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Working Paper 2013 (Draft)

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Limits and possibilities of a local alternative to scarcity of money and abundance of richness

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Prepared for the special session on Alternative Finance and Complementary Currencies as part of the International Conference on Potential and Limits of Social and Solidarity Economy organized by UNRISD and ILO in cooperation with NGLS and other partners*

May 2013



The United Nations Non-Governmental Liaison Service

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* The special session is organized by the United Nations Non-Governmental Liaison Service (UN-NGLS), in cooperation with: UNRISD, ILO, Palmas Institute Europe, The Global Fund for Cities Development (FMDV), Institute for Leadership and Sustainability (IFLAS) of the University of Cumbria, Veblen Institute and the New Economics Foundation representing the European Union Interreg project: Community Currencies in Action (CCIA).

Tumin, pesos, or wealth?
Limits and possibilities of a local alternative to scarcity of money and abundance of richness[†]

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In face of unused productive capacities and unmet demand in a context of poverty among its inhabitants, Tumin, a local complementary currency, emerged in the community of Espinal, Veracruz in 2010. IT appeared not only as an instrument to facilitate the exchange and increase the purchasing power of the population, but also as a social and political bet to empower the community and redefine the values that determine the relationships amongst inhabitants. Over two years have passed, and, although Tumin seems to be ineffective in having an economic impact in the community, its potential as an instrument to empower the community, strengthen relationships, and promote cooperation and mutual help among the inhabitants has manifested. This experience shows that although the effectiveness of this instrument for solving the economic problem of Espinal is limited, its potential as a powerful tool for searching for alternative systems goes beyond its direct social benefit.

[†] We would like to thank Marcela Corona for her valuable help and company throughout the development of this project. We appreciate the good disposition of all interviewees, in particular the openness of Oscar Espino, Juan Castro and Irene Castellanos for sharing with us their experiences. We are also grateful to David Camposeco, Jorge Franco and Gerardo Escaroz for their useful comments.

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Introduction

“Tumin” means money in Totonaco, the language of the indigenous people who reside in the municipality of Espinal. This local complementary currency was created to face a scarcity of money and the low purchasing power of the majority of the population. Its objective was to stimulate economic activity and solidarity among the people in the community. Today the Tumin has caught the attention of the media and consequently of the general public. In spite of the modest changes that it has brought to the community given the daily difficulties that its promoters face and the more deep-rooted problems that the implementation of this alternative entails, this scheme is an attempt to question and re-establish the values that rule individual relationships and economic transactions. Thus, this effort has an intrinsic value independently of its future perspectives, and is therefore of interest from an academic perspective.

In this paper we present a case study on the Tumin. We explore the potentials and limits of this currency as an instrument for improving people’s life, according to the perceptions of the population in Espinal. On the first section, we present a succinct revision of previous literature on complementary currencies to point out some questions that will be discussed further. On the second section we describe Espinal, with emphasis on the economic and social characteristics of the municipality as explained by some of its inhabitants. Thirdly, we depict the process of emergence and development of the Tumin through the experiences of those involved in the project. Next we discuss the economic and social potentials and limits of the Tumin contrasting what has happened in Espinal with the questions that emerge in the first section. Finally, we suggest some potential implications for the project, as well as for public policy on the matter.

Our conclusions suggest that, more than a complementary currency, the Tumin would be better described as a school, or a *tool* for setting into practice values other than profit during economic transactions. We argue that due to its territorial basis, the Tumin has the potential of strengthening human relationships and promoting reciprocity, reactivating to some extent the internal economy of Espinal, and facilitating exchange between people living in the community.

However, the problem of low income levels and standards of living has many other deep-rooted causes than just the scarcity of an instrument to exchange goods. In this sense, the use of the Tumin may bring long-term economic benefits to the community only as long as the deepening of relationships and the empowerment may contribute to the better organization of people in Espinal to improve their economic situation and the producers’ stance in front of intermediaries.

The study is based on field research that took place in Espinal during March 2013. In terms of research techniques, the emphasis is on qualitative data: interviews with the coordinators of the project⁴ and some of its most active users, the local authority, the priest, a primary school’s principal, a local agronomist that works in productive projects, and people from the Cattle Breeder Union. Focal groups were held with users and primary students and teachers. Unless otherwise stated, all the information about the economic and social characteristics of Espinal is the reflection of the perceptions of the inhabitants of the place. Although we acknowledge that these perceptions are subjective, they reflect the conditions that led to the emergence of the Tumin.

⁴ Juan Castro, Oscar Espino and Irene Castellanos are the coordinators of Tumin at the present.

Some of what some others have said about complementary currencies

In previous studies, Lietaer and Hallsmith (2006: 2) define complementary currencies (CCs) as “an agreement to use something else than legal tender (i.e. national money) as a medium of exchange, with the purpose to link unmet needs with otherwise unused resources.” Additionally, Lietaer et al. (2009) and Seyfang (2001) argue that the objective of diversifying the types of currencies is to increase the availability of money in its prime function as a medium of exchange.

The local nature of CCs guarantees that the instrument remains in the community of origin, and it encourages holders to search for local goods in order to spend it, so the multiplicative effect of money is intensified (Helleiner, 2000; Seyfang, 2001). In this sense, Santana (2011) avers that part of the significance of this kind of solidarity bets is that wealth is created by the circulation of goods and services that are meant to satisfy needs, with the willingness of individuals to let money go and therefore stimulate economic activity through the increase in spending in local goods. Local currencies do not seek to substitute conventional money, as by nature they only work locally (Helleiner, 2000; Seyfang, 2001). In contrast, they emerge as a complementary system to plug the gaps where mainstream money fails to meet needs, encouraging different consumption and production patterns, fostering local trade, and re-valuing work, wealth, and labor in a more equitable approach (Seyfang, 2001).

In terms of the social benefits generated by CCs, the creation and strengthening of ties are often mentioned. For example, Nakazato, H. and Hiramoto (2012) propose a network approach to understand the effects of indirect ties not limited to direct acquaintance; Granovetter (1973) suggests the validity of “the strength of weak ties” approach, to analyze the weak bonds that are created through CC usage; while Lopezllera-Mendez and DeMeulenaere (2000) and Santana (2011) argue that CCs may discourage anti-social behavior through the strengthening of the notion of community, enhance existing social assets, and foster reciprocation and redistribution. Helleiner (2000) and Santana (2011) also point at their potential of encouraging a stronger sense of identity linked to the community, local pride and sovereignty. Seyfang (2001) claims that as communities gain autonomy and certain degree of economic self-determination, social groups are empowered.

Brakken et al (2012) expose the difference between wealth and value: “wealth is that which can be identified as valuable to any individual, whereas value is that which has the potential to be valuable to anything.” Thus, while wealth is limited, value is infinite. According to them,

any currency isolates certain forms of value to transform into wealth, but those other forms of value remain even as they are undervalued... An economic system with a single currency will only recognize a very limited set of activities as valuable. As a consequence, many of the activities that constitute a functional community and in turn a functional economy, lie outside of the value analysis of our existing economies... Appropriately differentiated currencies can help better activate different types of value in the world, empowering communities and economies.⁵

Related to this, Helleiner (2000) argues that local currencies have the potential of promoting shared principles held by the community concerning the value of different goods and services.

⁵ Brakkn et al

Collin (2010) warns about the possible concerns associated to using local instruments as complementary to conventional currencies. She considers that a system of this kind does not allow the differentiation of the two, so it favors confusion. The fact that alternative instruments are used together with traditional money for complementing the price of products, promotes that these two instruments are pegged. Thus the two are not understood as qualitatively different, complicating the symbolic shift in values which is central to solidarity projects. In this sense, Lietaer (2005) avers that community currencies are an agreement between the members of a community to accept a different measure of value. However, if this works only as complementary, the old agreement prevails. This means that at a symbolic level, trust in the alternative instrument is not the underlying feature that characterizes these transactions, but the instrument works more as a form of promotion. Because prices of goods and services are established in conventional money, the part of the price paid in alternative currency is regarded only as an overpricing, but in reality nothing is being exchanged with local currency. This does not favor the creation of relationships of trust. Although all these are potential threats, the real challenge of this kind of solidarity economies, Collin argues, is how to generate alternative currencies that in effect contribute to modifying the system of values and to the generation of wealth in communities.

Finally, Cohen (2006) states that due to competition among currencies across borders, “money is becoming increasingly deterritorialized, no longer the instrument of an exclusive national sovereignty...State authorities are no longer able to exercise supreme control over the circulation and use of money within their own frontiers.”

Throughout this paper, some of these categories and hypothesis are contrasted with results and perceptions on the Tumin, in an attempt to understand the economic and social processes set off by its creation and use. Has the Tumin linked unmet needs with unused resources, or to increase the availability of money? Has it created or strengthened ties, has it had an impact on the sense of community, on the people’s empowerment? Is Tumin an appropriately differentiated currency with the potential of recognizing different types of value? Has it helped the population of Espinal to distinguish value and richness from wealth? Is Tumin a sign of territorialization of money and can it have an impact on sovereignty and autonomy?

Espinal

Espinal is the administrative center of a municipality in the state of Veracruz. By 2010 it had 2676 inhabitants, 19% are indigenous.⁶ The community has four primary schools (two of them are bilingual, Spanish and Totonaco), two secondary schools, two high schools and a branch of the Intercultural University of Veracruz (UVI). The existence of high schools and the university has attracted a lot of young people from the surrounding communities.

One of the first things that caught our attention was that Espinal does not have a market, or a public area dedicated specifically to the exchange of the products from the surrounding communities. In many other administrative centers in Mexico, the area of the market is central not

⁶ Mexican Population Census, 2010. This refers to the people living in the community who speak an indigenous language. Espinal is found in the Totonaco region.

only for the economic activity but also for the building of social relations. The lack of a market could be having a negative impact on social cohesion and trading within Espinal. As in other communities in the area, poverty prevails. When asked about Espinal's main problems, inhabitants mention lack of sources of employment, industry, and land, and the inadequacy of the roads.

The majority of the people in Espinal are peasants, but around half of them do not own their land so they work as day laborers for a wage of around 150 pesos per day (US\$12). There are some ejidos,⁷ but land is largely private and concentrated in a few landowners. Some women sell food, but their income is low. The main economic activities are agriculture and livestock, and they mainly produce citrus fruits, namely oranges and lemons. In the past, milk and corn production had a central importance in the economic activity of the municipality. Nonetheless, given the profit margin of producing corn and the decrease in the margins of milk production and cattle breeding,⁸ the economic activity has shifted towards medium scale citrus fruit production. However, the conditions of citrus production have also deteriorated in recent years. Since producers lack trucks to take the fruit to the final destination, it is hard for them to avoid the intervention of intermediaries, which causes low profit margins.⁹

The lack of organization of producers is noticeable. In most cases, not even the members of the ejido work collaboratively, and there are no cooperatives. According to a local agronomist, there is a packing company in the area, but producers do not take advantage of it because they are not organized. Perhaps the exception is the Cattle Breeder Union that emerged from the initiative of one rancher who wanted to obtain support to get water and wire. Simultaneously, producers complain about governmental programs, claiming that they do not stimulate production given the lack of surveillance, that they do not target their real needs and that they reflect a paternalistic and unsustainable approach to the problems.

In sum, in order to increase household income the production of families in Espinal has changed from subsistence farming and cattle breeding to the medium-scale production of citrus fruits for export. This has mined the community's capacity to produce its own food and increased its dependence on imports. However, the profit margin of agriculture and livestock products has fallen whilst the price of goods and services that are bought from other places has increased. Together, the deterioration of the terms of exchange and the absence of internal circulation of

⁷Ejido, the prevailing land tenure in Mexico, is a social form of land use, formed through government-issued grants to use federally owned property for farming and ranching cooperatives. The land cannot be sold or rented, and can be revoked if it is not being used.

⁸ According to members of the local Cattle Breeding Union, milk producers used to sell their product to *Nestlé*. However, only large-scale producers that have economies of scale can meet the low prices demanded by the transnational. Thus, producers have moved to the production of citrus fruits or to cattle fattening. However, the conditions of this activity are adverse. One cow requires around one hectare of land to reach an average weight of 350 kilos in 6 months. Selling their cattle earns them on average 6,300-9,450 pesos per cow (US\$506-756). Apart from medicines and fertilizers, ranchers have to pay a weekly average of 1,000 pesos (US\$80) to a cowboy who is in charge of looking after the animals. Among the problems mentioned by cattle ranchers, the lack of technology, commercialization, and hoarding of the profits by intermediaries stand out. Most of the cattle ranchers ignore the prices that the final buyer offers for the cattle, and they have been unable or unwilling to organize in order to avoid intermediaries.

⁹ On average, one hectare of land produces 60 tonnes of oranges per year that are sold to intermediaries, known as *coyotes*, at a price ranging between 600 and 900 Pesos per ton. Intermediaries sell them for 1,500 Pesos per ton. Thus orange producers earn a yearly average of 36,000 to 54,000 Pesos (an average of US\$300 per month) per hectare.

products, have impoverished the population. Due to inadequate transport infrastructure, Espinal has become practically excluded from the market, and this has opened a window for intermediaries to hoard a large proportion of the profit. Small producers have few options in terms of customers, so they have scarce negotiation power and low possibilities of influencing the price. Consequently, the main economic activities produce insufficient money which, additionally, is concentrated in few hands, so purchasing power for the general population is low.

In terms of the society, Espinal is inhabited by mestizo and indigenous people. In general, the latter ones are the poorest and least integrated to the economic and social system. Additionally, indigenous people are discriminated because they are regarded as inferior. This is reflected amongst the children who are ashamed of speaking Totonaco. People do not perceive insecurity or violence as a problem. Our interviewees agreed that, generally speaking, the population is not participative. Indeed, there are not many records of teamwork, cooperation or organization. Some recalled that in the past people worked together to clean the community, but recently the only example of organization that our informants recalled was when the people opposed the removal of the UVI branch in Espinal. In addition to this, the priest considers that social cohesion and solidarity is low in comparison to other rural communities where he has lived.

In sum, from the information gathered, the relationship between inhabitants does not seem to be very close nor to be based strongly on trust. It is unusual to see experiences of cooperation and organization and according to our interviewees, the participation of people is subject to the perception of a personal benefit, concretely about receiving something in exchange.

The emergence of Tumin

In 2010, a group of students and teachers at UVI built a general diagnosis of Espinal. Their conclusions pointed at the lack of money to facilitate the exchange in a place where there existed both demand and supply of products. As a response, they created the Tumin, a local complementary currency. According to Oscar Espino, there are around 15 other CCs in the country. Yet, the creators of Tumin claim that this is the first local currency of daily use in Mexico. The philosophy of this instrument is opposite to the one of fair trade: whilst the latter seeks to pay a better price to producers of products that leave the community, the former asks the producer to decrease the price for local people so that they can pay for the product. In a country with high poverty prevalence the latter reasoning sounds logic. However, to what extent is this philosophy sustainable?

The Tumin seemed to imply minimal cost, risks, and difficulties for potential users. To become a member, individuals needs to produce something or offer any service, and to declare that she wants to become a member at "The House of Tumin." New members are provided with a directory of all the members, and with 500 Tumin that they may spend in any of the businesses that appear in the directory. What is asked from new members is a compromise of accepting that other members pay in Tumins at least 10% of the price of the products or services they offer. Each Tumin is worth one Peso, so the former may be used to substitute the latter. Once members want to stop participating, they are asked to give back the 500 Tumins they were initially provided with.

The system has no cost for users because Tumins are provided “for free”. Thus, it can be regarded as a way of decreasing the prices of local products. One of the ultimate goals of Tumin is that goods produced in Espinal are sold, so ideally it should promote a preference for buying products from other members. In theory, this should stimulate the consumption of the goods produced in Espinal without a negative impact on consumers, and this might help the community to satisfy its own needs with local products. Because Tumins can only circulate inside Espinal, the internal economy should be activated. It is crucial that prices do not increase when Tumin is used, because this would invalidate the instrument.

There are two characteristics worth noting. The correct functioning of the system requires an equilibrium where all users have around 500 Tumins. Having too many Tumins signals that the member is not buying enough products from the rest of the members so is not contributing to the stimulation of economic activity. In contrast, having very few Tumins reflects that the member is either not being productive for the community, or is not receiving Tumins in exchange for his product/service. On the other hand, because the scheme is designed for giving Tumins only to those who produce something, employees and the poorest people in the community are excluded: they have no services or products to offer. Both of these characteristics will have important implications for the expansion, popularization and viability of this instrument, as we will note later.

The Tumin emerged as an attempt to link unmet needs with otherwise unused resources, in response to what the UVI diagnosed as a market failure. Its original purpose, at least in part, was to increase the availability of money as medium of exchange. But although it is partly a response to a market failure, it also emerged as an ideological and political bet. Using Tumin is an attempt to regain values of trust and mutual help, and an effort to recover the importance of currencies’ value of use over value of change. Tumins are not worthy on themselves: they cannot be sold, they generate no interest, and they are only valuable in the relationship that is built during an exchange.¹⁰ According to its creators, the project is more a school than a monetary instrument: it aims to construct a new framework for human relationships, a change in the system of life, in the values of people and in the dominant economic paradigm. The pillar on which this new framework is based on is trust. The system should break the anonymity of money through understanding that behind each paper, users can find a person and her work. This solidarity experience can be seen as a constant exercise of mutual trust. By joining in, new members make a solidarity pact of trusting the instrument and of buying to the other members. Through this commitment Tumin enhances the identity of members as part of an alliance. What makes Tumin and other similar projects particularly difficult is that its correct functioning requires a complete shift in the logic of relationships. Rather than seeking for their own benefit, users have to empathize with the rest of the group and help each other to seek the benefit of the group. This, as Espino recognizes, is one of the project’s biggest challenges. “It is swimming upstream.”

The implementation of Tumin in a rural community with low education levels presents additional challenges. Although every member understands that Tumins and Pesos are worth the

¹⁰ In fact, one of the worries today is that tourists are willing to buy Tumins. This is disturbing and undesirable for the coordinators because if this happens, pesos are transferring their value to Tumins.

same, there is a risk that members abandon the project because a large proportion of the population does not know how to calculate the 10% of the price that can be taken in Tumin.

Moreover, although the organizers do not regard this as a central problem, the Mexican Central Bank sued Tumin promoters with at a Federal Court, under the argument that it attempts against the Central Bank' legal monopoly over money printing. Defenders of Tumin argue that it does not substitute Pesos, is not of wide acceptance, and its use is not mandatory. Given that the government cannot interfere with the people's decision of whether they want to receive anything in exchange for their own goods, it seems that the Central Bank's demand is just a matter of using the right wording. Tumin is therefore not to be referred to as a currency or as money, but as a multi-bartering instrument. Although in the present the lawsuit is regarded by organizers as just a minor problem because they claim that it is not legally supported, they argue that the case, which is still open, serves as a threat both for the possible expansion of the Tumin and for the creation of other similar instruments elsewhere in the country.

An undeniable effect of the lawsuit has been the growth of fear amongst users and non-users, generating a negative impact on its use and on the trust that people have on Tumin. In fact, this situation might have affected the present study, since part of the conclusions drawn here stem from answers that could be responding to fear and mistrust on behalf of the interviewees.

Analysis

The extent to which the Tumin has had an impact on the economic situation in Espinal has been limited: unperceivable for non-users, and slight or minor according to most users. In fact, most of the interviewed people agree that since Tumin was first used there have been no changes in the economy and their own quality of life has not changed.

In terms of linking unmet needs with unused resources, local people should be, in theory, both buying and selling more products and services, people should have more money and they would be using it to buy more local products. Instead, members declare to receive a low percentage or almost nothing of their income in Tumins, and although the majority agrees that total sales have slightly increased and half of them recognize they are able to buy more things, they mention that the changes have been just mild, almost inexistent. This is so even though the Tumin mostly remains in the community because all members live inside Espinal except for a few who live in nearby communities. Yet, whilst increasing the availability of money in order to activate the local market was part of the original purpose of the project, in the perception of users and non users the Tumin has not yet achieved this to a significant point.

In terms of its distributive effect, almost all people interviewed stated that the economic gap between rich and poor has not lessened. However, this was not one of the project's original objectives, and Espino and Castro recognize that it was not designed to reach those in highest need. As stated above, in order to become members people have to produce goods or services, and several people in Espinal, in fact the poorest, do not own land nor capital.

On the other hand, almost all members recognize that the variety of products available in the community has increased since the inception of Tumin. In particular they mention honey, crafts, and herbal medicines. A minority of users report that the project promotes the habit of

producing and helps all members to sell more of their products. We found a few examples of people who have started to offer products that they did not offer before.

In sum, it would appear that the creation of the Tumin has done little to impact the local economy. Employment levels have not changed and the availability of money has not translated into a significant activation of the local market: neither an increase in people's buying power nor in producer's sales. As for the consumption patterns of the population, several users stated that they prefer to buy products from other members, both because they consider it convenient to pay with Tumin, and also because there is a sense of solidarity amongst members.

The above is related to several factors that have limited the capacity of the Tumin to improve the local economy. Perhaps the most important is the small number of users, and that some of these use it seldom. Possible reasons for this will be analyzed later on; for now it suffices to recognize that this hinders the Tumin's value as an economic device to improve people's economic situation.

The willingness or ability of locals to use the Tumin is not the only problem limiting its impact in the economic realm. Other factors related to structural problems such as the way Espinal is inserted in the market and its productive capabilities and choices, also play a role.

Espinal is a rich municipality in terms of natural resources. The soil is fertile, and the weather is warm and humid. Although the infrastructure of the place is not the most appropriate, namely the roads are not in the best condition, it is located very close to Poza Rica, which is a city that has benefited from oil production. Despite the apparent abundance of richness in the land and in the work of people, not enough money reaches Espinal. This is the consequence of a deterioration in the exchange terms of agricultural commodities produced in Espinal versus manufactured goods that the population in Espinal need to survive.

As was explained above, households have transformed their production away from the products they need and into products they export. Consequently, the deterioration in the terms of exchange paralleled by a decrease in the people's capacity to produce their own food has increased the dependence of the community on external markets. Espinal producers' possibilities of buying the goods they need have thus decreased. The problem is intensified by the lack of organization of producers and the community in general, which hinders the possibilities of increasing the profits through an increase in the bargaining power of producers. Additionally, governmental development programs have been ineffective in solving the scarcity of money in Espinal. Rather than helping to increase productive capabilities at lower prices, or integrating markets to help producers sell their products to the final consumer without the need of intermediaries, the policies have focused in solving the immediate needs of having cash. The community seems to have the capacity to increase production and attract more money. However, producers have been unable of getting their products to the appropriate markets.

Inside Espinal there are doctors, dentists, butchers, stylists, bakers, Internet stations, restaurants, and clothing, fruits, and groceries stores. Because all of these goods are required by all inhabitants, there is a possibility of bartering and of inhabitants helping each other out by spending their money in the products that are offered inside the community. In face of the scarcity of money, Tumin is an instrument that can be used to facilitate the exchange of these goods.

However, Espinal is not self-sufficient and most businesses need external products to meet the community's demand. This is reflected by the fact that a lot of Tumins are accumulated in the largest groceries stores, which have been forced to abandon membership because they cannot pay suppliers from outside the community with Tumins. The lack of circulation of paper hints at a disequilibrium. While the Tumin is a mechanism that stimulates demand through a 10% reduction in prices, the lack of circulation suggests that there is a shortage of supply in Espinal. Inflation is constrained because Tumin is pegged to Peso, but the disequilibrium is reflected in the accumulation of Tumin in large stores. The latter implies that the diagnostic of the problem is incomplete. Espinal was not only facing a problem of unused productive capacities and unsatisfied demand, but it also faced a problem of a disadvantageous integration to the market, low productivity of producers, and disequilibrium between the kind of products produced and those that are demanded in the community. Hence, the usefulness of Tumin is limited because the problems that remain unattended are out of the scope of a local currency.

Espinal has productive capabilities that are not being used, not because people cannot produce, but because given the endowments, at the prices at which they may sale their products (which are lower than market prices), the production is unviable. It is important to consider that this does not necessarily mean that Espinal is not competitive; this lack of viability can be the consequence, at least in part, of the existence of intermediaries that, given the circumstances, are in an advantageous position. In any case, although there appear to exist spare production capabilities, it is not obvious whether, under the current access to technology and know-how, these can produce at competitive prices. More importantly, local production cannot entirely fulfil the demands for diversified, industrialized products in Espinal. In sum, the problem of scarcity of money is evident, but a local currency will not solve it because there is also a local disequilibrium in terms of the types of commodities produced locally and those demanded.

As can be seen, the Tumin as an economic instrument faces serious limitations. This has not gone unnoticed by the project's coordinators, who acknowledge that the Tumin is not worthy as a complementary currency, but rather as an instrument for the community to put into practice a different set of values. It is as such then, that the Tumin should be considered and approached.

In terms of its sociological effects, Tumin has indeed helped to strengthen the ties amongst members and has fostered reciprocation. Interviewed users do mention that their trust in local people has increased, and that although it has not narrowed economic differences, it has facilitated the interaction of people who normally do not interact because they belong to different social and economic classes. Thus, in some cases it appears to have brought together the poor with the not so poor, fostering a sense of community and camaraderie among members. More importantly, the deepening in the relationships has in fact reflected in mutual help. Some users actually claim that by using Tumin all of the members are giving each other an opportunity to increase the amount of things that they can get, as they charge cheaper prices to other members.

Linked to this is the fact that when asked about what problems the Tumin has helped to solve, the majority of users mention that it has brought people closer by seeing each other as fellows and getting to know each other better. Some aver that in contrast to before using Tumin, today they share their problems. In consequence, for some users, their participation in the Tumin has

created a sense of community, union, and of identification within a group, and few of them also recognize that it is a way of organizing themselves to help each other. They also recognize the value of mutual support and prefer to buy one another and to accept more Tumin.

Thus, just as advocates of local currencies claim, it seems that Tumin has somewhat strengthened the notion of community and the identity of Espinal which could in turn encourage local pride. Indeed, most users declare to be proud of using Tumin. Moreover, although the general consensus is that the project is not widespread and that it belongs to UVI, Tumin does make Espinal's inhabitants, users and non-users, proud of their community. This is surprising as in theory these effects would be built up only to the extent that the project expands throughout the community. A factor that seems to have played an important role in raising a sentiment of pride is that Tumin has attracted a lot of foreign visitors. This is precisely what members and non-members value most about the Tumin because they claim that it has made Espinal stand out. Additionally, teenagers in general mention that Tumin is a way of valuing the ancient culture of the region. Several non-users mention that they identify this instrument with indigenous people. Although this is not surprising as everybody in the community understands that Tumin means money in Totonaco, it suggests that the Tumin has the potential of empowering social groups.

In this sense, the majority of users believe that they are able to change their own situation more than before the Tumin was used. There seems to be the perception, although mild, that Tumin is a way of helping themselves to improve their situation. This supports the hypothesis that the Tumin has the potential of empowering people. This effect could be strengthened as the trust and reciprocity between members intensifies. Moreover, the atmosphere of reciprocation and mutual help can foster teamwork and organization, which could in turn contribute to empower social groups if their organization derives in concrete improvements.

Previous studies mention that local currencies may foster autonomy, sovereignty and economic self-determination. Looking more deeply at the territorial nature of Tumin may shed light on its potential in this direction. Contrary to what some authors have called the deterritorialization of money due to the expansion of transnational currencies (Cohen, 2006), the emergence the Tumin can be interpreted as a re-territorialization of money. This means recognizing its bond to a particular territory that portrays a specific identity, expressed in a system of socio-environmental relationships, in the production of values, and in the management of local resources (Arocena, 2001). The Tumin is bonded to the territory of Espinal in several ways: its name is in the local indigenous language, the tickets portray local pictures and images, the institution that coordinates it is locally based, members are mostly local, it seeks to augment the exchange of local products, and, most importantly, what sustains it is not a centralized institution, but the trust and solidarity amongst those who share a living space. When money is linked to a territory in this way, it becomes part of the socio-environmental relationships through which a territory is built and so it has the potential of strengthening local identity and reciprocity.

The second part of Cohen's argument is that through the deterritorialization of money, national sovereignty is hindered. It could be said that, although in the opposite direction, local currencies also hamper national sovereignty since, if similar projects multiplied or expanded in

scale, they could eventually affect the States authorities' control over the circulation and use of money within their own frontiers.

However, this is only true if sovereignty is understood as centralized, homogenous control. Yet Mexico is constitutionally recognized as a multicultural society, and this should imply having an administration and a society that recognize this diversity, value it and open spaces for its expression in different spheres. Sovereignty understood as supreme centralized control, as Cohen proposes, is unfit for pluricultural societies. A different concept of sovereignty must be pinned, one which questions the concept of nation-state by recognizing the existence of different needs, and that is more compatible with the projects of cultural, legal, political and economic pluralism that are emerging. The Tumin may be regarded as a project of economic pluralism through the territorialization of money. By linking an instrument of exchange to the local needs and dynamics in a specific territory, it reflects the diversity in Mexican society and it places a bet on a different set of values or principles that can be considered when taking economic decisions on a local sphere.

Having said that, even if an experience of the scale of Tumin cannot be regarded as a threat, the risk that the expansion of local bartering instruments represent must be recognized. The intention of having a centralized control of the emission of money is not just a matter of power and politics, it responds to the real need of having an instrument of general use that facilitates the exchange in a macro sphere. This does not mean that these experiences should not exist. Because communities are not self-sufficient, the mere need of each other means that the centrally-controlled Pesos will still be the most widely used currency, so the threat to inflation should be low if existent. The social benefits of a successful experience that is effective in stimulating production and facilitating exchange are greater than the risk of losing monetary control.

Most of the existing and potential benefits of the Tumin on the social sphere are limited by what was mentioned above as one of its main weaknesses: its lack of penetration amongst local population. Both users and non-users admit to have few or no friends who are members. Part of this could be consequence of insufficient promotion: In general we perceived a sense of confusion and ignorance about the project amongst non-users. Although we did not find anyone who declared never to have heard about Tumin, the most frequent reason provided for not being members was lack of information. Although some of them were not interested in participating, there were several who seemed eager to understand the Tumin and how they could get involved. This has become a problem because often employees of member businesses refuse to accept Tumin, causing distrust and disturbances to other members.¹¹

Moreover, local authorities are uninvolved and misinformed of this project. We spoke to the municipal mayor and our perception is that the local government does not want to get

¹¹ Banco de México's lawsuit against Tumin can cast doubt on whether this conclusion is a reliable reflection of the situation. It is likely that we were seen by individuals with suspicion, and this may have induced interviewed individuals to pretend not to know the project. However, particularly in the case of employees, the lack of information has had concrete adverse consequences for the project: Because they do not understand the compromise that the members did regarding Tumin, there have been several cases when employees do not accept the Tumins from other members. This in turn has decreased the number of Tumin users, and, among the interviewed individuals, the perception that membership is decreasing prevails. Many claim that when the Tumin was a novelty, it was much more used.

involved and wants to remain unlinked to the project. This was very clear when the mayor did not know (or pretended to be misinformed) about how the Tumin works, and who can get involved.

A related challenge is the appropriation of the project by the local population. Because the system was created by UVI members and it is mainly them who coordinate it and promote its use, most non-users, and even some users, refer to it as belonging to a small group of people, a sort of club to which only a few can belong.¹² But the promotion and expansion of Tumin does depend heavily on the coordinators. For example, of those non-members who declared to be interested in learning how Tumin works, none declared to have had the initiative to find out more about it.

The problem of expansion is not limited to finding ways in which non-members decide to join Tumin; it is also important to reduce the attrition of members, which seems to be a current difficulty. Among the reasons provided by former users to stop using Tumin, two stand out. One of them is that trust is fragile, so one disappointment, such as an employee refusing to accept Tumin, suffices for users to stop trusting the system. The second reason is the disequilibrium faced by members, such as large grocery stores, who receive large amounts of Tumin but cannot use them to pay external providers. The uncertainty among members has been intensified by former members who accumulated too many Tumins and as a result they no longer accept it. As it appears, according to Irene Castellanos this problem reflects that these members were not spending enough in local products. It is possible that they were not using Tumins to pay for some services in their community, namely for the doctor, dentist, hairdresser or butcher, but what matters is that the products Espinal's inhabitants are demanding are not supplied locally.

An additional factor that impedes its expansion is that a generalized distribution system of Tumins has not been found. The most obvious case are employees who cannot become members unless they produce something. Although we acknowledge that this condition is necessary in order to ensure that Tumins are supported by real products and services and therefore in order to counteract inflation, we consider this diminishes the potential benefits of the project. At first instance it seems that employees are actually offering their service so they might as well receive Tumins for it. However, coordinators aver that providing employees with Tumins could annoy producers under the argument that the former are not being asked to sell their products cheaper. Another possibility could be to pay part of their wage in Tumins, but this would be directly against the Federal Labor Regulations and is therefore not a real possibility. Because coordinators are aware of this limitation, they have created a system to counteract this exclusion: Non-members may acquire Tumin by paying in pesos at member stores and asking to get their change in Tumins.

Yet, distribution, appropriation and expansion of the project are only part of the problem. Perhaps the deeper challenges lie on what Collin (2010) and Lietaer (2005) point out as risks and limits for complementary currencies. It seems that by using Tumin people are not agreeing to accept a different measure of value, but that they are using it to complement the prices of products. The outcome is that Tumin is pegged to Pesos, and that the old agreement where conventional money represents the measure of value prevails. Therefore, as Lietaer warns, the Tumin does not promote the recognition of different types of value. This has not meant that the

¹² In this sense an important feature is that two of the coordinators do not live in Espinal, but in a nearby community.

Tumin is not based on trust. Here the conclusions of both Lietaer and Collin are partly unfit for describing what actually occurs in Espinal with the use of this instrument. The fact that people receive Tumin instead of Pesos, even if it is only 10%, means that they are deciding to trust their neighbors, to trust that tomorrow someone else will accept those Tumin instead of Pesos. The project has in fact meant a process of exercising and valuing trust and solidarity. That said, the difficulty of qualitatively differentiating Tumin from Pesos has indeed meant that instead of activating different types of values that single currencies systematically exclude (Brakken *et al*, 2012), the Tumin *risks* working merely as a promotion to buy more of what conventional money already values. From what we could gather during the research, the changes in the notion of value and the valuing of different goods and services are merely changing. The process is far from consolidating, and it still requires work and receptivity from users and not-yet-users alike.

Implications and further thoughts

Some implications for Tumin users and for policy makers may be drawn from our analysis. Solidarity economy projects are autonomous, and part of their value lies precisely in this autonomy. Because they are a response to a system that is not being able to meet the needs of the population, their significance lies in the effort to question this system and the values that lie on its basis. The process of emergence in itself is beneficial for the community, and the sense of belonging and empowerment that these projects may construct are one of the most valuable features. Because these projects are local processes, Tumin's coordinators agree that there is no role for the government in legislating in the matter, since external interference would obstruct the construction of autonomy and empowerment that CCs can generate. There is an important conjunction at the present, as the Mexican government is planning the creation of a National Institute of Solidarity Economy. The sharing of the lessons learnt with Tumin would be very valuable in the process of the Institute's design.

It seems that the effectiveness of Tumin for solving in itself the economic problems of Espinal, namely the unfavorable conditions for small producers, is limited. It is precisely here where the government has a role to play through favoring an improvement in small producers' stance. There are several ways in which this could be achieved. Firstly the integration of markets could be facilitated in order to decrease either the need of intermediaries or their bargaining power. On the other hand, better information could be provided to small producers about the prices that the final customers pay for the product, and about the prices that different intermediaries pay. The government could improve the profitability of organization. This could be done by easing information about the possibilities of having economies of scale, by offering credit for organizations or collective training. Finally, the budget destined to rural areas should include promotion of sustainable productive activities, through credits, loans and subsidies, at least while producers develop and strengthen their capacities.

Increasing the bargaining power in front of intermediaries and decreasing transportation costs, could also be reached through the organization of small producers. A project such as Tumin can play a determinant role in this sense. The values that rule relationships both in cooperatives and in Tumin are the same: solidarity, mutual assistance, regarding each other as fellows, and

sharing the individual capacities to improve everyone's stance. Hence, to the extent that Tumin encourages relationships of trust, and favors the organization of Espinal's inhabitants, its potential of being a catalyzer of social and economic change will be boosted.

Regarding the implications for Espinal's Tumin users, we consider that an important area of opportunity is improving its outreach to children and teenagers. In contrast with many adults, the majority of Espinal's children and youngsters not only know about the existence of Tumin, but they feel proud about it. Some children who were interviewed mentioned that Tumin was worth more than Peso due to several reasons: because it is a different thing, because sometimes people have more money with Tumin, because people always have Tumin whilst sometimes they do not have money, because it has symbols from the past, and because only people from Espinal use it. At school, children of all grades were aware of Tumin, and several of them, particularly in higher grades, knew how it worked. In spite of the positive perception of this instrument, most children have never used it and in general there is confusion about how it works exactly. Thus, evidence points at the opportunity of spreading and popularizing the use of Tumin through including children. The opportunity also exists for inculcating new values of mutual assistance and solidarity from the early years of elementary school. This would not only contribute to the future survival of the project, but it also has the potential of strengthening the project in the present. Children could show their parents how the Tumin works, therefore contributing to the expansion.

Although the expansion of the Tumin is an important step to enhance its potential, there are many other challenges that the project needs to overcome. Collin might be right when she argues that the real challenge is how to generate alternative currencies that are able to alter the system of values and generate wealth in communities. As has been pointed out, the Tumin has not yet achieved this. But it is also important to recognize that solidarity economies are processes, not points of arrival. The Tumin is a process; as Espino points out, it is a school. And educational processes take time. We should not demand from Tumin what it cannot yet provide, rather we should acknowledge the significance of its emergence, its potential within Espinal, and the inspiration it has meant for the creation of similar projects in other communities.

The Tumin is just an example of the many experiences of community currencies in the world. It responds to worrisome economic and social situations that prevailed in Espinal, and this makes it valuable. However, this does not mean that the way it has been implemented and the elements that characterize it, such as being complementary, is the only or the best way of designing or implementing a community currency. But it certainly reflects that voluntary work may transform ideas into something tangible without material and institutional support and with limited resources. Consequently, it reveals the potential of an idea. Tumin's main value rests in its contribution to accumulate experience in a realm that is yet to be explored.

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