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Self-funded social impact investment: an interdisciplinary analysis of the Sardex mutual credit system

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Self-Funded Social Impact Investment: An Interdisciplinary Analysis of the Sardex Mutual Credit System

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Abstract

Sardex is an electronic B2B mutual credit system that has been operating on the island of Sardinia since 2009 as a complementary currency. In contrast to other funding mechanisms, it allows private funding driving social and environmental impact to be endogenously generated within a given geographically limited socio-economic context, rather than injected from exogenous sources. By drawing on different strands of monetary theory, sociology and anthropology, we argue that mutual credit is central to a form of social finance and social impact investment that we identify with sustainable development, i.e. stable and constructive integration of market activity with democratic institutions and socio-cultural values and structures. The empirical basis of the paper consists of approximately thirty semi-structured in-depth interviews of Sardex circuit members and founders over 4 years. We conclude that Sardex as a collective social enterprise is best understood through an interdisciplinary perspective that demonstrates its sustainability through the different levels of its workings and its strengths as a hybrid multilayered system.

1. Introduction

> Social finance encompasses the use of a range of private financial resources to support the creation of public social and environmental value and impact. (Daggers and Nicholls 2016)

The Sardex mutual credit system operating on the island of Sardinia since 2009 challenges prevailing notions about the nature of money, and the financial and economic autonomy that a relatively poor region can aspire to, because it *creates its own money*. To explain this claim, this paper presents a discussion of the ontology of money that extends beyond the neoclassical (Aristotelean) assumption of money as a precious commodity that serves as a medium of exchange to obviate barter. The paper shows that the mutual credit phenomenon can be integrated in a more inclusive theoretical framework that encompasses all forms of money creation. Mutual credit appears to be central to a form of social impact and social investment that we identify with sustainable development, by which we mean a stable and constructive integration of market activity with democratic institutions. Such integration, in turn, relies on socio-cultural aspects of society that cannot be understood from an economic or monetary theory perspective alone.

The crucial element for a market-based mutual credit instrument to lead to 'positive' social impact is for the rate of interest to be zero on all debt and credit balances; this focuses economic activity on goods and services with immediate socio-economic impact, rather than financial instruments operating on a longer-term horizon and under greater risk. This is because, somewhat reductively, a capitalist market is a market in which the medium of exchange is itself a commodity, whose price is the rate of interest (Amato and Fantacci 2012). We claim that a non-capitalist market (thus defined) with a zero-interest currency is part of the solution to the sustainable development problem, as it has beneficial properties reminiscent of Adam Smith's 'circular flow' or Schumpeter's 'circulating debt', where there is no hoarding and the market functions at its most efficient.

Unfortunately, setting the interest rate to zero undermines investment-dependent entrepreneurship. The challenge is then to retain some aspects of capitalist growth while keeping its more detrimental effects in check. The empirical evidence and theories invoked in this paper point to a solution in terms of a monetary system designed in support of a multi-scale, poly-centric economy (Ostrom 2005). This resonates with Douthwaites's 'monetary ecology' (Douthwaite 1999), in which local or regional economies should be established on a different footing to the national economy.

As in conceptually similar theories of economic growth based on endogenous innovation and technological change (Romer 1990), the implication is that, rather than a linear cause-effect chain from funding to social impact, other narratives of socio-economic innovation are possible and, in fact, preferable. This is consistent with Daggers and Nicholls's (2016) observation that proposed academic models are not providing a coherent body of theory that does justice to the new ways practitioners are experimenting with private funding for social and environmental ends. This paper proposes a holistic multidisciplinary understanding of mutual credit in general and of the Sardex system in particular, as a form of "self-funded" socio-economic impact investment. Rather than developing yet another cause-effect chain argument for social impact, we focus on the analysis of how development can be achieved when a multiplicity of small-scale feedback loops bring together the economic decisions and cultural narratives of a community. Sociological monetary theory provides the link between social and cultural narratives and the economic account summarised above.

The paper is based on a 4-year study of the Sardex system and active collaboration with its founders. The study included several in-person visits, participation in Sardex public discussion panels, and 29 in-depth interviews with Sardex circuit members in three waves over 2 years (Dini et al. 2014-16),[1] and has led to a number of publications complementary to this paper (Littera et al. 2014; Dini and Kioupkiolis 2014; Sartori and Dini 2016).

The endogenous creation of money within a circuit or community discussed here can only be understood as a combination of economic, sociological, political, cultural, and technological factors. Therefore, the analysis of Sardex as a self-funded Social Impact Investment (SII) initiative requires a deeply interdisciplinary approach. Section 2 summarises the main notions from monetary theory that are needed to make sense of the Sardex system, and presents an

[1] We interviewed the five founders of Sardex; especially Giuseppe Littera (see Littera et al. 2014). We conducted 29 semi-structured interviews in three waves in Summer 2015-Winter 2016 with circuit members following a city-campaign criterion: 1/3 of the interviews in Cagliari; ½ in smaller towns such as Serramanna (where the headquarters are), Assemini, Carbonia, Terralba and Oristano; and the rest in the larger town of Sassari. We selected a wide range of business types: professionals (lawyers, notary, professional association of private training instructors, translators); food and hospitality sector (supermarkets, restaurants, bars, catering); artisans and small manufacturing (blacksmith, decorator, plastic bags, neon signs); retail (clothes, sports, electronic appliances, plumbing materials, tyres, crockery and household); other services (printing, postal service).

outline of the Sardex system itself. Section 3 discusses how Sardex fits in the social entrepreneurship literature. Section 4 presents a sociological perspective on Sardex as a Zelizer circuit and as an institution. Section 5 relies on an anthropological perspective to discuss Sardex's epistemological and emotional advantage as a culture. Section 6 discusses briefly how Sardex is a sustainable multi-layered system that can only be understood from an interdisciplinary perspective and, finally, presents some conclusions.

2. A Monetary Theory Perspective on Mutual Credit

Methodenstreit Legacies

Many analyses of SII are based on a separation between the social and/or environmental sphere, where the impact is sought, and the private (or public) capital that is supposed to enable such impact. For instance, Daggers and Nicholls (2016) define 'impact investing' and 'social investment' as follows:

> Impact investing concerns the use of capital to create specified social or environmental impact, whether it is through direct allocation capital, investment in funds, or contractual agreements such as SIBs [social impact bonds]. The focus is therefore mainly on *investor behaviour and motivations*. Social Investment concerns providing *access to repayable capital* for social sector organisations (SSOs), where the providers of capital are motivated to create social or environmental impact. As a result there is more of a focus on the *investee.* (Ibid.: 6, original emphasis)

To carry the points made in this paper, we think it is important to start with a more inclusive context that goes beyond the dichotomous model given above. In economic anthropology the economy is divided into four domains of value: market, capital, social relationships, and the base or commons (Gudeman 2001). In this view, *economy* and *market* are not synonymous, and the social and the economic spheres are not seen as incommensurate: social relationships, as a domain of value, are a part of economy – but not of the market. In other words, they are not outside the economy, even if we rule out their commodification through e.g. social network analytics.

A second way in which the social and the economic spheres can be joined is, surprisingly, through monetary theory, because 'money is a *social* relation of credit and debt denominated in a unit of account' (Ingham 2004: 12, added emphasis) and formalised through the double-entry book-keeping method. However, money has a life-cycle: it is created, spent one or more times, and destroyed (e.g., through tax payments or bank loan repayments). Because money is *transferable* or *assignable* debt (Ingham 2004: 12), the manner in which it was created is soon forgotten, and the perception that it is a precious commodity predominates. Therefore, different points in money's life-cycle are best understood through different types of monetary theory. In addition to the sociological/institutional theory, the state theory also explains money creation: money is that which the state accepts as tax payment (Knapp 1973[1924]). The Aristotelean commodity theory adequately explains money expenditure, and the sociological theory can best explain money destruction.

Wray makes very similar points, using economics language, when he defines 'endogenous money'. In contrast to the still prevailing Aristotelean definition of money as a medium of exchange created to eliminate the need for double coincidence of wants in barter, 'the endogenous money approach … concentrates on the *source* of money: how is money created, and how does it enter a capitalist economy?' (Wray 1990: 2, original emphasis). In this view, the creation of endogenous money is 'tied to the essential features of capitalism: private ownership, production for the market, and capital accumulation' (Ibid.). Endogenous money is created principally through the extension of bank loans secured on the basis of personal and community resources ('collateral'). In this paper we argue that mutual credit is another form of endogenous money creation, which extends Wray's concepts not only towards smaller geographically delimited economies, but also beyond capitalism to more inclusive economies reminiscent of Gudeman's insights. This can be seen as follows.

According to sociological monetary theory all money is debt, even though not all debt is money (Ingham 2004). Thus, debt is the more general concept. In fact, a loan can consist of money that already exists (usual definition), or of money that is created at the time the loan is made, which is how banks create money (Wray 1990; Douthwaite 1999; Ingham 2004; Werner 2014). For any debt, the collateral guarantees to the lender that if the debt is not repaid the value of what was lent is not lost. The concept of collateral applies both when the money already exists – and is simply moved from someone's account to another's – as well as when it is created as an integral part of extending the loan. In the second case the collateral is called 'backing'.

Thus, money can be created in several different ways, which can be told apart by the kind of backing used in each. For example, when the state pays its suppliers, the future tax receipts provide the backing, and the negative entry in the ledger shows up as an increment in public debt. When banks issue mortgages, the backing is the market value of the house the mortgage buys and the negative entry is the amount of the debt that needs to be repaid, plus interest.[2] Finally, in mutual credit systems like Sardex, money is created when a company 'goes in the red' with respect to the circuit by a certain number of credits. The backing is the products and services which that company will produce over the next 12 months – in other words, the *labour* required to create the products and provide the services.

From the point of view of the general lack of understanding and agreement about the nature of money that has dogged discussions for centuries, the crucial point is that the sociological theory of money is not "needed" in the intermediate, and longest, phase of money's life-cycle. Therefore, in this phase the separation of the sociological from the economic perspective, known in the literature as the *Methodenstreit* (Ingham 2004: 9), does not seem like a big loss of explanatory power. This "divorce", however, leaves the creation of money unexplained. Since this is the most important part in understanding where the self-sufficiency of mutual credit systems comes from, in this paper we have emphasised the sociological theory. Through a combination of historical analysis, theoretical insight, and practitioner ingenuity, Sardex has been able to incorporate all of these concepts in a very successful local complementary monetary system.

The Sardex Mutual Credit System

Sardex is a *complementary* currency that is used alongside the Euro and provides a zero-interest credit buffer for the participating SMEs. Its complementary nature suggests that it can support profit-oriented market activity while, at the same time, providing resilience to the

[2] However, banks record this negative entry as a positive one, because it is treated as an 'asset' since it is supposed to come back to them in the form of repayment of the debt.

system in times of capitalist crises through its ability to protect the weaker members of the local economy. Sardex is also the name of the Sardex credits as a unit of account (1 Sardex = 1 Euro), the company that provides the credit-clearing service (Sardex SpA), the economic circle or 'circuit' (Zelizer 2005; Sartori and Dini 2016), and the online environment (http://sardex.net/blog).

In 2015 Sardex had about 3000 members (mostly SMEs, some larger companies) and mediated a trade volume of 51m Euro (Littera 2015), which is just under 0.2% of Sardinia's 2013 GDP.[3] Similarly to the Swiss WIR system (Studer 1998) after which it is inspired, Sardex relies on trust between members, which is an extension of the trust that each member has in Sardex S.p.A. (Sartori and Dini 2016). Before members develop sufficient familiarity with the system to trade on their own, Sardex brokers guide and help them, acting as match-makers between supply and demand within the circuit. Brokers are perceived as reliable and efficient problem-solvers, and the fact that Sardex does not charge a commission on successful matches builds further trust in them (Littera 2015; Greco 2015).[4]

Sardex can only be "spent" and "earned" through economic participation in the network. It is a digital (electronic) currency; it does not have a physical embodiment in paper notes. The emphasis in the previous sentence refers to the peculiar manner in which these operations are carried out in mutual credit systems, since Sardex credits can be created (if the buyer has a zero or negative balance) or destroyed (if the seller has a negative balance) at the time of the transaction. In all other cases Sardex credits move between accounts like 'regular' money. As with WIR, in Sardex transactions involve a positive entry in the centralised electronic ledger (in the seller's account) that balances the equal and opposite negative entry (in the buyer's account) according to double-entry book-keeping. The absence of interest motivates the holders of positive balances to spend them, stimulating the local economy. The absence of interest on negative balances, on the other hand, means that there is no penalty during negative cashflow fluctuations, i.e. when the buying party is in need of credit, which is particularly relevant since the core of the membership is constituted by SMEs. The maximum amount of credit a given company is granted depends on vetted indicators such as that company's history, turnover, etc.

The absence of interest gives rise to the perception that mutual credit systems are a form of barter; in fact, WIR and Sardex are sometimes characterised as multilateral barter systems.[5] However, based on the textbook definition of money as performing the four functions of unit of account, medium of exchange, store of value, and means of payment (Ingham 2004: 6), Sardex is able to perform all four and is therefore a type of money. Its perception as a store of value is weaker than "regular" money's due to the absence of interest and its means of payment function is weaker than the Euro's, but its ability to store and transfer 'abstract value as pure purchasing power' (Ingham 2004: 4) across time is the same.

[3] http://www.sardegnastatistiche.it/

[4] However, everyone from the CEO to the newest employee interacts with circuit members and builds trust.

[5] WIR charges interest on large loans but not on small transactions. All transactions are charged a 1% fee, in Swiss Francs, which provides sustainability to WIR Bank and adds to their capital reserves (Studer 1998). Sardex moved away from transaction fees; to achieve sustainability they charge a yearly membership fee that varies from 200 Euro for social/non-profit enterprises to 2000 Euro for large companies.

		Economic System	
		Capitalist	**Commons-Based**
Political System	**Libertarian/ Anarchic**	Bitcoin Bitnation	Credit Commons
	State-Centred	Neoliberal nation-state	Mutual Credit Circuit as tax-paying non-capitalist market

Figure 1. Different economic, political and monetary systems in Western modernity[6]

Figure 1 shows a simplified diagram as context for different currency systems. This table is only approximate – it would be too simplistic to place Sardex in the bottom-right quadrant, since it does not reject capitalism outright (and it also shares some elements with Credit Commons). Nevertheless, according to the companies we interviewed (Dini et al. 2014-16) Sardex does not incur some of the more acute problems characterising capitalist markets in conditions of scarcity, e.g. no liquidity crisis and no incentive to hoard. The latter effect results in the well-known claim that (zero-interest) community currencies 'stimulate' the local economy by 'import substitution'. Whereas generally this effect militates against competition, for weaker economies with a negative trade balance it is very positive in terms of subjective perceptions and self-empowerment:

> Because of the crisis the turnover has been small. But most of our 2013 business was invoiced in Sardex. I repeat that without Sardex we would have lost everything. (Bruno, blacksmith)

In the same vein, another aspect of Sardex that has both economic and social relevance is their Business to Employee (B2E) programme, whereby participating members can offer their employees to pay their salaries partly in Sardex.[7] Based on the available empirical evidence, during the current crisis this has enabled many companies to retain employees they would have had to fire otherwise.

Ingham makes the point that according to the state theory of money (Knapp 1973[1924]) money derives its legitimacy from the authority of the State. From this perspective, money is that which the State exacts as tax (Ingham 2004: 47). On that basis, Ingham argues that community currencies are not 'real' money since they tend to emerge when the state-sponsored money is not able to perform the functions that the community in question needs. In Sardex transactions below 1000 Euros in value must be paid in credits, whereas above 1000 Euros they can involve some credits and some Euros. However, for any transaction VAT is paid on the *whole* transaction amount, and it is paid in Euros. Therefore, Sardex fulfils the means of payment function more weakly than the national currency. Since Sardex

[6] http://bitcoin.org, http://bitnation.co, http://creditcommons.net

[7] Individuals (natural persons) cannot accrue a negative balance, they can only spend a positive amount of Sardex credit.

transactions are centrally-mediated, however, 100% tax transparency and compliance is guaranteed by the membership contract.

The fact that Sardex contributes to the State's fiscal revenues and to positive GDP accounting due to transactions that would not have taken place without the credits (Studer 1998) elicits state approval which, in turn, strengthens its legitimacy as a currency. In addition, tax compliance helps rebuild trust between the State and the citizens. This is an example of a positive or constructive social impact of the mutual credit approach.

3. Sardex and Social Entrepreneurship

Sardex does not straightforwardly fit within the traditional taxonomy of social finance (Nicholls et al. 2015). First, there is no a-priori requirement to have an external investor that expects some sort of social impact. In addition, the main benefit of Sardex – the increased economic activity generated – is not under the direct control of Sardex as a company; rather, it is an emergent property of the market that arises when Sardex facilitates the meeting of unrealised supply and demand. To a certain extent, traditional notions of social impact investment finance are akin to *planned economies*, in the sense that there is a clear effort to explicitly maximise a specific notion of economic utility, and this effort is often orchestrated by a single economic actor (the investee; acting as a central government in this metaphor).

To a significant extent Sardex creates a market where an 'invisible hand' decides the specific actions to be taken: which products and services to produce and when, and to be consumed by whom. However, it also shares some elements of planned economies, as it uses its privileged central position in the circuit to help supply and demand meet each other through a sophisticated and commission-free brokerage service. In addition, when first arriving in a given village or locality, it tries to sign up firms from complementary sectors, therefore minimising competition between circuit members and maximising the number of new clients each will accrue. The local exclusivity that results eventually wears off as new entrants join the circuit, but it is an effective marketing strategy in the early stages of adoption in a given community. Finally, participation in Sardex requires a contractual agreement to follow certain rules of behaviour, for example avoiding persistent large positive or negative balances.

It is important to understand how Sardex can be positioned in the current panorama of social entrepreneurship and where it diverges from previous proposals, in order to better ascertain the true implications of its continued success. The subdiscipline of social entrepreneurship that most closely aligns with Sardex is *collective social entrepreneurship*, which combines business risk and capital investment with the social values of collective action, in order to achieve economic growth and poverty reduction (Edobor and Ogunleye 2015). The parallel arises because in both cases we have a number of organisations, coordinated under some form of governance, achieving concerted collective action towards a common good. Sardex uses a mixture of market, brokering, and institutional norms for this coordination, whereas other examples in this category use other forms of governance based on rules or social norms – formal political coalitions, producer or agricultural cooperatives, formal industrial alliances, associations of cultural organisations or government agencies, federations of trade unions, etc (Barnett et. al 2000).

One central focus of the literature in collective social entrepreneurship is on the ability to trigger and maintain movements for social change based on direct entrepreneurial action.

Works analysing this have underscored that it is usually difficult to attain sustainable social change only by the involvement of single economic actors (Sud et al. 2008). Instead, interventions at various points in the economy are required; usually, groups of economic actors are crucial to drive this concerted action (Pies et al. 2010). By providing and guiding a complementary market, Sardex achieves collective action without the need for explicit political coordination. Each participating business expresses their “political” preferences directly, in terms of the Sardex members that they support with their transactions. Since participants span a wide cross-section of economic activity, coordination can happen between multiple economic sectors and resource volumes, generally spanning from hundreds to tens of thousands Sardex credits per transaction.

Another point that has been widely studied in the collective social entrepreneurship literature concerns the intentions behind the collective coordination at hand. Some authors have focused on management schemes to create social value (Austin et al. 2006); others have focused on alleviating social problems and catalysing social transformation (Alvord et al. 2004). The Sardex system aligns the incentive for monetary gain of Sardex SpA[8] with the attainment of economic development goals in the region, because the company benefits only if both are achieved. Therefore, the Sardex circuit goes beyond the conventional Schumpeterian sense of personal for-profit gain, which in turn as by-product generates the enhancement of social wealth through the creation of new industries and technologies. Since the health of Sardex SpA depends on the health of the Sardex market, the private incentives of the company and those of the economic region are naturally aligned. Although the for-profit motive might be an engine, it does not preclude its alignment with other motivations (Edobor and Ogunleye 2015).

Similarly to a co-operative, Sardex provides the opportunity to participating businesses to self-manage resources and to share the organisation’s success or failure (Jonsson 1995). The main way in which participating businesses share the success of Sardex is by enjoying the free credit and reduced transaction costs that it offers. However, participants understand that continued access to these benefits is predicated on them offering these benefits to other participating businesses (by accepting their credits); the network externalities of the system provide a feedback loop that aligns the incentives of every participating business to those of the Sardex effort as a whole.

In Sardex the pooling of resources happens not by physically putting money in a single bank account, which is then reallocated to other participants as in traditional mutual credit systems. Instead, the pooling of resources happens as chains of Sardex transactions weave into the economy and allow the surplus of one business to become the debt position of another. So far, collective participation has not required political governance: the market governance that Sardex facilitates is enough. This drastically reduces the cognitive and emotional weight of system participation, which itself makes the system more attractive to participants. There are plans, however, to involve circuit participants more in the decisions taken at circuit level, perhaps through an advisory board or similar body.

Sardex provides information to its participants, which allows them to easily find out what the possible transactions in the system are. This information quickly diffuses through the system, both using institutional means (the Sardex newsletter, the Sardex social media accounts, events, and other various communication or education-related activities) and the social

[8] Which is however reinvested in the company.

network created by members purchasing goods and services from one another. This may work directly to counteract informational exclusion in the region, which in turn makes the market more efficient and increases transactions for Sardex participants. Because the Sardex system spans a wide slice of economic activity, it also provides direct social linkages between economic actors that would be socially or geographically disjoint outside the system. These new links transcend their economic origin and can become social links in their own right. The system then can create bridging social capital (Schuller et al. 2000), which then becomes part of the benefits that the users obtain from it. The next section develops this perspective further.

4. Sardex, Zelizer Circuits and Public Institutions

A sociological lens helps in understanding Sardex because it highlights important concepts such as trust, circuits, values, markets and institutions (Sartori and Dini 2016). Sardinia, the context where Sardex was created, has a reputation for solitary and individualistic attitudes (Lodde 1998) and, at the same time, for very close-knit family networks (Pinna 1971). Thus, envy and closed communities have governed economic activities in a traditional and static manner, condemning the region to poor economic performance, characterised by agriculture, local markets, state-led industrial initiatives and a negative trade balance which, in turn, limited innovation and entrepreneurship (Bottazzi 1999). Sardinia has also been linked to a low level of civicness and negative social capital (Barbagli and Santoro 2004). There are two theoretical constructs that help understand the way that Sardex intersects both the economic and social spheres of its users: *social capital* and its relationship to trust, and *the Zelizer circuit*.

Whether it is referred to as generalised trust conducive to a fluid social and economic environment (Coleman 2000; Putnam), or it is meant as a network of productive and resourceful relations (Granovetter; Trigilia 2001), social capital is a key component within a network of exchange for establishing a fluid trading environment among SMEs. Sardex works as an integrated network of economic and social ties with a distinctive balance of self-interested and cooperative actions. Cultural and social embeddedness of economic action fuels a self-reinforcing mechanism (the more the network is used, the more useful it becomes) establishing a favourable context for market exchange and community building. Relational contacts (both strong and weak ties) mediate and support innovation actions such as joining an unknown network of exchange (as members) to look for new business.

> Sardex gives us the opportunity to get more business. The customers that Sardex brought me were people that I didn't know, so it has allowed me to find new potential customers in a period of crisis like this. (Vinicio, decorator)

One example relates to finance and investments, and is based on the fact that lack of interest on positive balances stimulates spending. Members soon realise that spending is positive for the overall network, since it builds on the stock of social capital and trust that reinforces the community. A healthy network allows for easier access to credit (especially in times of reduced liquidity):

> One advantage of the network is that it allows financing investments without having to pay interest. If I have to invest in some improvements on the house, for example on the heating system, through Sardex I can ask for a Sardex "credit line" to do that kind of work because there are some craftsmen that are part of the network. So I can get the job done without paying interest; (Vinicio, decorator)

and to some usual marketing strategies, such as sponsorships:

> I am the president of the local football team and our sports club has also joined the network. We got Sardex credits through sponsors, because it is easier to convince a sponsor to pay in credits than to give you Euros. Both types of sponsors have helped us for the championship. For example the medical examinations of the team and the equipment were paid in Sardex because in the network there are doctors and also companies that sell this type of equipment. For a regional championship like ours this was a big deal. (Vinicio, decorator)

The second fundamental construct that helps understand the socio-economic linkages of Sardex is that of the *Zelizer circuit* (Zelizer 2005). If we think of Sardex as a network of exchange that represents a new market with its proper governance structures, specific rules and working mechanisms (Fligstein 1996), it is clear that Sardex cannot be interpreted by the classic concepts of market, hierarchy or network. Instead, a sociological lens is needed to understand how it operates, both as an economic and a social organisation framework.

Zelizer (2005) proposes a multi-dimensional definition of a circuit that 1) has well-defined boundaries separating members from non-members; 2) exerts control over exchanges across boundaries; 3) includes transfers that might involve the use of a specific medium; 4) builds connections between participants that are based upon shared meanings; 5) permits the transfer of well-defined goods through personal interconnections and 6) fosters 'mutual awareness of the participants'. Sartori and Dini (2016) find evidence and support for 5 out of 6 conditions. Only the 5th condition is not met, but it is understandable given the specific role of Sardex SpA as the host for the double-entry book-keeping database and the centre around which the media and engagement efforts of the system are built.

Having Sardex as a 'mediator' within the circuit guarantees the 'presence of an institutional structure that reinforces credit, trust and reciprocity within its perimeter, but organises exclusion and inequality in relation to outsiders' (Zelizer 2005: 5). This is a crucial role for successful circuits because they tend to 'emerge in those intersections between capitalist markets and pressing problems' (ibid., 24) and an institutional structure helps solve 'significant collective problems of trust' typically faced by circuits (Zelizer 2010: 307). In fact, Sardex plays a role similar to the state, as provider of a robust social structure that supports a stable socially embedded world (the network of exchange) where economic actors can engage with each other, trust each other, and trade.

> You meet people who are part of the network and we exchange opinions; you learn from them, and they learn from you. There is an exchange not just regarding the purchase but also about the ideas, ways of conducting business, advice. You can establish a relationship that is different from the one that you can have with a customer because the usual customer buys, chats, and that's it. Instead with Sardex when you enter this big network, I'm not saying that it's as if you entered a big family, but you do have a different relationship. (Alessandra, retail)

An additional point is that Sardex, recognised as a local institution, allows for tax transparency and acts as an enforcer of legality in a context where medium to high levels of informal ('black') economy are associated with low quotas of trust. Sardex makes transactions clear, simple and traceable, becoming itself also a guarantee of payment, providing a positive atmosphere for trading.

> I haven't evaded tax because you've paid 10 and I've written 10, so nothing is done under the

> table. Indeed, it is also a way to prevent evasion. You cannot evade! (Gemma, hairdresser)

> We are sure to be paid. If you don't work in Sardex it often happens that you don't get paid. So it's quite a guarantee. (Bruno, blacksmith)

The case of Sardex makes it evident that if a complementary currency grows out of necessity (in the aforementioned 'intersections between market and pressing problems'), it may eventually acquire formal backing by the state, with positive implications both for the third party that governs the circuit and for the whole community. The former resembles the state as legitimate mediator because, as a mutual credit system, it is recognised as the bearer of a legitimate 'public interest' towards the community and a stakeholder in market-state relations – the alignment between individual and collective goals of the previous section. The state benefits from the transparency over all transactions, improving the social cohesion between members that allows for stronger trust towards Sardex and within the community.

5. Sardex's Epistemological and Emotional Advantage as a Culture

Anthropological perspectives on money have considered how money gives rise to a particular way of thinking, feeling, and *being* in the world (Maurer 2005; Graeber 2014). One focus has been its enormous cultural variation: there is a plethora of ways in which money is symbolically represented and linked to moral evaluation, affecting the cognitive worlds we inhabit and influencing our behaviour (Parry and Bloch 1989).

For anthropologists, money is 'good to think with' – a useful epistemological tool to understand the configuration of social organisation. Anthropologists classify money into two broad categories: 'general-purpose money' (such as the Euro), which can be exchanged for almost anything else; and 'special-purpose money' (such as tokens), which can only be exchanged for specific things and in specific situations. In Western academic literature, general-purpose money has been discussed as a modernising force that depersonalises social relations of exchange, promotes individualism and capitalism, and erodes traditional social solidarities for a more diffuse mode of integration. In this view, general-purpose money becomes a signifier of a modern society. In contrast, special-purpose money has been discussed as having a more benign influence in social life, since often it is linked to the wider moral order. An example of this is the payment of certain goods as a dowry, which then enables marriage arrangements. These, in turn, change social structures by uniting or dividing families. Special-purpose monies often symbolise traditional values and local ideologies, which might contest or align with wider neoliberal, modern or capitalist ideologies to different degrees.

General-purpose money can be turned into special-purpose money, re-classified and re-personalised to create other types of money more in tune with local values. As discussed in the previous section in reference to Zelizer's (1994) sociological view, this occurs for instance when people use separate bank accounts for household, personal and business expenses, or use a wide range of credit cards to pay for specific kinds of goods. Even if all of these are denominated in general-purpose money (e.g. Euros), the fact that they are used for specific purposes changes their cultural appropriation. Likewise, special-purpose money can become a more generalised means of exchange if governments, banks and/or widespread institutions recognise this money as a suitable medium for exchange and account, growing into a national complementary currency (e.g. WIR).

In this section we argue that Sardex is currently used as special-purpose money. It can be used to buy small or medium-sized goods or services, such as food, clothing, haircuts, car repairs, electricians, plumbers or builders, and also to pay for white-collar services such as lawyer and notary fees, professional training courses, and accounting services. However, for the most part it cannot be used to buy homes or property, pay taxes, set up pension savings or leave a substantial inheritance.[9] Most of the users interviewed used Sardex for personal and household purchases, so that it became the 'family' or 'indulgence' money. For instance, they said:

> The increased turnover enabled me to treat myself... The electric bicycle is one of the items I have bought recently; I love cycling but my office is on top of a hill and every time I use it, I thank Sardex! (Bruno, lawyer)

> Subconsciously, people do not feel guilty for spending Sardex… Let's say I go shopping for… clothes with my wife. If the bill were 420€, I would be a bit concerned, but if I had to spend 420 Sardex, I would find it somehow affordable (Francesco, business advisor).

Our informants report that their use of Sardex is emotionally rewarding. For them, spending Sardex feels different from spending Euros; they feel less guilty and more thankful. In this sense, Sardex is less like a commodity and more like a gift, since it provides value that they would not have had otherwise (were it not for Sardex and its users). This is accentuated by a realisation that Sardex transactions are fundamentally symbolic, because goods and services are exchanged for 'nothing more' than a symbolic representation of value.

Sardex serves predominantly for short-term and medium-term expenses. Although it lacks the "absolute" liquidity of the Euro, it is liquid enough that it can be used in most day-to-day expenses. Longer-term investments in Sardex are extremely rare. The reasons for this are twofold. First, if money is to be stored, a currency that provides interest is more attractive – this is often why longer-term savings in Euros cease to be liquid (e.g. fixed-term investments). Further, using Sardex as a long-term investment can be riskier than using similar instruments backed by Euros. This stems in part from the legal framework regulating the banking industry, but also from the sheer amount of investors that already participate in the market, which makes diversification simpler. Some users experience feelings of inadequacy when contemplating long-term investments:

> One of my clients… collected a huge amount of Sardex credits and bought a house. He confessed he was scared of losing them and invested in something more reliable, even though he spent a little more, but... You should not say you are paying in Sardex… (Giandomenico, Lawyer)

The latter preoccupations between long-term and short-term investments and their moral adequacy is something that anthropologists have also studied, and they have reached the conclusion that most cultures have 'two related but separate transactional orders: on the one hand transactions concerned with the reproduction of the long-term social or cosmic (moral) order; on the other, a "sphere" (or realm) of short-term transactions concerned with the arena of individual competition' (Bloch and Parry 1989: 24). In this framework, the Euro usually represents the short-term transactions arena of individualistic calculative competition, whilst its investment in homes or property would be long-term transactions, where the Euro is 're-

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[9] However, Sardex credits can be inherited and spent for up to 12 months.

socialised' and translated into less liquid assets for the sake of the reproduction of the social and moral order (e.g. inheritances). Sardex, similarly to the Euro, enables short-term transactions. However, when using Sardex these feel more personal, less calculative or individualistic to the participants.

> I feel much better if I buy… in Sardex rather than in Euros… [At first,] it was a bit unusual to sell something and apparently receive nothing… A friend of mine is a butcher and I've been one of his regular customers for ages; now I pay him in Sardex and he does the same with me; it's mutual support. In practical terms, this is not a benefit for either of our businesses... (Alessio, bike shop owner)

> It is in my interest to help improve the Sardex system because I am part of it… I've got to admit they unfortunately have a 'Sardinian' approach. I don't say they should manage the project with an American attitude, but at least a Lombardic one, and I'm sure it would grow more… Like I said, the biggest problem is that they are rather insular in their approach…You have to use Sardex when you have time.... My granddad used to drive 20 km to get petrol at a friend's station, and then he would go to that specific local confectioner's, which was 15 km away, to get homemade pastries. Fifty-years ago it was like that; when you had time you did things at a slower pace. Sardex reminds me of that; I think it's taking us a bit backwards… Yes, it is an interesting thing because they have basically modernised the old barter system… I had subscribed because there were no risks involved… But I don't understand a few things that they were not able to explain… I needed a brush cutter; if I had bought it on the net it would have cost me 220€, but I spent 350 Sardex instead. I pointed out to the vendor it was cheaper on the website, but I bought it anyway. I decided to participate in the Sardex program to have personal relationships and I willingly paid 130 Sardex more because I know that if the vendor ever needed legal advice, he would come to me. (Giandomenico, lawyer)

As shown above, when users join Sardex they make emotional, epistemological, symbolic, social and economic investments. These represent various types of capital (Bourdieu, 1986), and Sardex enables the multiplication and transformation of some kinds of capital into others.

Sardex enables users to question their practices and reconsider what money is doing for or against them, what values it should embody, how it should make them feel, and how it lubricates social relations. Instead of having money as a taken-for-granted feature in society, users discover how it influences their personal behaviour and social organisation. Sardex makes people curious about their financial life and education, and how these relate to their way of life and their values.

Overall this is a positive development, since living with a general-purpose 'official' currency people often lose sight of how money is fundamental to identity and shapes our day-to-day actions. However, this re-conceptualisation requires some cultural effort to resolve in the context of the Western tropes and symbolism of money. Sardex guides users through this learning process, and becomes embedded in the symbolic life of its users. Rather than a mere accounting tool, it becomes a conceptual model that allows users to ask economic questions and answer them based on personal experience. Sardex is a philosophy, a home bank and a way of life that appears closer to people's individual or collective interests than the Euro and formal banking institutions. In the words of a user:

> I don't notice… distinctions between the Sardex credits and the Euros; I see a radical difference, though, between the Sardex scheme and the conventional banking system, because banks don't care about increasing your volume of business, whereas Sardex does… I am sure Sardex as a business company gets its proper economic return… but both the underlying philosophy and the

> services provided are entirely different. Sardex home banking is a consequence of the Sardex project. (Bruno, lawyer)

The importance of Sardex is that it helps users think differently about money; it enables them to epistemologically question wider notions of identity, morality and community as part of a transactional order. Sardex helps its users explore the relationship between the banks, the state, money, labour, and their social or individual needs in more qualitative terms than the Euro does. By understanding Sardex, users reflect upon notions of modernity, tradition, and how money should fit into their cultural and social practices.

Many people join Sardex not because they fully understand the benefits, but because they desire to be part of something that feels more *theirs* than general-purpose money.

> Sardex is crucial to Sardinia. It's the first time we export and teach something to others. The Sardex scheme is not a new idea, but we have improved it. (Elisa, appliance service company)

The feelings and thoughts that Sardex enables both attract newcomers and keep established users participating; they are part of the positive rewards of re-personalising transactions. Sardex, as well as conventional money, 'conveys meanings[,] and these tell us a lot about the way human beings make communities' (Hart 2005: 170). The opportunity that Sardex provides for further participating in culture as a collective vehicle for shared meaning is, in and of itself, part of its appeal.

Sardex illustrates a basic tension between economic and anthropological concerns. On the one hand, it is pulled towards the efficiency and liquidity of general-purpose money when users want it to become more like fiat money (e.g. by allowing the payment of taxes, or being accepted for a wider selection of goods or services). On the other, it is pulled to remain special-purpose money, part and parcel of regional identities and having its local character explicitly protected and celebrated. This tension is at the heart of both its current success and its future sustainability. Sardex mitigates it by remaining unequivocally local, despite the fact that it is being extended to eight other Italian regions. Rather than simply 'scaling up', in each new region a separate and independent company is being set up, helped and guided by Sardex. Each mutual credit currency has a locally meaningful name (e.g. Tiberex in Latium). Thus Sardex recognises that personal and impersonal monies are equally necessary for our well-being; working out specific ways of combining them is what is problematic (Hart 2000).

Through Sardex people not only come to terms with the symbolic properties of money – they also become aware of the emotional benefits that using many forms of money can provide. This allows them to question a single currency system as a means to meet all their needs, and helps them become flexible with their epistemological management of monies. 'The meaning of money is what each of us makes of it, separately and together. It is a symbol of our individual relationship to the [wider] community' (Hart 2005: 171).

6. Discussion and Conclusion: Sardex as a multi-layered system

> Money is one of our essential social technologies[,] along with writing and number… (Ingham 2004: 3)

In contrast to the prevailing mainstream economics view of money as a 'neutral veil' (Ingham 2004), within sociology, anthropology, and heterodox economics a wide range of perspectives on money has emerged over the past two centuries. These can be reductively divided into two groups, as suggested by Evans (2009): the *values change money* perspective (Maurer (2015), Veblen (1904), Zelizer and Bourdieu) and *money changes values* perspective (Marx, Simmel, and Polanyi).[10] Whereas the former tends to emphasise a socio-cultural layer on top of money by which it acquires manifold meanings, plus context-dependent social and communicative functions, the latter is more pessimistic and sees money as a corrosive force that destroys society. In this paper we have tried to do justice to both viewpoints, since they are both relevant.

The fact that these positions seem mutually exclusive should not be a deterrent to considering both, and can be ascribed to an ongoing process of collective sense-making or "cultural epistemology", as already implied in the previous section. Indeed, there is a firm association between money and collective memory (Hart 2000: 9), where collective memory is an informational commons that is stored and managed through cultural symbols and signs. This is by no means unique to money, though, and suggests the need for an informed and balanced approach at this powerful social technology. What this paper has argued is that a sustainable 'self-funded market' and a high level of socio-cultural impact appear to be two sides of the same coin. The former reinforces the latter, but itself needs to start from a strong base of trust. This is why a circular logic seems better suited than the more familiar linear 'impact' logic to unravel this complex set of ideas and practices.

Sardex enacts and resolves a tension between financial capitalism and a non-capitalist market mediated by mutual credit. In simplified terms, it manages to steer clear of the pessimistic sociological view usually applied to capitalist money, while at the same time embracing the more optimistic views from anthropology and parts of sociology. Private property and profit still apply to the goods and services that are traded within the Sardex system, setting it apart from commons-based social finance proposals predicated only on solidarity or moral governance. However, Sardex has features in common with these kinds of proposals because goods and services that are traded in Sardex carry additional social values – such as trust, identity, and solidarity.

Sardex is thus a technology that is symbolic and material, virtual and real, individual and social, old and new, affective and rational, capitalist and commons-based.[11] As part of an emotional, epistemological, institutional, social, and personal repertoire on monetary experimentation, it provides a useful case study to re-think various fundamental disciplinary questions. We contend that Sardex works well because it is a multi-layered system that engages people in various dimensions at once, enabling the expansion of human activity, creativity, inquiry, and capacity to create culture. A single discipline gives only a very partial picture of its configuration and dynamism.

Although unique, Sardex shares properties with multiple social finance and alternative currency systems. For instance, it is reminiscent of credit commons (without rejecting capitalism completely). Although this paper focused on its unique aspects, the tensions that we find within Sardex can also be found when people use conventional money. For instance, although Zelizer analyses a system based on legal and interest-bearing tender (dollars), she demonstrates a cultural defence mechanism to counter the de-personalising and

[10] See also Dodd (2014).
[11] It can be considered a Latourian hybrid that makes Westerners question if they ever have been truly modern (Latour 2012).

commodifying effect of capitalism on family values that happen to be stored in the form of legal tender. We argue that in this sense Sardex is not that different from other social finance proposals in the literature. The properties that make Sardex unique are already present – to a lesser or greater degree – in other proposals.

How can Sardex help us understand social finance better? First, it shows us that multiple social and economic actors must participate, and their incentives must be aligned. It also shows us that it will be imbued with symbolic and emotional charge; these must be rewarding for the participants if the system is to take hold. Our analysis underscores that trust and social capital are of paramount importance, and must be underpinned by a reliable institutional framework. But, above all, Sardex shows that by challenging our preconceptions regarding fundamental economic concepts (e.g. currency) it is possible to create sustainable and effective financial instruments that provide significant social benefits.

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