Sustainable territorial development and monetary subsidiarity

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Abstract: Starting from the potential of local, social and complementary currencies with respect to the challenges of sustainable local development, we emphasise their contributions and limitations on the basis of empirical studies of the SOL Alpin and the Accorderie. Then we show that, in their deployment, these currencies use the principle of monetary subsidiarity. Each currency circulating in complementary mode on an infra-national scale is believed to circulate at a relevant level defined socio-economically and geographically and to be characterised by a mode of stakeholder and democratic governance developed on the scale at which the currency is deployed. Lastly we propose a territorialised subsidiary monetary arrangement by focusing on two scales of action: the highly localised level and the regional level and we emphasise the articulations and conversion processes among the different currencies.

Keywords: sustainable development, territorial development, subsidiarity, SOL Alpin, Accorderie

Introduction

The local dimension of sustainable development has featured since 1992 in the different versions of Agenda 21 calling for local governments to implement projects based on the principles of sustainable development via the participatory process (Report of the United Nations Conference on Environment and Development, 1992). Such actions are materialised, for example, in the development of public transport, the building of energy-saving homes, the inclusion of social and environmental criteria in government procurement, education about sustainable development, the development of environmentally-friendly means of transport, etc. Alongside this, citizens' initiatives seek to address the issues of sustainable development through economic and social change at local level. Transition Towns[1] (Hopkins, 2008) implement concrete initiatives to meet the challenges of climate change and peak oil by improving the resilience[2] of local communities. Part of these emerging local initiatives involves complementary or community currencies (here called CCs)[3] since they try to provide a local basis for socio-economic activities by developing social interactions among members through the activation of various forms of proximity. The local optic of sustainable development underscores the capacity of local actors to impel an endogenous sustainable development dynamic as part of a bottom-up approach.

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[1] See the website for Territoires en Transition de France (consulted 13 September 2011) : http://www.transitionfrance.fr/ or http://www.transitionnetwork.org/

[2] Resilience is an area's capacity to cope with and respond to outside shocks. The concept was popularised by Rob Hopkins (2008) in particular and is widely used by the Transition Towns movement as a basis for its action. See Walker *et al.*, 2004; Folke *et al.*, 2002 and Olsson, 2003.

[3] For a discussion of the term and typologies, see Blanc (2006c, 2011, 2013).

These currencies are intended to provide the requisite framework for developing the exchange of services, goods or knowledge which are organised by and for communities through an *ad hoc* currency scheme and for which accounts can be maintained and settlements made using an internal currency (Blanc, 2006c). From this perspective, money is understood as a fundamental social institution of any society whether it is market or not (Aglietta and Orléan, 1995, 1982 and 1998; Théret, 2007; Blanc, 2000).

The approach taken here is a crosswise one, that is, instead of using the standard three-way (economic, social and environmental) division of sustainable development, the three shall be interwoven so that the potential of the various CC schemes can be studied in terms of sustainable development around three analytical criteria: territorialisation of activities, stimulation of exchange and transformation of practices and social representations. Money seldom figures among the transition tools or projects for economic reform that can promote more sustainable development. In what circumstances can CCs advance the transition towards sustainable local development? It is assumed that this implies determining their scale of action and the way they are established, which will lead us to develop a monetary scheme grounded on monetary subsidiarity. In this perspective, each currency circulating as a complementary currency on an infra-national scale involves a monetary use and level of circulation that are socio-economically and geographically defined, or in other words, a spatio-socio-economic sphere of use. Subsidiary currencies attempt to democratically implement a special-purpose currency at each relevant level and at the best decision-making level at which to achieve the objectives ascribed to them.

First we develop the three potentials of CCs which we have identified with respect to the challenges of sustainable local development and the findings of empirical surveys conducted using a socio-economic approach (part 1). Then we show that deploying these currencies might activate their monetary complementarity by mobilising the principle of monetary subsidiarity (part 2). Finally we propose a local subsidiary monetary scheme for increasing the capacity of CCs to promote the transition towards sustainable local development by focusing on two scales of action: the local and the regional scales (part 3).

1 CC potential with respect to the challenges of the transition to sustainability in contemporary societies

In order to evaluate the potential and the impact of CC schemes, we have constructed a framework for evaluation combining sustainable development and local economies. This evaluative framework, which is constructed from field surveys of the SOL and the Accorderie schemes, covers three potentialities of CCs with respect to the challenges of sustainable local development: territorialisation of economic, social and political activities; stimulation of exchange; and transformation of social practices and representations (Fare, 2011). These three potentialities are developed next and then we set out the main results of the empirical surveys conducted.

1.1 The local challenges of CCs

1.1.1 Territorialisation of activities

By creating a community around the use of the currency, CC schemes activate spatial and socio-economic proximities (Pecqueur and Zimmermann, 2004 ; Bouba-Olga and Grossetti, 2008) which engender cooperative processes. The formation of a network of actors via a bottom-up process promotes the emergence of an interdependent community capable of generating a sustainable local development process. In this sense, the territorialisation of activities is a process brought about by local actors. Next, because CCs foster social inclusion through active participation by their members and the implementation of participatory practices, they promote collective and local governance. They help citizens to make their local area their own through a learning effect and by bolstering citizenship. Positive externalities mean that this must promote the development of local governance around a common project of sustainable local development. CC schemes supposedly pave the way for local governance which is renewed by the ‘overlap effect’ (Colletis et al., 2005) of the schemes towards local areas through their contributions to local dynamics. Lastly, since their use is confined within an area of circulation, CCs further the territorialisation of economic activities and therefore local development.

1.1.2 Stimulation of exchange

The second objective of CCs with regard to sustainable local development is to stimulate exchange. The territorialisation of activities should mechanically lead to more dynamic exchange within the CC scheme insofar as, by restricting the use of internal money to local level, internal exchange should increase in volume and so generate increased internal activity by a multiplier effect. However, the outcome is not necessarily an overall increase in exchange, since internal exchange may simply substitute for external exchange. Various factors that can stimulate exchange can be identified. First, stimulation varies with the scope of the scheme, which is dependent on the diversity of the stakeholders in the scheme but also on the diversity of transactions. The more numerous and diverse the actors are, the greater the probability that exchange will be intense. There are (minimum and maximum) effects of size and diversity of actors depending on the type of scheme. Next, the implementation of mechanisms encouraging monetary circulation (automatic open access to credit or microcredit) or discouraging holding money (demurrage) is intended to stimulate local commerce. Credit granted for the creation of activities locally can be used to create local circuits. Exchange can also be stimulated by reinforcing social inclusion by proposing additional means of solvency to individuals through microcredit or mutual credit.

1.1.3 Transformation of practices, lifestyles and social representations

The third potentiality of CCs in terms of sustainable development relates to the change in practices, lifestyles and social representations. The creation of an CC is said to bring about new practices by transforming values and representations and by orienting lifestyles and forms of consumption and production in a more sustainable direction. These practices, in this context, supposedly become vehicles of transformation or even of complete breaks with the growth model. Sustainable development requires changes both in daily practices and in social representations. The Brundtland Report emphasises the need for ‘changes in attitudes, in social values, and in aspirations’ (WCED, 1987).

By de-constructing social representations, by heightening awareness of the challenges of sustainable development, by setting up new socio-economic relations and new consumer practices, CCs might have a direct impact on the emergence of a form of ecological citizenship. Here we shall question their capacity to bring about the emergence of a new paradigm of sustainable development and therefore their capacity to effect broader changes through innovative solutions.

1.2 Findings of empirical studies of the Accorderie and the SOL Alpin schemes[4]

In the late 1990s in Quebec, two organisations, the *Caisse d'économie solidaire Desjardins* and the *Fondation St-Roch de Québec,* began thinking about the fight against poverty and exclusion, leading to the creation of the Accorderie[5] in Autumn 2001. The Accorderie combines a time-based system of exchange in services, a social lending scheme and a centralised buying organisation (Fare, 2009–2010). It is intended to forge ties within the community and to allow people on low incomes to better their socio-economic lot by promoting new forms of social cohesion. It has opted for a scriptural mutual credit money. Each Accordeur has a 'time account' to keep track of outgoings (services received) and income (services rendered). The aggregate balance of all accounts is always zero. The money does not exist before exchange, but it is consubstantial with it.

The SOL was tried out from 2005 onwards first in three regions of France (Ile de France, Nord-Pas-de-Calais and Bretagne) broken down into experimental areas, and then in five regions (by adding Alsace and Rhône-Alpes). The experimental version of the SOL (Blanc and Fare, 2012) has three aspects: the eco SOL, time SOL and dedicated SOL. The eco SOL is similar to standard loyalty card systems but is aimed at organisations that share ecological and social values with respect to sustainable development. 'Consum'actors' collect SOLs on their electronic cards when they make purchases in shops that have joined the SOL circuit or when they engage in collective or responsible actions. These points are then used for future purchases from the same outlets, which accept SOLs in full or part payment of their goods or services. The two other aspects of SOLs, time[6] and dedicated[7], are less developed in the experimental areas. The SOL studied in the 2010–2011 survey is that for the area of Grenoble, known as the SOL Alpin. Since 2011, the SOL has grown in scope with the development of what might be characterised as a 'neo-SOL' scheme (Blanc and Fare, 2012), the earliest example of which is the SOL Violette developed in Toulouse[8] after a long preparatory participatory process initiated by the city council and non-profit organisations in Toulouse.

Territorialisation of activities, stimulation of commerce, transformation of social practices and representations: these three dimensions also contain the seeds of a project for social change. CCs bring together local actors and invite users to make economic, social, political and environmental issues their own. Our surveys (Fare, 2011; 2012) reveal that the Accorderie has created a local community based on reciprocity and giving, with the use of a common currency as its medium. This community fights against exclusion and poverty by providing additional means of solvency for its members, not just through access to mutual and free credit but through interdependent credit. It is a locus for integration and socialisation but also for personal value enhancement. The Accorderie also promotes more sustainable ways of life and 'ecological citizenship' by promoting the sharing of goods and sustainable consumption. It transforms social representations by enhancing individual skills through the

[4] The subject of study was constructed first of all by collecting empirical data. This major empirical input is essential to an understanding of social reality in a socio-economic perspective. The choices imply taking a comprehensive approach by starting from observable monetary practices and by using empirical evidence to formulate and enhance theoretical concepts. The empirical corpus is made up of practical observations, a documentary study, semi-directed interviews of the actors involved and questionnaire results.

[5] www.accorderie.ca/

[6] The time SOL is designed essentially to develop and enhance the exchange of time, knowledge and practices among participants.

[7] The dedicated SOL is the SOL distributed by local authorities, works committees, local social action centres (Centres Communaux d'Action Sociale, CCAS) or any other organisation as part of social policies aligned with the SOL project objectives.

[8] See the Sol-Violette website: www.sol-violette.fr/

introduction of egalitarian principles, by which the principle of intra- and inter-generational equity at the core of sustainable development can be better understood.

The SOL Alpin has potential with respect to the territorialisation of activities, the stimulation of commerce and the transformation of practices, but its limited scope is a considerable handicap. Although it has promoted sustainable consumption by rewarding consumers for going to shops which abide by sustainable criteria, it has failed to extend beyond a niche of actors who were already aware of the issues of sustainable development and of the social economy and has failed to increase trade within its sphere. Consequently, there was seen to be an absence of any dynamic of collective appropriation and of a genuinely interdependent community. It was more of a market instrument in that the commitment was materialised in individual consumption. One way to boost its impact would be to develop the dedicated SOL and time SOL aspects so as to facilitate relations among members, to foster a greater diversity of stakeholders and to develop its collective dimensions (governance, community, etc.). The SOL has probably suffered from a lack of local appropriation related to centralised governance in the experimental phase and the lack of diversity of organisations has failed to turn using the card into a habit. Even so, it did highlight alternative economic options and so positively impacted social representations. The new perspectives opened up by the introduction of the SOL Violette in Toulouse with the development of a paper SOL (voucher), a far higher number of service providers and local participatory governance of the SOL heralds a new dynamic which would be worth evaluating in the coming years.

Through the analysis of the different examples of CCs and their potentialities, we think they can be tools in the service of sustainable development provided that the relevant conditions for their implementation and scale of action are determined. The diversity of schemes makes it possible to think about the possible complementarity of currencies so as to satisfy the objectives of sustainable local development. They seem to contain the seeds of a societal change by proposing to re-think the economic system from the bottom up.

2 Activating monetary complementarity through monetary subsidiarity

The findings of empirical studies and the review of the literature underscore the need to understand a multiple monetary scheme insofar as CCs each promote one or more objectives and do not come into play at the same level (various degree of local scales). It is possible to achieve specific objectives set by stakeholders by mobilising appropriate organisational choices and monetary forms (Blanc, 2009b). We propose leads in terms of monetary plurality and even of monetary subsidiarity (Fare, 2011). This section therefore seeks to be prospective and will try to determine the currency arrangement capable of serving the transition towards a new paradigm, that of sustainable local development.

While beginning with an approach addressing monetary complementarity developed by Blanc (2009a, 2008a), we shall try to go beyond it to pave the way for an approach in terms of monetary subsidiarity (Fare, 2011) by which the scale of implementation and the objectives assigned to CCs can be brought together.

In orthodox approaches, money is a generalised means of payment. Supposedly money is homogeneous; it does not have individual signs for distinguishing between two holdings in the same money which are therefore taken to be perfectly interchangeable. Now, monetary practices invalidate this assumption on the strength of two qualitative criteria: the differentiation among monetary holdings and their convertibility (Blanc, 2008a and 2009a).

The qualitative dimensions of money underscore the absence of purely fungible character of money. Monetary holdings are not perfectly undifferentiated or convertible and so they are not entirely fungible (Blanc, 2008a, 2009a). They cannot be depicted exclusively through quantitative criteria; their qualitative characteristics must be taken into account. These cover three dimensions (Blanc, 2008a, 2009a): the monetary form of the holdings (coins, banknotes and bank moneys, electronic purses, vouchers, gift vouchers, assigned money), the symbolic universe of which they are part and which rests on a set of values and norms illustrating membership of the payment community and the conveys socio-economic earmarking guiding its uses (means of subjective differentiation rooted in cognitive factors and moral standards).

The observation of daily practices in the real world invites us therefore to temper the fungible character of money. For example, Zelizer (2005 [1994]) emphasises the compartmentalisation and assignment of income by the 'housewife' (school money, rent money, coal money, funeral insurance money, etc.) and the conflicts that may arise within households over these different attributions. Individuals mark money psychologically or materially by assigning it, through the use of envelopes (see also Weber, 2006, 2009) or boxes, to specific expenditure. Moreover, the existence of varied forms and varied moneys such as CCs further underscores the non-fungible character of money.

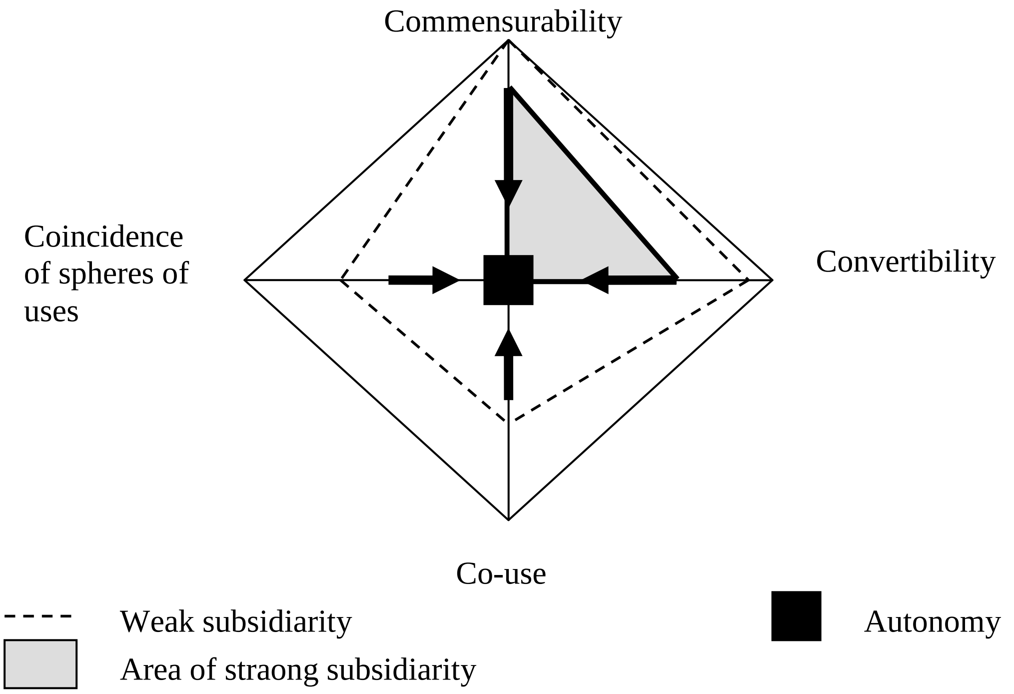
This absence of pure fungibility (absence of pure convertibility and principle of differentiation of monetary holdings) suggests the necessary articulation between moneys which presupposes a conversion process precisely because they are not wholly fungible. Four criteria can be used to determine the forms of monetary articulation for Blanc (2009c): commensurability (the possibility of obtaining a common evaluation between two moneys from a given rate), convertibility (or '*transformation of the money's characteristics so that all its qualities (or part of them) are transformed*' [Blanc, 2010]), co-use (or the simultaneous use of means of payment of different forms or sorts) and coincidence of spheres of uses (different moneys can be used in the same socio-economic spheres). These different qualitative and quantitative criteria provide an understanding of the modes of articulation between moneys. Blanc (2009c) identified four ideal-types of articulation among moneys: competition, simultaneousness, supplementarity and autonomy. The final three forms of articulation characterise the principle of monetary complementarity and make it possible to go beyond the traditional approach to monetary competition. They underscore the diversity of uses (Zelizer, 2005a [1994]) and of monetary forms by emphasising the qualities of money. It is because the postulate of entirely fungible money is not observed that monetary plurality co-exists and the competitive mode of articulation is not exclusive. To go further in determining the monetary conditions of sustainable local development, we wish to mark out an approach in terms of monetary subsidiarity.

The aim is ultimately to propose a subsidiary monetary scheme that is appropriate for the various levels of economic and social organisation. This makes it possible to couple up an approach in terms of monetary complementarity with a geographical approach defining relevant levels of action and resulting from the capacity of each level to come up with suitable solutions. In other words, the principle of subsidiarity enables us to activate possible complementarities for a specific purpose; here sustainable local development. In this way subsidiary moneys are rolled out at the lowest relevant level for them to make an optimal impact.

If we take up the modes of articulation defined by Blanc (2010), CCs have all of the characteristics of complementarity (supplementarity and/or autonomy and/or simultaneousness) and of subsidiarity insofar as they seek to meet needs identified at their level of action through a stakeholder rationale depending on the objectives pursued while being adapted to the context. But this might be termed weak subsidiarity (Figure 1). In a perspective of strong monetary subsidiarity, currencies would not have characteristics either of simultaneousness or of supplementarity, that is, their usages would not be joint and their spheres of use would not overlap. Their monetary qualities would also greatly limit their convertibility. In other words, each currency circulating on an infra-national scale, in complementary mode, would circulate at a relevant level defined socio-economically and geographically (or within a sphere of socio-economic and geographical use) and would be characterised by a stakeholder and democratic mode of governance developed on the scale on which the currency was deployed. For each geographical scale there corresponds a specific monetary use but with possibilities for conversion, except for the autonomous mode. In the context of transition to sustainable local development, the principle of subsidiarity means giving precedence wherever possible on each local scale to the use of the corresponding currency.

The arrows in the diagram show what the subsidiary currencies should tend towards, that is, the transition from weak to strong subsidiarity which is intended to increase the autonomy of each scheme. The tips of the diamond indicate the maximum degree for the four criteria and absence in the centre (e.g. the absence of commensurability is in the centre of the diamond and full commensurability at the tip).

Figure 1. The subsidiary modes of monetary articulations



3 Implementing the principle of monetary subsidiarity to promote sustainable local development

It can be observed from the empirical studies that the objectives of stimulation exchanges and territorialising activities remain limited by the scope of schemes and that each scheme promotes one or more aspects of sustainable local development. Although CCs can therefore be tools in the service of sustainable local development, the challenge is to determine the relevant conditions for their establishment, acceptability and scale of action. Insofar as these schemes are varied, like the challenges of sustainable local development, this underscores the need for a plural monetary arrangement. A single type of currency cannot meet these different objectives, which is a sound argument for implementing the principle of monetary subsidiarity (Fare, 2011). Monetary subsidiarity characterises a complementary currency scheme in which, on each relevant scale of action, a specific currency is deployed within a single socio-economic and geographical sphere of use. The aim is ultimately to push the principle of complementarity to the limit by determining for each type of currency a single scale of deployment in the context of renewed local governance and to foster sustainable local development.

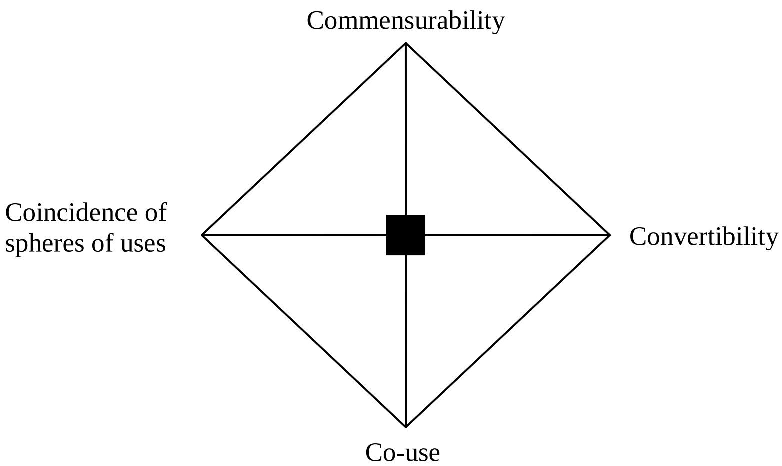
Adopting an approach through the prism of plurality and monetary subsidiarity invites one to imagine a multi-tiered monetary system mixing various CC schemes. We have already emphasised that CC schemes pursue multiple objectives and that each of them can make a positive contribution to the challenges of sustainable local development. We shall specify for each scheme on which relevant geographical level and in which sphere of socio-economic use it can be deployed and the objectives pursued. Two levels shall be of particular interest because they correspond to territorialised infra-national scales. First we shall address the highly localised level at which time-currencies might be deployed and then the regional level at which a G3 type currency might circulate.

3.1 In urban districts or rural localities

In urban districts or rural localities first (G1) and second (G2)[9] generation CCs like SEL or time banks might be deployed. The aim of these schemes is to strengthen social ties and to develop exchange among inhabitants so as to reinforce social cohesion and inclusion. We shall characterise these currencies in what follows in this section as time currencies insofar as they are based on time as a unit of exchange.

They derive from the autonomy mode of articulation in the sense that they are neither commensurable and so not convertible, nor usable in other socio-economic spheres. In this, they are not articulated with any other currency, whether subsidiary currencies or the national currency (cf. Figure 2).

Figure 2. The subsidiary mode of articulation of time-based currencies: autonomy



As a locus of socialisation, they can activate social cohesion through the creation of a network of mutual aid and inclusion in local life. They forge relations among members of a community by promoting equity and solidarity. Being based on the concept of symmetry (Polanyi, 1983 [1944]), reciprocity places individuals in a position of interdependence and complementarity, both with respect to each other and to the environment; this develops the feeling of belonging to a social unit. By enhancing skills all round, these schemes promote social and economic inclusion of all members of the community. The egalitarian principles implemented develop the feeling of social justice leading to a better grasp of the principle of intra- and inter-generational equity which is at the heart of sustainable development (Jany-Catrice, 2011, p. 63).

This emphasis on other economic rationales such as social inclusiveness and reciprocity signals that human behaviour cannot be reduced to the maximisation of individual interest. The establishment of sustainable exchange relations among members means that those

[9] For a typology of CCs, see Blanc and Fare, 2013.

relations can be extended over time. The interpersonal relations foster the establishment of relations of solidarity and reciprocity in return. Moreover, the implementation of monetary and institutional schemes keeps out exchange in terms of purely market relations. These schemes have to seek to create a specific 'symbolic universe' founded on social and environmental ethics from which to escape from the purely market rationale (or commodification). Thus the services exchanged in this context sometimes (especially for personal services) extend beyond the commercial rationale and move into the rationale of de-merchanidisation or de-commodification, that is, 'the transition from market exchange to a generalised social exchange which includes various forms of monetary and non-monetary transactions, including symbolic transactions' (Perret, 2011, p. 216). This alteration of the logic of need satisfaction is essential in decoupling improved well-being and consumption (Max-Neef, 1992), which impacts social representations. It is part of a questioning of the labour value and the enhancement of non-labour activities.

Money is a social bond (Aglietta *et al.*, 1998; Théret, 2007), and tends to be understood in western societies as 'money that separates' rather than 'money that joins'. Here the establishment of sustainable exchange relationships is a vehicle of social cohesion. Exchange is inserted into human relations or into a logic of 'esteem' of the other rather than of market prices (Servet, ed, 1999). Services rendered cannot readily be dissociated from the personal relations that the exchangers create.

Next, these schemes make it possible to develop property sharing which can limit material individual consumption by enhancing the pooling of resources and 'the invention of new co-operative social relations' (Gleizes, 2011, p. 81) while contributing to 'disconnecting well-being from material abundance' (Perret, 2011, p. 215). This may involve tool sharing, car pooling, loans of cultural property, and so on. This limits not just material output but also waste. An 'economy of functionality' is developing, in which what is important is not owning property but having the use of it (Gleizes, 2011). This mutualisation is embodied by the creation of collective services which can be offered within the scheme: central purchasing possibly coupled with a grocery, library, laundrette, car rental, digital service area, and so forth. Access to all of these collective services can be had in exchange for hours. Starting from individual and collective needs, these collective services seek to meet those needs by moving away from a rationale of market consumption. Some of the principles crop up in the Accorderie.

Moreover, time-based schemes are suitable for certain matters associated with retirement and support for the elderly. First of all they promote inter-generational equity by developing relations of solidarity among members of a community, as a vehicle of social cohesion. They can be used in supporting the elderly, which is one of the major societal concerns for ageing western societies. This support emphasises once again the interdependence of people and the need to reform inter- and intra-generational bonds.

Next, people of working age may also see in this type of scheme a way of capitalising their resources. Anyone can store up hours to be used at a later date, especially when older and when input by the elderly no longer covers their needs. Some elderly members of the Accorderie indicated that they were short of hours to be able to secure all of the services they needed such as home help, or help with shopping trips, moving house, home decorating or DIY. A time-based scheme would make it possible to accumulate and store time credits without suffering from the speculation that goes on in financial markets and without inflation. The credit accumulated would correspond strictly to the hours they had put in.[10]

[10] One condition is essential: there must be sufficient community members offering a supply of services that can meet demand.

Lastly, these schemes provide free and automatic access to credit, providing additional solvency for members and promoting the social and economic integration of actors and social cohesion.

This conception of exchange and of rationales operating in these schemes can be used to counter individualism and to promote new values at the heart of sustainable development, especially solidarity and equality through the recognition of each and every scheme member. The reciprocity promoted through these schemes highlights interdependence among individuals, which is a vehicle of equity. Reassessing the value of labour and the nature of work, measuring wealth differently, meeting needs other than through market integration, founding well-being on something other than 'having', through 'being', 'doing' or 'interacting' (Max-Neef, 1992) are ways to transform social representations which can lead to sustainable development. The ultimate aim is to create 'new relational rationales which produce non-market social bonding' (Arnsperger, 2010, p. 11). This develops relations among people who have a sense of a common interest and leads to the moral obligation not to do disservice to others and to the environment.

This apprenticeship of cooperation must have positive repercussions fostering civic involvement in the challenges of sustainable local development. This strengthening of citizenship can lead to a renewal of forms of public action and governance and put in place the foundations of local participation. CCs involve 'civic governance' which is 'initiated and taken forward by non-institutional players' (Petrella and Richez-Battesti, 2010, p. 66). Activating bonds of solidarity and proximity can develop relational proximity and create a public space of proximity which itself must facilitate the learning of forms of citizenship, given that citizenship is multidimensional (economic, social, political and cultural) (Fotopoulos, 2002). This public space of proximity favours interaction among members inducing 'collective creativity' (Laville, 2011). In this way, learning through the establishment of specific, participative and democratic rules within these schemes may create a positive 'spillover effect' (Colletis *et al*., 2005, p. 16) throughout the locality.

3.2 The regional level

At regional level, the objective is to promote endogenous sustainable development based on the resources and potential at that level. Development is a process of 'revelation of resources of all kinds' (Courlet, 2008, p. 11) knowing that these resources may be latent, hidden and/or to be constructed (Gumuchian and Pecqueur, 2007). This scale may be clarified by the concept of bio-region (Berg and Dasmann, 1977; Aberley, 1999; Sale, 1985; McGinnis, 1999), eco-region (Bailly, 2005a, 2005b) and 'bio-anthropo-region' (Arnsperger, 2010). The term 'bio-anthropo-region' denotes a space that is mid-way between what in France are regional and departmental administrative levels and is suitable for taking into consideration the natural characteristics of the area while ensuring the satisfaction of the local needs of the population. To determine the relevant size of this space, geographical surveys are required to study monetary circuits, the food sovereignty index, local dependence on outside resources, potential for intra-territorial exchange, the means to develop these features and the local ecological footprint. This territorial review will highlight the degree of dependence of the territory on the outside, on resources and imported energy and provide a clearer collective understanding of the challenges for the purpose of building collective solutions through a participatory approach.

The objective is to construct an economy of proximities (Pecqueur and Zimmermann, 2004) that is resilient and able to meet the needs of the local populations, that is, ultimately 'an ecosytem endowed with an effective agro-immunity apparatus, reforming its forces within its regional space' (Bailly, 2005b, p. 15). Its principles can be found at the heart of Transition Towns (Ryan-Collins, 2011). This regional level can be used to apprehend, at the mesoeconomic level, a complex socio-economic system in which places of production and consumption need to be 're-associated'.

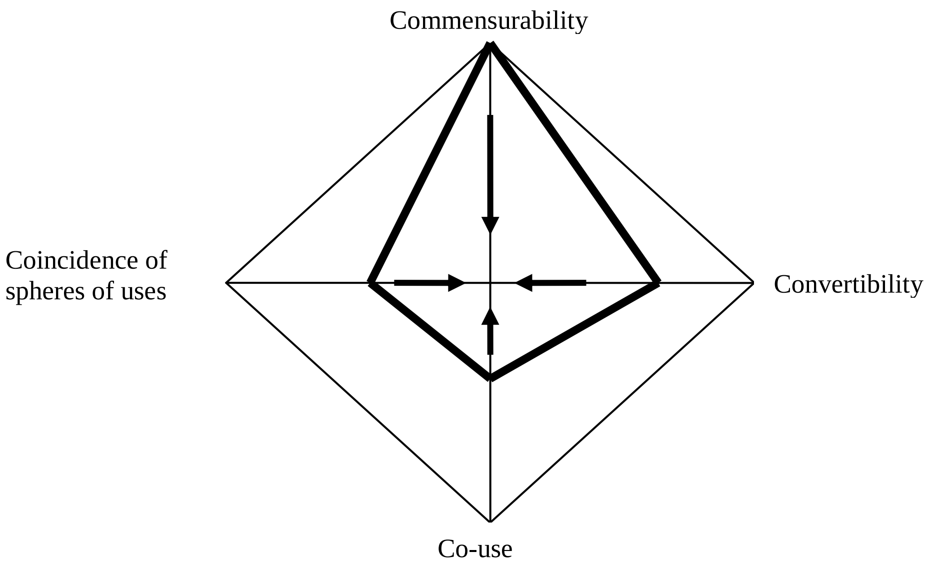
Constructing this bio-anthropo-regional territory is part of a progressive approach and process: 'Development is by its nature a gradual process arising from the establishment and structuring of partial subsystems […] In this process, the territory can play a major part. It is the meeting point between development actors. It is also the place where forms of cooperation among firms, individuals and activities are deliberately or spontaneously organised. Ultimately it is the junction between market forms and forms of social regulation' (Courlet, 2007, p. 44).

On this scale, the aim is to develop a currency to foster local sustainable development associated with a charter of responsibility with selection criteria for professionals in the exchange network incentivising individuals and businesses to produce and consume in a more sustainable manner while promoting the territorialisation and stimulation of exchange and activities.

The involvement of government through the introduction of an assigned money might promote access to sustainable consumption for all. Here we find certain operating principles of third or fourth generation currencies[11] like the SOL (in its operating principles and even if we have discussed its limitations above), Brazilian community development banks or local currencies of Transition Towns or German *Regiogeld*.

Regional money circulates in the territorial sphere among the socio-economic actors of the area. Its use is reserved to this spatio-economic sphere. It is commensurable but its convertibility is limited by its monetary qualities which make it a special-purpose money (Figure 3). It is nonetheless convertible into another regional or national currency on certain conditions. In a perspective of strong subsidiarity and with regard to the challenges of transition towards sustainable territorial development, the objective is to reinforce the territory's autonomy to create a sphere of spatio-socio-economic use overlapping as little as possible with that of the national currency through the construction of a meaningful symbolic universe.

Figure 3. Subsidiary mode of articulation of regional currencies: towards strong subsidiarity



[11] For a typology of CCs, see Blanc and Fare, 2013.

A regional currency must be based on ‘multilateral or stakeholder governance’, which implies ‘a variety of public and private players involved in designing and implementing local public policies’ and which allows ‘the co-construction of the general interest based on the range of interests present’ (Petrella and Richez-Battesti, 2010, p. 56-60). This joint construction must be performed within a geographical area of deliberation so as to determine ‘the framework and institutional arrangement for decision making about the form of territorial development through public debate, public action and more specifically through public policy making’ (Demoustier and Richez-Battesti, 2010, p. 8). The creation of a regional currency must arise from these various partnerships without being disconnected from the appropriation of money by citizens. From ‘these situated modes of coordination of the players among themselves’ (Pecqueur, 2009, p. 60) there must arise the pursuit of a territorial project reconciling individual interests and shaped by a common interest – sustainable local development – through the implementation of a collective tool – a regional currency. This ‘theory of territorial economics’ can be used to integrate ‘the specific features of places and the ties of the players not just among themselves but with their geographical environment’ (Pecqueur, 2009, p. 61). The challenge is to develop a process of territorialisation centred on sustainable development.

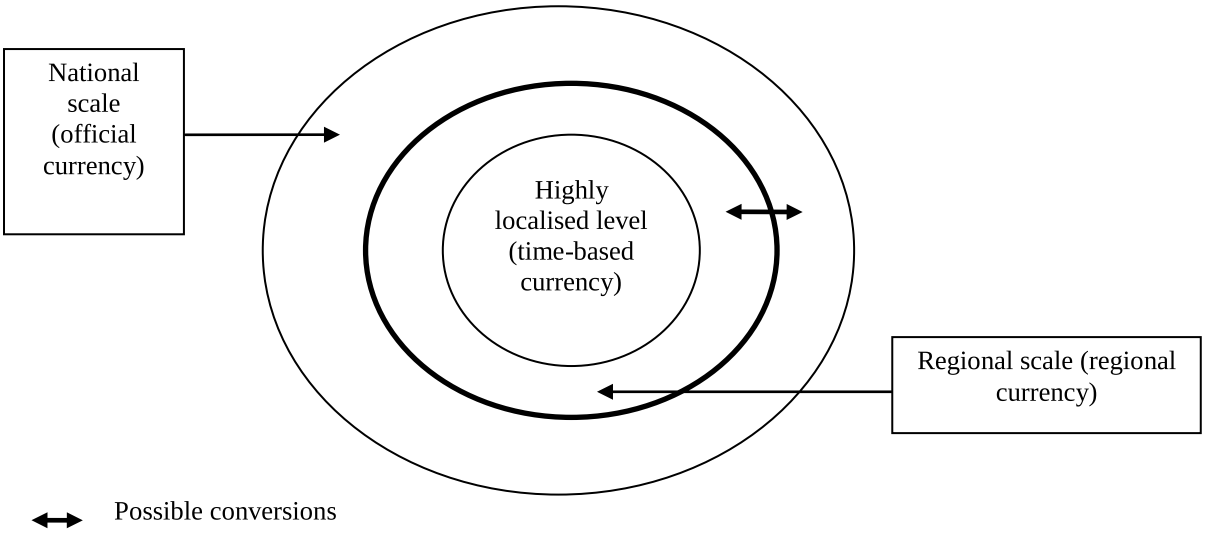
The introduction of this type of currency would make it possible to create local exchange circuits and so to territorialise activities and to study interactions among the different actors at regional level. An absence of diversity observed through insufficient monetary circulation or the lack of outlets in internal currency should lead to decisions being taken about such or such a sector and/or business locating in the area. The study of interactions and monetary circulation schemes will make it possible to highlight (or not) shortcomings at regional level related, say, to procurement for businesses, and then develop them especially through social lending. Money can thus be used as a tool for tracing circuits of consumption and production that can lead to a territorial appraisal.

This scale of action can be used to adopt a global approach in terms of complex socio-economic systems and mainly with respect to the system of production and consumption which should be rearranged geographically. A regional currency can be used to create ‘supply chains for production, exchange and consumption’ (Calame, 2009) locally to promote the resilience of territories. A regional currency limits the leakage of wealth from the region and result in the construction of economic circuits through supply chains which compete to foster regional development through multiplier effects. Territorialisation makes it possible to weave market and non-market connections among the local actors and to establish lasting relationships (Colletis and Rychen, 2004). It is therefore decisive to obtain a diversity of actors to meet supply and demand. The businesses involved in the scheme must be able to find significant outlets especially professionally so as to move the internal currency obtained through exchange with private individuals; raw material suppliers must not be overlooked. Sometimes it appears necessary to develop new strategies for commercialisation and procurement in the area of circulation especially through the creation of new activities in the area by mobilising all of the available and sometimes unused resources.

It is a matter of constructing a supply chain with production and consumption circuits through ‘the combination of a close-knit institutional ties between key actors of different types, both private and public, and different standings, including players from the non-profit and cooperative realms’ (Colletis *et al.*, 2005, p. 13) from which to obtain as autonomous an area as possible with an objective of resilience around the use of an internal currency. The fabric of local economic life will be reinforced by the use of bio-regional currency for bringing together all of these flows.

Figure 4 summarises the levels of action in terms of the use of each currency. We reconcile monetary complementarity and monetary subsidiarity in terms of the objective of sustainable local development and of varying degrees of local intervention. However, this monetary arrangement is only viable if subsidiary currencies are deployed on different scales of action. Our focus on the local dimension should not mask the interdependence among different scales and within those scales: local, national and international (Galtung, 1986; Dally and Cobb, 1989; Nijkamp *et al.*, 1991) and should not preclude one from thinking about their complementarity on different scales.

Figure 4. Application of the principle of monetary subsidiarity



Conclusion

The results we have obtained from field surveys of the SOL and the Accorderie have enabled us to discuss both the potential of CCs and the limits upon them in three dimensions: territorialisation of activities, stimulation of exchange and the transformation of practices, ways of life and social representations. CCs may be tools for sustainable territorial development provided that one can determine the relevant conditions for establishing them and their scale of action. The diversity of schemes makes it possible to think of possible complementarity between these currencies so as to satisfy the objectives of sustainable local development.

Starting from these lessons, we have proposed a monetary scheme which seems best able to support sustainable local development. This scheme is based on the principle of monetary subsidiarity which characterises the implementation of schemes at the lowest relevant level, that is, where their effects seem to be optimal given the objectives. Subsidiary currencies thus seek to democratically implement a specific currency at each relevant level and at the best decision-making level for achieving the objectives assigned to them in the perspective of answering the challenges of sustainable local development. The principle of subsidiarity then makes it possible to activate potential monetary complementarities. In this sense, each currency circulating in complementary mode on the infra-national scale specifically has a socio-economic and geographically defined monetary use and a level of circulation, or in other words a spatio-socio-economic sphere of use. Each local level at which money is deployed is characterised too by stakeholder and democratic governance exercised at the lowest relevant level.

In this way time-based currencies might be developed at highly localised levels (districts, locality). They make it possible to activate social ties and develop a rationale of social inclusiveness and reciprocity as well as to contribute to the de-merchanidisation or de-commodification of needs by highlighting alternative means of meeting needs other than through material consumption. Time-based currencies promote mutual help, reciprocity and solidarity and they help to change social representations. Regionally, one might see the development of a currency of the same name, making it possible to territorialise and stimulate exchange by promoting networking among firms in a supply chain rationale on the basis of needs expressed at local level. The development of a currency scheme of this kind thus presents real potential in the face of the challenges of sustainable development. The implementation and the principles guiding all of these schemes should be part of renewed, democratic and civic governance.

The implementation of subsidiary currencies may bring about the emergence of bottom-up development. By connecting up the actors in the area, it activates forms of proximity and makes it possible to synergise them around a common objective. Nonetheless, one should not ignore the questions of time related to the process of monetary mobilisation and appropriation. As a lever for change, currencies cannot impose themselves, nor can their uses be decreed but they are constructed in partnership with many actors in an area, that is, ultimately in the context of renewed stakeholder governance. This new form of governance is part of active participation by citizens and all socio-economic and public actors in the area at the heart of the process of defining a local project for sustainable development.

The role of government in this process needs to be discussed.[12] Locally the authorities may promote and support the deployment of these schemes as part of a rationale of subsidiarity and they may actively participate in schemes by accepting and using the currencies as a means of payment. Nationally, it is urgent to provide them with a clear legal framework to bring them out of the grey areas of legislation and so facilitate intervention by the different players. Thinking along these lines is under way in Latin America and especially Brazil and might lead to an integrated monetary organisation based on monetary subsidiarity.

Lastly, we do not claim that the implementation of subsidiary currencies is the exclusive remedy, nor a sufficient one to lead to sustainable local development but rather that subsidiary currencies might be part of a whole raft of structural and global reforms. For example, based on the development of a local appraisal and mapping of exchanges, subsidiary currencies can be dovetailed with local planning and development schemes so as to fit in with an overall programme for transition. It might be relevant to include a monetary policy in territorial policies so as to enhance the autonomy, self-sustainability and resilience of local areas. But that cannot be separated from more comprehensive thinking about the relevant size of areas, their autonomy and their democratic functioning, thus highlighting the need for local reform and fiscal reform.

More generally, CCs are recent schemes given the length of time needed for monetary appropriation. Appraisals must still be made, especially of those schemes that are moving towards a relevant size and visible socio-economic impact such as the *Chiemgauer* or the Fortaleza community bank. In this sense, our frame of analysis might be applied to these schemes to validate or invalidate our findings.

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[12] For a glimpse of the role of the authorities in CC schemes, see Blanc and Fare (2013).

Bibliography

ABERLEY D., (1999), « Interpreting bioregionalism. A story from many voices », *in*: MCGINNIS M. V., (ed.), *Bioregionalism*, Routledge London.

AGLIETTA M. and ORLÉAN A., (1982), *La violence de la monnaie*, Paris : PUF.

AGLIETTA M. and ORLÉAN A., (dir.), (1995), *Souveraineté, légitimité et confiance*, Paris : AEF / CREA.

AGLIETTA M. ORLÉAN A., (dir.), (1998), *La monnaie souveraine*, Paris : Odile Jacob.

ARNSPERGER C., (2010a), « Transition écologique et transition économique: Quels fondements pour la pensée? Quelles tâches pour l'action? », disponible en ligne http://transitioneconomique.blogspot.com/ (consulté le 25 avril 2011).

BAILLY E., (2005a), « L'écorégion », Actes des Assises du Limousin, ENSIL, Limoges, Ecorégionalité et souveraineté alimentaire disponible en ligne (consulté le 2 août 2011) : http://www.biodiversite2007.org/IMG/pdf/EB_Eco_regionalite-1.pdf

BAILLY E., (2005b), « Vers une démarche écorégionale… Le concept de l'écorégion » ou « comment restaurer le système immunitaire des régions » », Rapport de l'étude pour Intelligence verte, disponible en ligne (consulté le 2 août 2011) : http://ecoregion.fr/app/download/3423237002/ecoregion2005.pdf

BERG P. and DASMANN R., (1977), « Reinhabiting California », *The Ecologist*, vol. 7, n° 10, pp. 399-401.

BLANC J., (2000), *Les monnaies parallèles. Unité et diversité du fait monétaire*, Paris : L'Harmattan.

BLANC J., (2006c), « Introduction générale. Les monnaies sociales : un outil et ses limites », *in :* J. BLANC, (dir.), *Exclusion et liens financiers : Monnaies sociales*, rapport 2005-2006, Paris : Economica, pp. 11-23.

BLANC J., (2008a), « Fongibilités et cloisonnements de la monnaie », *in* : E. BAUMANN, L. BAZIN, P. OULD-AHMED, P. PHÉLINAS, M. SELIM et R. SOBEL, (dir.), *L'argent des anthropologues, la monnaie des économistes*, Paris : L'Harmattan (Questions contemporaines), pp. 29-54.

BLANC J., (2009a), « Usages de l'argent et pratiques monétaires », *in* : P. STEINER et F. VATIN, (dir.), *Traité de sociologie économique*, Paris : PUF (Quadrige), pp. 649-688.

BLANC J., (2009b), « Contraintes et choix organisationnels dans les dispositifs de monnaies sociales », *Annals of Public and Cooperative Economics / Annales de l'économie publique, sociale et coopérative*, vol. 80, n° 4, pp. 547-577.

BLANC J., (2009c), « Beyond the competition approach to money : a conceptual framework applied to the Early modern France », *Asymmetric Monies : Revisiting Global Monetary History from the Viewpoints of Complementarity and Viscosity*, University of Tokyo Symposium, March.

BLANC J., (2010), « Converting money. On articulation Modes of Money », *in* : J.-F. PONSOT et L.-P. ROCHON, (dir.), *What is the nature of Money ? A pluridisciplnary Approach*, Chelthenham : Edward Elgar.

BLANC J., (2011), « Classifying "CCs" : Community, complementary and local currencies' types and generations », *International Journal of Community Currency Research*, vol. 15, pp. 4-10.

BLANC J. (à paraître, 2013), « Penser la pluralité des monnaies à partir de Polanyi : un essai de typologie », in : I. HILLENKAMP et J.-L. LAVILLE (Eds.), *Socioéconomie et démocratie. Nouvelles perspectives polanyiennes*.

BLANC, J. AND FARE, M. (2013), « *Understanding the role of governments and administrations in the implementation of community and complementary currencies* », Annals of Public and Cooperative Economics, vol. 84, n°1.

BLANCHET A., (1998), « Interviewer », *in* : A. BLANCHET, R. GHIGLIONE, J. MASSONAT et A. TROGNON, *Les techniques d'enquête en sciences sociales*, Paris : Dunod.

BOIDIN B. and ZUINDEAU B., (2006), « Socio-économie de l'environnement et du développement durable : état des lieux et perspectives », *Mondes en développement*, vol. 3, n° 135, pp. 7-37.

BOUBA-OLGA O. and GROSSETTI M., (2008), « Socio-économie de proximité », *Revue d'Économie Régionale et Urbaine*, n° 3, p. 311-328.

CALAME P., (2009), *Essai sur l'oeconomie,* Paris : Ed. Charles Léopold Meyer.

COLLETIS G, GIANFALDONI P. and RICHEZ-BATTESTI N., (2005), « Economie sociale et solidaire, territoires et gouvernance », *RECMA-Revue Internationale de l'économie sociale*, n° 296, pp. 8-25.

COLLETIS G. et RYCHEN F., (2004), « Entreprises et territoires : proximités et développement local », *in* : B. PECQUEUR et J.-B. ZIMMERMANN, (dir.), *Economie de proximités*, Paris : Lavoisier.

COMMISSION MONDIALE SUR L'ENVIRONNEMENT ET LE DÉVELOPPEMENT (CMED), (2005), *Notre avenir à tous*, Paris : Lambda (4e éd.).

COURLET C., (2007), « Du développement économique situé », *in* : H. GUMUCHIAN et B. PECQUEUR, (dir.), *La ressource territoriale*, Paris : Économica et Anthropos, pp. 32-45.

COURLET C., (2008), *L'économie territoriale*, Grenoble : PUG.

DALY H. E., (2007), *Ecological economics and sustainable development. Selected Essays of Herman Daly*, Cheltenham et Orthampton : Advances in ecological economics, Edward Elgar Publishing

DEMOUSTIER D. and RICHEZ-BATTESTI N., (2010), « Introduction. Les organisations de l'Économie sociale et solidaire : gouvernance, régulation et territoire », *Géographie, Économie, Société*, vol. 12, n° 1, p. 5-14.

DOBSON A. (2003), *Citizenship and the environment*, Oxford : University Press.

FARE M., (2009-2010), « L'Accorderie (Québec) : un dispositif de monnaie sociale singulier ? », *Économie et Solidarités*, vol. 40, n° 1-2, pp. 2-16.

FARE M. (2011), *Les conditions monétaires d'un développement local soutenable : des systèmes d'échange complémentaire aux monnaies subsidiaires,* Thèse de doctorat en sciences économiques, Université Lumière Lyon 2, Lyon.

FARE M., (2012), « Les apports de deux dispositifs de monnaies sociales, le SOL et l'Accorderie, au regard des enjeux du développement local soutenable », *RECMA - Revue internationale de l'économie sociale*, n°324, pp. 53-69

FOLKE C., CARPENTER S., ELMQVIST T., GUNDERSON L. HOLLING C. S. and WALKER B., (2002), « Resilience ans sustainable development: Building adaptative capacity in a world of transformations », *Ambio*, vol. 31, n° 5, pp. 437-440.

FOTOPOULOS T., (2002) [1997], *Vers une démocratie générale, une démocratie directe, économique, écologique et sociale*, Paris : Seuil.

GLEIZES J., (2011), « La croissance verte est-elle possible ?; *in* : T. COUTROT, D. FLACHER et D. MÉDA, (coord.), *Les chemins de la transition, pour en finir avec ce vieux monde*, Paris : Editions Utopia, pp. 69-83.

GUMUCHIAN H. and PECQUEUR B., (dir.), (2007), *La ressource territoriale*, Paris : Économica et Anthropos.

HARRIBEY J.-M., (1998), *Le développement soutenable*, Paris : Economica.

HOPKINS R., (2008), *The Transition Handbook: From Oil Dependency to Local Resilience,* Dartington : Green Books.

JANY-CATRICE F., (2011), « Nouveaux indicateurs et nouvelles pratiques sociales », *in* : T. COUTROT, D. FLACHER and D. MÉDA, (coord.), *Les chemins de la transition, pour en finir avec ce vieux monde*, Paris : Editions Utopia, pp. 59-68.

LATOUCHE S., (2006), *Le pari de la décroissance*, Paris : Fayard.

LAVILLE J.-L., (2011), *Agir à gauche, l'économie sociale et solidaire,* Paris : Desclée de Brouwer.

LONGHURST N. and SEYFANG G., (2011), « Harnessing Grassroots Innovations : Complementary Currencies and Sustainability », Communication présentée à International Conference on Community and Complementary Currencies (CC-Conf), 16-17 février, Lyon.

MCGINNIS M. V., (ed.), (1999), *Bioregionalism*, London : Routledge.

MAX-NEEF A., (1992), « Development and human needs », *in* : P. EKINS and M. A. MAX-NEEF, (dir.), *Real-life economics : understanding wealth creation*, Londres : Routledge, pp. 197-214.

MILES M. B. and HUBERMAN M., (2003), *Analyse des données qualitatives,* Paris : De Boeck Université.

MORIN E., (2008), *Pour une politique de civilisation*, Paris : Arléa.

OLSSON P., (2003), *Building capacity for resilience in social-ecological systems*, Doctoral Dissertation, Department of Systems Ecology, Stockholm University.

PASSET R., (1979), *L'économique et le vivant*, Paris : Payot.

PECQUEUR B., (2000), *Le développement local. Pour une économie des territoires*, Paris : La Découverte et Syros (2e ed.).

PECQUEUR B., (2009), « De l'exténuation à la sublimation : la notion de territoire est-elle encore utile ? », *Géographie, économie, société*, vol. 11, n° 1, pp. 55-62.

PECQUEUR B. and ZIMMERMANN J.-B., (dir.), (2004), *Economie de proximités*, Paris : Hermès-Lavoisier.

PETRELLA F. and RICHEZ-BATTESTI N., (2010), « Gouvernance et proximité : des formes de participation et de coopération renouvelées ? Une observation sur l'accueil des jeunes enfants en France », *Géographie, Économie, Société*, vol. 12, n° 1, p. 53-70.

PERRET B., (2011), *Pour une raison écologique*, Paris : Flammarion.

POLANYI K., (1983) [1944], *La grande transformation. Aux origines politiques et économiques de notre temps*, Paris : Gallimard.

RYAN-COLLINS J., (2011), « Building local resilience : The emergence of the UK Transition Currencies », *International Journal of Community Currency Research*, vol. 15, Special issue, pp. 61-67.

SALE K., (1985), *Dwellers in the land: The bioregional vision*, San Francisco : Sierra Club Books,

SERVET J.-M., (dir.), (1999), *Une économie sans argent. Les systèmes d'échange local*, Paris : Seuil.

SERVET J.-M., (dir.), (2010), *Le grand renversement. De la crise au renouveau solidaire*, Paris : Desclée de Brouwer.

THÉRET B., (dir.), (2007a), *La monnaie dévoilée par ses crises. Crises monétaires d'hier et d'aujourd'hui*, Paris : Editions de l'EHESS.

VIVIEN F.-D., (2008), *Le développement soutenable*, Paris : La Découverte, Repères.

WALKER B., HOLLINGER C.S., CARPENTER S.R. et KINZIG A., (2004), « Resilience, adaptability and transformability in social-ecological systems », *Ecology and Society*, vol. 9, n°2.

WEBER F., (2006), « Séparation des scènes sociales et pratiques ordinaires du calcul. À la recherche des raisonnements indigènes », *in :* N. COQUERY, F. MENANT et F. WEBER, (dir.), *Ecrire, compter, mesurer*, tome 2, pp. 66-85.

WEBER F., (2009), « Le calcul économique ordinaire », *in* : P. STEINER et F. VATIN, (dir.), *Traité de sociologie économique*, Paris : PUF (Quadrige), pp. 367-407.

ZELIZER V., (2005a) [1994], *La signification sociale de l'argent*, Paris : Seuil.