...] I don't know if it has made more people change how they shop. It certainly has done with me to a certain extent.”

#### **Interviewee 2**

”I like to think it's building different economic circles and differently defined circles based on an element of good-will [...] I'd like to be able to pay my council tax with it.”

”It's part of slower life as well [...] It's a consciousness”.

”It's an opportunity to engage more closely. It's about taking responsibility in a different way than just putting the cost on a credit card.”

”Last year I was going up to London every other week. When I got back to Lewes I exchanged my Lewes Pounds and I really felt 'right, I'm here'.”

### **Interviewee 3**

”It reminds me to buy things locally. It is like a reminder in my purse all the time.”

”When I hand my money in Lewes Pounds to somebody it is like I am creating... I'm building my relationship with them. It means that I value them, and I'm responsible for them, just like they're responsible for feeding me. It reminds us that that its the kind of relationship that we have.”

”Our local identity is very complex and rich [...] Compared to the say the Tesco identity it is a very different kind of identity.”

”If we have a localised community, there's less air miles, less packaging, less sort of... processed aspects. The processing takes up fossil fuels.”

”People turn to processed things when their lives are less meaningful and when they don't have community ... When I'm happy and I'm bonded with my community and my family then I tend to eat things that are healthy for me and the planet. Theres a big element of that. I'm not compensating for being unhappy by needing to consume more.”

### **Interviewee 4**

”It is not an economic reason, I like the idea of [...] I think it is a political act really. I like the idea of decentralisation, of local self-empowerment.”

”There are no personal advantages to me. The reason I do it is for political reasons. I feel that I am contributing to making my community more resilient. But it is not a tangible advantage because there is no measurable effect yet, except in terms of the community feeling [...]

There is a kind of feeling that goes with spending and receiving Lewes Pounds [...] it is like a signal to people, and a signal from them to you, that they are concerned about [the community].”

”Lewes is a town of strong communities [...] Lewes is very multilayered. Not only in class terms [...] Lots of layers of different communities all involved in different things. [The Lewes Pound] sits mostly within the alternative middle-class.”

”It is going to take some time before it actually emerges whether it has made a difference or is capable of making a difference. With these things if you don't start, you are never going to find out.”

### **Interviewee 5**

”When it first came in, I got the Lewes Pounds and used them. But now that I've got into the habit [of using local shops] I don't necessarily use them as much. But I've got into the habit of using those small shops and that's the key thing.”

”It may get more people around the centre and give it a bit more atmosphere.”

”It has made me a bit sharper and a bit more aware. One thing that happened that really shocked me, I think it was about the time of the launch of the Lewes Pound but I can't remember for sure, is a few shops closed [...] There was one close to me and I thought [...] 'This is silly I could have used them. I could have done something'. That made me think. With the Lewes Pound coming in I thought I must try and make an effort. What I'm doing is finding things that you can buy that are either better quality or aren't that much more expensive than the supermarket.”

”It's given me something that I like and, have a sense of, and when I've got friends that say 'I've heard about the Lewes Pound in the paper'... Whether that affects other people in Lewes in the same way I don't know. It has certainly given me a sense that this is an unusual and special place.”