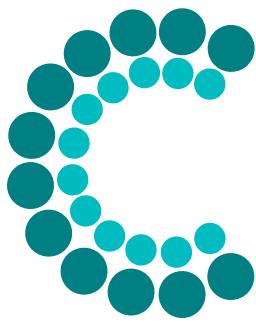


Place, C. (2011). Community Currency Progress in Latin America (Banco Palmas). *International Journal of Community Currency Research* 15(D), 39-46. <https://doi.org/10.15133/j.ijccr.2011.019>

This article is published under a *Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International (CC BY-NC-SA)*: <https://creativecommons.org/licenses/by-nc-sa/4.0/>



© The Author(s), 2011



Community Currency Progress in Latin America: Evolution in Brazil of a Socio-Technical Innovation for Economic Sustainability

Christophe Place

HEC-Paris / Fundação Getulio Vargas São Paulo, Brazil

Abstract

After losing its lawsuit against a community bank issuing a community currency, the Central Bank of Brazil has just started a cooperation agreement with the National Secretary for Solidarity Economy of the Labour Ministry of Brazil to support and develop the current 51 community banks and their own social currency in order to reach about 300 by 2012, becoming an exemplary model. This world premiere central bank support associated with one of the highest amount of community currency systems of Latin America brought Brazil as a significant site of experimentation in this field. Furthermore, some daring innovations seem to confirm this position in a long-term future unless this normative control of a centralized institution decreases the creativity. Indeed, sustainable economic orientation still needs creative tools, associated to an ethical vision, to decrease material consumption dependence and increase post-materialist values exchange: community currency transformation to an effective grassroots innovation for sustainability, prosperity and democracy seems to be necessary.

Introduction

In some area such as Latin America, where there is a potentially abundant market, a lack of transaction tool prevents market exchange, brings pauperization and thus high income disparities such as in Brazil. In 2007, about 2,600 community currencies were trying to avoid this paradigm from which 55% were in Europe, 36% in Japan, 5% in United States of America and Canada, 3% in Australia and New Zealand, and only 1% in the rest of the world (Lietaer et al, 2008).

The community currency field is in perpetual progress all over the world, including Latin America where a lot of evolution took place in the last decade. The purpose of this article is to study why Brazil became a site of currency experimentation in recent years and to present some exemplary schemes and promising innovations. Indeed, it seems that the most significant site of currency experimentation of Latin America, Brazil, has a certain importance in the trend of community currency development in this region. Foremost, the paper will explain why community banks, issuing social currencies, became an exemplary model in terms their impact, size and longevity.

Finally, it will also highlight some other Brazilian socio-technical innovations in term of community currency systems. This research suggests that a future multicurrency society could be evolving, even in the southern countries (Swan, 2008).

Banco Palmas: A Significant Example in Latin America

Argentina used to be a famous community currency example in Latin America with 2,000 barter currencies created since 1995 before their collapse in September 2002 caused by falsification and thus inflation (Primavera, 2009). Venezuela is also famous for its 11 barter currencies created between June 2007 and October 2009 and used in 12 barter community market, or Mercados Comunitarios de Trueque in Spanish, spread on 13 of the 23 Venezuelan states (Shephard, 2009).

The Social Trade Organization is currently promoting rural development projects linked with biodiesel, organic agriculture and reforestation through community currency systems in Honduras, Costa Rica, and Ecuador¹ (Brenes, 2009). Moreover, the Social Trade

Organization built in Uruguay in November 2009 a new network of transactions C3U, for Circuito de Crédito Comercial Uruguay in Spanish, which allows small and medium businesses to access to productive credit through a community currency. This system also enables to pay for taxes through this community currency which is a world first step for a future multicurrency economy (STRO, 2010).

Despite all of those initiatives, especially Uruguay government who accepted tax payment in community currency, Brazil seems to be the most significant site for community currency development in Latin America with about 51 community banks,² or bancos comunitários in Portuguese, with their own local currency called also social currency, or moeda social in Portuguese, which managed an equivalent of R\$ 40,000,000³ in the last 3 years thanks to their suburban bankers (FBES, 2009). A community bank not only issues and manages social currency, but also borrows social and national money as a microcredit correspondent of the Brazilian microfinance sector. Some community banks use a microcredit system both in national and social currency. Thus, you can receive social currency by either exchanging national currency against social currency or contracting a microcredit loan in social currency.

By complementing lawful fiat money, or official national currency with its unique status of legal tender and full settlement value assured by law, social currency is, on an economical, social, functional and legal standpoint, a market mechanism considered as an alternative means to promote access to products, integration of people into the labour market, and access to social rights through a contractual agreement signed by members of a given community.⁴ Indeed, no one can be obliged to accept a social currency or to participate in a social currency system (Freire, 2009).

Social currency, usually with national currency coverage, circulates in little municipalities or poor districts. Thus, by paying with social currency you receive a discount from 2% to 10%. Community banks offer either a national money loan with an interest rate of below 2%, instead of 8.1% in the conventional financial market; or a social currency loan with zero interest rate below an equivalent of R\$ 800⁵, and with an interest rate around 2% above it. To receive those national or social money loans,

you must live in the community, present a resource application plan, and receive the validation of your neighbourhood with regard to your honest behaviour without any consultation of the Credit Protection Service Agency. Even with higher transaction costs than national currency,⁶ those incentives promote the use of social currencies in day-to-day transactions in local economy. It is a semi-convertible complementary community currency with national currency value parity,⁷ because only shopkeepers, or sellers, can exchange social currency in national currency whereas inhabitants, or buyers, can't.

As social currency is issued by a community bank managed by inhabitant, each community chooses the symbol, design and support, printed notes or electronic card, of its social currency. Only used within a closed market of determined goods and services exchange, social currency promotes local economy and avoids money disappearance outside of the community caused by products importation. It is thus a strong democratic communication and integration tool for communities, avoiding global and cultural exclusion and hegemony.

Each social currency is part of the community bank Brazilian network (Rede Brasileira de Bancos Comunitários) which was launched by the socioeconomic solidarity and development Banco Palmas Institute created in 2003. Indeed, Banco Palmas, the first Brazilian community bank created in 1997 by João Joaquim De Melo Neto Segundo in the city of Fortaleza in the Brazilian state of Ceará, became a replicable community currency model in Brazil for the development of alternative economic system for social inclusion. Banco Palmas received the Brazilian millennium development goals prize from the United Nations development program in 2008, the social entrepreneur recognition from Ashoka in 2005, and the social technology prize of the Banco do Brasil foundation in 2005 (Segundo, 2006).

Community banks are working as a local microcredit association without any institutional structure and legally depend on the network manager Banco Palmas Institute concerning not only conventions with public authorities and official banks, but also security seal against falsification on the bills. The Institute communicates the creation of a new social currency and its amount of circulation to the Central Bank without any previous authorization. Social currencies need the same

amount of national conventional money within a warranty fund to insure its same value parity or equivalence, to control its circulation and thus to avoid a national economic disorder through a competition with the official money. As social currencies are recognized as food or transport vouchers, they are not infringing the money issue restriction law of the Central Bank and therefore don't suffer from any official organ control.

Indeed, they only need to inform the Central Bank and be accompanied by the Labour Ministry. To allow community banks to have their own savings and to regulate social currencies situation it seems necessary to create regulations and a control mechanism to consolidate their evolution and protect their experiences (Félix, 2009).

Consequently, in 2007, the federal deputy Luíza Erundina and the state deputy Eudes Xavier created a 'complementary law project' which established the creation of a Solidarity and Popular Finance National Segment. According to the Article 22 of this law project, the Solidarity and Popular Finance National Council (CONAFIS) should form a cooperation protocol with the Central Bank of Brazil to reach an efficient adjustment, for the fiscal inspection of the Solidarity Development Popular Banks (BPDS). Indeed, some economic specialists believe that social currency growth and dissemination may create inflation and financial disorder. However, social currencies address financial exclusion by reaching some poor communities that official banks don't. Furthermore, community banks only deal with credits and donation transaction linked with real economy instead of speculative one. Finally as the popular credit segment doesn't have a national level articulation, it hampers its growth and dissemination (Pitts, 2009).

According to Paul Singer of the National Secretariat for Solidarity Economy (SENAES) of the Labour Ministry, or Ministério do Trabalho in Portuguese, about 150 community banks will be created by 2010 with their own social currency and 300 by 2012 (Sanches 2009). The Central Bank of Brazil launched a 2 day Finance Inclusion Forum in Salvador, and the entire day of 18th of November 2009 was dedicated to community banks and social currencies. The Central Bank made a public self-criticism about a lost lawsuit against Banco Palmas and its new support for the expansion of the community bank network. Consequently, this lost law suit appears to be a critical stage in the development of Banco Palmas in Brazil in terms of legal evolution and institutional support, becoming a referent in Latin America (FBES, 2009).

In March 2010, a cooperation agreement between SENAES and the Central Bank was made to achieve studies on community banks and on social currency, envisioning the creation of monitoring and evaluation mechanisms for the development of this sector in Brazil. After a decade of many articulations and mobilisations of

"For the first time the Central Bank of Brazil recognised the existence of community banks and social currency and their importance as social technology that generates financial inclusion."

the solidarity economy movement, with the support of SENAES, the recognition by the Brazilian State was won thanks to these terms of cooperation: territory-based community, like small municipalities or neighbourhoods, can build their monetary authority.

For the first time the Central Bank of Brazil recognised the existence of community banks and social currency and their importance as social technology that generates financial inclusion. This partnership achievement and the elaboration of norms should give directions to actors who want to know, support and develop community banks, using social currency. On the basis of this agreement, community bank initiatives won a new institutional framework, enabling the realisation of new strategic partnerships for their development. Moreover, these banks would benefit from the enhancement of incentive policies, and the institutional environment would be quite favourable for the consolidation of such policies: public resources for training activities, technical assistance and adequate credit lines (SENAES, 2010).

Social currencies should be regarded as public policy instruments for local development compatible with monetary policy to be taken under the responsibility of the Central Bank.⁸ Indeed, social currency system, through its legal and contractual arrangements, establishes methods for coordinating and managing local economic activities, thus enabling individuals to exercise greater control over the creation and use of the social currency, in accordance with the political will of the community. It is compatible not only with the objectives of monetary policy and with banking regulations, but also with public policies for solidarity finance, targeted at generating jobs and income, fostering social inclusion, and promoting solidarity and fair local development. The use of social currencies neither affects the power of central banks to control the money supply nor poses a serious threat to the role of central banks in relation to national payment systems, nor even jeopardizes the stability of the financial system (Freire, 2009).

"The creation of a necessary and adequate regulatory framework for the development of public policies for solidarity finance through the issuing of social currencies may prove an essential condition for reducing social and regional inequalities observed in Brazil, and contribute toward the eradication of poverty. It is, for this reason,

important that there be close coordination between initiatives of the National Secretariat for Solidarity Economy and those of the Central Bank of Brazil, so that, apart from compliance with the Law and compatibility with monetary policy under responsibility of the Central Bank, the issuing of social currencies in Brazil remains to be based upon free enterprise and the dignity of human labour, so that all Brazilians can enjoy dignified livelihoods, in accordance with the precepts of social justice and of the constitutional economic order." (Freire, 2009:92).

This is the first time in history that a central bank is supporting community currency initiatives and it has an extraordinary political impact for their acceptance, credibility and evolution. It is clear that this current and future evolution of free access to monetary recourses would break the scale of appropriate technology access for the base of the pyramid in Brazil. Because sustainable economic strategy can only be reached through the emergence of social technology, locally adaptable and easy to replicate (Rodrigues et al, 2008). As Brazil is becoming one of the most significant sites of community currency development in Latin America through its exemplary model of social currency, should all the regional countries follow the same path? Could the control and normalization of socio-technical innovations by a centralized institution decrease the rate of creativity of community currency systems?

Recent and future currency innovation in Brazil

Some institutions are interested in this research area of community currency as a socio-technical innovation for economic sustainability: Politeia, an incubator of democratic educational practice; Instituto Futuro Educação, on democratic education; Cidade do Conhecimento, the institute of advanced studies of the University of São Paulo; Incubadora Tecnológica de Cooperativas Populares – Fundação Getulio Vargas and Universidade de São Paulo, two popular cooperative technological incubators of the most famous Brazilian universities; Crie Futuros, a network for future creativity. Furthermore, Brazil is not only a quantitative example for community currency systems in

Latin America thanks to its social currency system impact, size and longevity, but also a qualitative one through its numerous innovations.

C3: Trade and Consumption Circuit

Brazil is already famous for the virtual barter system with the C3 purchase circuit which is a barter backed currency launched in April 2005 in Porto Alegre by the Social Trade Organization (STRO). This integration through barter encourages purchasing power to circulate more effectively within a given community or region. It administers the transactions, comparable to a home-banking system, to help supply and demand meet each other more easily in the built-in marketplace, thus opening up new markets for the members. It's based on a barter currency which grows the local consumption and production through an internet software program connecting entrepreneurs in a barter network. This open source community currency software is called Cyclos and use a capital and consumption circuit methodology (Brenes, 2009).

Ecoelce: waste against energy barter

However, Brazil is less known for its waste energy barter called Ecoelce launched in 2006 by the Coelce, the third biggest energy distributor of the north east region of Brazil. It is a system where people pay their electricity bill with recycling solid waste, a barter system of waste against energy based on mutual appreciation. This is a barter of industrial recycling solid waste for electrical energy credit bonus on the consumer account of the low income population. In the city of Fortaleza, 59 barter centers have collected 4,600 tons of waste, generating a credit of R\$ 588,000⁹ as energy bonus for the customers' accounts of more than 120,000 beneficiaries. Since the beginning of the project, about 57% of the program clients paid their entire electrical bill (Lima, 2009).

Cubo Card: musical community currency

Launched in 2004 by Pablo Capilé in Cuiabá in the state of Mato Grosso, the Cubo Card is a

community currency which allows exchange of goods and services within a music community, or cultural collective called Cubo.¹⁰

"This collaborative cultural organization aims to support self-sustainable and self-managed cultural enterprises, disseminating products and services through the internet. With their own credit system (Cubo Card), public and private institutions support them providing services, meals, tickets to concert houses etc." (Lemos et al, 2008:15).

Firstly based on the exchange of voluntary work for music recording, rehearsal room rent, or band marketing, this currency became a vector of local music culture development. The same year, as too much of currency was created and not enough exchanged, the inflation led to the system collapse and showed the necessity of exchangeable activities diversification within the community in order to balance the monetary creation with its circulation. Henceforth, 81,000 Cubo Card are in circulation in a kind of Local Exchange Trading System, including not only independent music festivals but also restaurant, hotel, English lessons, tattoos, books... An electronic card will be launched in 2010 (Espaço Cubo, 2009).

"In the city of Fortaleza, 59 Ecoalce barter centers have collected 4,600 tons of waste, generating a credit of R\$ 588,0009 as energy bonus for the customers' accounts of more than 120,000 beneficiaries."

Arassussa: water management against sustainable house barter

In the city of Araçuaí in the state of Minas Gerais, was built the Arassussa currency in 2005 by Tião Rocha through the Culture and Development Popular Center (CPCD). It allows barter between a mandatory commitment list, linked with water management, for a sustainable house kit. This kit contains a comfortable and natural thermal and sound insulation, a storm-water drain, a composting system for organic food production. 220 families have benefited from this sustainable house kit by accomplished commitments in relation with water contamination analysis, rainwater collection and children education. This community currency is still an immaterial and conceptual one but in 2010 will be set up a

real Arassussa currency, also used as a community currency for the exchange of local organic agricultural production in order to give directions for healthy and natural products consumption (CPCD, 2009).

The Hub: currency creation as a community animation tool

The Hub - São Paulo is the name of the network, a place where one meet people from civil, public and private organizations who want to change the society for a better world. As the heart of this structure is the cooperation, collaboration and sharing, the idea of a community currency to connect the members appears in 2009 and will be introduced in 2010 by Celso Sekiguchi, Mariana Nicolletti and Narjara Thamiz. Until now, the concept is based on various systems with different challenges: a weekly barter fair between members, a local currency for external transaction with special discount, a permanent service exchange system, and an emergency no charge microcredit fund used for the members in local currency, national currency, or working hours. The purpose is to create an economic culture of abundance, with a possible collaboration of the Instituto Inovamente and the Instituto Elos, through a social network with about 40 participants inside and outside The Hub (The Hub, 2010).

As community currency permits to keep the created wealth within the community because it's a closed market, the monetary inclusion of a community has a real big impact on his development through economic growth. Nevertheless, the economic system is still based on the same wealth creation definition based on production-consumption system veneration (Jackson, 2009). It increases the local Gross Domestic Product and thus the local economy with its positive and negative socio-environmental impact.¹¹ That's why socio-technical innovations for economic sustainability through community currencies still need evolution, even in Brazil. It has to empower communities to build economies that are both sustainable and democratic in order to build the true wealth of the grassroots, the intelligence of heart (Greco, 2009; Viveret, 2002).

The five community currency systems detailed above are part of a wider field of alternative institutions of exchange including service exchange bartering, goods barter market, and book banks. These recent grassroots innovations should give us the hope of future progress in this field not only in Brazil but also in Latin America. Complementary community currency systems are only a tool, a mean, a modality to reach an end, a vision, a long-term strategy. Consequently, innovations must be made on both open, plural and sufficient currency tools; and its associated vision to reach a society of democracy, sustainability, prosperity through a solidarity and ecological economy. The biggest challenge is no more in the free and easy access of wealth valuation tools, but moreover in the integration of a genuine global collective intelligence within the scheme through an ethical leadership and governance.

shouldn't be made in both currency innovative tools and sustainable prosperity vision? To achieve this, the sector of venture philanthropy, even in Latin America, shouldn't be more interested in this necessary transition, evolution, revolution thanks to a micro-philanthropic seed fund to reach monetary viability within a local community project?

Conclusion

Brazil is, currently, a significant site in the field of community currency in Latin America. The last decade, and especially the years of 2009 and 2010 have brought a real evolution in its consideration as a strong socio-technical innovation for economic inclusion of community through monetary authority and autonomy. Indeed, we just analysed a high development in the last decade through various innovative schemes and the acceptance of an exemplary model of community bank with its social currency. Even if the majority of community currency systems are in the northern and developed countries, Latin America, and especially Brazil have an important experience in this field and a strong potential for its future progress.

Nevertheless, as community currency innovation and circulation stability totally depends on a democratic management system, would the possible control of the Central Bank of Brazil finally destroy this creativity through homogenisation and standardization? Would a public management of this field help, or not, to achieve economic sustainability? Indeed community currency still needs a lot of innovation to create an effective sustainable economic and political tool through material and immaterial exchange incentive with community currency circulation control thanks to open rules governance. Applied research

Endnotes

¹ In Honduras, a community currency is being launched in 2008 with 7,427 Peces in circulation for biodiesel purchase and national currency conversion. In Costa Rica, a time bank, microcredit and biodiesel project has been set up in 2003 through a community currency used in a sugar, coffee and sugar cane cooperative, called the Coopevictoria. In Ecuador, a community currency project will be created in 2010 through the issue of a local currency of a community bank used by workers participating in the reforestation project.

² Those 51 community banks don't represent the whole of Brazilian social currency systems because it exclude barter community markets which are also using social currencies as, for example, the Grão used in the Brechó Eco-solidário of the city of Salvador de Bahia; or others in the Rede de Bancos de Trocas Solidárias of the city of São Paulo which brings together the Feira de Trocas Solidárias do Centro de São Paulo, Feira de Trocas Solidárias Prosol, and Feira de Trocas Solidárias da Rede Jabaquara.

³ R\$ 40,000,000, in the Brazilian national money, is equal to 17,777,777 € with an exchange rate of 2.25.

⁴ It is possible to define social currencies as non financial but human wealth in the process of production, circulation and distribution of physical goods and services produced by human labour. The local economy wealth produced benefits to the people participating in the social currency system, called an optimum monetary area, in which demand for local goods and services can be fulfilled by the local supply of goods and services before the surplus of these goods and services is exported to other areas and sectors not served by the social currency in question. Surplus local production can be exported, resulting in a redistribution of resources within the national economy and, at the same time, development of local economies and of domestic, inter-municipal, interstate, and inter-regional trade. Municipalities can participate directly or indirectly in the social currency system in various ways by stimulating activity within the currency system since, in this manner, they are also promoting increases in their potential tax revenue base. By ensuring that bank deposits of the participants of social currency systems remain in closed monetary loops within local economies, in the medium and long term, banking institutions that are partners of organizations that use social currencies, awaken to the advantages of keeping bank deposits applied in investments in the local economy.

⁵ R\$ 800, in the Brazilian national money, is equal to 355 € with an exchange rate of 2.25.

⁶ This higher transaction cost can be relativized by the fact that social currency indirectly integrates social and environmental externalities of products by being used in a local closed market of goods and services.

⁷ In every case, one social currency is equal, in value, to one national currency. For example, one Palmas, issued by Banco Palmas in Fortaleza, is equal to one Real, the Brazilian official currency issued by the Central Bank.

⁸ In view of their conventional and contractual nature, social currency systems tend to be legally structured in compliance with legal standards, within spaces in which the Law grants freedom and private autonomy in each social context. That's

why operators of social currency systems that engage in activities that are reserved for banking and financial institutions are subject to preventive and punitive control, exercised by the Central Bank. Indeed, the contractual clauses that constitute the legal frameworks that underpin the various types of social currency systems, aside from determining logistical and operational aspects of the functioning of social currency systems, also serve to determine the currency cycle (creation, distribution, issuing, and redemption of social currency) and to define the legal and regulatory framework applicable to the specific system in question.

⁹ R\$ 588,000, in the Brazilian national money, is equal to 261,333 € with an exchange rate of 2.25.

¹⁰ The global cultural network connexion, or Círculo Fora do Eixo in Portuguese, is present in 25 of the 27 Brazilian states and supporting 43 cultural collectives through independent festivals. 2 of those cultural collectives are issuing the same community currency system through their independent festival: the cultural collective Goma in the city of Uberlandia in the state of Minas Gerais has created in 2009 its own community currency called Goma Card; the cultural collective Catraia in Rio Branco in the state of Acre launched in 2008 its Catraia Card.

¹¹ Sustainable economic orientation tools should deal with the decrease of exhaustible material exchanges and the increase of renewable immaterial ones to achieve prosperity. For example, thanks to the participatory democracy management of this community currencies circulation with an income maximum and minimum quota and an exchange rate control. Thus, by controlling the circulation of currencies linked with either materialist or post-materialist exchange, we would promote a democratically defined economic orientation.

Acknowledgements

The author gratefully acknowledges the contribution and support of all directors and examiners of the research oriented thesis which inspired this paper: especially Heloísa Primavera, Lala Deheinzelin, André Carvalho, Celso Sekiguchi and Roland Vaxelaire for their review, criticism and orientation on this research oriented thesis. Jean-François Noubel, Claude Perigaud, Miguel Yasuyuki Hirota, Sophie Huet, Christophe Cesetti, Celina Whitaker, Carlos De Freitas have also participated in this paper through useful references. The author also acknowledges Dr Gill Seyfang, Professor Colin C. Williams, and Dr Noel Longhurst for giving the opportunity to write this article for the International Journal of Community Currency Research.

References

Brenes Erik (2009). STRO Foundation, Bogota. Available on <www.socialtrade.org>. Consulted the 15th of December 2009.

CPCD (2009). Relatórios técnicos. Centro Popular de Cultura e Desenvolvimento (CPCD), Belo Horizonte.

Deheinzelin Lala (2009). Novos bancos e moedas. In: SEMINÁRIO CRIE FUTUROS IBERO AMÉRICA- NOVOS BANCOS E MOEDAS, 1., 13th and 14th of October 2009, São Paulo. Presentation. São Paulo: CRIE FUTUROS.

Espaço Cubo (2009). Projeto de implementação de moedas complementares em comunidades pe. Espaço cubo, Cuiabá.

FBES (2009). Banco central reconhece a importância da rede de bancos comunitários para o desenvolvimento do país. Fórum Brasileiro de Economia Solidária (FBES), São Paulo, 24th of November 2009.

Félix Tatiana (2009). Moedas sociais crescem e fortalecem economias locais em todo o país. ADITAL, Agência de Informação Frei Tito para América Latina, Fortaleza, 23rd of September 2009. Available on <www.adital.com.br>. Consulted the 15th of March 2010.

Freire Marusa Vasconcelos (2009). Social economy and central banks: legal and regulatory issues on social currencies (social money) as a public policy instrument consistent with monetary policy. Norwich: International Journal of Community Currency Research Vol 13 pp.76-94.

Greco Thomas H. Jr. (2009). The end of money and the future of civilization. Vermont: Chelsea green publishing company.

Jackson Tim (2009). Prosperity without growth? The transition to a sustainable economy. Sustainable Development Commission, London.

Lemos Ronaldo, Castro Oona (2007). Open business models Latin America. Centro de tecnologia e sociedade da FGV DIREITO RIO, Rio de Janeiro.

Lietaer Bernard, Kennedy Margrit (2008). Monnaies régionales, de nouvelles voies vers une prospérité durable. Paris : Éditions Charles Léopold Mayer.

Lima Carlos A. Fróes et alii (2009). Programa ecoelce de troca de resíduos por bônus na conta de energia. In: V CONGRESSO DE INOVAÇÃO TECNOLÓGICA EM ENERGIA ELÉTRICA (V CINETEL), 5., 24th of June 2009, Belém. Annals. Belém: ANEEL.

Noubel Jean-François (2004). Intelligence collective, la révolution invisible. TheTransitioner.

Pitts Natasha (2009). Projeto de lei vai regulamentar atuação de bancos comunitários. Faces do Brasil – Portal de Comércio Justo e Solidário, São Paulo, 1st of October 2009. Available on <www.facesdobrasil.org.br>. Consulted the 15th of March 2010.

Primavera Heloísa (2009). Moedas sociais, clubes de troca na Argentina e o projeto SOL na França: lições a serem lembradas. In FINANÇAS SOLIDÁRIAS E REDES DE TROCA: EXPLORANDO IDÉIAS; PROJETOS E OPORTUNIDADES, 28th of November 2009, São Paulo. Presentation. São Paulo.

Rodrigues Ivete, Barbieri José Carlos (2008). 'A emergência da tecnologia social: revisitando o movimento da tecnologia apropriada como estratégia de desenvolvimento sustentável'. Revista de Administração Pública, Rio de Janeiro: FGE-EBAPE, Vol 42(6) pp.1069-1094, November/December.

Sanches Mariana (2009). 'Todas estas notas circulam no Brasil'. Época, São Paulo, 23rd of March 2009.

Segundo João Joaquim de Melo Neto (2008). 'Banco palmas... um caminho'. Boletim responsabilidade social e ambiental do sistema financeiro, Banco Central do Brasil, Brasília, Vol 29(3), April.

SENAES (2010). 'Acordo de cooperação com banco central'. Boletin Informativo, Brasília: Secretaria Nacional de Economia Solidária, (3) p.1, March.

Shephard Dorkis Georgette (2009). Monedas de trueque en Venezuela. In: SEMINÁRIO CRIE FUTUROS IBERO AMÉRICA- NOVOS BANCOS E MOEDAS, 1., 13th and 14th of October 2009, São Paulo. Presentation. São Paulo: CRIE FUTUROS.

STRO (2010). C3 Uruguay. Social Trade Organization Uruguay. Available on <www.stro.org.uy>. Consulted the 15th of March 2010.

Swan Melanie (2008). Economics of the future plus ça change. Palo Alto: MS Futures Group, 2008.

The Hub (2010). Enrede-se no Hub-SP: cultura de abundância, valores e netwaving por um mundo melhor. The Hub, São Paulo, 2010. Available on <<http://enredesenohub-sp.ning.com>>. Consulted the 15th of March 2010.

Viveret Patrick (2002). Reconsidérer la richesse. Paris: Aube.