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## COMPLEMENTARY CURRENCIES AND THE FINANCING OF INVESTMENTS IN LONG-TERM ASSETS

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### ABSTRACT

The question raised in this article is whether the focus on “money”, as the key concept in the analysis of community or complementary currencies, is justified. The investigation shows that the economies which facilitate exchange with alternative currencies are also based on “capital.” In some cases, capital is created within a community or complementary currencies; in others, synergies exist between the alternative currencies and other ways of financing long-term assets like microfinancing schemes. In order to better understand the grey zones between these different spheres an all-encompassing use of the notion of “money” should be avoided.

### KEYWORDS

Finance and Investment; Resilience; Historic Complementary Currencies; Solidarity Economy

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## 1. INTRODUCTION

The author of this paper has developed his knowledge about complementary or community currencies (subsequently the acronym CCs will be used) in two different worlds. First, he participated in the organisational work of a LETS-type of exchange ring (LETS stands for Local Exchange Trading Systems). Secondly, he took part in the academic discourse about different types of CCs. A comparison between these two worlds leaves the impression that an important aspect of the socio-economic life in this relatively small CC system is not reflected adequately in the academic literature. Almost all kinds of economic activity are based on some form of capital. Being an organiser, the author had to find adequate premises where the different kinds of gatherings could take place. For moving houses – a popular service in this exchange ring – someone hired a lorry. Many of those who offered services – bicycle repair, to mention just one example – had well equipped workshops at their disposal. The relevance of the issue “capital” became obvious when a homeless person joined this CC. The organisers tried to integrate this person, letting him take part in the house moving activity, but, unfortunately, it did not work. Without any material basis, participation proved, at least in this case, to be impossible. The case indicates that ignoring the issue of capital implies that social cleavages might be ignored. At this point, the author could have embarked on a practice-oriented investigation. If private premises were not appropriate, public community centres might be available at reasonable prices. With regard to the lack of household capital, a reference to a model project might be useful – a LETS in Munich cooperates with a facility which offers tools for do-it-yourself activities (Koller and Seidel 2014: 108, interview with Dorina Schlupper; see also the website of Haus der Eigenarbeit / HEI no year). With regard to people who live on the fringes of a society, a CC expert might argue that a professionally managed timebank would provide a better service than a LETS-type system run by volunteer organisers. This kind of reasoning may serve as just a first illustration of the issue. In this article the author discusses the question is whether this observation reveals a fundamental deficit in the way CCs are generally described. In order to answer it this analysis will focus on CCs which involve businesses. This will make it possible to refer to definitions of capital not, as in the above case, for household production but to the formal economy. Nevertheless, this investigation should also shed some light on the importance of the (informal) capital endowment in private households.

The following references should be helpful to substantiate the research question. Lietaer distinguishes two sectors of the economy – one with established currencies that is based on financial and physical capital and another that uses complementary currencies to facilitate community transactions and is based on social and natural capital (Lietaer 2001: 274). This definition is not really satisfying. Is “physical capital,” as Lietaer calls it, not also relevant for alternative production in the world of complementary currencies? Lietaer addressed a general audience with his book. Like Greco (2013) he offers a far-reaching vision in his book “The future of money: A new way to create wealth, work, and a wiser world” (Lietaer 2001: title). Academic writers are generally far more reserved with regard to the perspectives for CCs. They “should set themselves more modest goals,” writes Blanc (2010: 311) and adds “though they may be surprised by their own success.” What most authors, whether they address a general audience like Lietaer or Greco (2010) or concentrate on careful scientific work like Blanc have in common, is that they consider money as the pivotal element in the analysis of CCs (for a survey of the literature in this field see Schroeder, Miyazaki and Fare 2011). No doubt, monetary aspects are highly relevant to understanding the specific forms of transactions taking place in CCs, but the question is whether and how the notion of capital is reflected adequately in this field of research. Alternatively, is there perhaps good reason to say that this issue should remain outside the field of CC research? This study is based on a comprehensive analysis of the literature in this field as well in related fields of research.

The following section outlines the framework of this analysis. After the clarification of methodological issues, the second part of section 2 discusses in some detail the roles of money and capital in the discourses about CCs. By

reference to a book, which had some influence on these discourses, it will be demonstrated how the concept of money was dragged into the spotlight. Section 2.3. demonstrates that the notion of capital is a relevant aspect in discussions about CCs. The focus of this article is on small entities, businesses, possibly cooperatives, where people work who are economically marginalised. Therefore, the empirical evidence provided in section 3 takes into consideration alternative means of providing capital. This section offers a bird's eye view on a variety of different types of CCs and their link to the issue of capital. Apart from the capital endowment of participating businesses, cases where the creation of capital is linked with the issue of the currency will be discussed.

## 2. CONCEPTUAL FRAMEWORK

### 2.1 Between Vision and Social Technology – Methodological Issues

Thomas Greco envisages an economy with savings and investments being part of an alternative economic structure (Greco 2009: 214-227, 148f). It is beyond the scope of this paper to criticise all aspects of Greco's proposal. He places emphasis on mutual credit systems. In another publication, Greco (2013) himself describes the problems of such systems quite well. His proposals to manage problems like the "stagnation of circulation" are useful in respect of small-scale CCs. But he ignores the enormous costs of managing balances in a complex network structure. What remains is the belief that everything will balance out in a laissez-faire manner. Dodd (2014: 360) quite correctly considers this line of thinking (Dodd refers to the spiritus rector of this movement, Riegel, not to Greco himself) closer to the neo-liberal ideas of Hayek than to the tradition of CCs such as LETS. In order to become recognised in academic circles researchers approach the issue "CCs" in a way which is quite different from books like "The End of Money and the Future of Civilization" by Greco (2009) or "The Future of Money" by Lietaer (2001). They "should set themselves more modest goals" – this recommendation by Blanc (2010: 311) quoted already above might also be considered as a guideline for academic research. The present author has the impression that many scholars in this field only consider propositions as valuable if they are based on profound empirical studies. This again would allow practitioners to improve their systems and get legal recognition for their endeavours. Progress would thus take place in a step-by-step manner. Certainly, profound empirical studies are important, but it has to be emphasised that their quality depends not only on the data collected and the methods employed, but also on the relevance of the research questions. In fact, progress is not always a step-by-step process. New technologies or crises in the capitalist system might change the picture completely. Blanc and Fare (2013:76) argue in favour of a legal recognition of CCs. However, a political discussion would also open the possibility to think about newly designed systems (see for instance a "scenario" presented by Schroeder 2015: 111f). One of the few authors who pursues this course of thinking is Gregory, who envisages a social policy which allows the creation of timebanks which are completely different from the ones which exist presently in the UK – for the "utopian method" see Gregory 2015: 8f, 50f, 18-155. Such an approach involves risks. Cooper (2013) criticises the failed "utopian" attempt by social scientists in Britain to create an economically significant alternative for employment on the basis of the LETS model.

Dittmer (2013) concludes that CCs as they exist today are too small to be an instrument for a degrowth policy. The present author shares this judgement, but – being committed to an understanding of scientific research which includes a sense of vision – raises the question of whether the present frameworks used in CC research are appropriate to conceptualise future systems which are economically far more important than the present ones? If the answer is negative, research would be an impediment to the development of these socio-economic innovations. The term "paradigm change" coined by Kuhn (2012) is not appropriate here, but to ask whether the present paradigm is sufficient to solve important problems in this field of research is the objective of this analysis.

### 2.2 The Vanishing of Capital from the Discourse

A search for discussions of "capital" in the academic literature produces almost no results. An exception is a contribution by Karatani (2003: 298-301) who describes Local Exchange Trading Systems (LETS) as a form of money that does not become capital. Kavčič (2016: 42), having run simulations with mutual credit systems states that CCs are not well adapted to facilitating the exchange of old durable and capital goods. The latter study is quite unusual because his logical reasoning is detached from actual experience. It should be noted that both authors refer to a specific type of a CC.

Since monetary aspects play such a prominent role in discussions about CCs, there is a possibility that the concept of capital has been integrated into the concept of money. In fact, there is at least one case where this happened. For Hart (2001: 83) "the essence of capital is that it is wealth (usually money in some form) capable of *increasing its value*" (in *italics* as in the source cited). As this definition already indicates, the entire book is just and only about money. In a chapter about "the changing character of money", Hart also discusses CCs – LETS and Ithaca Hours (Hart 2001: 279-283 and 287). In the same chapter, he describes the JAK Members Bank, a Swedish savings and loan association. JAK is an abbreviation of the Swedish terms for land, labour and capital – for Hart it is all about money (Hart 2001: 283).

The reason for the dissolution of the term "capital" is not very clear. Hart himself draws on ethnographic studies he carried out years before. It is noteworthy that in this context he developed the concept of an "informal economy" (Hart 2001: 98). One of the cases he describes in his book is about an entrepreneur from Ghana who transfers the property of an investment to his "employee" who becomes, in fact, a subcontractor. The reason for this complex arrangement is to avoid certain risks and secure a constant cash flow (for details see Hart 2001: 108). Interestingly, this is a small and early example of a trend which could also be observed in the Global North, not only in labour relations, but on the capital side too. New forms of evaluating risks – like the instruments provided by portfolio theory – became relevant for investment decision. This led to the development of cash flow oriented so-called "financial innovations", such as, to name just one example, the process of securitisation. In his analysis of the reasons for the financial crash of the year 2008, the former Prime Minister of the UK, Gordon Brown, speaks of "Capitalism without Capital" (Brown 2010: 27).

This is perhaps one but by no means the only explanation for the dominance of the topic "money" in discourses about CCs. An accountant would shake his or her head about this and point in a different direction.

### 2.3 The Relevance of Accounting

Notwithstanding what has been written in the last section, the concept of capital has not completely disappeared. It is still possible to refer to Deleuze and Guattari (2004: 248) who distinguish between payment and finance money; the latter structures the process of (capitalist) production. In contrast to the approach of Hart, a definition of capital based on economic theory will be applied (see Hart 2001: 84; in note 18 he refers to G Bannock, R Baxter and E. Davies (1984) *The Penguin Dictionary of Economics*, 3<sup>rd</sup> ed. Penguin: Harmondsworth, 63). However, since the subject matter of this paper is not the economy in general but small businesses, a reference will be made to accounting principles which have their roots in mainstream economic theory. For many social scientists, this may appear to be a somewhat trivial approach. However, it should be borne in mind that accounting is relevant to any attempt to involve businesses in CCs. North (2004: 138, also 158 and 167) shows that business people are reluctant to participate in regional currency systems because they consider it to be problematic to work with two currencies in their accounts. Assuming that the convertibility of alternative currencies is limited in one way or another, a relatively high income in alternative currencies would constitute a problem because the income in traditional currencies does not suffice to finance depreciation or the acquisition of a new machine which is urgently needed for the production process. This is not really a problem today, but it becomes one in economically significant complementary currencies. Taking up the thread laid with the methodological groundwork of section 2.1, it should be emphasised again how important it is to work with such scenarios in order to demonstrate the limitations of existing conceptual frameworks.

For the purpose of this article, it is not necessary to go into the details of accounting rules (see for instance Bull, 1980, for such details). Low-value means of production are entered as expenses, i.e. they do not become assets. Long-term financial assets are capital, but, with an eye to small businesses, they can be neglected here. Generally, speaking, it is important to distinguish between long-term assets and working capital – goods used to produce other goods and services on one hand, and commodities, cash etc. on the other. The basic rationale behind this procedure is that accounts are prepared for a certain period, for a year, but the lifespan of investment goods stretches over a longer period. The financing of investments and the calculation of an appropriate rate of depreciation takes into consideration this particular character of capital.

In addition to this analytic reasoning, the following section will provide empiric evidence for the relevance of the concept of capital in discussions about CCs. The two sides of the balance sheet, investment and financing, will be considered, both in respect to participating businesses and entire CC systems.

### 3. EMPIRICAL EVIDENCE

#### 3.1 Regional Currencies

In contrast to service credit and mutual credit systems like LETS, regional currency schemes are not completely sealed off from the capitalist economy. However, even here the acquisition of capital goods is of marginal importance. In his study of the Chiemgauer, Thiel (2011: 324) concludes that this alternative money is mainly used to buy goods for everyday consumption. The supplier directory of this organization (Chiemgauer Regiogeld 2015) confirms this observation, although this database also comprises businesses from the craft and the construction sectors, architects and software developers as well as other specialists in information technologies, and even a few industrial supply stores. The umbrella organisation of the Chiemgauer has launched a micro-finance scheme. Funds (in Euro currency) are provided by the federal government (Regios 2015). Borrowers have the option to receive these funds either in Euro or in regional currency. Generally speaking, it appears that businesses that participate in regional currency schemes prefer a constant cash flow instead of occasional large orders. In the Chiemgauer, the latter case might imply additional costs due to a) the demurrage, because a larger amount of Chiemgauer cannot be spent over a short period, or b) the fees charged for changing back Chiemgauer into traditional currency. If the price had been closely calculated, these costs constitute an extra burden for a business.

As a side note it is worth mentioning that a German savings bank had planned to launch a regional currency (Gründler 2004). This would have offered the possibility to link the new form of money with the various services of this bank. Unfortunately, the savings bank lost its independence and the plan was dropped.

#### 3.2 Historic Systems: Woergl and the Ausgleichskassen/Arbeitsgemeinschaften

Some cases from the first half of the twentieth century provide additional evidence for the relevance of the issue "capital" in discussions about CCs. The job creation scheme in the Austrian town of Woergl has become a famous part of the canon of alternative money (see for instance Lietaer 2001: 155, also Shimomura 2013). It was implemented by the mayor of the eponymous town during the recession of the early 1930s. The purpose of the programme was to set up a community kitchen and to improve the road and path network as well as the tourist infrastructure (Broer 2007: 93f and 159-163). A substantial part of the scheme was financed in traditional Austrian currency (Broer 2007: 67f), the remainder with a currency issued by the local administration. The workers and to some extent also municipal employees received their payment in this local currency. This means of payment was accepted in local shops and by some farmers. It was also possible to convert it into Austrian Shillings, but only with a deduction of 2%. The scheme existed only from the summer of 1932 until November 1933 when it was ruled to be illegal. There are some doubts whether this would have been a sustainable economic cycle on the local level. At an early stage, business people and farmers used the income in Woergl money to pay arrears of local taxes. Later, however, the mayor of the town exceeded his powers by accepting advance payments of taxes (Broer 2007: 104, 213, 31). Furthermore, he arranged contacts between local retailers and wholesale suppliers in Vienna who accepted the money from Woergl (Broer 2007: 31). The Austrian Chancellor at that time, Dollfuß, had indicated that a currency within clearly defined boundaries could be tolerated, but the activists from Austria had bigger plans (Broer 2007: 195, 213, note 810, quoted from the minutes of the 'Ministerratssitzung' dated 21. Juli 1933, in: Gertrude Enderle-Burcel (ed.), Protokolle des Ministerates der Ersten Republik, Band 4 /26. Oktober 1932-1933, Wien 1982). The actual investment plan was well justified, but hopes were disappointed; tourism did not flourish during the 1930s due to political reasons (Broer 2007: 162-167).

In contrast to the experiment of Woergl, the Ausgleichskassen or, as they are also called, Arbeitsgemeinschaften remained almost unknown. They also existed for a short period in the early 1930s until they too were ruled to be illegal. Their purpose was to stimulate economic activity via credit-financed investments in public infrastructure and the construction of private dwellings. The basic idea of this concept was not to use scrip as in Woergl, but money on account. Masons and other workers employed in these schemes would receive (at least part of) their wages as credits in individual accounts. Retailers and others were also expected to open accounts in order to make commercial transactions possible. Payments were to be made by cheque or payment orders (remittances). In 1931 16 institutions of this type had been founded, 15 others followed in 1932 (J. 1933: 67; Wackerzapp 1932: 425, also mentions a scheme in the Austrian city of Graz). The alternative currency was either pegged to the Reichsmark or it was based on time as a measure of value (Godschalk 1986: 29). The Ausgleichskassen / Arbeitsgemeinschaften were harshly criticised by a number of authors. Rittershausen (1933), a proponent of the Banking school, was in favour of currency diversity, but argued in favour of flexible exchange rates. This debate resembles, to some extent, the one that characterises present-day discussions. These alternative currency schemes have not been researched yet, but it seems that some of the criticism was justified. The securities might not have been sufficient to guarantee the value of the currency. In principle, it is problematic to

finance long-term investments by issuing fungible money. However, the following case demonstrates that this is possible provided that maturity transformation – traditionally the domain of banks – is possible, provided that this process is covered by adequate securities as prescribed in a regulatory framework.

### 3.3 Common-pool Resources and CCs

Common pool-resources might have a potential to substitute capital, both, for private users as well as for businesses. So far, there is hardly any information about the combination of these two elements. An exception is the Banjar, a traditional socio-economic arrangement which can be interpreted as a common-pool resource (Vipriyanti 2008). Lietaer and DeMeulenaere discuss this traditional socio-economic arrangement as a specific form of complementary currency. The community of a Banjar decides about certain projects which require the participation of the members of these geographically bounded “civil units” as Lietaer and DeMeulenaere (2003: 972) calls them. Members are required to render services. One type of service is accounted for in time units (3 hours = 1 unit). It is to some extent possible to substitute this service by paying an amount in ordinary currency (Lietaer and DeMeulenaere 2003: 973). It should be added that one has to be very careful to use concepts such as common-pool resource or CC to describe these very traditional socio-economic arrangements. (Anthropologists criticise the interpretation of Tabu currency in New Guinea by DeMeulenaere and others as a Western style economic CC; they insist that the use of this currency is mainly determined by traditional customs – see Solyga 2007: 230f, 242f).

Generally speaking, the maintenance of common-pool resources is an important issue (for an example see Nelson, Schlueter and Vance 2017). This not only applies to natural resources, but also to software; quite often, software requires technically complex programming to customise it and to keep it updated. A reason why the symbiosis between these related approaches has hardly been discussed so far might be that parts of the political common-pool movement consider money as a no-go-area (for instance Habermann 2009: 92–98; for an overview of this radical line of thinking from Germany see Euler 2016). The author of this article considers it to be important to overcome the ideologies of alternatives to capital(ism) on one hand and money as the panacea to all economic problems on the other.

In this context, it is noteworthy that some authors interpret CCs as common-pool resources. It is doubtful whether Greco's proposal to reclaim the credit commons really belongs to this category. This interpretation is not really consistent with his understanding of how the issue of money is supposed to be organised: “Anyone who offers goods and services for sale in the market is qualified to issue currency” (Greco 2009: 146). This kind of a laissez-faire approach contrasts with another proposal – Hudon and Meyer (2016) apply the criteria of Ostrom and describe precisely how specific organisations which issue a CCs fulfil these criteria.

### 3.4 The Swiss WIR

The most successful CC – in terms of turnover – is the Swiss WIR. WIR is an abbreviation for “Wirtschaftsring” (economic ring), this German word means also “we”. It was also established during the recession of the 1930s. Later, the WIR Bank (a co-operative) was founded which incorporates the WIR system (Wirtschaftsring), but does most of its business in Swiss Francs. The bank considers the secondary currency WIR as a marketing tool offered to their business customers. Turnover amounted to 1.35 billion WIR in 2015. (This corresponds to 1.35 billion Swiss Francs – WIR Bank 2016: 3.) The founders of this system had studied the Woergl project and some other cases. The Swiss regulators took a positive view on this experiment and helped to knock it into shape. The WIR was allowed to issue its own currency. The peculiar character of the WIR system is not always described correctly. Vallet, approaching this case from a monetary perspective (among others he refers to the works of Aglietta and Orléan) emphasises in the abstract of his article the “melting money” principle (Vallet 2016: 479, also 482), also called demurrage. Although the founders of the WIR had been influenced by the model of Woergl, where this principle played a prominent role, it remained of marginal importance even in the early history of the WIR (see Lautner 1964: 31ff). He stresses “the ability of the WIR Bank to create money *ex nihilo* according to participants' needs” (italics as used by the author) and maintains that “the WIR exists only in the circulation sphere” (Vallet 2016: 487 and 484). According to this author, the exposure to the property sector is very limited (Vallet 2016: 492f). The truth is that the WIR system is quite distinct from a mutual credit system. It issues its money in the form of long-term loans mainly secured by mortgages (in 2014, i.e. the year of reference used by Vallet, 77.5% of the assets in WIR currency were mortgages – WIR Bank 2015: 16, also 20). These funds are used to finance investments mainly in the building sector. The contractors put the WIR currency into circulation by making payments to their suppliers or their employees. (For a very good description of this system in English language see Studer 2006: in particular 30-36, 40.) The WIR operates like a central bank, but within the limits of its banking license. The amount of WIR money issued is subject to its equity base. This is an example of how, by setting limits, regulation creates new economic spaces.

In comparison to all other cases presented in this section, the WIR is of outstanding importance. Would it be correct to consider it as a blueprint, the ideal model to combine capital creation with the establishment of an alternative sphere of monetary exchange? First of all, capital creation is almost entirely limited to the construction sector. The system does not facilitate investment in other capital goods. The creation of the currency via one sector of the economy implies also a kind of a bottleneck. The

system must be understood in its specific national context; it is unlikely that it would work in a regional context. In recent years, the WIR has experienced a significant drop in turnover. Interest rates for WIR loans were lower than for loans in Swiss Francs. Due to the low-interest-rate policy of the central banks, this differential does not exist anymore. Mortgages were a very safe form of a security over many decades. However, nowadays it is important to note that mortgages are not always safe. Quite correctly, Vallet (2016: 492) mentions a bubble in the Swiss real estate sector, although it is unclear whether this will cause problems in the future. The WIR is not just a business-to business ring; employees can also participate. In many countries, workers in the construction sector are in low-paid jobs. For many workers this is lucrative, because they come from another country where the hard currency they earn has a high purchasing power. A currency like the WIR would make little sense in this context.

Despite these critical aspects, the WIR provides ample material for anyone who is interested in constructing economically important CCs.

### 3.5 Equity-based Currencies

The systems described so far have to be distinguished from concepts and experiments where complementary currencies have been designed in conjunction with investment plans based on financing in traditional currency. Warner refers to a story that occurred back in 1990. The owner of a delicatessen financed the expansion of his premises by selling scrip that could be redeemed in meals after the completion of the building project. These certificates, issued in small denominations, circulated, before eventually being redeemed, as a currency surrogate in the community (Warner 2013: 132, refers to G. Hallsmith and B. Lietaer, *Creating Wealth: Growing Local Economies with Local Currencies*, New Society Publishers Gabriola Island, BC, 2011: 84-87). The amount of capital raised here was very small indeed, but Warner believes that the idea has potential if considered in conjunction with crowd funding, which now has increased significance due to new communication technologies.

The value of the above-mentioned certificates was underpinned by the fact that people could see that building the delicatessen was work in progress. The credibility of the WIR money was supported by securities – mortgages and other collateral. Some advocates of CC emphasise that it is essential that these should be covered by commodities like energy (Douthwaite 2011, Turnbull 2009; for an overview of the origin and development of energy currency concepts see Günel 2014). It is possible to think of currencies that are based on the production of a local power station owned by a co-operative. In practice, however, attempts to combine alternative energy production and the issue of currencies did not become success stories. ('Sonnenchein', a German initiative briefly described by Thiel 2011: 130, provides an example; see in this context also Wallmann 2014: 10). The same applies to a proposal to cover the issue of a currency with an investment in tree plantations (Hudon and Lietaer 2006). To sum up, this route does not appear to be very promising.

### 3.6 Microfinance Schemes

Microfinance – initially greeted with high expectations – became discredited in recent years. Some commentators consider the concept even as irreformable (Klas and Mader 2014: 30). Some authors in the field of CCs discuss microfinance in conjunction with alternative currencies. Servet and Moerenhout (2015) consider "rotating credit and savings associations" (ROSCAs) in India and some parts of Africa as an instrument that fulfils the criteria of a solidarity economy. Ranalli, writing about the use of CCs in refugee camps, emphasises the "lack of access to capital" (Ranalli 2013: 423). A small example from the Global North is the Canadian CC L'Accorderie which offers, beside exchange facilities, also small microcredits in traditional currency for the acquisition of household goods (Lizotte and Duhaime 2011: 49). Saig discusses this issue in the context of his ethnographic study about inhabitants with a working class background in the Argentinean city of Rosario. He stresses, that the concept of microfinance should not be restricted to micro-credits for productive purposes and includes other elements like savings schemes. Similarly, a group of German authors underline with reference to historic experiences in the 19<sup>th</sup> century the relevance of "savings as a fundamental condition for change and growth" (Schmidt et al. 2017: 56). From the financial point this is certainly true – savings are not only a source for lending, they are also necessary in respect of the creation of equity which is the basis for business activities.

The most prominent case with regard to the issue discussed in this section are the Community Development Banks of this country like Banco Palmas from Fortaleza, the first institution of its kind. In their account of the development of these organisations Franca Filho et al. (2013) show that previous microfinance arrangements in this country had failed to address the needs of "the poorest of the poor" (Franca Filho et al. 2013: 121). The response to this failure was the development of what Jayo (2009: 116) called an integrated approach. This concept includes, beside financial services like different types of credits also the issue of a scrip currency and other elements like a vocational training centre (for details of the institutional arrangements and their development see Melo Neto Segundo 2010). All elements are embedded into the framework of the solidarity economy.

In order to reach the very poor people and, at the same time, maintain the solvency of credit schemes in the long-run, these banks operate on the local level. The "proximity of relationships" (Franca Filho et al. 2013: 122) are essential to make sure that credits are paid back. Due to the absence of physical securities sureties are important (see Franca Filho et al. 2013: 120 about rings of borrowers where every participant guarantees the obligations of the other members of such a ring). Furthermore, it is

the community which provides information about the reliability of applicants for credits. The community is both, lender and borrower at the same time (Melo Neto Segundo 2010: 66, 72). This illustrates the character of these systems as common-pool resources as investigated by Hudon and Meyer (2016).

For the purpose of this article, it is important to stress the synergies resulting from the combined use of CCs and microfinance. Firstly, there is an overlapping of task to manage such systems. (With regard to the problem of securing an adequate and sustainable financial base for the operation of CCs see Schroeder 2015). This aspect is even more important if mutual credit systems were used and not scrip based on traditional currency. The second argument in favour of the symbiosis between CC and micro-financing schemes is based on two empirical investigations. Firstly, Fofack (2005) found that macroeconomic shocks lead to a situation where loans become nonperforming. Secondly, Stodder (2009) has shown that economic activity in the Swiss WIR increases in times when the traditional economy suffers from a downturn. This countercyclical effect of CCs means, the reasoning goes, that participants in the WIR can compensate the decline of revenues in Swiss Francs to some extent with an increased income in WIR money. This is relevant even if amortisation instalments are due in traditional currency. Since the supply in the alternative economy tends to increase during a recession business owners, employees or members of cooperatives can satisfy at least a large part of their personal needs here. If in a mixed income structure the share of earnings in traditional currencies remains high enough the borrower will be able to fulfil his or her contractual obligations. This smoothing of revenues is highly important for lenders, including the providers of micro- and other small loans. It means that the risk of default is largely reduced. This is all the more significant, because for a lender a recession means an accumulation of risks. A well-designed CC may contribute to an extension of the availability of micro-credits. It should be remembered that the WIR is a closed system; there is no evidence to show how far hybrid systems like regional currencies will have this effect.

#### 4. CONCLUSION

Critics might argue that the empirical evidence provided in the previous section is still somewhat thin. In contrast to empirical studies about what constitutes the core of CCs – i.e. the realm of transaction – the purpose of this contribution was to shed light into the dark corners of these relatively new socio-economic spaces. The evidence found in very different socio-economic contexts justify it to distinguish between money and capital, between the transaction of non-investment goods and capital formation. Certainly, it would be interesting to study the accounts of participants in economically important CCs who generate a large part of their turnover in alternative currency, but, due to the small economic weight of almost all CCs, this is hardly possible yet. It is important to remember that almost every economic activity belongs to both, the world of capital and the world of transactions of non-capital goods.

In order to take account of this distinction the far-reaching interpretation of money as it is widely used in the literature about CCs was restricted in this study to its true domain – the world of simple transactions. In this context, it was useful to have at least one author in the field of CC research (Karatani 2003: 298-301) who made this distinction. The differentiation between money and capital may be considered as one of the boundaries relevant for CCs. Schroeder (2015) argues that the analysis of these schemes should not only look at the things (like money) which make alternative connections possible, but take into consideration what is not connected or, to put it differently, to interpret them as systems that operate within boundaries. Among the sources that establish the theoretical framework of Schroeder's approach is an article by Abbott (1995), who demonstrates the problems of newly emerging organisations in defining their boundaries. This contribution is not only useful for the interpretation of CCs, but also, on the reflective level, for CC research.

In order to address the topic appropriately the author used with "money" and "capital" economic terms. It is a somewhat surprising result of this investigation that promising economic designs have their limits too. Equity-based Currencies did not really take off the ground and recent developments show that the success story of the WIR ring is based on certain assumptions too. In this context, it is important to take into consideration the strength of experiences where mutual trust and personal creditworthiness plays a prominent role. The lessons learned from the experiences of small mutual credit systems or Banco Palmas are also relevant for the construction of new types of viable economic alternatives. In a way, this contribution might be considered as a functional complement to the concept of a solidarity economy. Future research has to investigate whether hybrid CCs which are constructed as mutual credit systems at the base line and with high credit limits secured by mortgages and other forms of collateral at the top end.

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