Complementary currency systems questioning social and economic changes

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INTRODUCTION

Complementary Currency Systems (CCS) are by no means new to history; since the 1980s they have been attracting more and more attention and growing apace in developed as in developing economies. By Complementary Currency System we understand a unit (or system) of account that is specific (i.e. not general), complementing the official currency, developed at the initiative of a group of agents (private individuals, enterprises, local authorities, NGOs, associations, foundations, private non-profit organisations, etc.) that band together to form a network in a delimited territory, with a view to enabling accounting and the regulation of trade in goods and services.

CCS is a relatively recent theme that, as these new currencies take off, has been attracting increasing attention in research field. A space is being set aside to promote dialogue between researchers working on specific monetary arrangements. In 1997 the *International Journal of Community Currency Research Journal* (IJCCR) (http://ijccr.net/) was created by Colin Williams, Mark Jackson and Gill Seyfang[1]; it was to play an important part in spreading knowledge of CCS. Space devoted specifically to this research subject has received further support from the establishment (still in progress) of an international association of researchers working on the subject and the organisation of regular conferences on CCS at the Ecole Normale de Supérieure de Lyon[2] (2011), at the International Institute of Social Studies in the Hague[3] (2013) and at the Federal University of Bahia in Brazil (2015). These events also provide opportunities for meetings between stakeholders (practitioners, local officials and councillors, etc.) in the sector and between operatives and research workers[4].

The aim of this article is to give an account of the state of the CCS issue, which originated in economic geography and subsequently moved towards institutional economics. After going through the relevant literature and putting it in historical and thematic order, we propose to explain the characteristics, the logic and the impact of these complementary monetary arrangements.

First, we will take a panoramic view of CCS, showing how very diverse they are, both in their nature and their objectives, their concepts, their forms and modes of monetary governance, and the degree of their articulation to political and economic structures. The

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[1] This revue is currently edited by Gill Seyfang and Noel Longhurst.

[2] See the site CC-conf: http://conferences.ish-lyon.cnrs.fr/index.php/cc-conf/2011. This conference was organised by the LEFI and Triangle laboratories with support from the Veblen Institute for Economic Reform and the FPH (Charles Léopold Mayer Foundation for the Progress of Man), and the Caisse des Dépôts et Consignations Institute for Research and the Rhône-Alpes Region.

[3] V. the site : http://www.iss.nl/research/conferences_and_seminars/previous_iss_conferences_and_seminars/complementary_currency_systems/

[4] For the 2011 study days see: http://monnaiesendebat.wordpress.org/.

section 2 analyses the methods used by the literature to evaluate the impact of CCS. The section 3 presents the contributions the challenges they embody, echoing the current context of crisis in the regime of financial globalisation. These new monetary arrangements are part of local economic and socio-economic dynamics, and should be seen as weapons in the struggle against social and monetary exclusion. Lastly, CCS raise important questions on the emergence of a new economic order, based on new standards of production and consumption. They challenge, from a theoretical point of view, the role and place of money in the economy. Section 4 concludes with a return to one of the challenges facing CCSs. It takes us bake to the question of their scale, inquiring into the conditions of possibility and the benefits and potential problems that a change of this sort could entail.

COMPLEMENTARY CURRENCY SYSTEMS: WHAT EXACTLY ARE THEY?

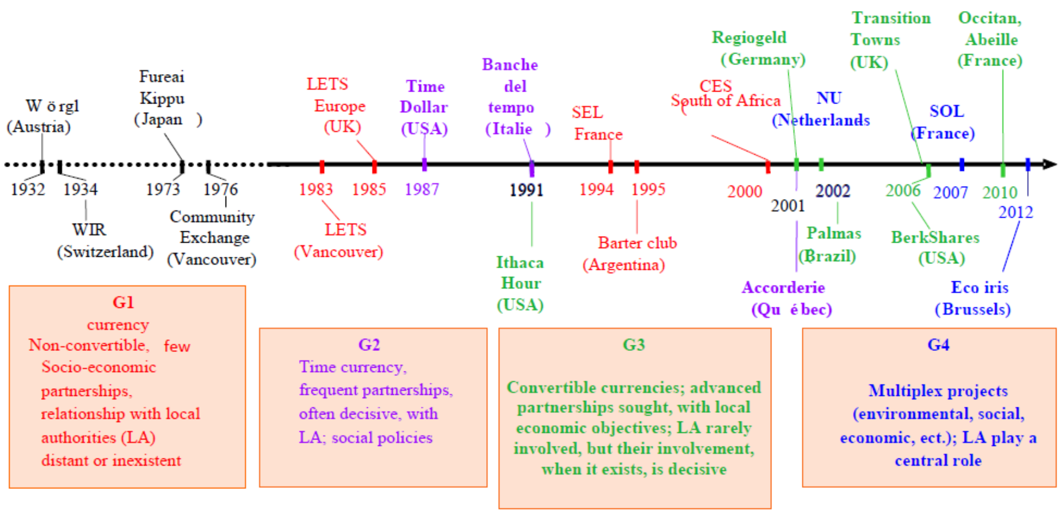
The beginnings of CCS date back to the 19th and early 20th century: the monetary experiments (usually described as utopian and /or socialist). Robert Owen (1771-1859), set up the first Labour Exchange in England (1832-1834), to combat monetary and financial exclusion. In an exchange of fair labour, the products of tradesmen, home-workers and cooperatives were traded, by means of work-tickets, at prices based on the number of hours needed to produce them (Dupuis, 1991). In 1849, Proudhon proposed an alternative project of society based on new monetary and financial principles: universal credit, free of charge, managed by a new banking institution, the “people’s bank”, with “exchange bills” replacing the official currency[5]. Subsequently, local currencies based on a system of stamped notes (subject to the cost of demurrage, and depreciating with time) were tried out in the 1930s at Wörgl in Austria, and were applied on various terrains, e.g. in the USA in 1933, with Stamp Scrip, under the influence of the economist Irving Fisher; later, in France during the 1950s, a system of local vouchers was developed; very much later, in Argentina, with the currencies used by barter clubs; and, as of the new millennium, in Germany, with regional currencies (such as the Chiemgauer); and last but not least the Stroud pound, launched in the UK in 2009. In the early 1980s, a new wave of CCS emerged with the creation in 1983 of the LETS (Local Exchange Trading System) in Comox Valley on Vancouver Island in Canada, in a context of massive unemployment resulting from the closure of a local industry. This model subsequently spread throughout the world. There had not been a wave of local currencies of this order since the beginnings of industrialisation in the early 19th century. Over the past 30 years, the gradual diversification of existing models of CCS and their ability to last have raised a number of questions. What do they mean? What impact have they had? The available information on their actual numbers is controversial. It is by no means clear whether the list we have given is exhaustive or not, as some systems have been neither publicised nor studied. According to our sources, some 3,500 to 4,500 systems have so far been recorded in more than 50 countries (Blanc, 2006; Kennedy and Lietaer, 2008; Seyfang and Longhurst, 2013)[6].

These monetary arrangements are by no means homogeneous. They are highly varied, differing in their political and ideological bases, theoretical reasoning, modes of governance and the material form of their currency. Systems tend to be complex and are more or less closely tied to official monetary systems and to local political and economic institutions. They are also part of contexts that are sometimes markedly “northern” or “southern”. Systems that

[5] For an exhaustive presentation of the project, see in particular Ferreira (2006).
[6] The website http://www.complementarycurrency.org/ccDatabase/ managed by Stephen DeMeulenaere, founder and coordinator of the Complementary Currency Resource Centre (CCRC), details this diversity.

emerge in the South usually come into being during economic crises, and in impoverished social strata. Those that emerge in the North concern strata that can be highly diversified (ranging from people whose position is precarious to the so-called "bohemian bourgeois" urbanites), as are their motivations. Yet, whatever the specific context of their emergence, all these currency systems share the same objectives: support for territorial socio-economic and political dynamics, introduction of new economic practices based on new social and environmental norms, promotion of participatory democracy and of empowerment. When a new currency emerges in a context of fragility or crisis, in some regional or local cases it outlasts the original situation and gains recognition by the relevant political authorities.

Figure 1: simplified chronology of main types of CCS



Source: adapted from Blanc and Fare (2012)

As of the 1980s, four generations of CCS can be distinguished, according to their monetary organisation and specific links to the socio-economic world and to the local and central public authorities (Blanc, 2011; Blanc and Fare, 2012). These four generations do not necessarily appear in that order, one after another; they are subject to mutation and imbrication; and the emergence of a new CCS does not necessarily put an end to those that already exist.

A first generation of CCS emerges in the form of LETS, as of 1983, and amplifies constantly, from an initial count of about 1412 instances in 2012 (Seyfang and Longhurst, 2013). The literature on the subject is abundant (Aldridge et *al*., 2003; Boyle, 2001; Douthwaite, 1999; Lee, 1996; Liesch and Birch, 2000; Nakazato and Hiramoto, 2012; North, 2007, 2010; Pacione, 1999; Seyfang, 1997, 2001; Williams, 1996a, 1996b, 1996c). LETS use paper currency or mutual credit. Mutual credit currencies are created in the actual act of trading, by simultaneous crediting and debiting of the parties involved in the deal. These currencies are thus completely different from paper money, which has to be issued prior to the deal in order to enable it. As paper money, we can mention for example the currency used by the Argentine barter clubs that enjoyed unprecedented success and have given rise to a substantial literature (Abramovich and Vazquez, 2007; Goméz, 2009; Hintze, 2003;Ould Ahmed, 2009; 2010; Plasencia, 2008; Plasencia and Orzi, 2007; etc.). The arrangements made in this first generation of CCS are characterised by non-convertibility into the official currency, and by their origin: in most cases local associations set them up to respond to demand that was not catered for by the market and the State. Few partnerships were set up with local authorities. Examples of currencies of this generation are the local exchange systems (SEL) in France (Laacher, 2003; Lenzi, 2006; Servet, 1999; etc.) and the Community Exchange System (CES) devised in South Africa (Coetzee, 2012).

The second generation of CCS can be traced back to the Japanese *Fureai Kippu* system devised in the 1970s to promote solidarity between population generations. The second generation of CCS came into its own, however, with the North American time-bank and time-dollar experiments (Cahn, 2004), and subsequently with the Italian *banche del tempo* set up in the later 1990s. It was then that an international dynamic emerged: in 2012 some 1715 instances were recorded (Seyfang and Longhurst, 2013). An abundant literature has been devoted to them (Amorevole et *al*., 1998; Boyle, 2001; Ozanne, 2010; Seyfang, 2003, etc.). The trading was in services, and accounting was based on the time taken to provide them. The resultant currencies were totally non-convertible. Unlike most first-generation experiments, time banks were often closely linked to local authorities or to socio-economic solidarity movements, and promoted social objectives (various forms of local mutual aid) rather than economic ones. This second generation of CCS continued with the Quebec *Accorderie* model that combined time-trading, microcredit and joint purchasing arrangements, all with outside support, that in Quebec came from a foundation, and in France from local authorities (Comeau and Boulianne, 2012; Fare, 2011; Lizotte and Duhaime, 2011).

A third generation of CCS came into being in 1991 in the USA with the Ithaca Hour (Collom, 2005; Douthwaite, 1999; Jacob et *al*., 2004; Krohn and Snyder, 2008). In 2003 it got a "second wind" in Germany with the Regiogeld experiment (Gelleri, 2009; Kennedy and Lietaer, 2008; Thiel, 2012; Volkmann, 2012[7] and with the emergence of community development banks in Brazil (Borges, 2010; Franca Filho et *al*., 2012; Melo et *al*., 2009; Meyer, 2012; Neiva et *al*., 2013) (see figure 3). Later on, in the new millennium, it reappeared in the UK with the "Towns in Transition" movement[8] at Totnes (2006) and Lewes (2008), then at Stroud and Brixton, in 2009, and at Bristol in 2011 (Graugaard, 2012; Longhurst, 2009; North, 2010; Ryan-Collins, 2011; Scott Cato and Suárez, 2012); in France it appeared at Villeneuve-sur-Lot with the Abeille currency. Approximately 243 CCS of this type were recorded in 2012 (Seyfang and Longhurst, 2013), using money in either paper or electronic form (for examples of vouchers, see figure 2). Conversion from the central to the local currency was possible, at fixed rates, but conversion from local to central was either impossible or was subject to penalties. Issues of local currency were covered by equivalent reserves in the national currency. The alternative currencies were designed for ordinary day-to-day consumption, subject to agreements with partners (enterprises or shops). Some currencies also went into partnership with local banks to organise microcredits, or (in the case of the Bristol Pound and the Brixton Pound) with local authorities to settle public services and local rates and taxes.

A fourth generation of CCS came into being after the year 2000, often in the form of smart cards and electronic currency. These CCS were distinguished by the multiple partnerships they set up with local authorities, economic agents and institutions, and national sometimes even European organisations or programmes. Multiple partnerships were set up and specific material forms of money led to technological solutions that sometimes turned out to be expensive. Examples are the NU experiment in Rotterdam in 2002-2003 (Sambeek and Kampers, 2004; Seyfang, 2001), the SOL experiment in France between 2006 and 2008

[7] For a survey of the 73 local-currency projects in the *Regiogeld* network and their specificities, see in particular Thiel (2011).

[8] The "towns in transition" are putting into practice initiatives that are responding to the challenge of climate change and peak oil by improving the resilience of territories. See the site: http//www.transitionnetwork.org/

(Delille and Whitaker, 2006; Fare, 2010, 2011), and the Eco-pesa that circulated in Kenya in 2010 (Ruddick, 2011). On the whole, these systems were relatively few in number: in the whole world only about ten existed in 2012.

Tables 1 and 2 sum up some organisational characteristics of CCS, by generation, and give some quantitative data for some examples as an indication.

Table 1. Main characteristics of currencies cited, by generation

Generations	CCS	Monetary Forms	Issue	Convertibility
G1	LETS	Scriptural	Issued in trade	Non-convertible
	SEL	Scriptural	Issued in trade	Non-convertible
	Argentine *Trueque*	Manual	Prior issue	Non-convertible
G2	Time banks (UK)	Scriptural	Issued in trade	Non-convertible
	Accorderie	Scriptural	Issued in trade	Non-convertible
G3	Local complementary currency (France)	Manual	Prior issue	Convertible (on entry but on exit for service providers only)
	Regiogeld (Germany)	Manual and electronic	Prior issue	Convertible (on entry but on exit for service providers only)
	Brazilian community currencies	Manual	Prior issue	Convertible (on entry but on exit for service providers only)
	Currencies of Towns in Transition	Manual and electronic	Prior issue	Convertible (on entry but on exit for service providers only)
G4	Experimental SOL (France)	Electronic	Prior issue (assigned SOL and cooperation SOL) or in trade (commitment SOL)	Convertible (cooperation SOL on entry but on exit for service providers only), non convertible (commitment SOL and assigned SOL)
	Nu (Netherlands)	Scriptural	Issue in trade	Convertible (on entry but on exit for service providers only)

Sources: Adapted from Fare (2011).

Table 2. Some examples of CCS

Generations of CCS	Name of currency	Zone of activity	Date of introduction of the currency	Number of providers	Number of individual users
G3	Palmas	Conjunto Palmeira (Fortaleza, Brazil)	2002	270 (in 2013)	Not recorded
G3	Chiemgauer	Chiemgau (Germany)	2003	630 (end 2012)	2573 (end 2012)
G3	Brixton pound	Brixton (London, UK)	September 2009	200 (paper money) ; 100 (payment by SMS) (October. 2013)	3000 used it at least once (by 2012)
G3	Bristol pound	Bristol (UK)	September 2012	600 (September 2013)	A few thousand, 1 200 of whom held accounts with the Bristol Credit Union

					(Sept. 2013)
G3	Béki	Canton of Redange (Luxemburg)	2012	71 (January 2014)	Not recorded
G3	UDIS	Suchitoto (San Salvador)	2009	100	Not recorded
G3	Eusko	Basque country (France)	January 2013	500 (December 2013)	2 700 (December 2013)
G4	NU Spaarpass incentive card	Netherlands	May 2002 - March 2003	Approx one hundred	10 000
G4	SOL Alpine	France	November 2007	23 (2012)	147 active users (2011) out of 1360 holders of cards distributed since 2007

Source: The Authors, using documents distributed by associations supporting CCS and interviews carried out ad hoc.

MEASURING THEIR IMPACT: A METHODOLOGICAL QUESTION

Because of the very diversity of CCS and the fact that they have emerged only relatively recently, the main studies are empirical and used a pluralism method to analyse the impact of CCS.

Empirical and contextualised studies

Theoretical work on CCS is still a minority concern, however, as Ryan-Collins (2011) has pointed out. This can be explained, in our opinion, by a need to distance oneself in time: so many monetary innovations, so different from one another and so complex. A lot of empirical research will be needed before a theory can be formulated convincingly.

CCS have not yet been thoroughly studied and there is no database to document their development, characteristics, specific logics and quantitative and qualitative features. Econometric studies not being practicable, it is difficult to account properly for individual behaviour, quantitative aspects and the logics in operation. This is why fieldwork to be undertaken, to obtain data through analyses of impacts.

The majority of researchers working on CCS issues adopt a pluralism method to conduct their field surveys using a number of socio-economic and economic-anthropological methods and approaches such as:

- Action research: the researcher plays a dual role, as research agent and at the same time as socio-economic actor. This involves taking academic knowledge beyond the walls of the institution in which it originated (i.e. education, research) in order to propel social change. This approach is widely used by research institutions in countries such as the UK or Brazil with community development banks. It also consists in making the research process as transparent as possible by doing away with hierarchical barriers between the researcher and the subject being studied, so that research takes on more responsibility and promotes social progress (Stringer, 1996). Research action can also involve making proposals to reduce difficulties faced by the group being studied.
- Participatory observation, a method inspired by anthropological practice, which favours direct observation by the researcher of practices, and takes time and place into account in the researchers' observations.
- Qualitative field surveys: "spot" studies, discontinuous but repeated, focus on the life-trajectories of actors (by means of semi-directive surveys and interviews, statistics)

inspired by the "life story" method widely used in anthropology and qualitative sociology.

This methodological pluralism makes it possible to mobilise methods and tools either proper to the research that is under way, or shared with other disciplines (quantitative and qualitative by means of individual and/or collective interviews and surveys conducted by means of questionnaires). An approach of this sort is helpful to reveal the multidimensional nature, the logics and the impacts of the monetary facts and practices being examined. It mobilises a comprehensive set of tools, starting with observation of monetary practices, and progressively formulating theoretical concepts and elaborating them on the basis of experience. This orients research towards production of highly contextualised primary data generated directly by the actual practice of fieldwork.

A diversity of impact measures criteria

All of these case studies focus on the impact of CCS on economic, social and (in some cases) environmental levels. The indicators of measurement and the criteria adopted are heterogeneous, and there is no grid of evaluation shared by all authors that enables us to compare the various CCS experiments. Some authors have nonetheless attempted to construct a matrix, led by Seyfang (1997). Her grid of evaluation is based on performance indicators (quantitative and qualitative); she developed it after studying the LETS and Time-bank experiments. More recently, Bindewald and Place (2013) have undertaken to develop a standardised matrix to evaluate multi-criteria impacts, based on a list of the factors involved in success and on emblematic cases of CCS. Also worth noting is the Social Trade Organisation[9] in Central America (STRO-CA), which has also worked out a multi-dimensional grid based on the Sustainable Local Economy Framework, and is integrating, as far as possible, specifics of the social and economic environments of projects (Brenes, 2011). In the case of the Brazilian community development banks, mapping has been developed on the initiative of the Palmas Institute, which uses it as a tool for implementing and managing currency. Places of production and consumption have been listed with a view to analysing the circulation of money and monetary needs; but the tool has not yet been fully exploited (Neiva *et al*., 2013).

Criteria adopted to evaluate the impact of CCS are very diverse, as their relevance is tied to forms and objectives that are proper to each system. We will mention here a number of examples.

To take account of the scope of CCS, the size of the relevant monetary community and the volume of its exchanges give an idea of the place occupied by this CCS in monetary, economic, territorial and social space. Looking at CCS from this point of view, once they reach a significant scale, they can have a real impact on the dynamics of local economies (Goméz, 2012). When the size of the experiment is too small, on the other hand, its impact remains marginal, as is shown in Aldrige et *al*. (2003) who deal with LETS in the UK. Similarly Krohn and Snyder (2008), in their econometric study of local currencies in the USA, show that in growth of per capita income during the 1990s the local multiplying effect is too feeble to be detected. Krohn and Snyder's results should be relativised, however, as they do not compare the volume of local currency in circulation (and the value added created in CCS) with that of the overall volume of money in circulation.

Forms of governance of CCS (horizontal markets, the hierarchical system, local community groups and association networks) apparently also play a part in the survival and

[9] The Social Trade Organisation (STRO) targets communities that have been paralyzed for years by needless economic depressions; it proposes innovative solutions that use new forms of money and credit to increase purchasing power and make existing purchasing power last longer within given communities or regions.

sustainability of the movements. The relevance of this factor varies according to the size of critical mass in CCS. An example: the Argentine barter clubs studied by Goméz and Helmsing (2008).

The impact of CCS on economic dynamics is also influenced by the conditions under which money circulates. Kichiji and Nishibe (2012) show, using a random network-simulation model that the distribution of money held by agents influences the rate of transactions carried out as a function of the money in stock. Furthermore, Kurita, Miyazaki and Nishibe (2012), in a study of coupons in Japan, show that the degree of knowledge of a currency has a forcible impact on its circulation.

The impact of CCS is also measured by their ability to avoid financial exclusion (Williams on LETS in the UK, 1996a, 1996b, 1996c). Two criteria are usually adopted for this: direct creation of jobs at local level, and the increase in economic, social and human capital held by persons in a situation of exclusion. While some systems, such as Ithaca money in the US (Douthwaite, 1999) are oriented towards the local productive apparatus, and employment, production and local dynamics, others target growth in sustainable consumption, such as the "green points" customer fidelity cards in the NU-Spaarpass in Rotterdam (Sambeek and Kampers, 2004). Other examples are given in Lenzi (2006) dealing with SEL and in Seyfang (2003), on time banks and LETS in the UK.

Seyfang (2003) has adopted an other criterion for measuring escape from social exclusion: the ability of CCS to enable users to assert their rights as citizens: social rights (integration into networks, bonds of reciprocity), economic rights (having an income; receiving recognition in work; consuming; saving), and political rights (participating in public and associative decision-making). Fare (2011) has meanwhile kept three multi-dimensional criteria: territorialisation of activities (localisation of exchanges, creation of social links, participation in democratic process); intensification of the dynamics of exchange (development of access to credit, empowerment, struggle against poverty), and transformation of practices, lifestyles and social representations (responsible consumption, ecological citizenship, making organisations responsible, valorising the capacities of each and everyone, and collective empowerment).

In the case of those CCS that have essentially social aims, the main impact criterion adopted is the ability of the systems to create social bonds of mutual aid and solidarity. A special mention should be made here of the CCS in Japan that have objectives that are social (aid for the elderly) or ecological, as the case may be. These systems seek essentially to recreate traditional community bonds - local, and in some cases inter-generational (*l'uchi*) - outside of exploitative production relations (Hirota, 2006). Nakazato and Hiramoto (2012) examine their ability to create social bonds, using the Granovetter analytical grid that represents bonds as strong or weak.

It is important to stress that unlike the CCS that have economic objectives, those that have social aims do not necessarily seek to expand their scale of application. This is the case in particular with the French SEL (Laacher, 2003; Lenzi, 2006) and also with some Japanese local currency systems, the *chiiki tsûka* (Hirota, 2006; Kennedy and Liaeter, 2008).

MAIN CONTRIBUTIONS AND QUESTIONS RAISED BY CCS

What we propose here is not an exhaustive synthesis of research on CCS but simply a record (with a historical perspective) of the main contributions and challenges the CCS embody in the current context of financial capitalism in crisis. These new monetary arrangements participate to a local and territorial dynamics. They also raise important questions on the emergence of new economic relationships, based on solidarity and environmental standards of production and consumption. They challenge, from a theoretical point of view, the role and place of money in the economy.

A potential in terms of local dynamics

The first publications on contemporary CCS were made by English economic geographers, and particularly Colin Williams (Williams, 1996a, 1996b, 1996c) and his team: Aldridge, Lee, Leyshon, Tooke, Thrift - Leyshon et *al.*, 2003), and the work of Peter North (2007). Their work on the first generation of alternative monetary systems, and in particular on LETS in the UK, included an evaluation of potential in terms of local economic development (job-creation, self-employment, access to free credit, and so forth) and social well-being (promotion of social bonds, fairness, self-confidence, quality of life, etc.). Surveys were also made of LETS in Australia (Liesch and Birch, 2000) and in New Zealand also of time banks (Ozanne, 2010), revealing obstacles and levers, both internal and external, to diffusion and extension.

This groundbreaking work was followed by that of other British researchers such as Seyfang and Longhurst (2009), who covered in their surveys, over and above socio-economic effects and local arrangements, the economic impact of CCS, using the concept of sustainable consumption. They studied first LETS (Seyfang, 1997, 2001) and the Totnes currency and/or time banks in the UK (2002, 2003, 2006), then the local currencies created in “transition towns” as of 2006. These were also studied by other researchers, such as Scott Cato and Suàrez (2012), working on the Stroud Pound. Yet other researchers involved themselves directly as actors in setting up the currencies: Ryan Collins (2011) in the Brixton Pound and Mark Burton in the Bristol Pound. Seyfang, Smith and Longhurst see CCS as socio-technical niches, “local grassroots innovations” springing from citizens’ initiatives experimenting with alternative lifestyles and sustainable practices that are able to grow and influence society on a broader scale (Seyfang and Longhurst, 2013).

Other researchers have studied in a variety of contexts the ability of CCS to promote sustainable local development: in France, Fare (2011) examines the SOL, and in Quebec the *Accorderie*; in Kenya, Ruddick studies the Eco-pesa (2011); in Brazil, community development banks have been studied by several researchers (Neiva *et al.*, 2013); in Argentina, the barter clubs have been analysed as instruments of selective and protective spatial closure (Goméz and Helmsing, 2008; Pacione, 1999). In the restricted territorial in which they can be used, these currencies can have a beneficial effect on local economies, affecting them in an endogenous manner (consumption inside a local monetary and territorial space; creation of resources and of new outlets and of jobs), promoting a development model based on micro-entrepreneurs and extra-economic values. Use of a local and territorial currency can also strengthen local community links and local identity, as shown by Neiva, Nakagawa, Eskimo, Braz, Silva and Mascarenhas (2013).

Supporting a local strategy of development, some alternative monetary arrangements propose microcredit. Stemming from Brazilian experiments, monetary and financial engineering of this sort is still an exception. The success of this particular arrangement can be seen in the proliferation of community development banks throughout Brazil: today, more than a hundred such systems based on solidarity values are functioning in community self-management mode (França Filho *et al.*, 2012).

The promotion of a new order of values

Whatever their aims – single or multiple: economic, social, environmental, political (empowerment) – CCS arrangements share a common feature: the will to change the prevailing vision of the economic order and to reformulate the rules of the game in order to respect links between human beings (Hart et *al.,* 2010). The flowering of all these CCS is implicitly and in part a critique of today's globalised capitalist economy and of the individualistic market society that it has promoted. CCS arrangements demand, explicitly or by implication, that relations between man and nature and between men themselves be guided by the values of solidarity, reciprocity, proximity and mutual aid. Concrete militant initiatives create alternative exchange communities that resonate with developments in the economic sphere, and in particular with the emergent social and solidarity economy (SSE) and the French Anti-Utilitarian Movement in Social Science (MAUSS in French Mouvement Anti-Utilitariste en Sciences Sociales). The SSE approach is a prolongation of that of Polanyi, based on two normative principles: reciprocity and democratic action (Ould Ahmed, 2014).

The ability of CCS to designate "linking-money" and to promote reciprocal exchange based on solidarity is a theme in most studies (França Filho *et al*., 2012; Fare, 2011; Liesch and Birch, 2000; Neiva *et al.*, 2013; Pacione, 1999; Servet, 1999). Coetzee (2012), for example, shows that community currencies help a « network society » to emerge: a society in which the principles of reciprocity and the exchange of gifts are embedded in an "economy of relationships". Inspired by the work of Marcel Mauss, Lizotte and Duhaime (2011), basing his argument on instances of SEL in Quebec, shows that the exchange relationships that develop in this context are in fact based on informal mutual aid between individual members, who thereby distinguish gift relationships from the market equivalents.

Brazil has proved a particularly fertile field for solidarity initiatives. Arrais de Paiva and Dos Santos Filho (2011), for example, show that community development banks and solidarity rolling funds financed by the Bank of North-Eastern Brazil have made it possible to constitute in the lower strata of society forms of saving managed by community organisations, and to promote the development of solidarity finance. These arrangements have made it possible to forge reciprocal links locally between individuals, and to create forms of socio-economic organisation that strengthen job-creation and equality in society. Also in Brazil, Poljokan, Tendolini, Farias and Andrade (2011) have studied the constitution of a solidarity networks linking 70 cultural cooperatives, the *circuito Fora do Eixo*, that exchange information and technologies and stimulate the production, circulation and distribution of music, visual arts, literature and drama. These authors deal in particular with the *Espaço Cubo* cooperative that organises a trade system and has created the Cubo-card, a social currency.

In Argentina, the barter club experiment has raised the possibility of constructing specifically "social" currencies and a whole social solidarity economy (Plasencia and Orzi, 2007). Orzi has been thinking specifically about ways of articulating and developing social currency and solidarity markets. Plasencia (2008) thinks about the pertinence of the principle of "rusting" money in promoting a social solidarity economy, basing her thinking on the social currency launched in 1999 at Venado Tuerto in the province of Santa Fe.

The impact of CCS on the struggle against social inequalities, and in particular those that are gender-based, has been measured by the literature. It has emerged that these monetary systems can also be useful to those underprivileged who do not have access to the official currency (Stodder, 2009). This is particularly true of the monetary arrangements of the southern countries that have been developed with these underprivileged groups in view. However, while CCS can help some low-income groups to protect and enhance their styles of life, they are less effective as a general means of reducing poverty (Goméz, 2010). Studies of LETS, in particular, have shown that inequalities of income and gender on formal markets tend simply to be reproduced in alternative systems (Bogani and Parysow, 2005; North, 2007, 2010; Seyfang, 2001). Despite over-representation of women among the users of the alternative systems, these systems do no really enable the women to improve their social lot significantly, even though they do improve the women's sociability (Comeau and Boulianne, 2012; Lenzi, 2006; Williams, 1996b).

The CCS question the place and the role of money in economy

In France the Walras Centre (Lyon II University) has been a precursor on CCS themes. Its research programme on SEL (the equivalent of the LETS) was launched during the 1990s. Work was directed by Servet (1999), and subsequently by Blanc (2006). Their approach is socio-economic, close to the institutional current inspired by Polanyi's work and SSE. These authors investigate monetary usages and practices in exchange communities, analysing their functioning, which throws light on monetary concepts. Other French researchers are close to these authors (though some of them come from other horizons), and share their theoretical interrogations.

Servet shows that the SEL throw light on the social foundations of money. In the SEL organisations, money plays its full part in creating links between individuals and between generations. Debt relationships can only be set up between individuals on condition that they trust one another and that they share the same values of solidarity and reciprocity (Servet, 2013).

Blanc examines the plurality of monetary situations that shows up in the development of CCS (Blanc, 2000, 2002). He has worked out a substantial categorisation and typology of these parallel currencies (2000, 2011) (cf. figure 1). In a transverse interdisciplinary perspective, together with Fare, he justifies the criteria established by their proposed typology of CCS, e.g. the existence and type of social innovation (Blanc and Fare, 2012) and the role of public authorities (Blanc and Fare, 2013). Options concerning terminology and typology used in the study of these parallel currencies are the subject of an ongoing debate (Blanc, 2006, 2011; Martignoni, 2012).

In the matter of sustainable territorial development, Fare investigates the conditions affecting the establishment and acceptability of CCS and the appropriate scale, suggesting a monetary design based on subsidiarity (Fare, 2011, 2015). In a complementary monetary system, monetary subsidiarity entails the deployment of a specific currency with a unique territorial and socio-economic sphere on each scale of action. This amounts, finally, to pressing the principle of complementarities to its limit, determining for each currency (taking account of the relevant objectives) a single and singular scale for deployment in the framework of rejuvenated territorial governance.

Ould Ahmed (2009, 2010) has questioned monetary plurality, and asked more particularly whether CCS necessarily have to establish some kind of relation (practical, ideological, political, or symbolic) with the official macro-monetary system in order to justify their creation, to be accepted, and to become operational within the community-based spaces of exchange.

Looking a currency in a political-economic perspective, some authors show how the political dimension is revealed in alternative currency movements, their forms and spaces. In various case studies (Argentine barter clubs, SEL in France, LETS in UK, Green Money in Hungary, Green Dollars in New Zealand, etc.), the authors show how the CCS play a part in re-territorialising the political dimension by creating new spaces for protest against and liberation of the monetary order (Laacher, 2003; North, 2007; Ould Ahmed, 2010). Monetary communities can be understood as social movements with political aims, their objective being to construct, by means of collective action, new economic and social bonds that respect new values rather than capitalist norms. In these communities, the bonds formed between participants are not merely social but also *politicised*, as Laacher (2003) has rightly pointed out. In most cases they establish these bonds outside conventional political structures, representatives and spaces (Ould Ahmed, 2014). However, it is above all the leaders and organisers of these CCS who experience the political activism as such; the rank-and-file users' expectations are more practical, materially and symbolically.

In order to strengthen the dynamics of democracy, and some authors suggest that, in coming to decisions on collective options, currency should be viewed as a common, as in the research of Ostrom (Meyer, 2012; Servet, 2013). Currency should function as a support of productive practices that respect working conditions and responsible consumption (Fare, 2011; Seyfang, 2001).

For a theoretical point of view, all these authors share a rejection of an instrumental conception of money that reduces it to a mere tool of market exchanges; they privilege a socio-economic and institutional approach to money, its uses and the practices associated with it (Blanc, 2000; Ould Ahmed, 2008; Zelizer, 1994). An approach of this sort takes account in particular of the social and political contexts in which an economy operates, and rejects attempts to make the economy a natural, autonomous entity (Polanyi, 2008; Steiner and Vatin, 2009).

CONCLUSION. THE CURRENT CHALLENGE OF CCS: THE INSTITUTIONALISATION OF CCS AND THE PRESERVATION OF DEMOCRATIC SOVEREIGNTY

An important question raised by CCS – and debated, as yet inconclusively, in the communities concerned – is that of their extension on a larger scale. In this paper we are arguing neither for nor against extension (a political matter to be left to the communities themselves to settle), but seeking to clarify conditions of possibility, potential advantages and possible challenges.

The innovative dimension of CCS is striking. They can be thought of as forms of social innovation (Blanc and Fare, 2012). Should they be extended? This would involve a shift from experiment to institution. Institutionalisation would entail "an effort to obtain recognition for the social use to which the invention or discovery is put" (Fontan, 2007). The social utility of CCS would have to be clearly established. This would be a long process, entailing an evaluation of the arrangements and an analysis of their impacts. So far a number of impact studies have been carried out, but most of the CCS have not yet been adequately evaluated. Impact studies are thus a major factor in the development of CCS, which will have to gain greater credibility and legitimacy.

Recognition of the social utility of CCS by public authorities and economic decision-makers would inevitably confer on them an official and perhaps even legal justification, and increase their potential influence on the entire socio-economic system. Some moral values represented by individuals can have an impact on the emergence of new practices in a local community. Ould Ahmed (2014) points out, however, that there are underlying conditions to this. Some of these are inherent in the social, ideological, and religious predispositions of the agents; others, in the political and economic environment. Beyond this, the local framework has to be predisposed in favour of change: passage to an ampler scale requires a modification of the institutional structures that configure individual interests, determining them to move in such-and-such a direction and to pursue such-and-such an aim. In other words, new values and new economic relationships have not only to be recognised but also *adopted* by the public authorities and institutions that can enforce change.

CCS could be used to provide support for a strategy of territorial development; their leverage effect increases when they are combined with other mechanisms and instruments used by the authorities and their social and economic partners. At this stage, connecting up the logics and tools that stem from the social and solidarity economy and using them for social and economic development can often provide answers to the questions raised. The tools and resources could be put at the disposal of parties interested in new, different forms of action to improve social and cultural insertion and territorial coherence (e.g. by means of microcredit, tontines, group purchasing, social groceries, cooperatives, funds for solidarity finance and responsible investment cooperative banks, public banks, territorial poles of economic cooperation, etc.), or to launch an ecological transition and increase territorial resilience (e.g. by instituting unconditional incomes, by encouraging eco-responsible behaviour, etc.).

No matter what scale (e.g. local, nation-wide) the users of CCS would like to reach, the role of the public authorities is capital (Blanc and Fare, 2013). Locally, the authorities can promote the deployment of CCS and help it financially, in accordance with a logic of subsidiarity; they can also play a more active part by accepting the alternative currencies as payment. If nation-wide deployment is envisaged, CCS have to be given a clear-cut legal status so as to move out of the uncertain "grey" zone in law; this would facilitate the intervention of agents in local territories. Thinking of this sort is current in Latin America, and particularly Brazil (Vasconcelos Freire, 2009); its aim is an integral monetary organisation based on subsidiarity.

Upstream from a major opening-up of this sort, however, all stakeholders would have to be mobilised and come together to form a component of the entire transformative organisation. Together they would have to define and put into effect the new framework of values (e.g. a new model of development) needed to rebuild economic and social relationships. The CCS is a locus in which democratic sovereignty is produced and expressed; civil society is sorely in need of a space of this sort. This particular social demand shows up in the many initiatives we have described; increasingly, the body of society expects to take part much more directly in the decision-making processes of the body politic. One of the challenges implicit in the extension of CCS is that of asserting and preserving democratic sovereignty in socio-economic spaces. In an overall system that is becoming unsustainable, CCS should constitute and remain a viable and sustainable alternative.

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Figure 2. Examples of vouchers of CCS (illustration by authors)

Figure 3. Examples of vouchers of brazilian CCS (Source: Institut Palmas)