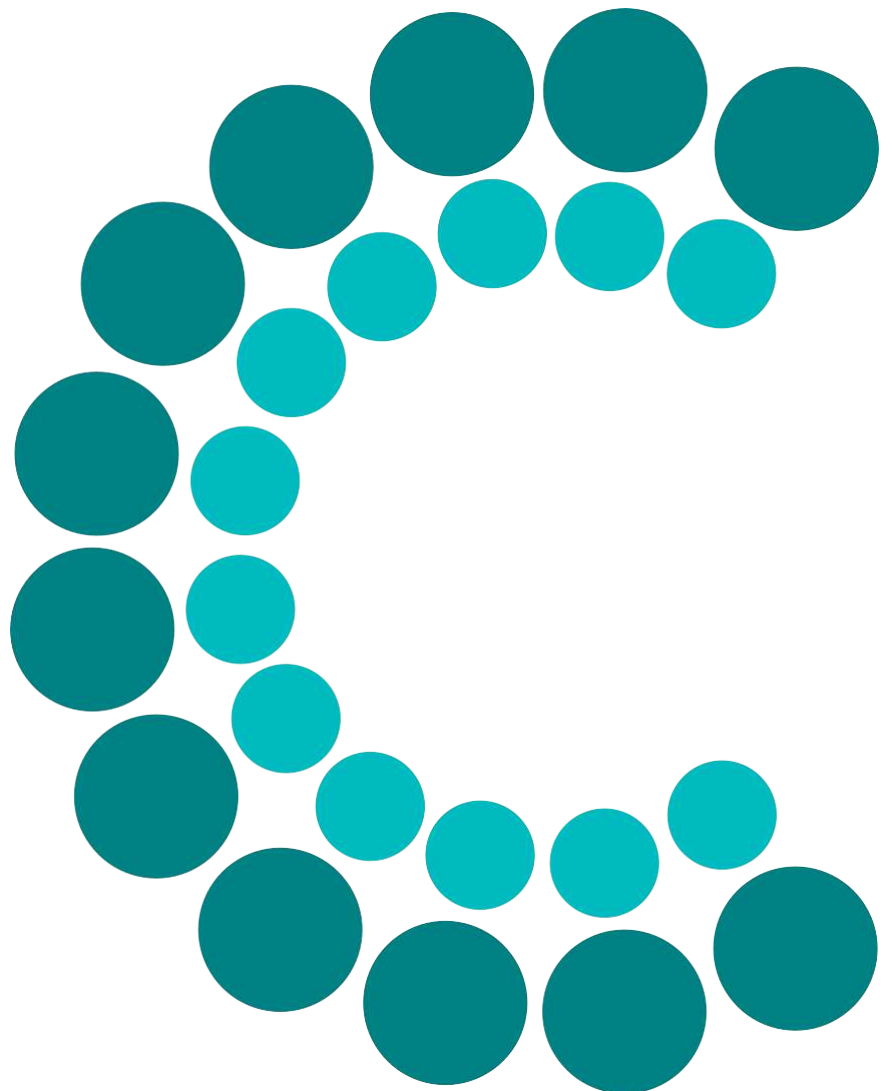


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International Journal of Community Currency Research

EDITORIAL I-III

CONFERENCE REPORT OF THE 6TH BIENNIAL RAMICS INTERNATIONAL CONGRESS IN BULGARIA: COMPLEMENTARY CURRENCY SYSTEMS BRIDGING COMMUNITIES

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Guest Editor

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After the obstacles about the many turbulent events that shaped the landscape of the world stage for the time since the end of 2019, the 6th RAMICS congress gathered the researchers of Complementary Currencies from 20 countries, this time in Sofia, Bulgaria.

The focus of the conference was the bridging in and between communities. Beyond the authentic needs and problems of the individuals arising from different cultural conditions, there are basic links, which keep communities together. Money in general and complementary currencies in particular are such tools for bridging.

By means of the presented dozens of worldwide examples of working systems, many current problems were revealed, including general ones coming from the field of value and money, and specific ones as for example the form and the regulations. It became clear that CCS are generally organised according to the principles of trust and solidarity, but on the basis of money. The organisation of CCSs at this stage is primarily limited to local payment instruments, as shown in many contributions.

Thanks to digital technologies, the bridge between the five continents of Asia, Europe, Africa, North America, and South America could be successfully built. A strong presence was demonstrated by the participants from Brazil, Japan, Germany, France, Sweden, Switzerland, the UK, the USA, and Canada. There were also representatives from Argentina, Netherlands, Italy, Austria, Sri Lanka, Kenya, Zambia, Philippines, Mexico, Poland, and Bulgaria.

The pre-set thematic framework ([final call for papers](#)) was outlined in 4 key papers. The scientific part of the congress was opened by Prof. Nikolay Nenovsky (UNWE, Sofia, Bulgaria). He presented a theoretical reconstruction of the long-term monetary history of different Balkan countries, which illustrated the hypothesis of a structural dependence of the monetary order of Balkan countries, passing through different political and ideological regimes. Later the doyen of the movement Thomas Greco (USA) recalled the essential nature of money, currency, and credit, and the sound principles of their creation and management. Another key speech was held by Prof. Bruno Théret (France) who proposed a theoretical bridge between past and future by means of Proudhon's theory of constituted value. He presented how Proudhon appears as a landmark for the present in monetary innovations. Proudhon already made the proposals for the three main ideas on which present monetary alternatives are based, that is free

credit, mutualism, and time money. A more practitioners-oriented view was presented by the independent researcher Susana Belmonte (Spain) who introduced the issues of the Post-growth Economy into the field of discussion and the role of CCS. Another 50 studies were presented at the conference, but they went far beyond the preliminary framework and outlined the field of future CCS research, which will cover a much broader sociotechnological perspective. There were also some novel practical problems shared of CCS from Canada, Brazil, US, UK, Sri Lanka, Argentina, Switzerland, Japan etc.

All in all, an impressively large number of collective works from more than 90 universities, institutes, schools, and organizations were presented.

The great variety of topics presented and discussed during the forum ([link to Programme](#)) can be grouped into the following several areas:

Theory

A considerable number of contributions were devoted to conceptual issues that have been insufficiently addressed in the entire field of monetary research. These purely theoretically oriented contributions left a strong echo in the halls: Integration and integrity were their common denominators, but in detail there was also a room for questions of monetary theory and a retrospective analysis of previously published research.

Institutionalization

Institutional and regulatory issues were discussed as a general foundation, but also as specific organizations. CCS are formed as local structures, which are based on corresponding national law. So, the local and national authorities have dominant roles. But there are also links between CCS with central banking and of course regulation authorities that were covered by certain authors.

Overcoming crisis

It is already obvious that we have not just created a crisis that will quickly subside. We are also simultaneously participants and observers of the collective image of all the crises in which capitalism has been writhing for a long time, perhaps more than a century. In the crisis response, CCS could bring some benefits as follows: money is able not only to create but also to tackle poverty; CCS can be used for long-term policies for solving problems of the poor; through econometric analysis, the impact of private money on business and the real estate sector could be altered; etc.

Various social benefits didn't stay out of reach of the searchlights and were inferred in almost dozens logical and empirical analyses (37 papers). Some arguments, as the universal base income were given as a task for future logical and historical confirmation. Social credit also found a place in the discussions, from the frame of the Balkan history.

Humanitarianism

The new arrival presence of neuroscience in the context of CCS is evidence of the distinctly psychological nature of money. Their relationship of novel concepts, incl. and built on neuroscience. In the context of the time as an economic measure, agency models, trust issues, ethical aspects of finance, manageability and predictability can be successfully used to build economic policies faced to commons.

Digitalization

Predominant were the studies on the issues that analyse the processes of digitalization of the existing or newly created monetary forms together with the problems of cryptocurrencies.

Best Paper Award

Quite naturally on the background described above, the prize for the best paper was given after to the research which integrated many of these issues prevailing during the discussions with. After a rigorous selection process, a shortlist of four articles resulted. The winning paper of Luiz Arthur Faria, Henrique Cukierman, Eduardo Diniz and

Bruno Ribeiro with the title “Centralizing or sharing the digital community currencies governances? Proposing ways of thinking DCCs from the Mumbuca case” is presented in this issue of IJCCR. Congratulations again to the authors for this inspiring and integrative piece. Also, a second very noteworthy paper from the shortlist is published here: “The Emergence of Digital Socio-Municipal Currencies: An institutional change perspective of the Arariboia coin's case” from Leonardo Martins de Oliveira and Bruno Henrique Sanches.

Keep in touch!

Invaluable were the warm meetings that affirmed many long-standing friendships and opened space for new creative endeavors. The cultural specificity of the host country, Bulgaria has generously offered its traditions to connect communities by its history, music, food, and people.

Despite the tremendous impact of Covid on our lives, a limited number of researchers have devoted their work to this problem. Perhaps the measures that have led to the hybrid format of the event will have a long-term impact in the future. It became clear that the great benefit of the changed conditions around the world opened the opportunity to gather, albeit virtually, representatives of all 5 continents without leaving their homes and workplaces.

The message

The virtual is already tangible, and the digital is only shaping its contours. The scientific paradigm is already different. The world changes and we have to be flexible to adapt to new situations by disrupting associative biases and continue building bridges in and between communities riding our cultural diversity.

Finally, we would like to thank the participants of the congress for their valuable contributions, the many helpers, and supporters and especially the reviewers for their cooperation; without any of them, the study of community/complementary currencies could not continue and grow, as it is necessary for a more sustainable and peaceful world.



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CENTRALIZING OR SHARING THE DIGITAL COMMUNITY CURRENCIES GOVERNANCES? PROPOSING WAYS OF THINKING DCCS FROM THE MUMBUCA CASE

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ABSTRACT

This work deals with the implications of different ways of digitalizing social or community currencies (CCs) in Brazil. It starts from the following tension, verbalized by representatives of Brazilian Community Development Banks (CDBs): on the one hand, the digitalization of CCs would maintain “the same idea, [only] in different ways”; on the other hand, its governance would be nowadays “the most complex issue”. The investigation examines this tension in Mumbuca Digital CC (DCC) case (Maricá, state of Rio de Janeiro), one of the greatest world’s DCC experiences (considering the number of financial resources involved) and part of the Brazilian CDBs Network - which has brought together around 150 experiences since 1998. We collected data from 2015 to 2021, from semi-structured interviews, fieldnotes from an ethnographic research approach, and the Mumbuca DCC system administrative interface as well. The article advances in understanding DCCs: besides demonstrating that their materialities are inseparable from the “social arrangements” around them, it adds new elements to previous researches, proposing an analysis framework for different sociotechnical governance dimensions of DCC (GDs). Precisely, using tools and concepts from Actor Network Theory (such as translation, symmetry, networks, sociogram and technogram), we begin describing moments of Mumbuca DCC, each one corresponding to different versions of CDBs principles and to different sociotechnical governance configurations. Finally, we present a framework that brings together new DCC governance dimensions (like “management” dimension and “economic appropriations” involved) dialoguing with previous investigations GDs (“requirements”, “data” and “source code” of a DCC), and classifying each one as “Centralized” (meaning strong state / private company presence) or “Shared” (strong self-management / community approach).

KEYWORDS

Community Development Banks, community currencies, digital currencies, governance, solidarity economy.

1. INTRODUCTION

This work deals with the implications problem of different ways of digitalizing the so-called social or community currencies (CCs) in Brazil, considering as reference the practices and the principles of the Community Banks of Development (CDBs). We dialogue with a vision of currencies as constitutive of society and as a common (Dissaux, Fare 2017), and additionally we seek to associate the reflection, already well consolidated by different studies in the Science and Technology Studies (STS) field, which technological issues are not separated entities from the political-social world. The problem presented is considered decisive by the Brazilian CDBs themselves, as well as it matters for different knowledge communities, related to digital currencies, complementary currencies (Siqueira, Diniz, Pozzebon 2020; Faria, Severo, Cukierman, Diniz 2020; Dissaux, Fare 2017; Blanc 2011; Th  ret, Zanabria 2007), democracy (Yates, Bakker 2014) and development (Walsham 2017). To analyze the digitalization of Brazilian CCs implications, the starting point taken is the following tension, concerning two statements assumed by CDBs representatives: community banks would have remained with "the same idea, [only] in different ways", but the digital community currency (DCC) platform governance used by banks is "today the most complex issue" – both assumed by CDBs representatives. The work examines this tension in Mumbuca DCC case (city of Maric  , state of Rio de Janeiro), one of the greatest world's DCC experiences (considering the amount of financial resources involved) and part of the Brazilian CDBs Network - which brings together more than 150 experiences. The authors collected data from 2015 to 2021 through semi-structured interviews, materials provided by Mumbuca CDB, data access at the digital platforms involved, and adopting an ethnographic research approach and organizing discussions with CDBs representatives as well.

The paper advances on DCCs understanding, and particularly demonstrates the materiality of the digital community currency is inseparable from the "social arrangement" around it. A point "some way surprising in relation to theory or to common sense" (Burrel, Toyama 2009, 87), not only for the "popular knowledge community" around the CDBs, but also for some academic approaches in CCs knowledge community. We do so by discussing how some elements of the discourse of the community development banks (practices of autonomy, proximity, and financial sustainability (Faria 2018)) were reconfigured, to a certain extent, during the CCs digitalization process - our first research question (RQ1): the digitalizing process implications concerning CDBs practices and principles. As a result, also considering the CDB principle of economic democracy, we propose what we nominated the five "sociotechnical governance of DCCs" dimensions: their requirements, data, codes, the platforms management, and their economic appropriation - our second research question (RQ2): the digitalizing process implications concerning the governance of CDBs social currencies.

The article is organized as follows: initially, methodological options adopted in approaching the case in study are presented. In the second section, we address CDBs principles and practices discussed here (and captured from our field work), as well as some of the partnership first effects with Maric   local government on them. Then, we emphasize the scale effects required to implement the DCC Mumbuca, and the decision to use the magnetic cards materiality as well. The following section narrates the E-dinheiro platform entrance (which stands for "electronic money", also "it is money") on the network, and some of its consequences. Next, we discuss the inseparability between "technical aspects" and "social aspects" (precisely among the practices of the CDBs) in each DCC Mumbuca configuration, and finally present the "sociotechnical governance of DCCs" five dimensions. The discussion is supported by the sociogram/technogram approach (Latour 1998), in dialogue with the notions of discourse (Edwards 1996) and DCCs governance (Diniz, Siqueira and Heck 2019).

2. METHODOLOGICAL APPROACH

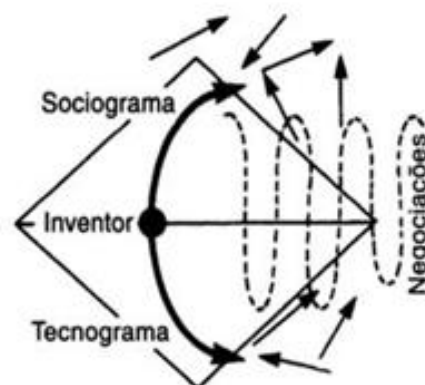
This work dialogues with the notion of local / emergent approaches (Avgerou 2008), in an effort to seek developing concepts and knowledge regarding the organizations under study. Thus, it aims to address of one of the problems in the ICT4D (Information and Communication Technologies for Development) field, according to Qureshi (2015, 1), namely the "ICT4D researchers do not engage closely with the users of their research findings thus disconnecting findings from real-world issues". In this way, research accuracy is achieved through "closeness of the researcher to the phenomenon under study - with the strength of claims of what is directly observed trumping second-hand reports" (Burrel, Toyama 2009, 84).

This engaged approach considers an openness regarding the categories that emerge from the field, as we can see throughout the text. In the case studied here, we use data collected from 2015 to 2021. It includes semi-structured interviews, specifically in 2015 and 2016ⁱ. Data collection also considered materials provided by the Mumbuca CDB (2016), as well as Mumbuca E-dinheiro DCC data, accessed through the administrative interface system (2018-2019)ⁱⁱ. Additionally, to achieve a “closeness of the researcher to the phenomenon under study” (Burrell, Toyama 2009, 84), an ethnographic research approach (which generated field notes) was also used, thusly producing a more detailed description of the referred Mumbuca CDB culture. It relied on immersive observations about Banco Mumbuca (in Maricá, from 2015 to 2016), for six monthsⁱⁱⁱ. Finally, a Banco Palmas Coordinator took part in a debate at the Esocite.BR^{iv} meeting in 2021, presenting the E-dinheiro platform^v experience.

To analyze our study object, we looked for approaches which would allow us to carefully discuss this supposed separation between “social aspects” and “technical aspects”. Here we emphasize contributions related to ICT4Ds and STS (Science and Technology) fields, such as the Actor Network Theory (ANT), considering “the constructions of sciences and technologies [are analyzed] as phenomena in which the 'social' and the 'technical' are inseparably intertwined in a seamless network” (Marques 2003, 678). Precisely regarding to ANT, we use translation, symmetry, networks, sociogram and technogram concepts. As highlighted by Callon (1986, 18-19), “the notion of translation emphasizes the continuity of the displacements and transformations which occur in this story: displacements of goals and interests, and also, displacements of devices, human beings (...). To translate is to displace (...). Translation is the mechanism by which the social and natural worlds progressively take form”. We use translation to narrate the facts (such as CDBs methodology) and artifacts (such as digital community currency) displacement, from which we can understand as its origin (Banco Palmas) to the different stabilizations of Mumbuca network.

In this approach, the symmetry concept is also fundamental: seeking to include non-humans and their agency, for ANT not only people do act, but also software, protocols, computers, the Internet, and other technologies do act (in the sense of making difference), e.g., when performing a currency functions. In Bruno Latour's terminology (1998), if we want (albeit provisionally) to separate a network into technical characteristics (technogram) and social characteristics (sociogram), the analysis of an artifact technogram would provide clues to the sociogram that makes up its network (Faria 2010), and vice versa, as shown by figure 1.

Figure 1. Sociogram and technogram (Latour 1998).



Despite some critics regarding this approach - such as “paying little attention to broader social structures that influence the local”, or offering “no view, in itself, of the meaning of the term development” (Walsham 2017, 4) -, we consider that ANT seems adequate in this case. Further the reasons already explained, ANT is a research approach that promotes a cross disciplinary perspective on the DCCs topic, something relevant to ICT4D field, according to Walsham (2017)^{vi}.

3. CONSTRUCTION OF AUTONOMY OF THE MUMBUCA CDB

Structured from local associative dynamics, CDBs rely on a series of tools to generate and expand income in the territory. With this purpose, four central action axes are articulated in its intervention process: (1) solidarity credit fund; (2) local current social currency; (3) fairs of local producers; and (4) training in solidarity economy. CDBs invention has gained relative scale since its first experience, the Banco Palmas (2000), and has been spread around one hundred and fifty (Pupo, 2022) of them in Brazil. It has achieved the status of a “social technology”, which may be replicated in different contexts (Brasil 2012), or which some call “frugal innovation” (Radojevic, Peerally 2016). More recently, especially since 2013, Brazilian CDBs have been promoting their community currencies digitalization, in a context particularly fostered by Brazilian legislation for electronic payments (eg. law 12865/2013 (Faria 2018)).

Mumbuca DCC was based on the Banco Palmas model (where one CC is worth one Real, Brazilian national currency) and was initially proposed by the local government^{vii}. It circulated around two million Reais per month (backed by Reais, the national currency) from 2015 until 2019 (Faria et al. 2020), which makes Mumbuca the Brazilian community currency with the greatest circulation volume. Mumbuca DCC has been implemented by different materiality forms: technological artifacts, at the first moment, which were like those usual electronic card networks, rather than paper money, and lately a digital application for mobile devices “E- dinheiro” - the platform currently under implementation by the CDBs Network community banks. Through the “Mumbuca card”, from 2013 on, 14,000 low-income families in Maricá (RJ) started receiving monthly M\$ 84.00 (eighty-four Mumbucas, eighty-four Reais, or around US\$15, fifteen dollars) to be used at the local commerce, configuring the start of a minimum income program financed by the town government.

We propose the notion of discourse to deal with CCs materiality changes. In the historian Paul Edwards’ (1996, 31) perspective, a discourse is “a self-elaborating 'heterogeneous ensemble' that combines techniques and technologies, metaphors, language, practices, and fragments of other discourses around a support or supports”. This concept is useful to exam RQ1 (the digitalizing process implications concerning CDBs practices and principles), helping us to observe the extent to which changes in the support of a speech (in this case, the community currency on “paper-money”, on a magnetic card or on a mobile application) are also related to other characteristics of this speech. Faria (2018) highlights fundamental elements that constitute the community development banks discourse: autonomy, proximity, financial sustainability, economic democracies, community mobilizations and mediations. In this article we will focus on the first four practices, and in their reconfigurations observed on the transformation of the paper-money (as a CC) into other supports.

Consolidation traces of the proximity and autonomy notions are found in the 1st Brazilian Thematic Conference of Solidarity Finance, which formalized that “solidarity finance practices are distinguished from other economic organization forms by their initiatives self-managed character. It is because the community is autonomously responsible for such practices management; [...] Solidarity finance practices are distinguished from other economic organization forms, as they work according to a proximity finance logic. In it, human relations, personal contact, and social mediation (based on values such as trust, loyalty, and solidarity) are exchange relations structuring” (Brasil 2012, 180).

The initial umbilical relationship between the bank and the municipality of Maricá (which instituted its own legislation for BCD operation) constituted an important difference compared to the original proposal by Banco Palmas, especially concerning the population autonomy idea involved regarding governments. We are dealing with an experience that, on one hand, injects millions of Reais per month into the local economy using a local currency; but on the other hand, it embodies the dependence of a partnership governed by a specific agreement between the Maricá government and Banco Palmas.

Over this period (from 2013 to 2017)^{viii}, Banco Mumbuca was not able to use some of the fundamental tools of CDBs due to a limit imposed by the local government: its DCC only circulated among grant beneficiaries. In that digital version, Mumbuca was limited to just “one spin”: after the beneficiary made his purchase at a local store, the bank deposited the corresponding amount, in Reais, into the merchant’s account. Hence, despite having a relatively high resources volume, the currency circulation was interrupted when the beneficiary shop.

This evident prominence of the government (during that period) could also be noticed in the tasks division between the community bank and the government. Usually, the benefit candidates listened from the CDBs attendants: “do you know where the City Hall is?”, which indicates that the bank had no autonomy to solve that issue. However, the limited local autonomy was not only related to the link between the community bank and the local government. Paradoxically, it was possible to notice the constitution of a new center-periphery relationship: in Maricá, CDB members were then Banco Palmas employees. Despite the wish expressed by Banco Palmas coordinator for an autonomous local entity, what we experienced in Maricá’s CDB first years daily life was a Banco Palmas centrality. This relative centrality could be noticed both in procedures terms - as research authorizations - and when someone mentioned the bank name: “you may go over there, at Banco Palmas”, or “good morning, Banco Palmas” were phases commonly heard in the period experienced in Maricá, either at the City Hall or at the community bank itself.

Thus, Brazilian CDBs practices, important references in the literature related to community management of a local currency and understood as common resources (commons) (Dissaux, Fare 2017; Hudon, Meyer 2016) faced challenges concerning autonomy and local management in Maricá. The complexity (and the delay) in consolidating a local entity was a key element for this CDB (lack of) autonomy. Mumbuca CDB team was not capable of managing completely the community bank, such as which projects conducting, which technologies adopting or when starting other CDBs practices, like microcredit. These seem important effects, at least partially related to the scale involved, one of the main actors in the next section.

4. SCALE AND MAGNETIC CARDS: CHALLENGES FOR AUTONOMY AND PROXIMITY

Maricá government secretary has decided to recommend a translation: according to him, after witnessing a Palmas paper-money theft during his visit to the pioneer CDB experience, he decided to recommend that CC should take a magnetic card form in Maricá, as a way to meet Mayor Quaqué’s demand to implant a social currency in town (a much bigger territory when compared to Conjunto Palmeiras). Banco Palmas was hired for the task, and its practices were then faced with an artifact hitherto unknown: the magnetic card and the POS^{ix}. They formed the main materiality of Mumbuca DCC from 2013 to 2017 and were provided by the ValeShop enterprise.

As can be seen, the scale required at the Mumbuca case for DCC implementation was inseparable from its materiality, a card inspired by the Federal Government Bolsa Família Program (PBF) – which provides financial aid to poor Brazilian families. A solution hybridized with community banks methodology: if local government drawn its attention to the fact that with PBF “unfortunately” the population could use the money for alcohol and drugs, Bolsa Mumbuca provided a control of the registered establishments. Furthermore, while the federal program beneficiaries had to use their cards to withdraw Reais into paper-money, with Maricá’s DCC the paper-money materiality would never pass through the beneficiaries’ hands: the currency was used exclusively in a debit card form.

In a larger scale reality (when comparing to other Brazilian CDBs), in addition to the local wealth maintenance, Mumbuca DCC promised more security and more control, important characteristics to consolidate the results obtained with Maricá public policy. During one of our interviews in 2015, the local government mentioned the “control” over currency data: seventy percent of Mumbuca’s expenses would have been spent in grocery stores and twenty percent in pharmacies. In the light of a new scale and the presence of a state actor, a proximity new idea was emerging among the community bank, residents, and traders, now mediated by artifacts such as beneficiary cards and merchants’ machines.

As a strategy to follow the effects of this “controlled proximity”, we propose a (temporary) division among use, management, and production / maintenance of technologies. Starting with the use of technological devices dimension, rather than a possible expected variety of ways to appropriate the use of technological devices, we observed an absence of relevant difficulties evidence in Mumbuca cards usage. This absence dialogues more with an entity that emerged in the work field itself: a certain “card culture” that circulates in the population, pointed out by Banco Palmas. A culture that is certainly related to the Brazilian banking services digitalization process, accompanied by cards and POSs. Beneficiaries often revealed a preference for this digitalization type, rather than paper-money: some interviewees’ statements, such use seems associated with the possibility of controlling the spending type on the grant. Hereupon, the card would be better than paper-money because whoever receives the resource could only use them in registered places, “otherwise people would spend on anything”, according to Maricá inhabitants. With

the card culture associated with a new control praise, barriers to this digitalization version of Brazilian social currencies seemed small regarding these artifacts usage.

Proceeding with the observation of the beneficiaries' data management, it was not difficult to notice the Mumbuca Card network complexification, at least in two directions. Firstly, documents profusion has increased as a requirement to enter the database. Hereupon, delay to analyze new beneficiaries' applications (government responsibility) was not seldom questioned to the bank employees. Secondly, the registration process started including promises associated with its computerization, which faced obstacles in the beginning – e.g., during a beneficiaries' update registration event, the system went down and there were delays in all service stations. Therefore, it seems clear that, considering these examples, a new kind of proximity, more mediated and controlled, enters the scene. This proximity is connected to not only a beneficiary and his/her card equipped with Mumbucas, but also to rules (including options concerning who were the beneficiaries and how could the beneficiaries spend the Mumbucas), documents, registers in the databases and software used for the registration process, which were essential to Maricá currency infrastructure.

Finally, if when examining the card and the beneficiary we were led to the database registration and construction processes, when we listened to the merchants, we quickly arrived at the machines and the systems that communicate them with ValeShop computers. We arrive here at the third dimension that we proposed, namely the machines production and maintenance and their communication system, which are the ValeShop company responsibility. It is worth saying that Banco Palmas coordinator was uncomfortable with the fact that poor communities where BCDs are do not have another control type, the technology of producing machines. We understand this annoyance as a clue that Banco Palmas' practices faced artifacts relatively unknown to that community. Autonomy sense that circulates in the social currencies proposal of community banks is manifested here regarding the information technologies used, both in terms of knowing how to use them understanding and even being able to produce them as well.

Practices of autonomy and proximity were thus challenged from different angles during the program implementation, whose process was characterized "much more [by] a bank serving a city" than by a city meeting the demands of a community bank, as Banco Palmas coordinator admitted. The initial nuisance, "why can't we produce these little machines?" (the POS's), which embodies an autonomous approach, faced the possibilities of a "card culture" reasonably established among the population (and connected to a relatively desired sense of control), which paradoxically conferred a certain stability and trust in Mumbuca DCC.

5. E-DINHEIRO APP AND A NEW TECHNO-LEGAL FINANCIAL SUSTAINABILITY

A new translation acted to stabilize the DCC network at Maricá, entangled by juridical entities: in addition to the municipal legislation created in Maricá (which regulates Mumbuca), the 2013 Brazilian electronic payments legislation entered the scene as an opportunity for CDBs to become "digital banks" and achieve a desired so-called financial sustainability. This legislation formed a new market of alternative electronic payment means, a market into which CDBs entered due to a 2014 proposal by the MoneyClip enterprise: digitalizing BCDs Network social currencies using the E-dinheiro platform, whose most visible element is an application for cell phones. E-dinheiro gained centrality among CDBs as "[...] the first Social Electronic currency in Brazil, from the Brazilian Community Banks Network, which proposes to serve as the payment means for products and services sold in the solidarity economy" (Carta... 2015).

In Maricá, the proposal to switch from the ValeShop card to the MoneyClip App only took place in 2018, when the MoneyClip's proposal materiality (translated into a smartphone app associated with a card) replaced those operated by ValeShop, not without financial, technological and governance changes connected to the process. Infrastructure change was associated with negotiations with Maricá government, ValeShop and Banco Palmas, according to local governments representatives: in Latour's (1998) terms, technogram and sociogram were connected.

Furthermore, the material change of the payment method would bring a new actor to the BCD network, the cell phones. It should be noted here that Mumbuca Card easy using - "the card culture" - was not verified with a hypothetical scenario of an application with smartphones. When asked about the possibility of Mumbuca grant being

paid only through cell phones, we collected expressions from beneficiaries such as “Oh, no...”, “It is very complicated.”, “I don't even like cell phones. (...) Leave it as it is”. Although considering a more positive reception of the proposal by young people, it was clear that the promises of a mobile payment system would need to be situated.

Despite these obstacles, digital payment method became a central matter to the CDB Network, which was beginning to bet on the new legal framework for electronic payments and on the E-dinheiro application as inseparable from its future: “I think community banks either migrate to electronic currency or they will have problems”, said a Banco Palmas coordinator. If in Maricá municipal legislation already strengthened its local currency network, the national picture was different. CDB Network and its paper-moneys, on one hand, relied only in BACEN's (Brazilian Central Bank) technical notes, which guaranteed the operations legality, but did not allow community banks being paid for the paper community currencies administration (Faria 2018). On the other hand, electronic payments legislation (law 12865/2013) allowed non-financial institutions to administer electronic payment systems with remuneration for that. As we can observe, legislation was a fundamental actor for the Brazilian community currencies framework to gain digital features.

Thus, from 2013 onwards, electronic payment legislation has been understood as an ally of Brazilian community banks, now candidates to be “payment institutions” whose low financial volumes operated left them relatively free from BACEN inspection (Ibid. 2018)^x. Along with the new legislation, MoneyClip proposal came to the BCD Network: the small company from Brasília proposed sharing the fees (collected by the platform) with the Network, due to the currency circulation (2% of each trade sale, and 1% of each local currency exchange for Reais) – a more advantageous agreement to the BCD Network, if compared with ValeShop deal^{xi}.

An analysis of Banco Mumbuca data (Faria, Pupo, Braga, Silva, Severo 2019) revealed significant revenues for the bank, of approximately 2% of the amount allocated by the town to Maricá residents (between forty and fifty thousand Reais monthly, in 2018 second semester and in 2019 first one). This amount allowed the bank to launch an interest-free microcredit program, with its own resources, for the local population. Additionally, in parallel with E-dinheiro platform adoption (fully implemented in 2018 first semester), there was an “explosion” in the trades' adhesion: associated local producers/commerce number went from the magnitude of one hundred to one thousand trades in one year (Faria et al. 2019). Such a phenomenon met the demands of the own beneficiaries and traders, and it covered not only small businesses, but large businesses chains as well. As a result, while Mumbuca BCD's financial sustainability was increasing, a reorientation of beneficiaries' purchases towards large chains of enterprises was identified, causing a relative loss for small local businesses (Ibid. 2019).

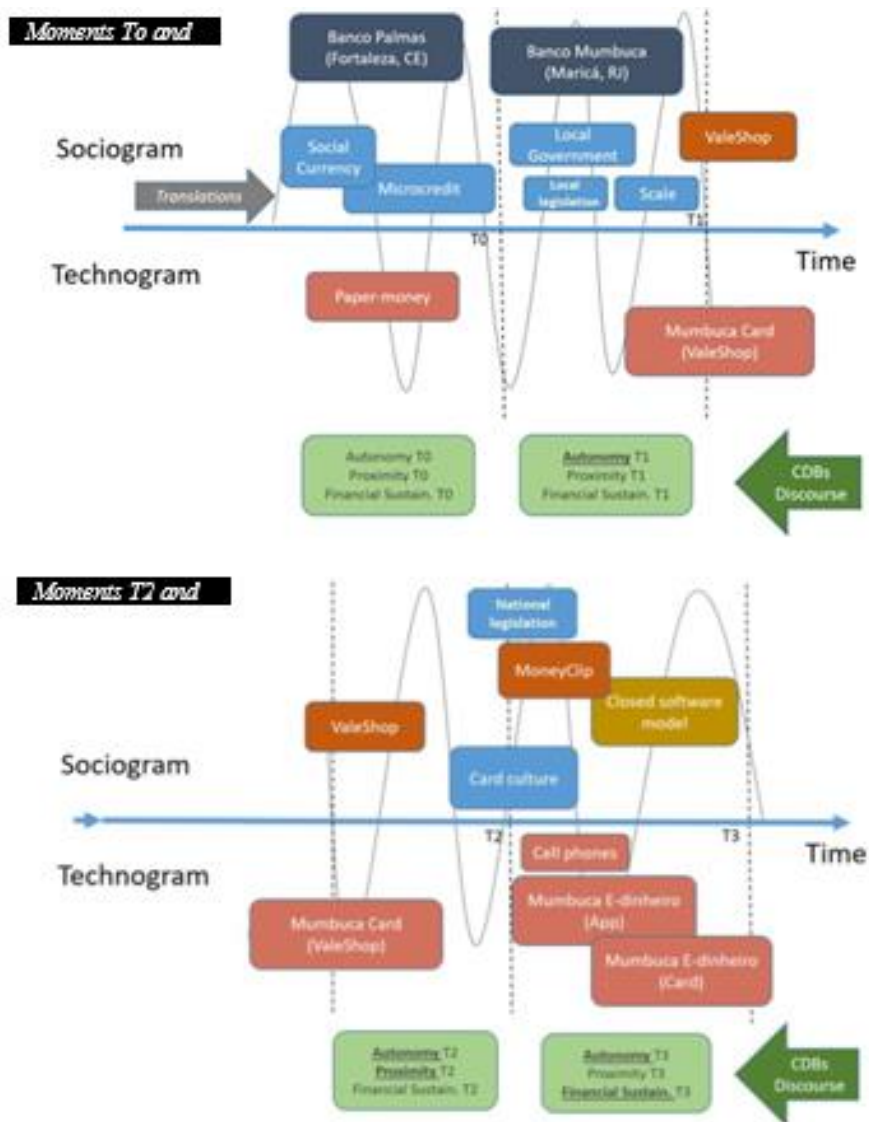
Finally, in what someone could call “technical” new platform characteristics, it is worth mentioning some elements highlighted by Faria et al. (2019). From the DCC platform users' viewpoint, the field interviews pointed E-dinheiro application was hardly used by beneficiaries, among whom the use of the E-dinheiro card predominated, according to the interviewed merchants, reinforcing the “card culture” presence, already discussed here in this text. Concerning the platform transparency and reliability: “[we] recommended ‘transparency panels’ for Mumbuca circulation in different levels [...]: to support the CDB Brazilian Network discussion with local governments and institutions; to increase community confidence where CDBs are situated, so that the [CDBs] Network itself could have a better data view and plan joint actions; every CDB could ascertain circulation in its own community” (Ibid. 2019). The research also recommended turning E-Dinheiro into an open-source software to facilitate security testing and possibly new software contributions. According to the authors, it would also enhance the dialogue among CDBs Network and other Brazilian collectives closer to solidarity-based economy and free software field.

6. DISCUSSION: SOCIOTECHNICAL RECONFIGURATIONS IN DISCOURSE AND GOVERNANCE

To illustrate the CDBs methodology translation into its Maricá's version, we understand that Latour's approach (1998) is interesting. The author proposes that every change in the sociogram of an artifact, in our case Mumbuca DCC, may foster technogram tensions (and vice-versa). Figure 2 portrays these changes, which we propose (schematically) happen at least in four different moments in Maricá, based on descriptions in the previous sections. For each moment, there is a temporary stabilization of CDBs principles first examined here, namely, autonomy, proximity, and financial sustainability (RQ1).

Taking Banco Palmas methodology as a starting point (T0), Mumbuca first moment (T1) represents this methodology translation for Maricá, with local government partnership, its social assistance program and local legislation. Here, a specific autonomy configuration of Banco Mumbuca was verified (symbolized in figure 2 with the word autonomy in bold and underlined), with challenges regarding the government (e.g., DCC initially only circulated among beneficiaries), also in relation to Banco Palmas. Due to a larger scale of this new network, magnetic card and ValeShop company entered the scene (second moment, T2 in figure 2). Proximity finance notion is then (T2) translated into what we called a controlled proximity scenario, where new mediations emerge (with artifacts like POSs, cards, and databases), as described.

Figure 2. Sociogram and technogram (Latour 1998) adapted to the Mumbuca case. Successive translations lead to the network provisional stabilizations at different moments: different “social” and “technical” actors; in green, CDBs discourse, with relatively reconfigured CDBs practices.



Finally, in a third network stabilization investigated here (T3), migration aspects of the currency infrastructure were verified: smartphones, application and E-dinheiro card, as well as the MoneyClip company and its closed model of software development. Here, a greater financial sustainability perspective at Banco Mumbuca (and the CDBs Network) is central. The new stabilization also reconfigures the BCD autonomy, which started to implement a “zero interest” microcredit program in 2018. Indeed, it is worth mentioning the beginning of a T4 stabilization moment, as presented by Joaquim Melo during the Esocite.BR discussion: in this new configuration, which begun in

2021 first semester, CDB Network is no longer connected to Moneyclip, and software developers dialogue directly to the CDBs^{xii}.

This process allows us to affirm that different stabilizations of the discourse (Edwards 1996) of Banco Mumbuca are inseparable from its practices (from which were highlighted different practices of autonomy, proximity, financial sustainability arrangements) and its artifacts (paper-money, cards, applications). Hereupon, the case demonstrates that these elements are intertwined, a conclusion that remains far from the idea that changing the DCC materiality would not affect its principles and practices (or “the same idea, [only] in different ways”, as verbalized by one of the Banco Palmas founders).

Alongside with these findings, Mumbuca DCC case allows us to discuss some aspects of what we call here DCC democratic governance connected to our RQ2 (implications concerning the governance of CDBs social currencies). We propose connecting it to two works concerning DCCs and governance views. On one hand, Diniz, Siqueira and Heck (2019) framework proposes a DCCs taxonomy, including architecture, transactionality, virtuality, and finally governance. For the authors, governance dimension may be classified in “shared” or “centralized”. On the other hand, Faria, Severo, Cukierman, Diniz (2020) discuss three sociotechnical dimensions, namely “requirements”, “data” and “source code”.

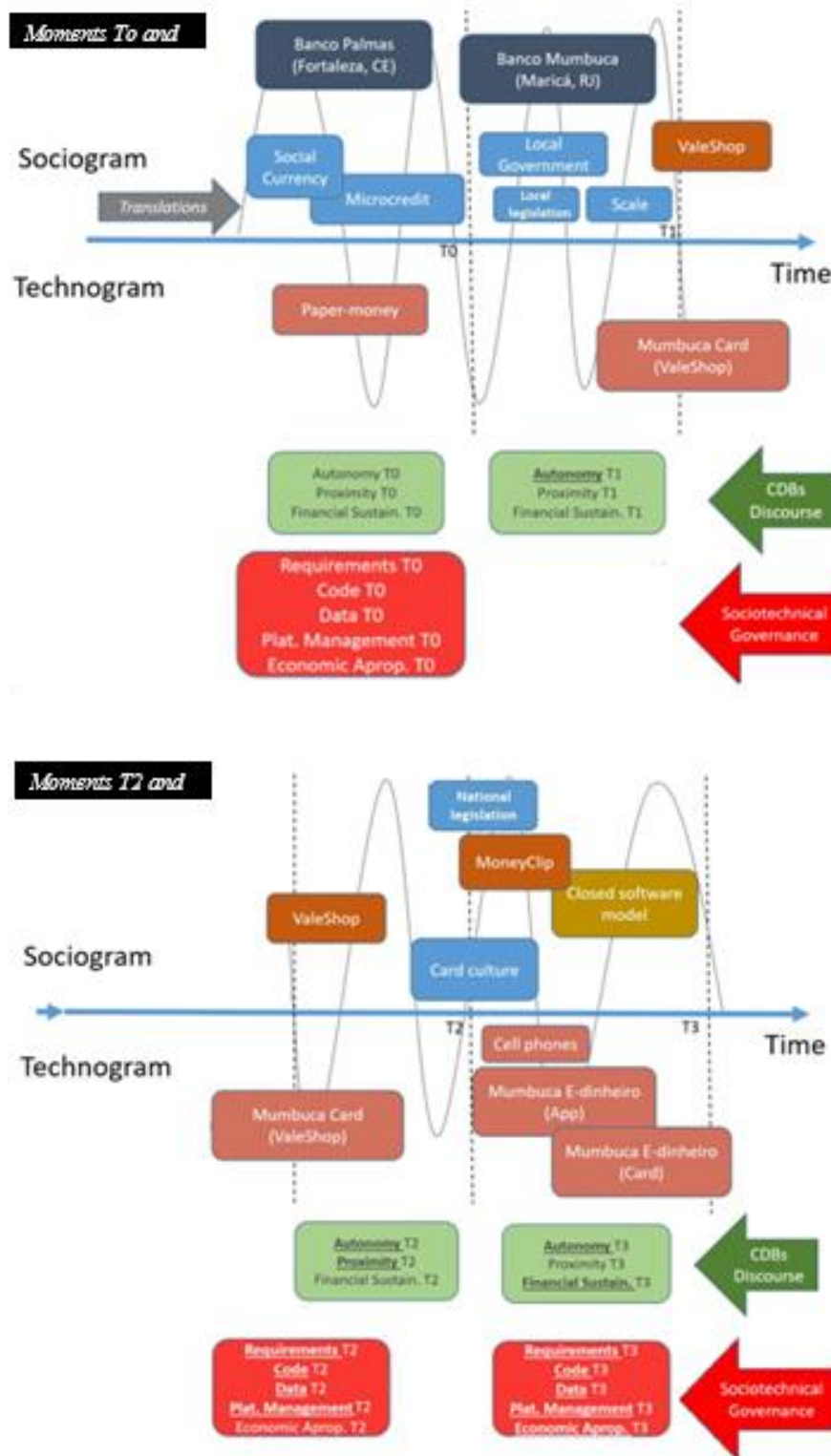
Faria et al. (2020) point the importance of what CDBs call “economic democracy”: “[the] history of Brazilian Community Banks shows that democratic practices include not only disputing institutionalized politics power, but also community mobilization in the sense of currency management as common goods.” The authors dialogue with Théret and Zanabria’s (2007) classification, concerning the “states of a currency”, namely, the “incorporated currency” (connected to the users’ habits), the “objectified currency” (which serves as a payment mean) and the “institutionalized currency” (which captures rules that unify a monetary space). Based on this classification, Dissaux and Fare (2017) understand that institutionalized currency dimension would be a preponderant state, insofar as a currency is abstract and immaterial: “it is first and foremost about the institution management at issue, much more than its objective expression in the payment means. [...] Social practices are built around it (self-organization, rules transparency, collective regulation, actors’ participation, individual non-appropriation of surplus, members cooperation, participatory and collective decision-making process, etc.) which should be analyzed and that allow considering the resource (the currency) to be instituted as a common good” (Dissaux, Fare 2017, 13, our translation).

Here, we share with Dissaux and Fare (2017) the attention to a democratic governance of community currencies, which is coherent to community banks and solidarity economy networks. However, when agreeing with Faria et al. (2020), we propose that materiality is connected to social practices, and therefore they should be placed in equal importance status. Thinking about democratic governances does involve considering social and technical (intertwined) dimensions, that is sociotechnical dimensions. We believe that dimensions proposed by Faria et al. (2020) (“requirements”, “data” and “source code” of a DCC) are connected to the CDBs practices examined here, as follows: the discussions around the CDB practices of autonomy are strongly connected both to the possibility of defining DCC requirements (with which rules and functions will be incorporated?) as well as with its source code (who would be able to access the “cake recipe”, the instructions executed by the software?). The proximity (and the discussions regarding the information control) is strongly connected to the data dimension (who does have access to it?).

When dialoguing with the authors, we propose to add two dimensions to their discussion, in addition to requirements, data and source code: DCC management dimension (who would take care of its functioning/availability?) and that of the economic appropriations involved (who would financially benefit from the activity?). Such dimensions may easily be coupled to the previous diagram, highlighting diverse sociotechnical governance configurations at different moments (figure 3).

The present research allows us to propose that Mumbuca DCC management (with ValeShop (T2), at the first moment, and after with Money Clip (T3)) is more centralized than “Palmas model” (T0). It is because, once the paper money was available to the community, it did not depend on an institution to manage the digital platform functionalities and its availability. Concerning the economic appropriation dimension, we may advocate that transition from ValeShop to MoneyClip allowed a more shared distribution of the financial benefits provided by DCC circulation (due to the interest-free microcredit program achievement).

Figure 3. Sociogram and technogram (Latour 1998) adapted to the present case, including new governance sociotechnical configurations. Regarding the figure 2, we add (in red) sociotechnical governance dimensions: requirements, source code, data, platform management and economic appropriation.



Coming back to the categorization proposed by Diniz, Siqueira and Heck (2019) (governance dimension classified in “shared” or “centralized”), we consider this paper contributes with the authors’ discussion by emphasizing its inevitable “sociotechnical” aspect and by detailing this sociotechnical governance with the dimensions proposed

(requirements, source code, data, management, and economic appropriation). We argue that each one of these dimensions may be categorized as “centralized” or “shared”. As a result, we propose a centralized/shared classification for the three moments of stabilization of different sociotechnical governances (T0, T2, T3), considering dimensions discussed here (table 1). “Centralized” means, for us, that there is a strong participation either by the state or by a private enterprise at this dimension; “shared” governance indicates a stronger self- management / community approach.

Table 1. Classification for each dimension of DCC sociotechnical governance: Centralized = strong state / private company presence; Shared = strong self-management / community approach.

DCC Sociotechnical Governance DCC Cases	Requirements	Code	Data	Management	Economic Appropriation
Palma (Paper-money, T0)	Shared CDB	Centralized Printing enterprise	Shared CDB	Shared CDB	Shared CDB
Mumbuca Card (ValeShop, T2)	Shared CDB Network	Centralized ValeShop	Centralized ValeShop	Centralized ValeShop	Centralized ValeShop
Mumbuca E-dinheiro (App + Card, T3)	Shared CDB Network	Centralized MoneyClip	Centralized MoneyClip	Centralized MoneyClip	Shared Banco Mumbuca / CDB Network
E-dinheiro (CDB Network developers, App + Card, T4)	Shared CDB Network	Shared CDB Network	Hybrid CDB Network / Provider	Hybrid CDB Network / Provider	Shared Banco Mumbuca / CDB Network

Then, we considered the platforms requirements are shared, from when it is decided with the CDBs Network - despite improving participation among CDBs might be interesting (Faria et al. 2020); CCs “source code” is centralized with capitalists enterprises (at any configuration, there are not “solidarity collectives” involved). T4 configuration points to a more shared stabilization, whether developers are directly connected to CDBs Network. Even so, both data and platform management dimension are more centralized with T2 and T3 CCs digitalized versions. We might say it considering that both all the network data and operating software are stored in centralized servers (computer), which are primarily administered by a capitalist enterprise – a different situation from T4, which could be even partially changed in the future, considering new technologies, such as blockchain (Diniz, Siqueira and Heck 2019). Finally, this framework makes more visible that transition from Mumbuca Card into Mumbuca E-dinheiro was an achievement in terms of a CDBs better financial appropriation. The whole framework points to a centralization bias as a risk when information technologies come to the scene. However, it is possible to point out some paths to reverse this possible bias. In the code dimension, a more shared approach (which has already begun with the T4 configuration) could involve development models closer to the so-called free software. As for the data, for example, one can think in levels of aggregated data sharing (with communities involved and other CDBs) and in less centralized storage forms, as used in blockchain technology. Such technology could be promising even from the viewpoint of a more shared platform management, as well as used software improvements, towards more possibilities of local customization.

These assumptions dialogue with Diniz, Siqueira and Heck (2019) discussion, and makes sense to our case, as far as this categorization is a central issue to the idea of democratic governance in the solidarity economy proposition. It is aligned with the perception that state (“big government”) and corporations (“big business”) do not solve all the community problems (Craig 1993). One of the main Brazilian personalities concerning solidarity economy, Paul Singer (2002) calls attention to the fact that capitalism is a mode of production whose principles are the individual property rights applied to capital and the right to individual freedom. On the other hand, solidarity economy, as another mode of production, has as its basic principles the collective or associated property of capital and the right to individual freedom. Briefly speaking, in a capitalist company, a small and select group of owners is responsible

by the main decisions on management processes, on the productive model adopted, on the profit allocation, and usually on tools used for the products / services provided^{xiii}. Considering CDBs as participants of the solidarity economy movement, França Filho and Silva Júnior (2009) summarize the CDBs specificity as an experience of solidarity finance lying precisely in the fact that bank coordination and the resource management are carried out by a community organization. The authors also point out that, for a CDB to consolidate, among other aspects, it should establish a technological infrastructure that makes the community bank operations more efficient and effective.

What we argue here is the discussion of DCCs governance dimensions, as technological infrastructures of CDBs, is crucial for (and inseparable from) the “economic democracy” debate among community banks. This inseparability is anchored, for example, on STS field, and may be demonstrated by tools like Latour’s (1998) technogram and sociogram. Thus, our critical exercise here lies on the thought that, starting from the analysis of technology used in a determined way to manage work and production, there is a whole ideological and substantial model connected to it: schematically, more centralized systems, in the molds of traditional capitalist and state organizations (hetero management), or, furthermore, more shared systems, focused on principles of solidarity economy (self-managed).

7. CONCLUSION

This paper is situated in the context of monitoring and analyzing the Brazilian community currencies digitalization process, at the CDBs Network. In this community, the idea that this digitalization process would have occurred with “the same idea, [only] in different ways” was strong. At the same time, DCC governance used by the banks is considered a complex challenge to the Network. Drawing our attention to the study of one of the most relevant Brazilian DCCs, the Mumbuca, the paper the digitalizing process implications concerning CDBs practices and principles (RQ1) and governance of CDBs social currencies (RQ2) demonstrates the digital community currency materiality is inseparable from the “social arrangement” around it.

Dialoguing to the ICT4Ds and STS fields, and especially with ANT, we used the concepts of translation, symmetry, networks, sociogram and technogram to describe different moments of Mumbuca. We showed interconnections between the sociogram and the technogram of Mumbuca DCC, emphasizing two approaches: first, discussing how some elements of the discourse of the community development banks (the practices of autonomy, proximity, and financial sustainability) were reconfigured to a certain extent (figure 2) (RQ1). Briefly, autonomy was challenged by dependencies of Mumbuca CDB regarding the local government, Banco Palmas and technology companies and its artifacts; the proximity notion faced the difficulties of the scale and the control possibilities, embedded in a more traceable network (a digital one); Banco Mumbuca financial sustainability was reinforced with the transition into E- dinheiro platform, increasing the bank financial autonomy.

Finally, we discussed a DCC democratic governance (RQ2), linked to the economic democracy notion – another element of CDBs discourse. We propose that materiality is connected to social practices, and they should therefore be placed a priori in equal importance status, as intertwined dimensions: sociotechnical ones. The discussion was useful for us to evaluate each of DCC governance sociotechnical dimensions, namely, requirements, code, data, platform management, and economic appropriation. Dialoguing with Diniz, Siqueira and Heck (2019), we characterized these five dimensions as “centralized” or “shared”, according to each moment of Mumbuca DCC (table 1). Considering a desirable shared approach, in agreement with solidarity economy field, the framework proposed helps to highlight some of the greatest current governance challenges for Brazilian (CDBs) Network.

As future researches, we propose to advance on further discussions towards more shared approaches of code, data, and management dimensions; on the use and improvement of the framework with other DCCs analysis; on the connection of the framework with the discussion of the so-called platform capitalism; and on deepening the framework by analyzing complex governance cases, especially of new and promising technologies, such as blockchain.

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ENDNOTES

i Banco Mumbuca workers (3), Banco Palmas Coordinators (2), local commerce (1), Maricá inhabitants (2), local government (2) and MoneyClip enterprise (1) - the company was originally called MadeApp, which developed an application called MoneyClip (a software used to implement the electronic currency E-dinheiro). Subsequently, the partners opened a company called MoneyClip, a name adopted throughout the text, for simplification. The local commerce and inhabitants' interviews addressed aspects such as difficulties with technologies usage, mistrust in relation to the local currency, and changes in expectations regarding the project (at its beginning and by the interview time). The interviews with MoneyClip, Banco Mumbuca, Banco Palmas and local government addressed broader issues, related to mistrusts concerning Brazilian formal institutions (and their responses to local currencies), differences between paper and electronic currency, how users and traders' data were recorded, and relationship with other parties (Banco Palmas, Banco Mumbuca, local government and ICT companies).

ii The materials: folders used by the bank to communicate with population, and spreadsheets with Mumbuca ValeShop Card circulation data. The system access allowed the elaboration of two reports about the Mumbuca currency circulation. More at <https://is.cos.ufrj.br/producoes/>. Access: 20 Jan 2021.

iii This approach also involved, during 2018, the organization of three "hackathons" (events that brought together software programmers and users): MumbucHackas I and II, which brought together software programmers, Banco Mumbuca and public managers in the municipality of Maricá-RJ; Hackathon at Solidários 2018, as one of the activities of a global meeting of development solidarity banks, organized by Banco Palmas, in Fortaleza-CE. More at <https://www.marica.rj.gov.br/2018/01/10/desenvolvedores-discutem-nova-plataforma-do-cartao-mumbuca/>, <http://www.ofluminense.com.br/en/cidades/banco-mumbuca-no-2%C2%BA-distrito>, <http://bancossolidarios.global/> and <https://is.cos.ufrj.br/producoes/>. Access: 20 Jan 2021.

iv More at <https://www.youtube.com/watch?v=wogq8WDKMYE>. Access: 20 Jan 2021.

v Esocite.BR is the Associação Brasileira de Estudos Sociais das Ciências e das Tecnologias (Brazilian Association of Social Studies of Science and Technology). More at <http://www.esocite.org.br/>. Access: 20 Nov 2021.

vi According to the author, "[for] example, computer scientists tend to build ICT applications and then evaluate them in particular field contexts. [...] In contrast to computer scientists, sociologists and anthropologists normally address contextual issues in some depth but do not construct artefacts" (Walsham 2017).

vii Mumbuca DCC started its operation under the administration of the mayor of Maricá, Washington Luiz Cardoso Siqueira (Washington Quaqué), after a visit by its Municipal Human Rights Secretary to Banco Palmas, located in Fortaleza outskirts, in the State of Ceará, Brazil.

viii Banco Mumbuca was formally instituted (as an independent institution) in 2017 second semester.

ix "Little machines" ("maquininhas", in Portuguese) is the way a Banco Palmas Coordinator refers to POS (point of sale) machines.

x In practice, Brazilian State ended up favoring electronic currencies when designing a legislation that built a more advantageous market for arrangements that include ICTs.

xi 3% of merchants sales belonged to ValeShop.

xii In fact, CDB Network had already bought the E-dinheiro platform from MoneyClip in 2018, but CDBs were still depending on services concerning the platform maintenance.

xiii As a general rule, a profit portion is paid in cash to shareholders as dividends and the remaining goes to the investment fund. According to Lima (2009), in work cooperatives, the self-managing organization forms of production, the labor activity control, the product made by the own workers and leftovers have their destination decided by the partners collective. One part is placed in an education fund of their own, other part divided between the use to expand the cooperative assets, another part to the cooperative, and finally the remaining is distributed in cash to the partners by some established pre-criteria.



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THE EMERGENCE OF SOCIO-MUNICIPAL CURRENCIES: AN INSTITUTIONAL CHANGE PERSPECTIVE IN CASH TRANSFER POLICIES

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ABSTRACT

Cash transfer policies (CTPs) have become an important instrument for poverty alleviation and combating the effects of crises. Among many recent initiatives, community currencies are promising tools to operationalize these programs by municipalities. This paper investigates if there was an institutional change in cash transfer public policies with the adoption of a social currency issued by the municipality of Niterói, Rio de Janeiro, Brazil, a recent phenomenon that we call “socio-municipal currency”. We drew on process tracing methodology combined with a theoretical lens of the theory of gradual institutional change. Our analysis indicates a gradual institutional change in CTPs. This change occurred through the learning mechanism with the municipality acting on lessons learned from a neighboring city and prior social currencies experiences.

KEYWORDS

Community currency, municipality, cash transfer, incremental change, process tracing.

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H7; O3.

1. INTRODUCTION

The objective of this paper is to investigate if the emergence of socio-municipal currencies triggered an institutional change in cash transfer public policies and if so, to understand the process by which this happened. Socio-municipal currencies are new types of digital social currencies used to operationalize the payment of social benefits and basic income programs and are established by municipal laws. We studied the case of a cash transfer program carried out by the municipality of Niterói, in the State of Rio de Janeiro, Brazil. The municipality created their own municipal development bank (MDB) and a currency called Arariboia that is used to pay a municipal cash transfer program that outreaches 30 thousand families.

Socio-municipal currencies originated by complementary currencies (CC). CC are generally designed and operated by citizens, NGOs and companies as well as public administrations, working as an alternative form of money, differing from official national currencies (Diniz et al. 2023). The case of Niterói is unique because the city created the currency, the MDB and the fund that transfers income to the population through a municipal law and sought support from a grassroots organization (E-Dinheiro Institute), sharing the same technological architecture with other 70 community banks (Instituto E-Dinheiro, 2021).

CC aims to strengthen local economies, create work and foster solidarity among its citizens-users. Over time, they have become an important instrument to bear big social problems and foster local resilience (Lietaer & Dunne 2015), especially during Covid-19 pandemic (Kuk et al., 2021). At the same time, the socio-economic crisis caused by Covid-19 renewed the debate over public policies for addressing poverty and vulnerability (Wispeleare & Morales, 2021). During this specific period, the Brazilian federal government implemented an Emergency Basic Income (EBI) program, which helped or reached more than 66 million people with a total payment of over USD 53 billion (R\$ 280 billion) (Cepal, 2021). However, the EBI faced logistical challenges to reach the most needed in a timely and safe way (Gonzalez et al. 2020). As a result, the EBI distribution process did not reach all those who needed the resources in time.

Against this backdrop, the case of Mumbuca, in Brazil, is a successful example of EBI implemented by subnational entities. Mumbuca was the first socio-municipal currency launched in the country, in 2013, and has been widely studied by researchers (e.g., Faria et al. 2020). The currency is used as a tool to distribute the basic income program of the city, also situated in the State of Rio. In 2020, Maricá program was expanded to face pandemic effects and become an international reference for EBI implementation (Gonzalez et al. 2020).

The achievements of Mumbuca and the need for basic income during Covid-19 pandemic inspired other municipalities to create their own socio-municipal currencies as a countercyclical policy. Currently, beyond Maricá, six municipalities are operating this public policy: Cabo Frio, Iguaba Grande, Itaboraí, Niterói, Porciúncula and Saquarema (Bellás, 2022; Diniz & Melo, 2022; Ferreira, 2021; Prefeitura de Saquarema, 2022). In addition to being instituted by law, socio-municipal currencies are operated digitally. They are hybrid currencies working in different arrangements that involve interrelations among the community, non-governmental organizations, digital payment operators, and subnational entities.

The emergence of socio-municipal currencies points to a new chapter in the history of CC and seems to indicate an institutional change in Brazil's public policies on cash transfers and basic income programs. Our research draws on a deep analysis of the Arariboia coin, one of the most prominent cases of socio-municipal currencies, to address the following question: does the emergence of socio-municipal currencies represent an institutional change in cash transfer and basic income public policies? If yes, how did such a change take place? We applied the process tracing methodology to answer this question and followed Mahoney and Thelen's Theory of Gradual Institutional Change (2006).

This article aims to contribute to the literature on social policy, more specifically by analysing how subnational entities use CC to operationalize cash transfer policies (CTPs). Empirically the article contributes to the understanding of the new and, yet understudied socio-municipal currencies phenomenon. Also, we contribute with the cash transfer public policy literature, by inquiring about an institutional change triggered in such policy by the emergence of socio-municipal currencies.

2. CASH TRANSFER PROGRAMS AND THE ROLE OF COMMUNITY CURRENCIES

Scholars highlight that minority groups and places with vulnerable populations may benefit most from cash transfer policies (Neves et al., 2020; Palmeira et al., 2020). Different forms of CTP have been adopted around the world as central components of social policies addressing poverty and vulnerability (Forget et al., 2013). By the end of 2000s, an estimated 190 million householders, with approximately 860 million people, were reached by social assistance programs in more than 60 countries (Barrientos & Niño-Zarazúa, 2011).

Among the different modalities of CTP, conditional cash transfer is sometimes mentioned as one of the most remarkable innovations in social policy programs in developing countries over the past few decades (Cahyadi et al. 2020). Started in the 1990s in Mexico, Bangladesh and Brazil, today over 63 countries have at least one CCT program (Cahyadi et al. 2020). In Brazil, it was popularised by the success of Bolsa Família (BF) (Levasseur et al., 2018; Neves et al., 2022). In the conditional CTP, the beneficiary needs to satisfy conditions imposed by the policy, such as the need for regular medical checkups (Levasseur et al., 2018). Another modality is the unconditional one, when there is no counterpart or conditions to receive the benefit (Levasseur et al., 2018). Another modality has received growing attention in recent years. The Universal Basic Income (UBI), a periodic cash payment to all residents in a jurisdiction without strings attached (Lee, 2021) has been broadly discussed in the global political arena, and it has received a soaring endorsement from the general public (De Wispelaere & Haagh, 2019).

A large number of papers drawn on the implications of the CTP (e.g., Levasseur et al., 2018; Sun et al., 2021; Neves et al., 2020; Johnson et al., 2022; Martínez Franzoni & González Hidalgo, 2021). Some investigate the public attitude towards the cash transfer implementation (Lee, 2021; Rincon, 2021; De Wispelaere & Haagh, 2019); Nevertheless, other authors put doubts in the adoption of CTP as an effective tool for poverty alleviation, defending that it might oversimplify a complex social problem (e.g., Fouksman & Klein, 2019).

However, little attention has been paid to the distribution channels of cash transfer (see Gozalez et al. 2020 for an exception). With the expansion of CTP, governments have sought to increase the use of electronic means for CTP to improve the efficiency of distribution channels (Chiapa & Prina, 2017). The socio-economic crisis caused by the Covid-19 pandemic drove governments to implement emergency financial aid programs for individuals and companies, especially low-income population, and small and micro-enterprises. Among many initiatives, EBI was implemented by diverse governments as a tool to timely avoid financial insecurity during the pandemic (De Wispelare & Morales, 2021).

One of the ways mentioned in the literature to implement CTP is through CCs. Authors point out that this modality is normally used to face the effects of crises (Diniz et al., 2019; Gonzalez et al., 2020; Janisch & Stapleton, 2021; Martín Belmonte et al., 2021; Reppas & Muschert, 2019), as in the case of the Covid-19 (Gonzalez et al., 2020; Jacob & Boyd, 2020). However, there are differences in CC models, and the literature seeks to map these currencies, proposing typologies, frameworks, and classifications (Blanc, 2017; Diniz et al., 2019; Diniz et al., 2021).

The phenomenon of CC is not new. There have been cases recorded over the last few decades, especially in Europe, Brazil, and Argentina (Lietaer & Dunne, 2015). However, scholars have mentioned that CC experiences remain generally small and marginal (Seyfang & Longhurst, 2013), struggling to become sustainable over time (Hudon & Meyer, 2021). A considerable number of authors argue that some of these cases can be seen from the perspective of post-developmental currents (Barinaga, 2020; Gómez & Prado, 2020; Huttunen & Joutsenvirta, 2019; Siqueira et al., 2020). Some works highlight the importance of involving the local community throughout the CC process (Giménez & Tamajón, 2019; Gonzalez et al., 2020; Huttunen & Joutsenvirta, 2019; Siqueira et al., 2020) and, in addition to the transactional aspect of the currency, its development and use also strengthen territorial and social bonds based on mutual trust between those with a common currency (Souza, 2018).

This work is divided into seven parts. After the introduction and this literature review, we present the Theory of Gradual Institutional Change. Following, we present the methodology. The results session was divided into two parts: first, we introduced the characteristics of the political context of the case studied; then, the institutional change agendas. In the penultimate session, we analyse the results in the light of theory. Finally, we conclude the paper, bringing suggestions for future studies.

3. THEORY OF GRADUAL INSTITUTIONAL CHANGE

To answer our research question, we draw the Theory of Gradual Institutional Change (TGIC) (Mahoney & Thelen, 2010). From TGIC perspective, institutions can change by gradual and subtle internal intervention. Not only radical and disruptive events cause institutional changes, but ongoing incremental changes also lead to transformative change in institutions (Mahoney & Thelen, 2010).

TGIC conceptualizes institutions as distributional instruments of power. In this regard, institutions are not monolithic and static blocks of social norms but represent different and divergent groups' ideas altogether (Mahoney & Thelen, 2010). Thus, institutional change becomes the unexpected result of different desires and visions converging. Therefore, institutions would be ambiguous and formed by an intrinsic relationship between change and stability (Mahoney & Thelen, 2010).

Mahoney and Thelen (2010) devise four types of institutional changes:

- Displacement: When change is achieved by removing existing rules and introducing new ones;
- Layering: When change introduces new rules on top of or alongside existing ones;
- Drift: When environmental changes impact the existing rules;
- Conversion: When there is amended enactment of existing rules due to their strategic redistribution.

Mahoney and Thelen (2010) argue that each type of institutional change is intertwined with the characteristics of its political context and institution aspects. TGIC classifies the political context regarding its possibility to afford institutional actors with strong or weak veto possibilities. Institution characteristics are classified according to its capacity to afford actors opportunities for exercising discretion in interpretation or enforcement. The combination of political context and institution characteristics enable the action of four types of change-actors, each one characteristic of one type of institutional change (see figure 1).

Figure 1: Types of Gradual Institutional Change. Source: Mahoney & Thelen, 2010.

		Characteristics of the Targeted Institution	
		Low Level of Discretion in Interpretation/ Enforcement	High Level of Discretion in Interpretation/ Enforcement
Characteristics of the Political Context	Strong Veto Possibilities	Subversives (layering)	Parasitic Symbionts (drift)
	Weak Veto Possibilities	Insurrectionaries (Displacement)	Opportunists (Conversion)

Insurrectionaries can arise in any scenario but are more likely to flourish in environments characterized by low discretion and weak veto possibilities. They do not seek to preserve the institution and do not follow the institutional rules. Symbionts (parasites) thrive in environments characterised by strong veto possibilities and high enforcement discretion. They rely on institutions but undermine the institutional rule from inside out. Subversives thrive in contexts where there are strong veto possibilities and few rule interpretations. Opportunists tend to thrive

in environments with much discretion in how institutions are enacted and few player vetoes or points to avoid real institutional change.

In Mahoney and Thelen (2010), chapters are devoted to analysing institutional change in Brazilian health policy, land policy in Kenya, and social security in the US (Capano, 2019). More recently, TGIC has been applied to local government (Taylor, 2023) and participatory budgeting (Montambeault, 2019), as well as in a study about social security and health (Greener & Powell, 2022).

4. PROCESS TRACING

This work employs the process tracing method, which is a qualitative research approach that enables the development or testing of propositions supported by the identification and analysis of selected evidence in processes, sequences, and conjunctures of events. Its objective is to recognize and trace the causal mechanisms, their constituent parts, and the causal chain (connection between them) that allow explaining the case studied (Befani & Stedman-Bryce, 2017; Bennett & Checkel, 2015; Hall, 2006; Schettini et al., 2018; Silva & Cunha, 2015). By enabling the identification of a process that forms a coherent whole, process tracing allowed the organization of the complex process involving CTP.

In this study, primary data was collected using key policy documents and Brazilian newspapers between the year 2020 and 2022, using google search tools and keywords in Portuguese such as *moeda social* (social currency), *Arariboia* and *política de transferência de renda* (cash transfer public policy). The collected documents were organized chronologically and analysed. In addition, we conduct fieldwork during two distinct time periods. During the first period, one of the authors stayed throughout 6 days in 2022 inside the Banco Preventório, a local community bank that operates a CC through E-Dinheiro platform in the same region prior to the implementation of Arariboia. The second field immersion took place in 2023, during which another author visited Niteroi and several other municipalities in the State of Rio that had implemented socio-municipal currencies. During these periods, the author engaged in discussions with local political and community leaders, residents, researchers, and activists involved in the use or implementation of socio-municipal currencies.

From our fieldwork, we wrote several notes with observations and quotes collected throughout our interaction with the field, which was important to enrich our knowledge on the social and political contextual background of Arariboia. We used an iterative process between empirical observations and the theoretical framework of TGIC to generate configurations of mechanisms that offer plausible causal explanations for the emergence of Arariboia and the institutional change in cash transfer and basic income public policies.

5. RESULTS

Following the TGCI framework, our results first introduce the characteristics of Arariboia's political context and the main agents of institutional change. In the second part, we characterized the role of institutional actors, its institutional change strategies and the causal mechanisms that trigger the institutional change.

5.1 Characteristic of the Political Context

5.1.1 Cash Transfer Programs in Brazil

The first CTP experiences in Brazil came from municipal initiatives. Three pioneer CTP were created in 1995 (Soares & Sátyro, 2010) in the cities of Campinas and Ribeirão Preto (both in São Paulo state) and in Brasilia (DF). Between 1997 and 1998, 25 other municipalities implemented their CTP (Lavinias, 1998). CTPs emerged with the increase in the number of social policy actors (for example, subnational public bureaucrats, members of civil society and members of professional's associations) under an increasingly democratized and decentralized system, characterized by fragmentation and dispersion of authority that sought to change the country's decision-making center, a proposal adopted by the new Federal Constitution of 1988. However, the fragmentation of policies under a federal government structure made it an obstacle to an urgent response to poverty (Vale, 2021). In this context, the central government intensified its coordinating role to bring coherence to the CTPs (Arretche, 2013).

The first relevant CTP launched by the federal government occurred in 2001 and was inspired by the model implemented in Brasilia, focusing on children under 16 years of age attending schools (Peck & Theodore, 2010). To implement this program at the national level, the creation of a single register of all the beneficiaries of social policies was an important step towards gathering information on the poor and extreme poor population, allowing the possibility to launch other social programs. Later in the same year, the federal government added two new programs and ended up with four CTP, each managed by a different administrative department (Education, Health, Energy and Social Assistance).

In 2003, a new government was elected and unified the four programs, creating a program called Bolsa Familia (BF), managed by the new Ministry of Social Development (Díaz Langou, 2013). The management model of BF was supposed to combine efforts between the federal and city governments, besides the support of state governments, respecting their autonomy and interdependence (Licio et al., 2011). To overcome institutional constraints, the Federal Government relied on central-local collaboration to implement BF (Fenwick, 2010).

The centralization of social policies and the adoption of clear criteria for eligibility aimed to reduce patronage policies of local governments (Fenwick, 2010) and expand social policies throughout the country (Vale, 2021). Having learned from previous experiences of CTPs, Lula government initially tried to circumvent the reluctance of potential state governors to implement the BF by giving municipalities central responsibility for implementation. States became only responsible for coordinating and training municipalities, giving them a secondary role at the CTPs (Niedzwiecki, 2016).

Programs such as BF have become the main instrument for fighting poverty in Latin America in recent decades (Leyer, 2020). However, with the impact of the pandemic, the benefits of current CTPs may be limited. In a restrictive scenario, the lack of exceptional social protection measures against the impacts of external shocks can produce an adverse scenario and increase poverty rate, reducing household savings and consumption, with the possibility of a change in consumption behavior that can delay economic recovery (Martin et al., 2020).

Brazil is one of the countries that have implemented an emergency basic income (EBI). By the end of 2020, Brazil's Covid-19 emergency assistance program (called Auxílio Emergencial) reached 66 million people with payments totaling 280 billion Brazilian reais, nearly 4% of Brazil's GDP (Cepal, 2021). Potential beneficiaries, however, faced problems registering in a mobile app created by a federal bank. This was the only way to receive the EBI for those who were not pre-registered in other social assistance services of the Brazilian government and had their name in the Cadastro Único (CadÚnico), a national database with all beneficiaries of Federal social policies (Gonzalez et al., 2020).

Furthermore, in 2021, in time of widespread socio-economic deterioration in face of the aggravation of the pandemic crisis, the federal government changed the beneficiary's selection criteria, causing the interruption of EBI payment by two months (Souza, 2021). This non expected block, added to changes in the eligibility criteria that reduced the number of beneficiaries, and the decrease in the amounts paid, forced local politicians to take an active stance on CTPs. In this context, municipalities that already had their CTP strengthened the policies, and others that did not have it, began to adopt them.

The federal law number 12.865/2013, about payment arrangements, and the federal law number 13.019/2014, that enabled partnerships between the public sector and non-profit civil society organizations, allowed local governments to partner with community banks to issue their own local currency and, through it, implement their own CTP (Diniz & Melo, 2022a). Brazilian federalism is unique in the world. With the aim of decentralizing the administration and giving autonomy to the municipalities in the search for solutions to its local problems, the Federal Constitution of 1988 ensured that municipalities became federated entities. They constitutionally have the same legal status as the states and the Union. The autonomy given to local governments meant that each municipality had its own constitution (called Organic Law) and independence to seek sources of funding (Abrucio, 2005).

The municipal parliament (called Câmara dos Vereadores) is responsible for making the laws of the municipality. In the case of CTPs, the Executive draws up the policies and the Legislature needs to approve the law, so that the

policy can then be implemented. This ensures that the socio-municipal currency is a state policy, and not the administration's head of the city hall. In all cases in the state of Rio, local parliaments passed municipal laws to create a fund to feed the distribution of income transfer benefits (Diniz, 2022b).

5.1.2 The emergence of solidarity economy

Solidarity economy has a rich history in Latin America, dating back to the early 1980s with the emergence of the Chilean sociologist Luiz Razeto (Telles et al., 2020). In contrast to the Anglo-Saxon interpretation of solidarity economy, the Latin American version tends to be more radical and politically oriented (Singer, 2010), emphasizing the need for structural transformation of the economy towards a more collaborative approach to producing, distributing, consuming, accumulating, and developing with solidarity.

In Brazil, the solidarity economy gained strong support from popular and social movements and has been institutionalized as a public policy by leftist governments. The creation of the National Secretariat of Solidarity Economy (SENAES) within the Ministry of Labor and Employment by the Brazilian government in 2003 was a pivotal moment in this process, reflecting the mobilization of various social actors who sought the necessary institutional space for initiatives that began to emerge in the mid-90s (Neiva et al., 2013). The establishment of the Brazilian Forum for the Solidarity Economy in the same year further strengthened this movement by consolidating and coordinating various initiatives in the field of solidarity economy. Brazilian community banks and its local leaders are strongly connected with the solidarity economy movement, having been influenced by and e influenced the movement.

After leftist government lost power, the SENAES and the solidarity economy weakened at the federal level but continued to thrive within social movements and among some local authorities. For example, the Mumbuca municipal bank has held early congresses with practitioners and academics dedicated to the subject of solidarity economy, demonstrating the continued interest and commitment to this economic model and its importance to the community banks.

5.1.3 Arariboia's proposal

In June 2021 the mayor of Niterói, Axel Graef, presented a formal intention to create the Arariboia. The measure was adopted to mitigate, in a short term, the effects of the economic downturn caused by the pandemic. The program's objective was to mitigate the extreme poverty in the municipality by transferring cash to citizens in regions of greater socio-economic inequality. In this setting, the Arariboia was conceived as a tool for local circulating of the public benefit, creating jobs and maintaining part of the wealth generated in the territory. The City of Niterói estimated a monthly investment of approximately USD 1.35 million (R\$ 5.6 million) (Prefeitura de Niterói, 2021a), benefiting 27,000 families (Imenes, 2021).

The work on developing the socio-municipal currency involved several secretariats and public bodies, which contemplated the creation of a municipal bank and a social fund to manage the financial resources of the Arariboia. With those actions, the municipality intended also to expand the formal register of commercial enterprises and a reduction in regional inequalities. (Prefeitura de Niterói, 2021a).

5.1.4 Characteristics of Niterói Cash Transfer Program

The complementary currency

The creation of Arariboia and the Municipal Bank of Niterói was established in a law approved by the municipal chamber on July 7, 2021 (Niterói, 2021). At that time, the mayor of Niterói called upon the successful experience of the neighbouring city of Maricá with Mumbuca to justify the creation of Arariboia. In this regard, he declared that banks are "spaces for dialogue, training and promotion for workers and producers who will be beneficiaries of the currency". Furthermore, the mayor added that this program will have "a space for the [...] beneficiaries themselves to have the possibility of reaching exit doors, thus leaving the situation of poverty and extreme poverty" (A Tribuna, 2021).

The social-municipal currency replaced the Temporary Basic Income program (Renda Básica Temporária, RBT) which was created on an emergency basis. The EBI, worth 500 reais per month, began to be paid in March 2020 and

had the last instalment paid at the end of 2021. The objective of the policy was to provide financial support to vulnerable families in the city during the pandemic. The benefit could be used in supermarkets, markets, bakeries and pharmacies. Different publics were contemplated by the policy, such as: those listed in the CadÚnico, Individual Micro Entrepreneurs (MEIs), children enrolled in municipal schools and workers in the solidarity economy and culture (O Fluminense, 2022; Prefeitura de Niterói, 2021d; 2021e; 2021f)

Arariboia Municipal Bank

To manage the Arariboia and the CTP, Niterói constituted a Municipal Bank, subject to the Municipal Secretary of Social Assistance and Solidarity Economy (SMASES). The bank is responsible to transfer the necessary resources for funding, maintenance, equipment, institutional strengthening, communication, promotion, and the execution of other financial responsibilities, such as the credit fund, backing of social currencies and “other necessary actions”. The budget of Arariboia Fund is part of the Municipality's budget. In addition, the accounting of this fund will be its own (A Tribuna, 2021; Niterói, 2021).

The first branch of the Niterói Municipal Bank was in Vila Ipiranga, north of the city. The person responsible for the SMASES portfolio, Vilde Dorian, defended that the implementation of the Bank represents yet another advance for their city, both in the development and application of the Municipal Solidarity Economy Policy, sanctioned last year, and in the concern that the mayor and the government of Niterói have with economic development allied to the fight against social inequalities, especially in a moment of health crisis and deepening of poverty in the country (Apolinário, 2021).

The bank also works as a space for other public policies, such as training and guidance to citizens and small or informal business. Also, anyone can go to the Municipal Bank and open their digital account to use the Arariboia in the registered businesses around the city. Vila Ipiranga is located in Fonseca neighborhood. It is the most populous community in Niterói, with over 15,000 inhabitants. The local population already knew about the successful experience of Maricá and believed that the program could be important for the growth of the place (Apolinário, 2021).

The Arariboia is managed by the E-Dinheiro Institute, a Civil Society Organization of Public Interest (OSCIPI) that works as a fintech for community banks to operate community currencies in their territory. The partnership between the E-Dinheiro and the municipality was settled in the collaboration agreement published on September 18, 2020, in the Official Gazette of the Municipality (Niterói, 2020). E-Dinheiro Institute was founded by Banco Palmas, the first community bank created in Brazil, in 1998, and other banks that were organized in a national network of community banks. E-Dinheiro Institute developed a digital payment platform that is currently used by 48 community banks in 17 Brazilian states. The E-Dinheiro Institute's objective is to provide the economic and social development of neighborhoods and municipalities, training, empowering and implementing instruments of social finance, creative economy, solidarity economy and sustainable development, facilitating the process of generating and distributing work, occupation and income, with local development as a strategy (Apolinário, 2021).

Features of the Arariboia Coin

The objective of the Arariboia is to “foster the economic and social development of communities and establish means to achieve the eradication of poverty and the generation of employment and income for the poorest strata of the municipality” (A Tribuna, 2021). The Arariboia's beneficiaries are also registered in CadÚnico. Each Arariboia unit is equivalent to one unit of the national currency. The initial value of the cash transfer benefit was \$90 Arariboias per person, limited to the number of six benefits granted per family. With this, each person could receive \$90 Arariboias, with the maximum amount established for each family being \$540 Arariboias. The idea is that the value will be corrected once a year based on the inflation of the period (A Tribuna, 2021; Niterói, 2021; Plantão Enfoque, 2021).

The Arariboia is distributed to each beneficiary through a magnetic card and beneficiaries can also transact through the E-Dinheiro Institute app. This distribution is carried out through the Municipal Bank that operates in Social Assistance facilities, such as the Social Assistance Reference Center (CRAS). The Arariboia project envisaged covering the most vulnerable families, registered in CadÚnico. The currency can be used in registered local businesses, such as bakeries, small markets, and small producers, among others (Niterói, 2021; Prefeitura de Niterói, 2021b).

In less than a month, Arariboia injected USD 1,74 million (R\$ 9 million) into the economy of Niterói. There were 130 thousand transactions in 2.400 accredited commercial establishments. Given the initial promising results, the municipality announced that it would expand the Arariboia program to the amount of USD 26 million (R\$ 135 million) per year. By the end of 2021, the municipality had already expanded the beneficiaries base as well. According to the Niterói's mayor, the main objective at that time was strengthening Niterói's economy (A Tribuna, 2021).

In February 2022, Niterói city made the official announcement that it would expand the Arariboia program, and the idea was voted and approved in the municipal parliament. It was proposed that the monthly amount would be increased to \$250 Arariboias for the head of household and another \$90 Arariboias for each member, with a maximum of five additional people. With this, the beneficiary could reach \$700 Arariboias per month if his family has six members. In addition to the change in values, another 4 thousand families were included in the Program, reaching the total of 31 thousand families benefited (O Dia, 2022).

5.2 Agents of Institutional Change

5.2.1 Mumbuca social-municipal currency

With the end of the RBT, the city hall studied solutions to implement a new program. The social-municipal currency of Niterói was inspired by the Mumbuca currency, from the neighboring city of Maricá. During the launch event of Arariboia, the mayors of Maricá, Fabiano Horta, and of Niterói, Axel Graef, highlighted the integration between the social policies of the cities, pointing out that Mumbuca is a reference in improving the conditions of several families and in stimulating the municipality's economy, encouraging the creation of similar projects in other places (Diário do Porto, 2021).

Since 2013, all social benefits in Maricá have been paid in Mumbuca, a socio-municipal currency that is only accepted in local businesses. Part of this set of policies are the Basic Income of Citizenship (Renda Básica da Cidadania, RBC), the Worker Support Program (Programa de Amparo ao Trabalhador, PAT) and the Employment Support Program (Programa de Trabalho ao Emprego, PAE), the formers designed to combat the effects of the Covid-19 pandemic (Diário do Porto, 2021). Between 2018 and 2021, more than 687 thousand mumbucas were transferred to the population by the social programs of the city. However, currency circulation was around 2 billion mumbucas in the same period (Ciscato, 2021).

At the end of 2021, Mumbuca Bank had 65,376 accounts open (90% of the accounts held by women), and 19 million purchases were made per month in the city's shops using the social-municipal currency. In addition to the social benefits paid in mumbucas, the Bank, which manages the social-municipal currency, also provides lines of credit to collective groups. For example, Mumbucred offers financial credit at zero interest to formal and informal entrepreneurs; Casa Melhor directs an interest-free line of credit for home renovations; and other lines of credit were created to help professionals in different areas. Given this successful experience and the freedom that the municipality of Maricá had to face its problems, Niterói is one of the examples, but not the only one. Other cities were also inspired by the case of Maricá, such as the neighboring city of Cabo Frio (Ciscato, 2021).

An important turning point for these cities was the decision of the Federal Supreme Court (STF) to allocate royalties from oil exploration to municipalities. With a positive impact on the budget of these cities, part of the royalties began to be allocated to income transfer programs. However, some cities already had their own CTP in place before receiving the royalties (Gobetti, 2023; Raposo & Faria, 2015; Silva & Pereira, 2023; Tavares, 2022)

At its launch, Arariboia began to serve 27,000 families living in poverty and extreme poverty. A total of 18,700 families that received the PBF were contemplated, and around 8,000 more that would not receive the benefit. The socio-municipal currency could be used in registered local businesses, whether bakery, small markets, hortifrutas and small producers and others, making money circulate within the community itself (Prefeitura de Niterói, 2021c).

5.2.2 E-Dinheiro Institute

As mentioned early, E-Dinheiro is a digital platform for electronic money and mobile payments used by Arariboia and other socio-municipal currencies. The technology of E-Dinheiro was developed by the Rede Brasileira de Bancos Comunitários (Brazilian Network of Community Banks), led by the Banco Palmas. Banco Palmas was founded by citizens moved by the public power to remote areas and without access to infrastructure. Residents realized that the money spent by the locals did not remain in the community and a community bank was founded, which created the Palmas currency. The initiative's pioneering nature and success, translated into local development, allowed the model to serve as an example for other locations in the country and drew the attention of subnational entities that wanted to solve local needs and did not find an answer to their problems in national initiatives. The expertise of Banco Palmas made possible by the bank's experience allowed the initiative to gain scale and scope (Cernev & Diniz, 2020).

In 2007, the Brazilian Network of Community Banks was formalized, which had objectives similar to those of the institute and in 2015, the Network launched E-Dinheiro in partnership with a local startup specialized in digital finance technologies. The initial objective of E-Dinheiro was to digitize Palmas - the CC of Banco Palmas. With the adoption of the platform, the services provided were gradually digitized and new features were added to E-dinheiro. Over time, E-Dinheiro has been adopted by over 40 community development banks in order to digitize their local community currencies. It works as an electronic management system for community banks and as an application or digital wallet (e-wallet) for users (Cernev & Diniz, 2020).

5.2.3 Preventório Community Bank

Preventório (Ferreira, 2018) is a favela located in Niterói. It was formed in the 1980s, mainly through the occupation of part of Morro da Viração, a large stone massif in the Atlantic Forest area facing the sea. The hill is located within the Charitas neighborhood, an upscale area with luxury housing, identified as one of the most expensive areas to live in the state of Rio, and of high interest to the real estate and tourism market. The Preventório Community Bank was founded in response to the challenges faced by the community. The favela had been adversely affected by drug trafficking and lacked access to formal financial services. The creation of the bank provided community members with the means to access microcredit and other financial services, which in turn enabled them to develop their own economic initiatives and strengthen their local economy.

According to Ferreira (2018), the model for the Preventório Community Bank was inspired by the successful Banco Palmas model, and it is a member of the Rede Brasileira de Bancos Comunitários (Brazilian Network of Community Banks). The bank operates its own social currency, the Prevê, and also uses the E-dinheiro platform for transactions. The establishment of the Preventório Community Bank can be seen as a result of a collaboration between the community, the Incubadora de Empreendimentos em Economia Solidária (IEES/UFF), and Enel company, which is a concessionaire of public distribution of electricity services. The IEES was involved in the development of solidary economy projects in collaboration with social movements in Niterói and the surrounding areas. Enel approached IEES to work on community bank projects, which led to the establishment of the Preventório Community Bank.

The bank has played a significant role in the local economy of Preventório, providing community members with access to financial services that were previously unavailable to them. Additionally, it has facilitated the development of local economic initiatives, thus helping to strengthen the local economy. But despite being in Niterói before the institution of the city's CTP, Banco Preventório was not initially included in the policy's implementation design. However, its members participated in public debates about Arariboia and the law that instituted the policy provides for partnerships with local community banks.

5.2.4 Niterói Municipality

The municipality is also an important agent of this change, as it understands that the responsibility for CTPs does not lie only with the federal government, but also with the municipality. The city starts to implement its own policy and ceases to be just an intermediary agent of the national policy. This process appears to be linked with new municipalism, an international social movement that, through the democratic autonomy of local entities, seeks to

change the economy and politics (Thompson, 2021). The new municipalism places the municipality as a central entity of social transformation.

Until the beginning of last decade, the institutional actors of CTPs were, mostly or entirely, national. CC were important financial and social inclusion mechanisms, but on a limited scale and with no direct link to the public sphere. The socio-municipal currencies represent the entrance of a new agent, the municipality, that appropriates the knowledge of the technology generated by the CC to develop CTP at the subnational level.

6. THE INSTITUTIONAL CHANGE IN CASH TRANSFER AND BASIC INCOME PUBLIC POLICIES

6.1 The role of subversives' actors

Upon analyzing the emergence process of Arariboia, it becomes evident that the political context of CTP is characterized by institutional actors with strong veto power. In the context of Brazil's decentralized decision-making systems, municipalities have the autonomy to implement their own policies, and the central state is no longer the sole actor responsible for such policies. This decentralization allows for flexibility and differences in decision-making, whether it be determining tax rates or implementing cash transfer programs. In the case of Niterói, various actors in national and subnational instances are engaging in dialogue to implement their vision of CTP. The Arariboia program was inspired by similar projects in neighboring cities, such as Maricá, in response to the socio-economic crises brought about by the Covid-19 pandemic. This highlights the importance of local actors and their role in shaping the design and implementation of cash transfer programs, as well as the significance of learning from successful initiatives in neighboring areas.

Overall, the emergence of the Arariboia program demonstrates how subnational actors, such as local community banks, grassroots technological organizations, and the local municipality, can act as subversive actors in promoting institutional change. These actors effectively disguise their preference for change by working within the institutional expectations and rules, while simultaneously promoting new rules and policies on the edges of old ones. This can lead to the gradual but significant institutional change that brings about improvements in CTPs.

6.2 The layering institutional change

The emergence of the Arariboia in Niterói represents an example of layering institutional change (Capano, 2019). in the CTP. The program required the creation of a specific municipal law, which established rules for the operation of cash transfers in the city. The use of Arariboia introduces new rules in the municipal CTP that are attached to existing ones. Unlike displacement, which creates wholly new institutions or rules, layering involves amendments, revisions, or additions to existing institutions. This strategy is often pursued when institutional challengers lack the capacity to change the original rules.

The emergence of socio-municipal currencies was made possible through the actions of E-Dinheiro and municipalities, which can be seen as agents of change. They pursued their goals without breaking institutional rules, by running in parallel to the national currency system and establishing their own rules that have not yet been fully established by the Central Bank. Through their success in establishing new municipal banks that operate socio-municipal currencies, they have gained legitimacy and promoted their innovative model. E-Dinheiro works to subvert the system from within by leveraging existing institutional structures while also challenging them. Rather than rejecting the system outright, they seek to transform it from the inside out by introducing new financial models and practices.

6.3 The causal mechanism

The CTP institutional change was the result of key aspects that constituted the learning causal mechanism, leading to a layered institutional change. Firstly, the historical context of CTPs in Brazil and the emergence of Covid-19 played a critical role in triggering the institutional change. CTPs were not new in Brazil, and they were already familiar to the population. However, the Covid-19 pandemic created an urgent need for the implementation of such programs. The government needed to respond quickly to support those affected by the pandemic, and CTPs became a solution. This context provided a favorable environment for the emergence of new cash transfer models, such as the Arariboia currency.

The regulatory change enabled by federal laws was fundamental to allow the observed arrangement. The federal law number 12.865/2013, about payment arrangements, and the federal law number 13.019/2014, that enabled partnerships between the public sector and non-profit civil society organizations, provided a favorable regulatory environment for the emergence of a new cash transfer model. Also, the empowerment of grassroots organizations and the solidarity economy movement contributed to the institutional change. The solidarity economy movement had already gained traction in Brazil, with successful experiences such as community banks. Arariboia was a result of the collaboration between the municipal government and community organizations. The empowerment of these organizations played a critical role in the emergence of Arariboia.

Furthermore, technological innovation was an important aspect that made this change possible. The advancements in digital technologies enabled the creation of digital currencies that could be operated at a larger scale and lower cost, with more control and transparency. Arariboia was created on the E-Dinheiro platform, which leveraged digital technologies to provide a more efficient and transparent cash transfer program. Finally, the role of the municipal government was critical in this institutional change. The intention of the municipality to create a solidarity public policy, along with the support of the municipal parliament, enabled the creation of the municipal law that institutionalized the socio-municipal currency.

Finally, in this context, learning played a significant role in triggering institutional change. According to Falletti & Lynch (2009), actors can learn from relevant political experiences. In this scenario, learning works as the causal mechanism. As we saw, in the Brazilian case, CTPs were initially designed and implemented by local entities and, after the federalization of the policy, gains were observed, but municipalities lost autonomy. Facing these events, and a right-wing federal government that has ceased to exercise its role as policy coordinator, Niterói learned from the examples of community banks, E-Dinheiro, and from its neighbor, Maricá, that implemented a successful CTP. The Mumbuca coin, Maricá's socio-municipal currency, served as a reference for Niterói's Arariboia.

7. CONCLUSION AND FUTURE RESEARCH

CTPs has become an important instrument for poverty alleviation and combating the effects of crises. Among many recent initiatives, socio-municipal currencies are promising tools to operationalize these programs by municipalities. This study has emphasized that the emergence of socio-municipal currencies by municipalities represent an incremental change in CTPs.

We drew on process tracing methodology combined with the theoretical lens of TGIC and conducted a documental analysis and field immersions to explore this issue through the case of Arariboia, in Niterói, Brazil. Our results indicate that the recent emergence of Arariboia stemmed from the long road of community currencies experienced in Brazil and the success of the Mumbuca coin, in the neighboring city of Maricá. Despite the influence of prior success cases, Niterói creates its own rules through a municipal law to implement Arariboia. This indicates that actors in the political context do not have a strong veto capacity but opens space for the institutionalization of socio-municipal currencies by municipalities. Also, our study indicates that the E-Dinheiro Institute is an important actor in the institutional change of CTPs, as they established an alternative cash transfer solution and articulated that with the municipalities.

In sum, our work contributes to the literature on CTPs by showing an institutional change in the design and distribution channels of the programs. Also, by describing the emergence of socio-municipal currencies phenomenon, we empirically contribute to expanding the work of Gonzalez et al. (2020) on EBI and CTPs.

Socio-municipal currencies are adopted to allow wealth to be distributed and recirculated locally. This movement seems to be associated with new municipalism. More in-depth studies on how socio-municipal currencies fit into new municipalism are needed. Also, future research can perform a cross-case analysis to identify relationships and differences between socio-municipal currencies. Finally, Niterói's original project is to build a solidarity economy. However, this is not yet fully realized. Studies that seek to understand this process are necessary.

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DIMENSIONS OF ORGANIZATIONAL RESILIENCE IN A LOCAL CURRENCY ASSOCIATION: AN ANALYSIS BASED ON THE FLORAIN DURING THE FIRST COVID- 19 LOCKDOWN

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ABSTRACT

In this paper, we investigate the dimensions of organizational resilience of a French local currency management association in the face of a shock. Our study focuses on the local currency of the Nancy area, the Florain, which suffered a sudden halt of exchanges during the first lockdown due to the Covid-19 pandemic (March 17, 2020 to May 11, 2020). We highlight that, like other organizations, the organizational resilience of the Florain's management association stems from dimensions linked to its structure. However, we must add a territorial dimension specific to local currencies, which relates to the relations that the management association maintains with the geographical and political territory in which the local currency circulates.

KEYWORDS

Local currency, Covid-19, lockdown, organizational resilience, analysis grid, territory, catchment area.

1. INTRODUCTION

The singularity of the crisis linked to Covid-19 is not so much that it is a major economic and social crisis (Heyer and Timbeau, 2020) following a global health crisis, but rather that it results from the will of governments to stop part of the production in the name of the higher interest of human life. In this way, the economist's conceptual tools for analyzing the effects of an economic crisis on organizations (companies, associations, territories, national economy, etc.) are difficult to use as they stand (Boyer, 2020). The effects of the first lockdown are very different according to the French regions, the sectors of activity (Guerini, Nesta, Ragot and Schiavo, 2020) and the types of organizations (administrations, SMEs, large companies, associations). Emerging from this Covid-19 recession therefore depends on the resilience of organizations and, in particular, of the associations that are the subject of this article.

The ability of organizations to react and overcome this new kind of economic crisis invites us to mobilize the psychological concept of individual resilience (Cyrułnik and Jorland, 2012), and to extend it to organizations. Weick (1993) defines the resilience of a smokejumpers team, mobilized during the famous Mann Gulch fire, as its ability to maintain a system of organized actions in the face of an unusual or dangerous situation, where the individuals in the organization lose their bearings and are consequently unable to make sense of events. Weick and Sutcliffe (2007) analyzed the fundamental principles that high reliability organizations (hospital emergency rooms, nuclear power plants...) must implement to anticipate crises and react effectively to any unforeseen event. Bégin and Chabaud (2010) continue the path opened by Weick and Sutcliffe (2007) by analyzing the organizational resilience of a family business in three closely interrelated stages: the ability to absorb the shock, the ability to create new solutions, and the ability to learn from shocks.

According to Lengnick-Hall and Beck (2009), organizational resilience is characterized by its multidimensionality. We propose to classify them into four main dimensions: reflexive (learning from the crisis, reflection on the context...), communicative (interactions between members, public announcements...), creative (implementation of solutions to overcome the crisis), and organizational (members' responsibilities, governance...). In the case where it is difficult to directly analyze the dimensions of an organization's resilience, the analysis grid of Bégin and Chabaud (2010) can be a very rich operational tool for bringing out the underlying dimensions of organizational resilience, regardless of the nature of the organization (government agencies, SMEs, large companies, associations).

We will therefore use it to study the dimensions of organizational resilience in an association that manages a local currency, since to our knowledge no such work has yet been done. We will take as our starting point the first lockdown in France (March 17, 2020 to May 11, 2020), which was a shock for the Florain, a local currency in the Nancy area created in 2017. Indeed, as the Florain only exists in paper form for the time being, the lockdown has de facto blocked its circulation, insofar as the closure of shops except for essential goods has not only deprived users of places to buy, but also of exchange counters allowing the replenishment of bills. This was particularly detrimental at this time of year, as spring is very conducive to shopping trips after the long winter in this French region characterized by a continental climate.

Our article therefore proposes to analyze the main dimensions of the organizational resilience of the Florain management association on the basis of a field survey conducted before the pandemic, three interviews conducted between the first and second lockdown, observations and figures obtained during the participation in the association's general assembly and publications found on the structure's blog. It is divided into three parts. In the first part, we will define organizational resilience and outline the main dimensions. Then, we will present our field of study, the Florain, our survey, and the interviews conducted. Finally, we will go through the three stages of the organizational resilience of the Florain's management association to highlight the dimensions of its organizational resilience linked to its structure and the importance of a territorial dimension specific to local currencies.

2. THE RESILIENCE OF AN ORGANIZATION

The capacity of organizations to react and overcome a shock invites us to mobilize the concept of organizational resilience, whose contours and dimensions we will define.

2.1 From individual resilience to organizational resilience

Resilience is a term that comes from the Latin “resilientia” (to bounce back, to rebound), which in the physical sciences in the 19th century referred to the ability of a material to withstand shocks. This physical phenomenon was then used as a “metaphor to illustrate the idea that a human being can resist a trauma, hold on and start again” (Cyrulnik and Jorland, 2012, p.8). This concept originally related to the individual was later extended to the organization, understood as “the rational coordination of the activities of a number of people for the achievement of a common explicit goal, via a division of labor and a hierarchy of authority and responsibility” (Schein, 1970). Since then, this concept of resilience has been applied to various cases: firefighting teams (Weick, 1993), high reliability organizations (Weick and Sutcliffe, 2007), companies (Bégin and Chabaud, 2010), etc.

For Weick (1993, p. 628), the resilience of an organization can be seen as the capacity to maintain a system of organized actions in the face of an unusual or dangerous situation, where the individuals in the organization lose their bearings and are consequently unable to make sense of events (“disruptions of sensemaking”). For Weick and Sutcliffe (2007), organizational resilience consists of three capacities: absorbing a shock to keep working, bouncing back and learning from the crisis. Generally speaking, Pinel (2009, p. 71) defines organizational resilience as the “capacity to maintain or restore an acceptable level of functioning despite perturbations or failures”. However, Somers (2009) points out that organizational resilience is not only about surviving a shock and then bouncing back. It is also about identifying potential risks so that the organization can take the necessary steps to respond and adapt to them.

2.2 Four main dimensions of organizational resilience

Using the same definition as Pinel (2009), Robert (2010) considers that organizational resilience can be analyzed on the basis of three dimensions: the role (technical, administrative or regulatory) played by each functional unit of the organization, the characterization of the organization's reference state and acceptable perturbations, and finally the organization's ability to adapt its management modes when perturbations occur. Lengnick-Hall and Beck (2009, p. 40) point out that the resilience capacity is “a multidimensional, organizational attribute that enables a firm to effectively absorb, respond to and potentially capitalize on disruptive surprises”.

Sometimes it is not easy to bring out and analyze directly the dimensions of an organization's resilience. In this case, the analysis grid of Bégin and Chabaud (2010) can be a very rich operational tool for bringing out the underlying dimensions of resilience by analyzing organizational resilience in three closely interrelated stages: the ability to absorb the shock, the ability to create new solutions, and the ability to learn from shocks. The first refers to the organization's ability to avoid collapse in the face of shock, which requires the management team to clearly display its willingness to fight for the survival of the organization and to make effective use of resources (human, technical, financial...). The second is the organization's ability to renew itself in the face of an unusual and uncertain situation, which implies rethinking its operations, inventing new activities or new ways of doing things, etc. Indeed, it is not a matter of systematically opposing any change concerning certain parts of the organization, which might for example no longer be adapted to the current socio-economic situation or simply have been deficient for a long time. By highlighting the weaknesses of the organization, the shock can be beneficial. The last stage is the learning capacity, i.e., the organization must be able to learn from shocks and draw lessons for the future, to be able to respond more effectively to a future shock.

After reviewing the literature, we infer that organizational resilience is made up of many factors: reflection on the context, members' responsibilities, governance, capacity to deploy resources, capacity to implement solutions to overcome the crisis, etc. So, we propose to classify them into four main dimensions as shown in Figure 1. The first dimension, the reflexive dimension, refers to all the reflections within the organization (before or after the crisis) to make it more resilient to shocks: learning from past shocks, learning from mistakes, preventing future crises. The second, the communicative dimension, mainly concerns the communication between members during the crisis and the public announcements that are made. The creative dimension is related to the organization's ability to renew itself in the face of a shock and to implement new solutions to overcome the crisis. The last dimension, the organizational dimension, essentially refers to the efficient use of resources (human, technical, financial...), to the responsibilities of each member of the organization and to governance.

These different dimensions are complementary to each other, in that they affect various aspects of the organization: governance, communication between members, etc. This is why we argue that organizational resilience is stronger when the number of dimensions is large.

Figure 1: Four main dimensions of organizational resilience. Source: Author.

Reflexive dimension	Communicative dimension	Creative dimension	Organizational dimension
<ul style="list-style-type: none"> • learning from the crisis, reflection on the context... 	<ul style="list-style-type: none"> • interactions between members, public announcements... 	<ul style="list-style-type: none"> • implementation of solutions to overcome the crisis... 	<ul style="list-style-type: none"> • members' responsibilities, reference state, governance...

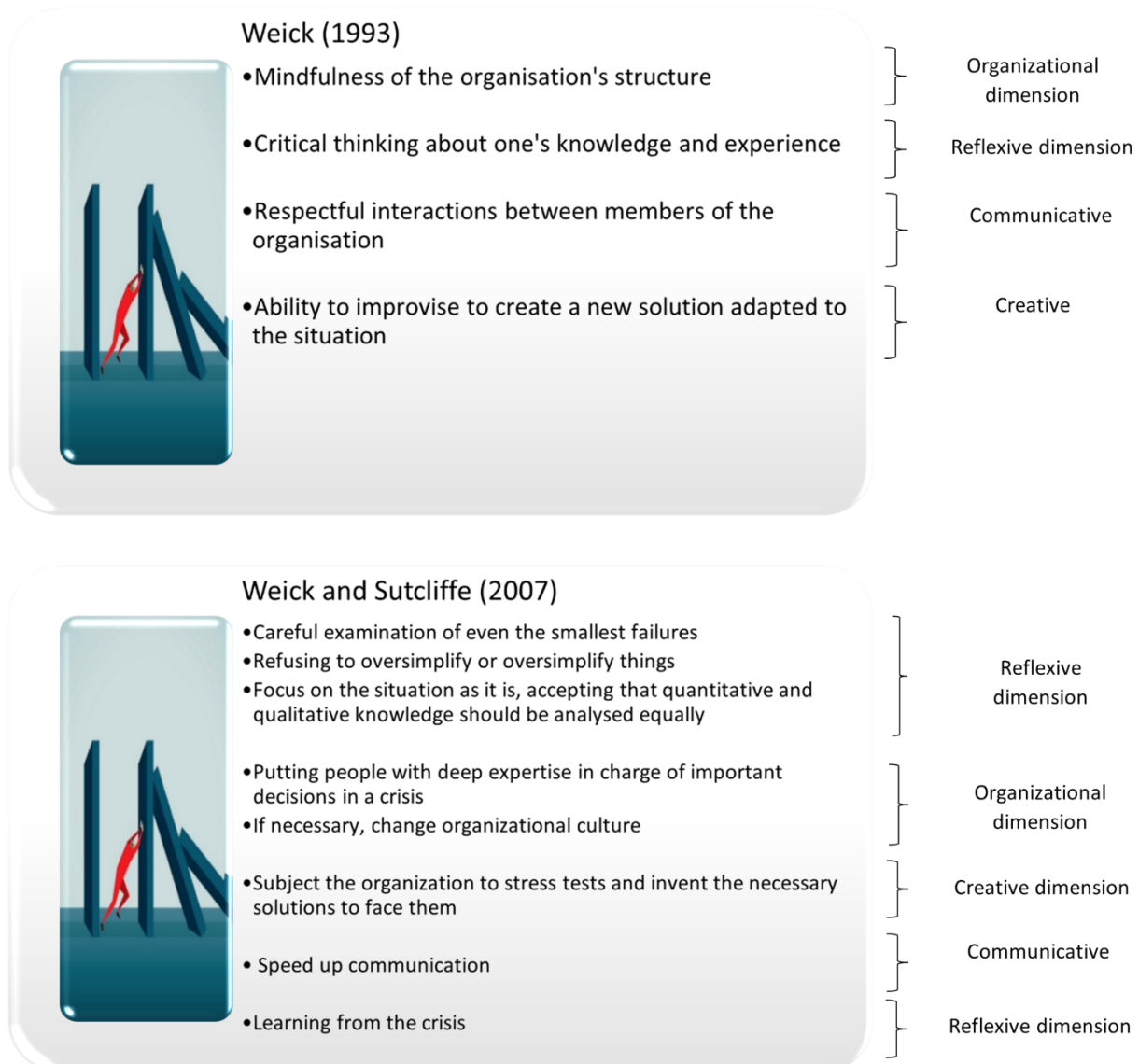
2.3 Analysis of the dimensions of organizational resilience: case studies

For Weick (1993), when the individuals in the organization lose their bearings and are consequently unable to make sense of events, this leads to a breakdown in communication between members of the organization during the crisis. However, in this context, the lack of communication prevents them from correctly anticipating the consequences of their actions. To avoid this situation, Weick puts forward four principles that should allow the organization to continue its activities despite the crisis. First, each member of the organization must keep the structure of the organization in mind, so that everyone is in his or her role and at his or her position under all circumstances (organizational dimension). In addition, they must adopt an attitude of wisdom, which consists of keeping a critical mind with regard to their acquired knowledge and experience or else they will misinterpret the information gathered from the current environment (reflexive dimension). In addition, interactions between members of an organization must be respectful to create a climate of trust (communicative dimension). Finally, in the face of a shock, improvisation or tinkering with a new solution adapted to the situation can be indispensable (creative dimension).

In studying high-reliability organizations (hospital emergency rooms, nuclear power plants, etc.), which regularly have to deal with unusual situations, Weick and Sutcliffe (2007) put forward some fundamental principles implemented by these organizations to respond effectively to any unexpected event: Carefully examine even the smallest failures; refuse to oversimplify or to oversimplify too quickly, to be sure that crucial data useful for problem solving are not missed; stay focused on the situation as it is, accepting equal analysis of quantitative and qualitative knowledge; after the crisis has passed, learn from it, keeping in mind that an organization must continually adapt to changing circumstances and create new solutions; and assign responsibility for important decisions during a crisis to individuals with deep expertise. While the first three principles relate to anticipating crises, the last two relate to the organization's reactions once a crisis has occurred, i.e., resilience itself, which the authors define as a set of three capabilities: absorbing the shock, bouncing back, and finally learning from the crisis.

These two case studies clearly highlight the four main dimensions of organizational resilience as shown in Figure 2:

Figure 2: The four main dimensions of organizational resilience in the two case studies of Weick (1993) and Weick & Sutcliffe (2007). Source: Synthesis of Weick (1993), Weick and Sutcliffe (2007).



Now, let's see how the analysis grid of Bégin and Chabaud (2010) is a relevant tool for bringing out the underlying dimensions of resilience of a family business and a meta-organization of the social and solidarity economy.

Firstly, Bégin and Chabaud (2010) apply their analytical framework to the case of a family business founded in 1826 in Le Havre, which faced three major shocks during its existence, including a collapse of its main market. The company had diversified into coffee trading, at a time when multinational food companies were beginning to cut out intermediaries. This led to a continuous collapse of margins and many years with a negative result. But the company showed remarkable organizational resilience.

First of all, the authors show that the company was able to absorb this shock by mobilizing its financial (reserves and assets) and reputational assets, to obtain the funds necessary to continue the activity. The managers clearly demonstrated their determination to overcome this ordeal and were able to count on the support of the family shareholders. Secondly, the company was able to renew itself in time, insofar as even before the decline of its market it had chosen to diversify and therefore accelerated in this direction once the crisis had started. The authors show that the company was able to create a network allowing it to obtain regular and precise information on the state of

the market. This is combined with an increase in business relationships with trusted individuals who share common values and are therefore able to contribute to renewing the business while respecting the integrity of the founders' business plan. Finally, even if the learning stage of resilience is more difficult to highlight because of the time it requires, the authors show that it materializes among the members of the board of directors through a critical memory of the events and sequences following the shock.

In any case, their study shows that the resilience of this family business is based on the following dimensions: communicative (willingness to overcome the crisis, support of the family shareholders), creative (creation of an information network, implementation of solutions to overcome the crisis, commercial diversification, multiplication of business relationships with trusted people), organizational (Mobilizing financial and reputational assets, support of the family shareholders), and reflexive (learning from the crisis, critical memory of the events).

Based on the work of Weick (1993) and Bégin and Chabaud (2010), Lapoutte (2020) looked at the resilience of a meta-organization of the social and solidarity economy, i.e., an organization whose members are organizations. The CLAD (Conseil Lyonnais de l'Alimentation Durable) brings together some twenty sustainable food actors from the social and solidarity economy, researchers and representatives of the city of Lyon. The author analyzes the three stages of CLAD's organizational resilience in the face of the shock of the end of the European program, which provided a large part of the organization's funding. First, the organization turned to its partners, primarily the city of Lyon, for financial and human support, then to a member organization. The second step consisted a rapid diversification of activities, which mainly involved carrying out more concrete actions, for example promoting sustainable food (preparation and tasting of a meal, elaboration of recipes with the inhabitants of a district...). Finally, the learning stage of resilience is, according to the author, still in progress: "Collective learning and knowledge transfer have hardly been observed".

Thus, we see in this study the communicative (discussions among members about what strategy to pursue, promotion of sustainable food), organizational (appealing to partners and member organizations for financial and human support), and creative (diversifying activities) dimensions of resilience. The reflexive dimension remained ongoing at the time of the study.

The table below summarizes the dimensions of organizational resilience for the different case studies:

Figure 3: Table of the dimensions of organizational resilience for the different case studies. Source: Synthesis of Weick (1993), Weick and Sutcliffe (2007), Bégin and Chabaud (2010), Lapoutte (2020).

	Reflexive dimension	Communicative dimension	Creative dimension	Organizational dimension
Weick (1993)	-Critical thinking about one's knowledge and experience	-Respectful interactions between members of the organization	-Ability to improve to create a new solution adapted to the situation	-Mindfulness of the organization's structure
Weick and Sutcliffe (2007)	-Careful examination of even the smallest failures -Refusing to oversimplify or oversimplify things -Focus on the situation as it is, accepting that quantitative and qualitative knowledge should be analyzed equally - Learning from the crisis	-Speed up communication	-Subject the organization to stress tests and invent the necessary solutions to face them	-Putting people with deep expertise in charge of important decisions in a crisis -If necessary, change organizational culture

<p>Bégin and Chabaud (2010)</p>	<p>-Critical memory of the events -Learning from the crisis</p>	<p>-Support of the family shareholders -Willingness to overcome the crisis</p>	<p>-Commercial diversification -Creation of a network to obtain regular and precise information on the state of the market -Increase of business relationships with trusted individuals who share common values</p>	<p>-Mobilizing financial (reserves and assets) and reputational assets -Support of the family shareholders</p>
<p>Lapoutte (2020)</p>	<p>x</p>	<p>-Discussions among members about what strategy to pursue -Promotion of sustainable food</p>	<p>-Diversifying activities</p>	<p>-Appealing to partners and member organizations for financial and human support</p>

Insofar as the association that manages a local currency very often has one or more employees, it is both an association (very often under the 1901 law in France) and a company (Labour Code), to the point that it is preferable to speak of an “associative company” (Hély, 2004). We will therefore use the analysis grid proposed by Bégin and Chabaud (2010), which seems to us to be the relevant tool for highlighting the underlying dimensions of the Florain’s organizational resilience.

3. A LOCAL CURRENCY IN THE GRAND EST REGION: THE FLORAIN

The law of July 31, 2014, relating to the SSE gave a legal framework to local currencies in France, defining them as payment instruments that are complementary to the official currency, which can only circulate in a restricted geographical area and concern a limited number of goods and services. Given their complementary nature, they seek above all to change consumption patterns, by promoting local and ethical dimensions.

3.1 A local associative currency

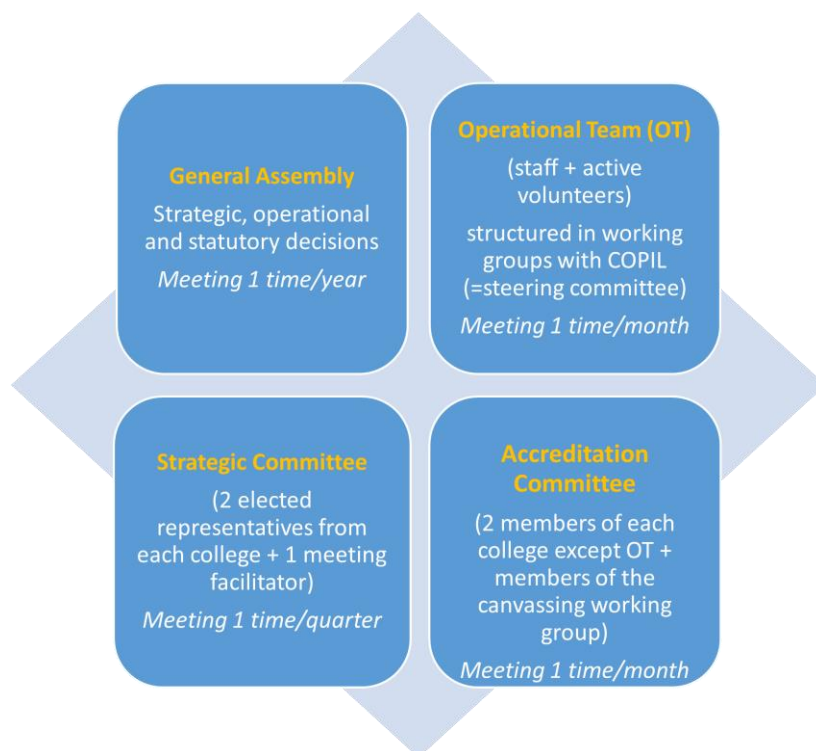
After a two-year period of maturation of the project, during which participatory meetings were multiplied to decide, among other things, on the governance of the association, the name of the local currency, and the charter of values, the Florain was officially put into circulation in October 2017. In accordance with the law, an association (law of 1901 in France), whose sole purpose is the management of the Florain, which circulates according to the statutes revised in 2020 on a now enlarged basin: “the areas of life of Nancy and Barrois”. The association is made up of associate members (individuals, businesses who accept the Florain as payment for their products or services) and non-adherent members (ex officio members) who are local authorities, financial backers contributing to the project, partner organizations or any other organization designated by the steering committee. The association considers as active members the employee, the possible interns and civic services, as well as the active volunteers. In total, there are about 25 very involved people who contribute to the smooth running of the association. Until 2019, Florain has seen a continuous increase in the number of members (individuals and professionals) and in the amount of money in circulation. At the end of 2019, the association managing the local currency announced 102,000 florains in circulation, only in paper form, 12 exchange counters, 195 businesses in the network and 531 individual members.

From the first thoughts in 2015 about creating a local currency, sociocratic governance emerged as a way to manage what would become the Florain, insofar as it is, to paraphrase Parker et al. (2014) “a system which proposes organizational answers to political questions”. Sociocracy is conceived as “decision-making and governance method that allows an organization to manage itself as an organic whole”: instead of being in the hands of a board of directors, power is under “the organization as a whole” (Buck and Endenburg, 2004). In other words, sociocracy appears as a management device (Moisdon, 1997), which can simultaneously satisfy the needs of organizational efficiency and self-expression of the members of the organization. It is based on four fundamental rules (Romme, 1995): organization in circles, consent, election without candidates, and the double link.

The circle is a functional working group, which pursues a clearly defined goal and self-organizes as a subsystem of the whole. The circle therefore has a semi-autonomy, which makes it the time-space of strategic decision-making based on the equivalence of the participants: a circle holds regular meetings where decisions are made about orientation, means to be implemented, and measurement of results; this triple process of orientation-execution-measurement allows the system to self-regulate (Carbonnel and Didier, 2020). When it comes to choosing a person from the circle to take on a particular role (meeting secretary, representative to another circle, etc.), an election without a candidate is planned (Buck and Endenburg, 2004). The most important decisions, i.e., those that affect the functioning of the organization in any way, are made by consent: this means that a decision is adopted if there are no objections based on valid arguments, which is the theoretical guarantee of the equivalence of all participants in the decision-making process. Finally, to articulate the circles between them and to obtain governance, sociocracy foresees that at least two people of a circle are members of the circle to which they are connected. In practice, each circle has, among others, one person designated by consent as a representative of the other circle and a leader of that other circle as a member. This dual linkage between circles is intended to ensure the equivalence of information and power flows at all levels of the organization, while promoting feedback loops within the organization.

In the case of Florain, sociocratic governance is composed of five colleges, with one person belonging to only one college: the college of the operational team, the college of businesses, the college of users, the college of guarantors of the charter, and the college of partners. The colleges designate the members who will represent them in the strategic committee and in the accreditation commission (figure 4):

Figure 4: Florain's governance. Source: Author based on Florain statutes.



3.2 Survey and interviews

At the beginning of 2019, the Florain's management association agreed that we conduct a survey among the Florain's users. We thus prepared a questionnaire in three parts with the objective of recovering usable data on many fields: the uses of the Florain (9 questions), the perception of the Florain (5 questions maximum), and the users of the Florain (11 questions maximum). While many of the questions classically asked respondents to choose from among several proposed answers, others offered them the possibility of expressing themselves freely through a text or of classifying words that come to mind when the concept of money is mentioned. Since we had several questions related to the same subject, we tried to group them together as much as possible in a table, for which it was proposed to choose a nuanced answer ranked between 1 and 5. We improved the questionnaire by submitting it in advance to the association's steering committee, to obtain their comments, criticisms, and proposals for improvement. The complete questionnaire was then programmed on the LimeSurvey software, which provides the necessary tools to anonymously process the answers to the different types of questions and to generate a link in the communication plan.

The survey took place between July 16 and October 1, 2019, with a follow-up by newsletter and Facebook twice in September 2019. Owing to the absence of an updated email address file, the steering committee suggested that we send the link of the questionnaire to all supporters, first through a mention in the newsletter concomitantly with a publication on their Facebook page, and finally through an article on their blog. Altogether, 87 people answered the questionnaire in part or in full, but only 65 declared themselves to be members of Florain for the year 2019 and five did not even answer this question. Of the 65 people who declared themselves members of the Florain in 2019, 57 answered all of the questions submitted to them. The association told us that as of December 31, 2019, the Florain has 531 individual members. In doing so, since we do not know their number at the end of the survey on October 1, 2019, we calculated the lower bound of the response rate (Figure 5), which in any case seems close to that obtained by Fare (2011):

Figure 5: Lower bound of the response rate. Source: Survey on Florain by the author.

	<i>Number of respondents</i>	<i>Lower bound of the response rate</i>
<i>Total respondents with or without membership</i>	87	$87 / 531 \approx 16,4 \%$
<i>Total respondents who are members 2019</i>	65	$65 / 531 \approx 12,2 \%$
<i>Complete answers members 2019</i>	57	$57 / 531 \approx 10,7 \%$

The following analysis is thus based on the 57 complete responses. The survey will be used to analyze the association's governance, which has remained largely unchanged since the Covid-19 crisis, but played a major role in organizational resilience during the pandemic. In addition to this survey, to explore all the dimensions of resilience, we have three semi-directive interviews (two with different founding members who are still active volunteers, designated by Nathan and Michel, and one with the employee) conducted between the first and second lockdowns, i.e., between May 12 and October 30, 2020, publications on the association's blog and the minutes of the association's general assembly that we attended on February 14, 2021 (the general assembly gave an initial assessment of the shock suffered and future projects).

4. THE RESILIENCE OF THE FLORAIN MANAGEMENT ASSOCIATION

Le Florain suffered a shock during the first lockdown, which resulted in the impossibility of practicing exchanges during a very favorable period of the year, spring. In this section, we will apply the analysis grid developed by Bégin and Chabaud (2010) to the association managing Le Florain, to highlight the dimensions of its organizational resilience linked to its structure and to highlight the importance of a territorial dimension specific to local currencies.

4.1 Three steps of organizational resilience of the Florain and its dimensions

Even though some businesses tried to continue their activity during this period, purchases in florains were made very difficult, as the lockdown blocked the supply of currency exchange counters and thus the possibility of converting euros into florains, only existed in paper form. Moreover, as the association's employee told us, "We could not ask the volunteers to take risks to deliver the bills, or even to disinfect them".

Faced with this unpredictable shock, the association first demonstrated a great capacity for absorption, which is the first step in its resilience. Its sociocratic governance allowed each member, during and after the first lockdown, to keep in mind the association's functioning structure, to cooperate, to communicate, and to give meaning to the events ("sensemaking" according to Weick (1993)). As a result, important decisions concerning the daily management of the association could be taken quickly, since each person in the operational team knew perfectly well the role they had to play. In particular, the decision to put the employee on short-time work was made in less than two weeks and the employee agreed to continue working a few hours a week to coordinate the work of the volunteers and update the association's administrative documents. Here we see the organizational and communicative dimensions of organizational resilience.

Although users of a local currency are not obliged to get involved in the operation of the system, their feeling of belonging to a local monetary community (Figure 6) is, in our opinion, a strong bond that contributes to the association's resilience in the face of this shock, in its organizational dimension. Indeed, for them, it is a matter of pursuing an ideal based on strong shared values, even when it has become impossible to use the local currency. This was confirmed to us by a founding member (Nathan): "The crisis has not diminished our desire to continue to develop the Florain; on the contrary, it reinforces our observation that the local currency is useful in moving towards another system, based on the values that unite us in the group".

Figure 6: Florain users' sense of belonging to a monetary community. Source: Survey on Florain by the author.

Survey Question 10 - On a scale of 1 to 5 (1 strongly disagree, 5 strongly agree), you would say: by using Florain, I feel part of a community.

1	2	3	4	5
5,26 %	5,26 %	19,30 %	31,58 %	38,60 %

As for the second step of resilience, the association has undoubtedly been able to create new solutions. During the lockdown, the members found themselves isolated in their homes, even though the Florain has always wanted to be a convivial association, both in the common sense of pleasant relations among the members of a group, and in the sense given to it by Illich (1973), i.e., the capacity of a structure to be at the service of human beings and even to be on their scale. To remedy this, the volunteers made an effort to contact the businesses by phone at first, to maintain the link, but it is the use of digital communication tools (Zoom, Jitsi...), once mastered by the majority, that allowed to find the conviviality through regular contacts. This has allowed not only to implement click and collect solutions, but also to continue the work of the association's steering bodies from a distance. This usage was extended after the first lockdown, leading to a mix of remote and face-to-face communications/meetings.

We see an interesting combination of the communicative (use of digital tools for meetings) and creative dimensions of resilience (implementation of click and collect), dimensions that were all the better implemented because the active members showed great adaptability (organizational dimension). Indeed, the development of new solutions necessarily goes hand in hand with the adaptability of the active members to this new context, insofar as they are the ones who keep the association alive. In this regard, another member of the operational team (Michel) confided to us that "Florain's resilience has been possible thanks to the unfailing commitment of active volunteers". According to him, this commitment was due to the fact that the association has allowed them to express their skills effectively till now, which makes them more willing to accept possible changes resulting from a crisis, thus contributing to the resilience of the association. These changes are all the more accepted because they are discussed in the different governance circles where everyone has the opportunity to express themselves according to the principle of

equivalence of individuals in sociocracy (Romme, 1995). In the end, each Florain volunteer has a proven autonomy within his or her circle, so that, as a whole, they declare that they do within the association what they wanted to do when they joined it. This genuine satisfaction in terms of real individual freedoms within the association is reminiscent of the notion of “capability” developed by Sen (1993).

Finally, the appropriation stage of resilience was quickly implemented, as soon as the first lockdown ended, as evidenced by an article published on the Florain blog by one of the members of the operational team, the first and last words of which are very clear: “This lockdown has had a real impact on the activity of our association and we have put a lot of energy into finding answers to the questions that the period has generated. [...] And we will have to work twice as hard to convince people that the Florain, like all the other complementary local currencies, is one of the solutions to the coming crises”. Moreover, during the general assembly of the association, on February 14, 2021, a first assessment was made of the shock suffered, of the solutions brought, and of the means to face another shock of this type. The second lockdown in France (October 30 to December 15, 2020), admittedly less strict than the first one since many businesses remained open, was thus overcome without a hitch by the association, which testifies to the importance of the reflective dimension of resilience. On the other hand, the active volunteer Michel pointed out to us that “the dematerialization of money would have served us well during this crisis”, the shock suffered by the association resulting, as we have seen, essentially from the impossibility of using the paper form. This project is in the process of being completed in the fall of 2022.

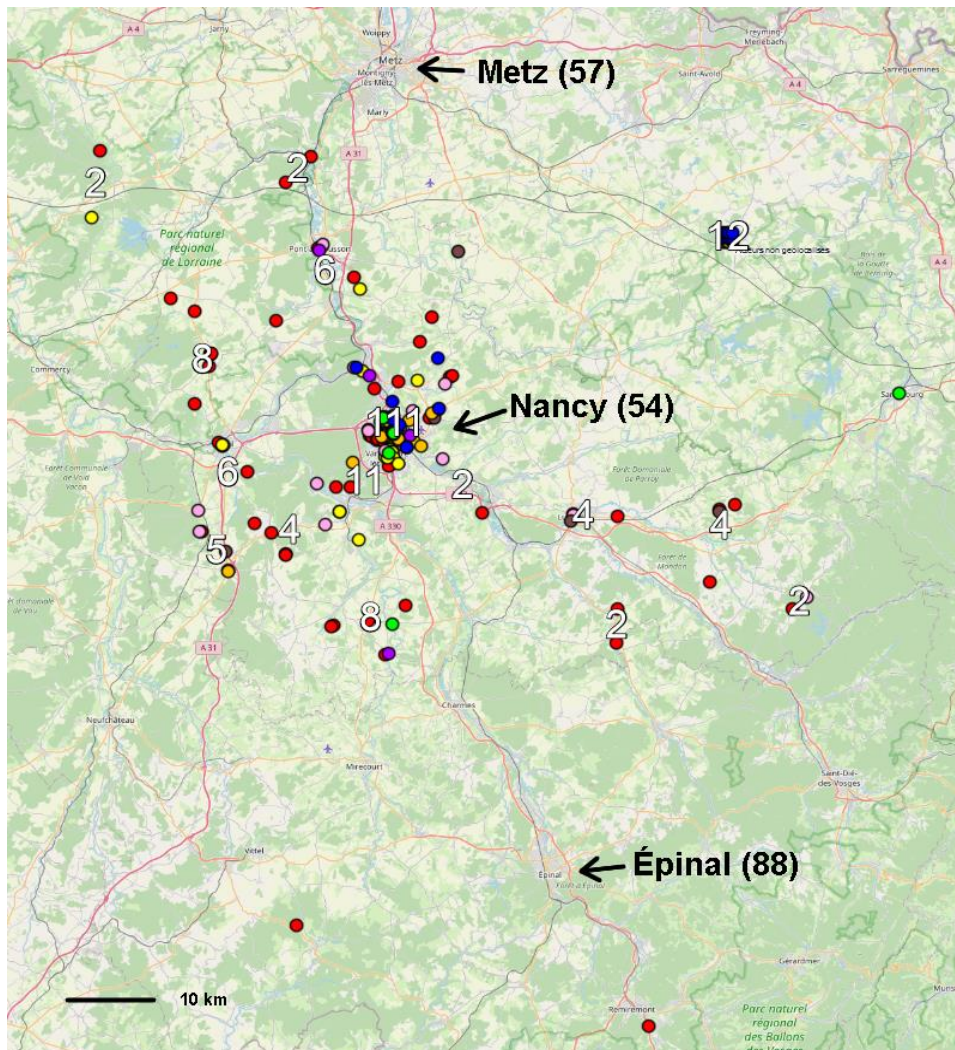
We have demonstrated that the association managing Le Florain went through the three stages of organizational resilience: absorbing the shock, creating new solutions, and learning from shocks. We have also seen that the association's organizational resilience is based on four dimensions: reflexive, communicative, creative and organizational. This suggests that the organizational resilience of the Florain's management association was stronger than other SSE structures with fewer dimensions. Moreover, it is important to note that the reflective dimension was not implemented only after the lockdown (reflection on the crisis), but also before during the meetings of the strategic committee, which in addition to being in charge of the strategic follow-up of the association's projects also reflects on the major orientations. This demonstrates a willingness to anticipate crises, which contributes to organizational resilience.

4.2 The territorial dimension of Florain's resilience

It is true that the organizational resilience of the Florain management association has dimensions similar to those of other organizations. However, in our opinion, its organizational resilience has an additional dimension, linked to the association's relationship with the geographical and political territory in which the local currency circulates. Indeed, according to Article 16 of the 2014 French SSE law, a local currency only concerns a reduced number of goods and services, and can only circulate in a restricted geographical area, which implies from the outset a spatial proximity between members. Some thinkers of local currency, like Lepesant (2012), wonder whether it would be better to speak of “territorial currency”, recalling that “a catchment area is a social and political construction rather than a geographically defined ‘location’”. This concept of catchment area—sometimes referred to as a living area—seems to us to be relevant in describing the way in which a local currency takes on its territory socially, transforms it, and in return accepts that it must adapt to it.

Regarding the Florain, our survey shows that users have a strong feeling of contributing to the development of the former French administrative region called Lorraine with this local currency (Lorraine was composed of 4 departments: Moselle [57], Meurthe-et-Moselle [54], Meuse [55] and Vosges [88]), even though the majority of businesses in 2019 and 2020 were located within a 40 km radius of the city of Nancy, the biggest town of the department of Meurthe-et-Moselle (figure 7):

Figure 7: Territory of the Florain's businesses (November 2020). Source: <https://www.monnaielocalenancy.fr/#map-section> - map completed with scale and geographical annotations.



The deep attachment of the users to the catchment area is evident in the charter of values (“Relocate the economy by supporting local businesses to boost employment”), as well as in the publications of the association in the media (blog, Facebook, interviews in the regional press...) and in our interviews conducted before the pandemic (“Let’s think local, let’s think Florain!” said Corinne, a volunteer). This attachment constitutes, in our opinion, an important element of the resilience of the association managing the Florain, insofar as it allows a strong identification between the association and its territory, according to a formula used by a participant at the general assembly of 2021: “Helping the Florain is helping the territory”. This form of attachment to the territory can also be found in other local currencies, such as the Eusko, the local currency of the French Basque Country, which places the development of the territory and even the preservation of the Basque language among its objectives (Edme-Sanjurjo, Fois-Duclerc, Lung, Milanesi and Pinos, 2020). The national survey conducted in France by Blanc, Fare, and Lafuente-Sampietro (2020) shows that local currencies circulate in both rural and urban areas, reflecting a general willingness to develop complementarities and synergies between the different territories that make up their catchment areas.

Their survey also shows that 90% of the French local currencies responding maintain at least one relationship with another actor in the territory, essentially with structures that are part of the transition or with local associations (culture, organic agriculture, short circuits, participatory housing, third places, etc.). This is the case of Le Florain, which maintains relationships with ecological and cultural organizations, which are not necessarily members. These are all opportunities to build a network of links between individuals from these organizations whose values

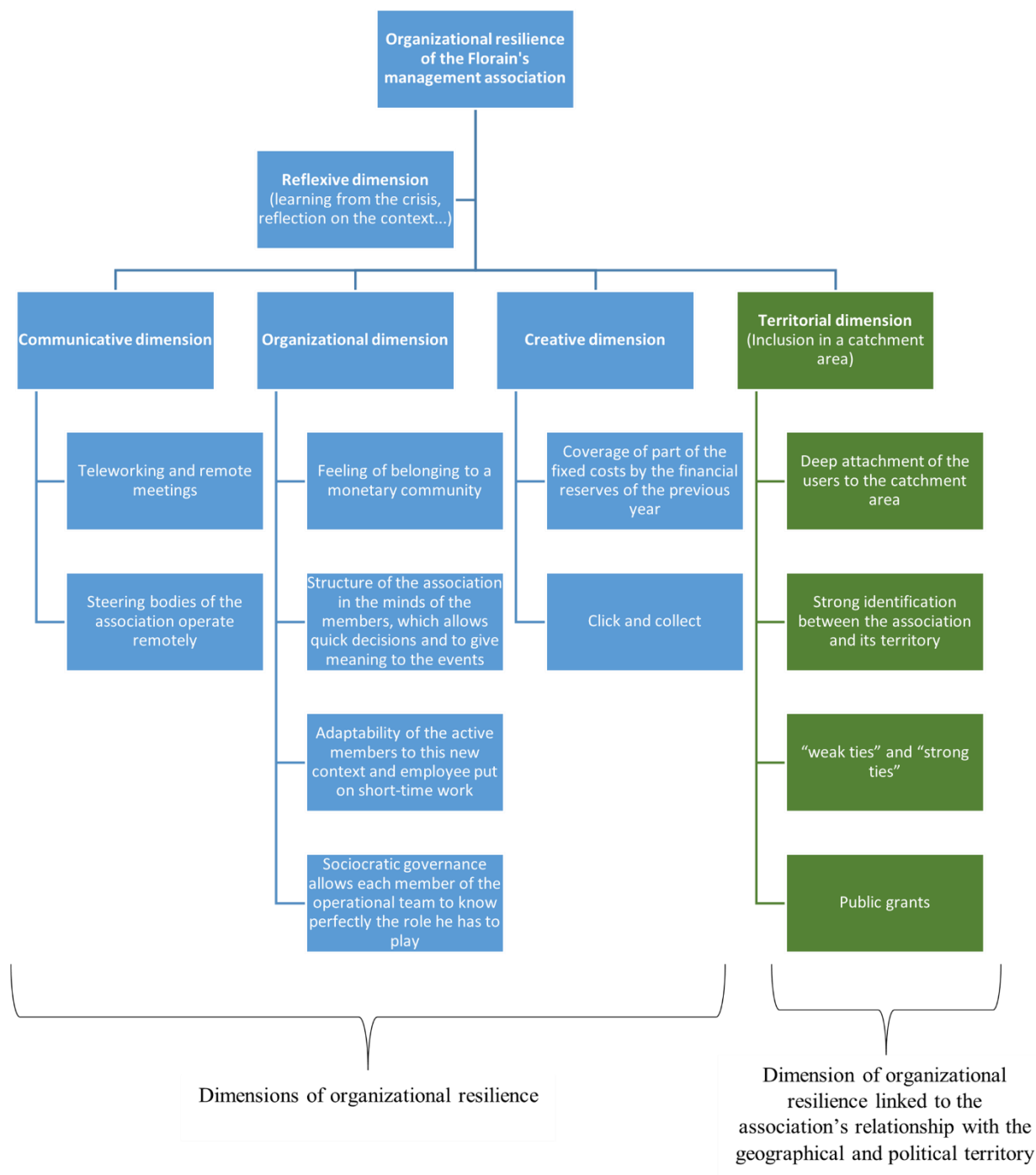
are certainly compatible, but not necessarily identical. These ties may be characterized by a low frequency of contact, a very relative emotional intensity, and a very limited intimacy between people, which Granovetter (1973) describes as “weak ties” as opposed to the “strong ties” associated with people with whom one lives and works regularly. However, Granovetter (1973) shows that the particularity of these weak ties is precisely that they serve as “bridges” between organizations. In the case of the local currency, these “bridges” allow the ideas and values promoted by the association to reach people who are socially distant from the members. The result is an increase in the number of supporters who are able to contribute to organizational resilience, in the form of material or human support. Le Florain was able to count on a significant donation from another local currency, whose launch had failed.

However, the territory in which a local currency circulates is also political. The links between public authorities and local currencies, although far from uniform from one territory to another, also play an important role in the resilience of the managing association. They can provide material, human, and financial resources—not only during periods of crisis—that contribute to the resilience of the association when a shock occurs. Le Florain has thus benefited from numerous grants since its launch, which proved indispensable to its organizational resilience when membership fees, the association’s main source of income, dropped drastically with the Covid-19 pandemic and the lockdowns. The association has thus managed to cover part of its fixed costs with the financial reserves of the previous year and to balance its accounts thanks to the financial support provided by the local authorities (city, department, and region).

Certainly, the most advanced stage in the relationship between local governments and local currencies is the participation of the former in the local currency circuit set up by the latter, either because certain local public services, such as libraries or municipal swimming pools accept payment in local currency, or because local governments make payments in local currency. The association that manages the local currency then becomes an essential link in a public/private circuit that gives credibility to its action and allows it to benefit from recurring financial revenues linked to the community’s membership, all factors that contribute to organizational resilience. The Florain understands this and that is why, following the first lockdown and the joint reflection (reflexive dimension of resilience), the association sought to develop the local governments’ membership. This has been done for the city of Nancy, which joined Florain on September 27 2021. By a unanimous vote, it was decided to appoint a representative of the city to sit on the association and to pay an annual fee proportional to the number of inhabitants of the city, with the idea of eventually allowing “the city to be able to offer services in Florain”.

Ultimately, using Bégin and Chabaud’s (2010) grid, we highlighted that the organizational resilience of the Florain management association depended on reflexive, communicative, creative, and organizational dimensions, and that it was necessary to add a territorial dimension linked to the association’s relationship with the geographical and political territory in which the local currency circulates (see Figure 8).

Figure 8: Analysis grid for the organizational resilience of the Florain's management association.



5. CONCLUSION

In this article, we studied the dimensions of organizational resilience of a local currency management association in the face of the sudden halt in exchanges during the first lockdown period related to the Covid-19 pandemic (March 17, 2020 to May 11, 2020). We have pointed out that, like other organizations, the organizational resilience of the Florain's management association stems from dimensions linked to its structure (reflexive, communicative, creative and organizational). However, it seems essential to add a territorial dimension specific to local currencies, which relates to the relations that the management association maintains with the geographical and political territory in which the local currency circulates.

Our study was only conducted on one local currency, the Florain, and in the case of the very particular shock constituted by the first lockdown. It would therefore be interesting to test this analytical grid with other French or even international local currencies, to build a specific operational tool for analyzing the organizational resilience of an association managing a local currency. And given the strong link between a local currency and its territory, it would be very interesting to analyze the links between organizational resilience and territorial resilience.

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ALTERKA – MONEY OR GIFT? THE SOCIAL MONEY PROJECT

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ABSTRACT

Alterka, a complementary currency used by the Wymiennik ('Swapper') community in Warsaw, fulfilled each classical function of money. The main goal of this paper is to describe the structural features of alterka as well as to present the ways in which it was conceptualised by the users. Alterka was actually not seen as money by the participants of the Warsaw-based system, which is quite fitting with the European discourse on alienating money. A different set of moral meanings was attributed to alterka than to conventional money; it was regarded as the antithesis of globalised official money and as a currency that enables the realisation of an alternative paradigm of economic bonds based on shared goods, with the gift culture as a source of inspiration. The research into Wymiennik can in turn inspire to see beyond the gift-commodity dichotomy, so popular in European thinking, and points to the relevance of reflection on local currencies from the perspective of money anthropology.

KEYWORDS

Alternative money, community currency, gift, social movements, money discourse.

1. INTRODUCTION¹

Alterka was an interest-free, nonconvertible, based on the mutual credit system principle, community currency (CC) registered in Community Exchange System platform, used by the Warsaw-based informal group Wymiennik ('Swapper') from 2012 to 2018. A context description follows, and some basics information about the system's scale and organization structure, even though the main purpose of this article is to describe the structural features of alterka due to which it can be considered as money, and to present the ways in which the users of Wymiennik conceptualised their currency. Despite the fact that alterka fulfilled every classical function of money, it was actually not seen as money by the Wymiennik's participants. A different set of moral meanings was attributed to alterka than to conventional money; it was regarded as the antithesis of globalised official money and as a currency that enables the realisation of an alternative paradigm of economic bonds. The exchange model in Wymiennik was to be based on shared goods, local ecology and the idea of participatory economy tailored to human cognitive abilities. The ideas of gift economy were its main source of inspiration.

My main research question is: why do Wymiennik's participants not deem alterka, a community currency, as money? This question derives from the anthropological astonishment I confronted during the fieldwork – all the users I met explicitly did not regard alterka as money, which appeared to me as a sheer paradox. At Wymiennik, I was exchanging goods and services thanks to a tool that sufficiently played the role of a unit of account, medium of exchange and even store of value. I argue that the reason for the interpretation stating that alterka is not money stems from the lingering modernist assumption that money depersonalises, alienates, serves capitalism and is profit-oriented. Wymiennik was a place of sociality celebration, so thus alterka with her conviviality properties seemed to have a different ontological status. The interview data proves the dichotomy of money (commodity) and gift persists astonishingly as a silent supposition and is tacitly employed by Warsaw-based system users. It comes as a surprise that this dichotomy defines the perception of alterka as no money. Still, it also is the very evidence of the social nature of this community currency – alterka is embedded in sociality to such an extent that it seems impossible to call it by the name of money, which is considered to be antisocial. Paradoxically, the empirical research on Warsaw-based CC confirms that money (since I argue that alterka is money) can be constructed in a way that makes it a vehicle for community.

The answer to the first question ("Why do Wymiennik's participants not deem alterka as money?") prompts the supplementary ones: what does the described dichotomy obscure? Why is it essential to topple it? Bloch and Parry (1989) claim that this stark binary is not only arrogantly Eurocentric but also serves as technological determinism – the assumption that every form of money leads to a moral revolution which commodifies social relations. My article aims to provide an empirical example of the falsification of the 'universal' and the modernist dichotomy between gift and money. Challenging this binary allows us to understand how money works and argue that there is no single notion of money – money does not have universal properties that perfectly determine the trajectory of its usage (leading to alienation, for example). Money's impact on society is defined by various factors: the cultural surrounding and values ascribed to money by its users and money's technological and structural qualities. Locally distributed money is more likely to be a bonding tool, connecting people from a neighbourhood.

2. RESEARCH METHODS

I have run the research into Wymiennik in the following ways: (a) individual in-depth interviews conducted between late 2017 and early 2018 with the ten most active system users and its two leaders; (b) analysis of press articles about the system as well as the creators' own publishing; (c) participant observation as a system user (with 136 exchanges registered on my account) and a volunteer for the promotion and media group of the Wymiennik Coordination Team (from January 2014 till September 2015). I was responsible for the acceptance of system registration, media contact, organisation of promotion meetings, content writing on the system's principles and at a later stage also for the recruitment into the Coordination Team.

Selecting the respondents by the criteria of turnover, I talked to the more active users of Wymiennik, who had the greatest experience with the functioning of the system. These were the ones with the highest degree of motivation to participate in exchanges, the most resourceful and at home in the system environment. The respondents included: two professional language tutors, two urban activists, an interior designer, a journalist, a massage therapist-

entrepreneur, an event organiser, an unemployed lawyer, a student of cognitive science, and a corporate sales department employee (also a foreign language student while she was active in the system). Five of the respondents were members of the Wymiennik Coordination Team.

3. THE SCALE OF THE SYSTEM AND THE CONTEXT OF POLISH LETS

Before diving into the main research problems, it is worth presenting the overview of Wymiennik in the context of different economic alternatives and their viability. In Poland, it has been reported that there were only two CCs in consecutive circulation for several years. These were the Wymiennik's alterka and the still active Polish local and complementary currency movement Zielony – 'Greener' (Stępnicka, Wiączek, Brzozowiec 2020). Grzegorz Sobiecki identifies 20 alternative currencies systems in Poland in 2017 and most of them consisted of short-term time banks (Sobiecki 2018). In comparison, Germany had 24 local currencies in operation (Place 2019), while France counted 75 (Blanc and Lakócai 2020). There is no precise data available that would accurately determine how many CCs exist worldwide, but the figure is estimated at four to six thousand (Sobiecki 2014). Before Wymiennik and Zielony, in the '90-s, the LETS systems were unsuccessfully implemented in Poland. In early 2000 the anarchistic and ecological generation of LETS took a lead in some major Polish cities (Kraków, Poznań, Wałbrzych, Łódź), but also appeared to be ephemeral (Żwawa 2008). The result of their existence were the translation of Margrit Kennedy's book 'Interest and Inflation Free Money' (2007) and the appearance of Janusz Reichel's book 'Lokalny recycling pieniądza' – 'Local money recycling' (2007) published by the publishers aimed to spread ecological values. Those two books served as inspiration for Wymiennik's creatorsⁱⁱ. Since 2019 Wymiennik records only sparse occasional transactions, which indicates the demise of the initiative. Its fiasco was primarily due to the burnt out and break-up of the activist team managing the project.

The total value of transactions in Wymiennik between September 2012 and August 2020 amounts to half a million alterkae (1 ALT ~ 1 PLN)ⁱⁱⁱ. The system numbered roughly a thousand users aged 25-40. Over four thousand accounts were registered, however, a minimum of a single registered exchange was recorded on only a quarter of them. The most popular products and services were second-hand items (clothes, books, furniture, household appliances, bicycles), home-made cosmetics and household chemicals, vegan food, massage sessions and foreign language lessons.

4. THE PROPERTIES OF ALTERKA – MUTUAL CREDIT SYSTEM

Alterka took the form of a cashless electronic record registered with the international online Community Exchange System (CES). CES is regarded by Jérôme Blanc as recovery and innovation of LETS system (2011: 8). Alterka, as well as the other CES platform currencies, are not legal tender; they are only issued through the electronic CES platform when users register transactions in the system. Therefore, alterkae was interest-free and created when an exchange is booked (mutual credit system) and cannot be converted to national currency. The sum of all exchanges equals null, and the budget of a new user upon registration is also 0 ALT. The system allowed mainly for small-scale exchange due to the pre-set upper and lower limits on the account balance (a 1000 and -500 ALT respectively). A system constructed in this way implements the ideological background programme of LETS currencies, the main goal of which is to create an alternative in opposition to the centralised issue of money, the accumulation of capital and regarding money as a means of becoming richer. Where interest-free currency serves as a record of a transaction and is only created at the moment of accounting, it is theoretically more feasible to balance the monetary mass with the value of goods in the market^{iv}. Which is quite subversive to the financialisation of economy, where the sum of financial assets exceeds the value of real economy; e.g. in 2009 in the UK, the value of the financial capital of the three largest banks was twice the value of GDP (Dodd 2014, 114).

5. ALTERKA AS MONEY

As a means of exchange, alterka fulfils each and every function listed in the classical functional theory of money, i.e. it is: (a) a medium of exchange allowing for the indirect exchange of one good for another; (b) a means of payment allowing for a delay in the settlement of obligations, thanks to which the flow of goods is not simultaneous with the flow of money (users would often settle transactions wholesale, e.g. once a month); (c) a measure of value facilitating the determination of exchange value; (d) a means of value storage which allows a delay in the decision to spend.

Alterka provided an interesting alternative for the enthusiasts of a variety of neighbourhood exchange groups, since it eliminated the disadvantages of barter. The users of Wymiennik created an original system of measuring value, thus alterka was not pegged to national currency. Wymiennik's participants would individually assign value to their goods and services by taking into account the following three factors: (1) the amount of labour invested; (2) the price of the product or service on the official market; and (3) the value of the good or service on the Wymiennik's own market. It was therefore a necessary part of the valuation process to compare the price of a given good or service to the value of counterparts also offered within the system.

The price of certain goods on Wymiennik differed significantly from their prices in a regular store. For example, a loaf of bread would cost about 5 PLN in a corner shop and about 20 on Wymiennik. On the other hand, the in-system price of a massage session was roughly equal to the market price in PLN. The most important component in measuring the value of goods and services was the amount of time invested, which can be a proof to the ideological affinity with the time banks. Thus, the difference in the price of a loaf of bread in a supermarket and on Wymiennik is primarily due to the difference between the production process in a bakery and the way the product is made at home. In other words, the discrepancy between the valuation of services (with prices similar official market counterparts) and the valuation of hand-made goods (where they were significantly higher than market prices) was an attempt to appreciate unique goods, produced in household self-supply economies, and not en masse, whereby the surplus production is minimal and can well be allocated to the niche market of the Wymiennik^v. Thus, what the peculiarities of valuation within Wymiennik also indicate, is a degree of longing for craftsmanship and self-supply in the system of production.

6. ALTERKA AS A BONDING TOOL. SMALL TALK ABOUT PRICING

It is worth adding that creating an original unit of account, the process of community pricing formation is a social-bonding process. It demands from participants discussions about value systems (since pricing is based on some moral assumptions) and price negotiations. This system's oral aspect also boosts conviviality among participants and makes economic exchanges personal and highly social. Thus, involvement with the Wymiennik required resources, such as free time and the willingness to take appropriate measures such as arranging the real-life exchanges, including, e.g. the choice of a mutually convenient location. It should also be considered that exchange meetings had the inherent component of small talk, often turning into social occasions. Hence, the system attracted mainly freelancers and students^{vi}. User activity was heightened during their initial period of engagement and would decrease significantly in subsequent stages, which suggests that using this system was seen as a specific life episode, whether longer or shorter. In late capitalist life, finding time for such intense exchange relations is a privilege, which explains why the most engaged participant had flexible working hours or still were students.

7. ALTERKA COLLECTIVELY CONTROLLED. DIRECT DEMOCRACY

An important piece of the context for the functioning of Warsaw's community currency system was the participation understood as a means to build of fairer forms of organization. Within Wymiennik were established the institutions of the General Assembly and the Coordination Team, which made consensus-based decisions.

Participation relies on cooperative group work, balance and concordance, and aims to bring equity to the power of individual stakeholders. It is actually the equal distribution of power that constitutes the primary goal of participation. However, such a form of participation requires an intense information flow between the group members, which often results in protracted discussions and lengthy decision-making processes being seen as the distinctive features of this mode of governance (Mendel 2001, 10). In the context of Wymiennik, those long-lasting discussions were an advantage since they served as evidence of collective decision-making and made this system a joint endeavour, creating a solid group where each member's voice is heard.

At Wymiennik the direct exchange of goods was complemented by a direct form of initiative management, while the idea of socialising the money was accompanied by a project of socialising the management. Warsaw's community currency system was therefore an attempt to realise a small, interactive and non-hierarchical community, striving to create equitable socio-economic bonds. The community created around Wymiennik can thus be seen as an attempt to kick-start an economic system characteristic of non-capitalist societies, in which the economic values do

not take over moral control, and where the market and economic exchange are embedded in the social needs and institutions (Polanyi 2001).

Karl Polanyi, inspired by the concept of gift culture described by Bronisław Malinowski, became fascinated by the illiterate non-capitalist societies in which the economic motivations never dictated the essence of their social order. This Hungarian anthropologist conceptualised an opposition between the pre-modern economy, where the lead value were the social relations, and the modern economy based on market values. The antithetical nature of these two economic worlds is a component of the theory of modernisation among authors such as Marx, Simmel, Weber, Durkheim, Elias and Tönnies. Consequently, it would be worth to add Polanyi to the names of renown above (Karalus 2018, 437). The ambition of the Wymiennik leaders was to create a community where the economic needs are subordinated to the goal of building a resilient, supportive, and harmonious collective. In this perspective, the participation with its communicative dogma of lively debate and exchange of viewpoints within an extensive decision-making framework is attributed with a bond-building value, as well as a much sought-after type of social dialogue.

8. OFFICIAL MONEY CONDEMNATION, NOT CONDEMNATION OF MONEY AT ALL

The description of the above properties of Wymiennik (community pricing formation, direct democracy, lengthy discussions) aims to prove the social and personal nature of the community currency system. I argue that this conviviality is why Wymiennik's participants do not regard alterka as money. Before analyzing the excerpts of the interviews in which system's users deem alterka as a social-bonding tool, I propose to briefly looking at the general discourse on official money.

Leaders of CC initiatives criticise standard monetary systems quite frequently, regarding it as a tool of isolation and individualisation, and as an impersonalised mechanism, the alienating impact of which results from its function as an intermediary link in a globalised capitalist economy. Therefore, when official money is mentioned, the creators of community currency systems often resort to a stylistic repertoire reminiscent of Simmel's portrait of Western modern money (2011). The German philosopher saw money as the quintessence of a nascent world of individualism; of ubiquitous calculation and grand institutions supplanting the importance of family and endemic communities. Nevertheless, Simmel would oppose the socialist condemnation of money and should not be associated with sentimentalism or the fascination with communities based on the exchange of gifts that are personal in nature (155, 200). He would emphasise the role of money in creating new forms of socialisation and in the expanding the freedom of the individual, whose fate was no longer dependant on the tyranny of the community (370). As a sociologist, Simmel's attitude towards modernity (along with its essence – the global money) was quite sophisticated and notably different from Marx's commodity fetishism. Thus, the philosophy of money embraced by the leaders of local currencies is closer to Simmel's thought than Marx's. However, the critique of standard money among the creators of community currencies often takes the shape of a devastating and passionate disapproval, but not so radical as to completely reject the institution of money in truly Marxian fashion. The rhetoric of Michael Linton, a creator of modern complementary currencies, can serve as an example. In the 1980s and 1990s he was at the forefront of the global spread of Local Exchange Trading Systems. Linton assumes that the current economy is based on colonial wealth, which is detrimental to local and familial bonds, and exercised the reign of fear and almost unlimited power over the lives of both individuals and larger social groups^{vii}. Nevertheless, Linton believes in the project of social money – money that serves communities, not big powers. He does condemn money, but those used within the capitalist scheme, not community money.

Grassroots and private local money is a form of search for a mythical community, whereby the locality is first and foremost an attempt at a coherent and transparent social network; a vision, born from a longing for a world of not-overcomplicated structures and an autarkic attempt to withdraw from the intricate global economic order. Community currencies are thus means of payment intended to circulate in relatively small social circles. Their creation is spurred by the idea of creating transparent economies and by a revolt against modern money and its typical functions in Western culture; a revolt against the building blocks of an economy which is greatly complicated and blurry at best. The mission of local currencies lies i.a. in breaking the chains of intermediaries.

9. ALTERKA AS A GIFT

In the early days of Wymiennik, the initiative was advertised with the 'gift culture 2.0' tagline. On the expired website wymiennik.org, it was said: 'In early societies, a system of exchange was commonplace, and people would transfer goods or do each other favours without expecting immediate payment. The voluntary and continuous circulation of gifts among the members of a local community created social bonds and informally defined mutual obligations. The gift culture was the first model of exchange, preceding the economy based on the principle of «one thing for the other» (barter) or on commodity money. Today, through the use of information technology, we can easily record every transaction. Wymiennik is there to support the local economy based on mutual favours, allowing us to strike a balance between taking and giving.'

That statement was an example of the optimistic discourse on cybernetic utopias, emerged in the first decade of the 21st century. There, the Internet would be described as the ultimate democratic tool to share knowledge and other goods. Without doubt, online platforms facilitate accounting for local currency transactions by creating databases easily accessible to users. As a result, it has become popular to regard the internet as a possible space where diversity or financial democracy could become real (Lietaer and Dunne 2013, 55). The most recent iteration of this trend can be seen in the context of blockchain-based monetary initiatives (Friis and Glaser 2018; Dodd 2021).

It is also worthwhile to note, that the source domain of such figures of speech as the 'culture of the gift 2.0' lies in the customary exchange modes of illiterate communities. The Internet thus presents itself as a medium that can enable people to return to bonding and equitable exchange within local communities.

Marcel Mauss, in his 'Essay on the Gift', based his reflection on communal economy in illiterate cultures upon the oppositions such as: gift culture vs capitalist economy; bonds vs profit; community vs alienation; disinterestedness vs self-interest, etc. His analysis of the gift economy is rather a smokescreen for the expression of disillusionment with the market economy. It is also an expression of a longing for an autarkic economy, well-rooted in social structures; an economy of the gift, that is, a total social fact whereby the logical values of the social and of the economic are equal. The intertwining of 'economy, law and morality' (Mauss 1973, 243) is contrasted with the fragmented capitalism, in which the commercial relations become both dominant and fetishised.

The 'Essay on the Gift' is imbued with the gift-commodity dichotomy, so widespread in European thinking; with the discourse on the alienating modern money as an inseparable component. The source of this notion can be found in Marx's theory of commodity fetishism, and it served as inspiration for the many anthropological visions of the culture of gift as an opposition to the commodified economy, entangled in a network of abstract and universal ways to measure of value. What followed the passionate critique of the nature of money, was Marx's utopian vision of a world without money, the dawn of which would be marked by the proletariat revolution. Within this conceptual framework, money appears solely as an essential tool of the capitalist system. One can ask, however, whether money can only be attributed alienating qualities?

In his work 'The World of Things. An Anthropological Outline', Janusz Barański opposed the anthropological traditions of abusing the gift-commodity dichotomy, and the resulting concealment of an entire spectrum of phenomena that should be considered within it (Barański 2007, 355–356). With regard to the anthropology of things, the author expressed a belief that goods may display a bonding character, and that reducing them down to a solely alienating function is an illegitimate simplification. Further to this, Marek Krajewski wrote:

In a tangled and opaque world, in which we do not even stand a chance to get to know the Other, in a world of constant change and transformation, we are in need of good means of communication, both with the Other and with ourselves. Means that are subordinated to universal and easily assimilable codes. Nowadays, such means are found in material goods, commodities, daily use articles, clothes, cars, houses and their fittings, hairstyles, tattoos, piercings and toys. They are no longer simple status symbols but, on the contrary, a means by which we tell others about ourselves, a mode through which we conduct a dialogue with ourselves. [...] A vision of the world bereft of such material dimensions is thus not so much a form of defence of the humanist vision of human nature, but rather a dehumanised utopia that deprives individuals of the tools and the ability to be human, that is, a being which communicates and is self-aware. (2006, 89)

Research into community currency movements provides evidence that the peculiar characteristics of local money have not so much an alienating effect; conversely, they activate sociability. All participants of my interviews pointed to the personal nature of exchange on Wymiennik and valued this aspect as positive (while in this article I cite four of them). Ten interviewees whose names I changed at their request, said that they had made new friendship(s) and many acquaintances on Wymiennik. It is worth remembering, however, that this system attracted people with similar sets of values; open-minded and with a high degree of social trust (the swappers would often let strangers into their homes, accept food and hand-made cosmetics not inspected by public health authorities and without proper certificates). Nevertheless, the discourse of 'alienating money' proved so prevalent, that the users of Wymiennik themselves did not recognise their alterkae as money:

Marlena Rycombel: Who makes up the Wymiennik community?

Marzena [foreign languages tutor]: This is a community that wants to get away from the system, from the overwhelming reality ruled by money. We forget how in the past some things were done with completely no cash involved, that there were other kinds of relationships, closer; you could arrange lots of stuff, help each other out. And now...! Among other things, not enough time makes people busy, preoccupied, running around. So they just buy things, sort stuff out with money, and they can't quite think: 'Maybe my neighbour knows stuff and could help me'. But the community... These people are more aware, they want to feel this closeness in their relations, feel that something is not necessarily done strictly for money, but to find another human being in doing it.

For Marzena, above, to use the alterka was to evade monetary transactions, and her understanding of the relationships made on Wymiennik was one of a 'cashless exchange'. Barbara, on the other hand, compared the Wymiennik community to a family:

Barbara [event organizer]: When I order a cake from Klementyna, I know that it is baked especially for me [...]. When you go to the shop, you just get your groceries. And when the other swappers come to me, then the feedback I get is like: 'Oh God, your veggie stew is so good!' So if I were selling it in a shop, I'd bring it in, then collect the money when it's sold – end of story. And here it's an exchange. You kind of get hugs and cuddles [...] That's the real value, that everything we do here is so personal. You know, we're like a kind of, I don't know... like a family!

Jola, who refused to specify her profession, cannot be even bothered to see the alterka as money:

M.R.: What does the alterka mean to you? [...]

Jola: Value.

M.R.: Has Wymiennik augmented your budget? If yes, to what extent?

Jola: No, no, because it is all cashless.

Marzena, who also believed that the Wymiennik community shared a common idea of the rebellion against money, never referred to alterka as currency either:

M.R.: What do you think of the alterka? How would you describe it?

Marzena: Certainly not money. It's a kind of value that gets us over the trouble of barter, which is really convenient, because we don't always want to exchange stuff with this or that particular person. I absolutely don't treat alterka as money, as in money that gets you rich.

Most respondents imagined the alterkae similarly to points scored in a game:

Małgosia [student of cognitive science]: Alterka? I tell people that these are like points that you exchange for stuff, like in a game. That you have like a game, only it's real: you do something, you have points. And you can use the points to get other things.

Having quoted all the above, alterka is money, irrefutably. It does fulfil every classical function of money. The majority of users, however, would never place it in such a category, due to the bonding potential of alterka. This apparent paradox was the starting point for the reflection on the inherent limitations of the European discourse on money and, furthermore, on the eurocentrism of both anthropology and sociology of money rooted in a single, specific moral philosophy. Traditional European thinking has been extremely critical of the phenomenon of monetary exchange since Aristotle, who would praise the independent households with no need to trade (the 'autarky' model), through Thomas Aquinas, who would despise usury, straight to Karl Marx and Georg Simmel. Contemporarily, David Graeber made himself an heir to this tradition, by writing in 'Debt' that: 'What happens to such economy when people do begin to use the same money used to measure dignity to buy eggs and haircuts? As the history of ancient Mesopotamia and the Mediterranean world reveals, the result was a profound – and enduring – moral crisis' (2011, 176). One should not forget Nigel Dodd's classic book 'The Social Life of Money' (2015), where the author discussed various critical theories of money, that would invariably show them through the lens of concepts such as guilt, violence, or debt in the worst sense. This London-based researcher also referenced to psychoanalytic theories on money, that associate the very concept with carnalities and the anal phase (152). Viviana Zelizer was just as brilliant in debunking the beliefs around money, pointing out that precise calculation does not belong to the sphere of close relations in the tradition of European thinking – moreover it is a direct opposite of closeness. Thus, the researcher distinguished two conceptually 'hostile worlds' – the world of rational economic activities and the world of close relations (Zelizer 2005).

10. ALTERKA AS SOCIAL MONEY

Is it then possible to imagine a social money and reach beyond dismissing such an expression as an oxymoron? The leaders of community currency movements are attempting to accomplish exactly this feat; reject as they may the classical European ideas of money, they do not disregard money as such, considering it to be an ingenious, helpful, and above all adjustable tools. Their perspective has departed from Marx's ubiquitous framework in the direction of a struggle to re-invent money, as a means that would circulate within small communities only. Complementary money systems become a part of the users' identity, an element of alternative lifestyle, and create around themselves a community of people who take interest in non-standard ways of payment and believe in a similar set of values. Local currencies re-interpret the category of neighbourhood, a great example of which is the Brixton Pound used in one of the boroughs of London. Wymiennik in turn, based on the CES platform, can be compared to a social networking site, where the exchanges mediated by the alterka were facilitating the meetings of people who shared similar beliefs and consumer practices. The main motivation among many users was the desire to increase eco-consumption (handmade and second-hand products, vegan food, 'natural' household chemicals and cosmetics), which led at the same time to the consolidation of a certain social group, invested in the ecological and vegan lifestyle.

Malinowski, elaborating on the gift culture, pointed out that the kula rituals, which involved the exchanges of ceremonial necklaces and bracelets, rituals, festivals, women, children, dances and military services etc., were accompanied by the gimwali exchange of utility items. Time and again, the British-Polish anthropologist would emphasise that the social function was cardinal within the gift culture, and that gimwali was nowhere close to the essence of the meetings of the Trobriand Island communities, in other words, that gimwali was of secondary importance. According to Malinowski, the gift culture is where a system of social bonds, and not economic exchange, is built (2014). Mauss, on the other hand, in line with his theory of the total social fact, considers kula and gimwali as two equally important aspects of the exchanges among the communities in Polynesia, Melanesia and North America. For the French anthropologist, the gift economy pursued economic needs and social values equally (2001). Further to these concepts, it can be argued that the sphere of kula on Wymiennik (in the form of exchanging vegan rituals and recipes for handmade cosmetics, creating friendships and casual relationships between people sharing similar values) was as important as the gimwali – the sphere of ecological consumption, the amount of which could have even been measured with great accuracy – in units of alternative currency.

Considerations on the alterka phenomenon enable a much wider critical reflection on the gift-commodity dichotomy and trigger another way of thinking about money as a social good that can be shaped in a democratic, grass-roots manner. The systemic research into Wymiennik can also broaden the economic imagination and make one aware that money is a flexible, adjustable construct, which can be put to a variety of shapes in various ways. Money

as such does not possess universal properties, and its functions can be adapted to meet a range of social needs. There is no such thing as single, all-encompassing idea of money, nor its true nature; economic exchange can be configured in many ways as well. The question that remains, however, is as follows: to what extent the money users and the qualities of society where money is used, define the nature of money, and to what extent the money and its various constructions define the users?

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ENDNOTES

i This article combines the themes of four other articles on Wymiennik published by the author in Polish (Rycombel M., 2019, 2020, 2021, 2022). However, the following text reaches beyond a synthetic compilation of the earlier papers, elaborating on certain issues further and presenting the research problems from a new perspective enabled by the comparative research on several local currency systems, currently carried out by the author.

ii Ecological values often are driving forces to establish alternative economy systems (Schroeder 2020). Initially, Wymiennik played a significant role in consolidating the emergent vegan community in Warsaw. Year 2012 was a time when vegan products were a rare sight on the shop shelves. Once the vegan lifestyle became increasingly popular and the official market caught up with the supply, Wymiennik shifted to filling another niche, that of people interested in ecology and zero-waste living. Alternative lifestyles turned out to be an important category for the vast majority of the survey participants. Their involvement with the activities on the Wymiennik platform resulted from the dissatisfaction with certain aspects of reality. The following values were of importance to the participants of the study: ecological lifestyle, alternative medicine, the good of the planet and animals, alternative and fairer forms of goods and services valuation, anti-consumerism and anti-capitalism. However, not all respondents identified wholly with the entire set of values above.

iii The latest official statistics of the Wymiennik, freely available to any user of the system, indicate a turnover of almost 1.000.000 ALT. However, this figure is actually manipulated: a certain user, taking advantage of the collapse of the system and the lack of control over its functioning, performed a single, unauthorised and statistically irrelevant operation worth half a million alterkae.

iv I refer to the leaders' ideas on the functioning of a system where the total value of transactions comes to a zero. However, the assumed balance between the number of goods and the monetary mass can be argued against with relative ease. In this type of systems the inflation can still affect the nominal value of goods and services; which is exactly what happened on the Wymiennik and is discussed further in this paper.

v Since 2017, I have been observing the in-system inflation of the nominal value of the goods offered, which may have occurred, among other reasons, due to the fact that the prices on Wymiennik were not regulated, set, or suggested by the leaders in any way. At a certain point, a certain system user realised that there were many users with surplus alterkae on their accounts (active users unable to find interesting offers for themselves) and took advantage of the gradual collapse of the system by offering much desired goods and services at exceptionally high, even doubled prices. In response to his activities, other users began to increase the prices of their products accordingly. This eventually led to a situation where in 2014 a used book (relatively fresh on the publishing market) costed 10–20 alterkae, and in 2019 a similar item would cost 40–60.

vi Another noteworthy point is the definite feminisation of the system – according to Justyna Szambelan, it amounted to 81,1% of the sample: ‘The chi-square test for independence showed that the predominance of women is statistically significant and can be assumed as a characteristic of the whole system’ (Szambelan 2014).

vii Data gathered by the author in 2021 during a series of conversations with Michael Linton and over archive queries in LETS, Comox Valley. The latter were made possible by the Counter Currency Laboratory at the University of Victoria, supervised by Daromir Rudnyckyj.

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IDEAS FOR DEBATE: ELEMENTARY MONETARY CONCEPTS AND STORYLINES PART 1: REMEMBER THE GAME!

Jens Martignoni

1. IDEAS FOR DEBATE

IJCCR accepts short pieces of writing of no more than 2000 words concerning an idea or reflection that a scholar wants to share with the IJCCR community and the world while they have not yet done any thorough research about it or have no systematic field experience related to that idea that would allow them to write a proper research paper. We aspire that Ideas for debate will help scholars and practitioners to share their ideas with the community at an early stage and receive precious feedback that might allow them to proceed with submitting a full paper at some point in the future. (from website, maybe not to publish or maybe link?)

The Ideas for Debates section has been announced in this journal for a long time but has been sparsely filled with content. As a new editor, I would like to change this and take the opportunity to reopen this section, even if I start with some personal contributions and hopefully inspire others to join later. However, this requires a different understanding of the position of this section within a scientific, academic journal:

One of the primary tasks of today's academics seems to be writing scientific articles and getting them published in preferably in well-ranked journals. In doing so, it is particularly important to always take existing works as a starting point, to cite them and, if possible, to always stay within the framework of the prevailing topics of discussion. Free ideas and thoughts are difficult to accommodate. The compulsion to back up everything meticulously and to support every argument solidly means that important freedom is lost. Ideas may be declared as sole opinions and rejected, and non-saying studies that only focus on details, but are supported by a flood of quotations, may be praised as formally excellent articles. There is much to criticize here, especially in the social sciences and economics. This trend is particularly disturbing in our field of new currencies and monetary systems. Most existing scientific ideas and concepts from mainstream are still awfully insufficient or based on sheer dogmas and invalid beliefs, so why to cite them again and again? Better ideas and concepts are needed on how to understand what money is about and why we, as humans got involved in this overrunning money-story at all. We need to change the prevailing mindset of dull "money is what money does" definitions quite urgently and look for fresh and more appropriate concepts and ideas for money that are suitable for the recovery of our stumbling economy. As our journal does this for more than twenty years now the aim of this section, then, is to present more outstanding, more philosophical and more socio-technical thoughts and ideas that can provide impetus, perhaps provoke, or simply suggest new ways of thinking about the issue of money and currencies in human society. In this sense, this section is meant to be complementary to the many excellent research papers published in the main body of the journal.

2. ELEMENTARY MONETARY CONCEPTS AND IDEAS. PART 1: REMEMBER THE GAME!

Money is clearly a collective or even systemic matter, isn't it? Yes, but both in daily life and in academia, money is often treated as it would be a personal or peer issue and collective aspects of money were neglected or pushed aside.

A well known game can reveal better how money works collectively: Monopoly. This game was in his original form as "The Landlords Game" meant to teach some truth about land ownership and money (Martignoni, 2018). It was a game that should make it easier to see "the cause of industrial depressions and of increase of want with increase of wealth" (George, 1935) in the privatization of land and its ultimate remedy to make land common property (George, 1935, p.328).

Even in its present corrupted form, Monopoly could do so if we look closely. The game shows in simple terms the connection between the privatization of common goods, money and wealth distribution. At the beginning of the game one needs some luck in the race for the conquest and occupation of the virgin landscape of a city. To be the first at the beginning is already a good strategic position in a play that drives the initial social equality (everyone has the same wealth, no one owns land or houses) towards the final inequality. Then as a second move, it is very important to secure as much valuable property as possible as soon as possible for oneself. Thereby cleverness and luck are of course helpful and needed. Third as soon as other participants start to pay for using one's property and hotels, he/she gets more capital to quickly buy more property and build houses and hotels, which in return will

force the other participants to pay bigger amounts to him/her. At the regular end all others got broke, and the winner, collecting most of the wealth in his/her pocket will simultaneously be the main or even only land and real estate owner. He or she got the monopoly.

The game interestingly shows that money is not at all a means of exchange but a means of taxation, customs, tolls and compulsory levies to the authorities ("state") and the owners. It concentrates on these essential money flows and leaves out the non-essential level of consumer goods and services altogether, which in daily life make us believe that we get something of equal value for our money (exchange idea). Sure, also in the game we would still imaginarily sleep in a nice room in the hotel in Park Place and get breakfast to sweeten the massive levies, but as I said, that is mainly a distraction. As there is a limited certain amount of money allocated in the game – otherwise we shouldn't call it money – it is obvious to know that money is the key to win. Important observation: if money is in one's hands it cannot simultaneously be in the hands of the others. So, it is good to have as much of it as possible. Money inside the game represents the right to decide what and where to spend it. But it is much better if all others do not have the ability to choose freely where and how to spend their money, due to the circumstances they will meet during their journey through life (represented by the player's path on the board). The second key is therefore to carve the circumstances and force others to spend their money on expensive tolls and transfer-taxes. With the power of money one can indeed change the circumstances and bend the rules by using the underlying dogma of private property. The formerly open and free way will then be closed and prohibited unless one pays to pass. This is not only an issue of the monopoly-game but a very deeply rooted core of today's capitalist and monetary system. One can buy with money real estate and by this is allowed to exclude all others from that piece of land. If this land is of value, meaning also others would like to use or possess it, then the owner can impose "a fee" on every visit, use or transfer on or of his property and force others to pay. A constant source of money-flow could then be established, and others have to start to work to be able to pay. The game shows this connection between property-rights and money as a means of paying for property rights that thus mutates into a ransom that has to be paid not just once, but on a multiple or even ongoing basis (rent). The monetary system of the 19th and 20th century itself was tightly bound to this idea. Most credit was given to mortgages exactly because land and houses were the key to capitalist wealth and capitalist money. That means the idea of a "fiat" money was or still is not correct¹. Most money in circulation was or as in the case of Switzerland still is covered by credit-contracts based on real estate.

Table 1: amounts of credit and money-supply by the end of 2021.

	Switzerland (Billion CHF)	Germany (Billion EUR)
Amount of all mortgages provided by banks:	1'173 ²	1'485 ³
Aggregated Money M3:	1'157 ⁴	3'838 ⁵

The slightly odd thing with Switzerland is that even more mortgages were spoken, than money "exists". That might have to do with different statistical measures and reporting instances, but also reflects the enormous prices for real estate in Switzerland. In Germany, as a part of the Euro-System, on the other side, the mortgage cover only around 40% of M3 today. Other types of credit, stocks, bonds or derivatives pile up to the rest. So financial industry shifts this original binding more and more.

Our regular legal tender money is still strongly pinned to land & houses. Credits for the real production and for the producer-consumer-circles are comparably neglectable.

This makes a very important point for community currencies but is seldom recognized. The sheer idea of "complementarity" is based on a focus to money that is used for consumer-producer-topics. Especially LETS-systems and mutual credit systems exclude the whole massive land and property question. But could you win in monopoly by adding a second currency useful for consumption or production of goods and services? Probably not, because the much bigger power-system of property-business is then not touched. This is proven also by the WIR-system in Switzerland, which is backed by mortgages to a very high degree (443 Mio. CHF, Bank WIR, 2022) but on the other side

has also exceptions like Sardex⁶ in Italy which has a really astounding turnaround (about 31 Mio. Sardex in 2019 according to Fleischmann et.al. 2020) without any backing by mortgages.

After many nice and colorful community currencies were born, got to a size of around 100 to 200 people and died later away I think it might be urgent now to include the learnings of the Monopoly-game. Property rights as well as community taxations must be a part of the design of new and better currencies. It is time to think bigger and play the game better than speculators and selfish winners. We must reverse the "Great Transformation" (Polanyi, 2001) when landlords expropriated the commons and forced people into the proletariat and poverty. Through purchase or donation from insightful owners, land, houses, and production capacities must be divested from the ruling system and converted back to local common property. But for this to go ahead, the monetary system associated with this ownership must also be detached. This is where new community currencies come in, with an appropriate design to be used in the organization and management of the commons. This second step is very important, because the ruling monopoly does otherwise erode the commons or hijack them as soon as possible, what has been happening in lots of cases, e.g. in the cooperative movement that mostly converted back to regular capitalist forms. So changing money plus changing the property system together are tasks that arise simultaneously. This requires detailed discussions, intelligent research, and dedicated tests. Such work we would be happy to host and publish in this journal.

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ENDNOTES

1 This might have changed in the last 30 years as financial capital separated completely from the real world and things like quantitative easing started, where money is created ways more «fiat» than before.

2 <https://moneypark.ch/news-wissen/hypotheken-und-zinsen/hypothekarmarkt-schweiz-2021-kantonal-banken-legen-massiv-zu/> accessed 23.04.2023

3 <https://www.pwc.de/de/finanzdienstleistungen/banken/der-grosse-baufinanzierungs-boom.html> accessed 25.04.2023

4 [https://data.snb.ch/de/topics/snb/cube/snbmonagg?fromDate=2021-01&toDate=2021-12&dimSel=D0\(B\),D1\(B,S0,ET,GM1,S1,GM2,T,GM3\)](https://data.snb.ch/de/topics/snb/cube/snbmonagg?fromDate=2021-01&toDate=2021-12&dimSel=D0(B),D1(B,S0,ET,GM1,S1,GM2,T,GM3)) accessed 23.04.2023

5 <https://tradingeconomics.com/germany/money-supply-m3#:~:text=Money%20Supply%20M3%20in%20Germany%20averaged%201286.90%20EUR%20Billion%20from,Billion%20in%20January%20of%201969.> accessed 25.04.2023

6 Sardex now uses the term Sardex Pay as their name <https://www.sardexpay.net/> accessed 25.04.2023