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IMPROVING COMPLEMENTARY CURRENCY INTERCHANGE BY A REGIONAL HUB-SOLUTION

Lucas Huber*and Jens Martignoni **

* *Complino Swap Shop, (Tauschwerkstatt), Zurich*

** *FleXibles, Zurich*

ABSTRACT

Groups involved in complementary currencies (CC's) that push for an interchange between their member-currencies are not yet a favourite subject in the existing CC-grassroots movement. One reason could be the existing doubts of activists that such structures might be non-transparent, support instability, raise corruption or be a gate for the comeback of the ruling system of limitless inequality. On the other side, an interchange could open bigger markets, add more diversity or raise the number of participants above a critical number for long term survival. The authors present the case of the region of Zurich, Switzerland, where a council of different CC-organizations was founded. As a result a new software platform cc-hub was developed to bundle regional LET systems. The platform is based on the open source Online Banking software, Cyclos, and covers many possible needs of a regionally or purpose-linked network of CC's. It is able to support interchange, improve the efficiency of clearing and help to build up the necessary resilience for long term stability. It could serve as a model for cooperation between small neighbouring CC's, for organizational improvement and additional economical benefit. But to verify such benefits will be a subject of further research.

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* Email: lucas.huber@complino.ch

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INTRODUCTION

Complementary currencies are nowadays a widely spread phenomenon and lots of different types of systems and techniques have been developed. In some areas or cities more than one organization is present either of the same type, e.g. LETS, or different types like Regiogeld, Barter and LETS. In spite of the fact that a close working together like a network or alliance of such systems to allow interchange between them would bring economic advantages, such unifying hubs seem to be very seldom implemented.

Exchange between members of different systems (currencies) needs additional attention because it generates new questions often different from those that a grassroot cc-organization has experienced so far:

1. How to deal with true cooperation and competition between systems?
2. How to book different currencies.
3. How to handle a clearing-system?
4. How to set up the exchange rates?
5. How to deal with the external trade balance?
6. How to set up efficiency vs. resilience to maintain stability?

These topics are "systemic issues" of higher complexity which need special knowledge. The general lack of knowledge on how currency interchange influences the economy and how it could be managed to get a stable "super-system" (a system that includes parallel and subsystems) might even be one of the reasons for today's continuing money crisis.

An additional task for the CC-movement besides the generation of new currencies is therefore to find new ways for independent micro-economies to cooperate, to allow trade among each other as well as the exchange of values. New models of cooperation need to be developed in a process of negotiation and creation of transparency between the involved CC's. In the case of Zurich such a process has already taken important steps and is presented below.

PARTNERSHIP WORKING IN ZURICH

In the city and canton of Zurich, Switzerland, an area with about 1.4m inhabitants, are around ten locally operating CC's (2012), most of them time-based LET-Systems. Five of them started a work process, based on the research and thesis of Roman Dellsperger (University of Fribourg, Delsperger 2011) on associating or merging CC-organizations in Zurich. From this work a coordination council of the five main CC's, called Zuerichtauscht, emerged (table 1).

This council initiated a joint website (www.zuerichtauscht.ch) and a common market event in the summer where it was possible to buy and sell across borders. For this a special clearing contract was concluded between the participating organizations. Additionally a project for a common software-platform was started by the two authors, who were part of the council.

As mentioned above, interchange between currencies and a common platform in particular demands a process of negotiation and "creating transparency" between the involved CC's. The time needed and openness to find compromises should not be underestimated.

In the case of the 5 systems in Zurich which are now in the midst of this process, it turned out that this might take some years. Apart from severe rifts between some representatives of the different CC's, there are many small factors that could be an obstacle to the process of cooperation. Some of these obstacles are described by Dellsberger (2011) in his study on the openness of the Zurich CC's to support a common platform or association.

BUILDING EFFICIENT AND RESILIENT STRUCTURES

A monopoly of a regional CC might bring some advantages, for example for the branding or simpler use and for the clarity for potential users. In long term thinking a multi-currency-future where differentiated currencies or networks of currencies will "help better activate the value in the world" (Brakken, Austin, Rearick, Bindewald, 2012)

Name	Type	Software	Approx. no. of members	Website url
Give and Get	Mutual exchange, time based	Cyclos	250, incl. three associated local clubs	http://www.giveandget.ch
LETS Zürich	Mutual exchange, time based	Cyclos Minits	50	http://www.lets.ch
Complino	Mutual exchange, time based	Cyclos	90	http://www.complino.ch
Tauschen am Fluss	Mutual exchange, time based	Cyclos	250	http://www.tauschenamfluss.ch
Talent Schweiz	Mutual exchange, currency based	Cyclos	nationally based 250	http://www.talent.ch

Table 1: The members of Zuerichtauscht

and lead towards a stable and sustainable economy. But small organizations and currencies with few members have also some disadvantages. One very important issue are the higher transaction costs which have to be considered. On the one hand these costs are barriers that help to keep trade as local as possible (sustainable) on the other hand they might appear as obstacles and prevent meaningful trade and exchange.

Especially during an economic crisis, as the one Argentina has faced from 2000-2002, the short-term thriving of CC's can generate great challenges to organizations who are mainly driven by volunteers (see Gómez, 2012). After Gómez the most resilient organizations in this period where the rather small ones with a straightforward structure. With the hub solution locally rooted, smaller CC's can have both, manageability and a professionally structured wide area marketplace.

We suggest to link transaction costs for ex- and interchange with the "degree of complexity". In addition the principles of sustainability and sufficiency should be considered and get us to the following scale:

1. Exchange between the members of the own group/ currency (very low costs, few limitations)
2. Exchange between members of other neighbouring CC's (low costs, some more limitations), an optional common voucher system might be implemented on that level
3. Exchange between members of far away CC's (higher costs, more limitations)
4. Exchange between national or worldwide currencies, including $, £, € (even higher costs, strongest limitations)

Such a gradation would reconnect economical exchange closer to a sustainable, region centred design. The further the distance physically or systemically, the more limitations must be overcome and the more energy or values must be invested for the transactions. This would be a strong support for higher resilience in the meaning of diversity + interconnection (see Lietaer; Arnsperger; Goerner; Brunnhuber, 2012, p. 81-92). Such gradation also takes reference to the suggestions of Douthwaite (1999) in his "Ecology of Money", but from a more practical (grassroots) perspective instead of his systemic viewpoint.

To implement step 2, especially a simple clearing system would be useful to make transactions between neighbouring CC's as simple and as cost-effective as possible. Our solution for this task was the development of a common software platform "CC-Hub" on which different independent CC's could share their resources and which allows a very simple clearing for all interchange transactions. The hub-model and its technical implementation is a very advanced solution for multi-organizational CC-platforms.

Step 3 is already realised in German speaking countries by some CC-organizations. The one with the most advanced method is called ZART (Verein für Zusammenarbeit regionaler Tauschsysteme/Transaktionssysteme) based in Dornbirn, Austria.

Another known system on the international level is CES in South Africa. Through their centralized accounting software-design, all participating member organizations are on the same platform anyway. Many of them share a common currency (talents) and "cross-border" transactions are already part of the design. This top-down concept seems to work very well and is established in many organizations and groups around the world.

Step 4 limits itself with exchange between national or worldwide currencies to national currencies linked or backed up CC as WIR or Regiogeld. Or for LETS systems a very small and limited channel could be opened to national currencies

NETWORK AND CLEARING ORGANIZATION ZART

The association ZART was founded mainly by members of the Austrian Talent in Vorarlberg. Its members are CC's from Austria, Germany and Switzerland. Among other activities ZART provides a clearing service for their member-organizations. There are strict rules and limitations and each transaction generates a small fix transaction fee. At the moment a small member CC has a credit-limit of 30 hours or the equivalent in his or her own currency. In the year 2011 22 member-systems cleared an amount of 2'880 hours (table 2).

Year	No. of Organizations	Hours of exchange
2008	9	650 h
2009	14	1345 h
2010	21	2360 h
2011	22	2880 h

Table 2: ZART exchanges 2008 - 11

The big advantage of such a central clearing system is its transparency and in the case of ZART its democratic structure.

Figure 1 (overleaf) shows the clearing process within ZART. There are three manual entries necessary, which have to be done by the system-admin or accountant of the involved organizations.

Such a process has its limits. At the moment with a low intensity of transactions it can be handled by manual booking. Still the process can take some days or even some weeks depending on the availability and promptness of the involved administrators. If the transaction volume should increase massively it might become difficult to handle the process.

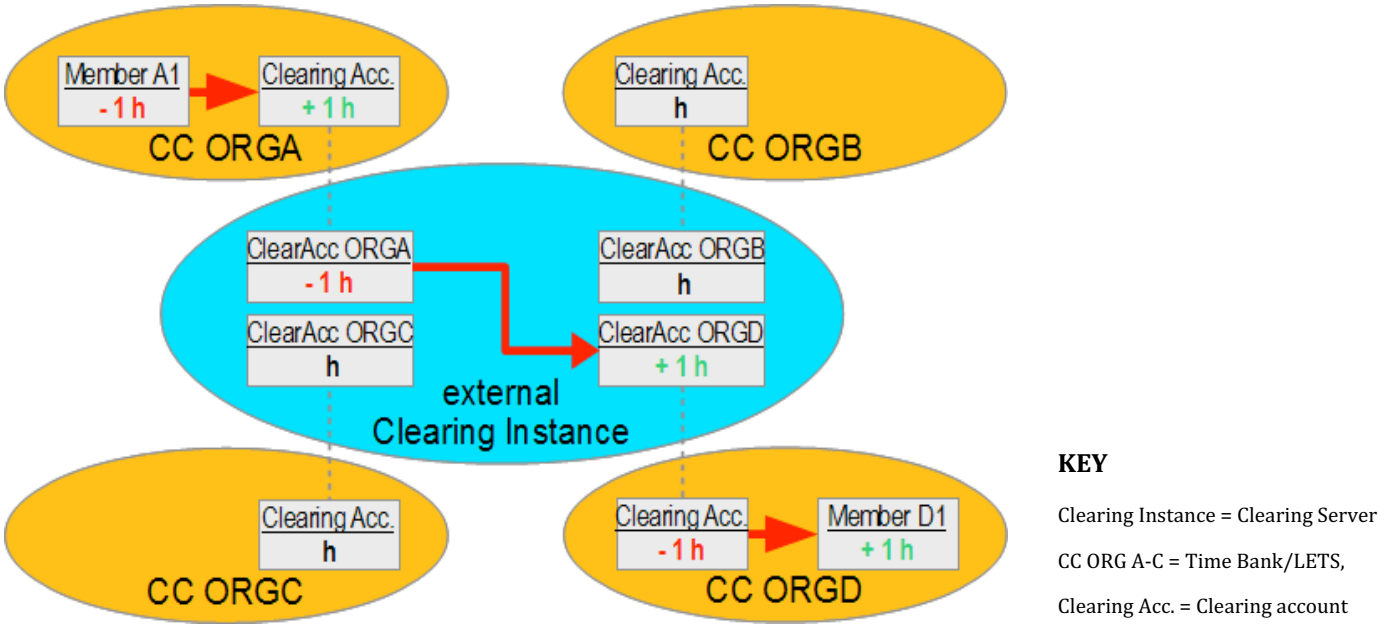

Figure 1: Clearing process within ZART

An adjustment of levels via local or regional multi-organizational platforms might result in a good combination. The platforms would handle all bookings between their member organizations, only “far-away-booking” has to be done by ZART. This idea should be brought into discussion at a future gathering of ZART.

REGIONAL MULTI-ORGANIZATIONAL PLATFORMS

Today most CC's operating with Cyclos, use a single installation for themselves. Exchange beyond the own organization becomes complicated or has to be done by manual booking. Regional multi-organizational platforms for exchange systems might be a logical enhancements of existing "island" exchange systems. Such new platforms allow to start both, new barter exchanges and monetary systems, as well as joining independent existing communities together and connect them via a central clearing instance. The platform model might enhance the impact of the existing time banks and makes it easier to create a new one. This was the starting point for the group in Zurich to build such a platform and try to integrate at least two CC’s and to monitor the resulting effects on the organizations as well as on economical improvements. During the preparation phase of the project possible pros and cons of multi-organizational platforms were collected.

Advantages for users and organizations:

- common regional marketplaces
- benefits of joint marketing and public activities
- automatic clearing between all the organizations on the platform: It is as simple to make bookings with members of other regional systems as it is with members of the own system.
- common connection to an external clearing instance.
- the usual access to Cyclos is still possible for all linked organizations. With certain restrictions also the use of the accounts and the rules
- less hosting and administration costs
- easy way to release a common voucher system for the joint instance of the given currency on the platform
- the required amount of transparency between the organizations on the platform increases the trustworthiness of them

Possible disadvantages:

- the organizations have to hand over certain autonomy to an upper level
- for the internal and external clearing on the platform, rules must be negotiated between all participating organizations. This means that the organizations must also create transparency between each other.
- different culture and especially different understanding of value and money could raise conflicts
- the maintenance of the platform and its features such as SMS requires professional administration
- there are technical limitations, such as the category listings that should be harmonized for all of the organizations on the platforms
- With Cyclos 3.6/3.7 only interchange-transactions in the same base-currency (e.g. hours) are possible

THE CC-HUB PLATFORM

The software environment for the hub project was realised with open source products with some customizations and special designed addons. The cc-hub.org web-space includes a marketplace, an intranet and a wiki is based on the CMS of Joomla. Parts of the programming and customizations were done in Switzerland, others in India.

The core software system, that is used for the CC-Hub platform solution, is the Open Source Banking Software Cyclos. Cyclos was initiated and mostly financed by the Dutch foundation STRO (Social Trade Organization). STRO supports a broad spectrum of development projects related with innovative monetary aspects. "The Network of Social Trade Organization" contains a mix of Latin American initiatives supported by research and funds of several European organizations, of which the oldest is Social TRade Organization, STRO-Holland" (STRO, 2012). The development of the Cyclos software started at 2003 and has reached now in 2012 with the Cyclos version 3.7 a mature state and an end of the software line based on the Apache Tomcat environment. So the next major step of Cyclos (Version 4) will not base any more upon Apache Tomcat, but upon the Webkit framework instead.

The CC-Hub solution is a sophisticated kind of customization of an unchanged Cyclos 3.7 installation (see figure 2). In future it will also provide the communities with small patches to improve Cyclos 3.7 with some additional features. Technically the CC-hub platform is a customized Cyclos database and can be installed by any skilled person even on a home Windows or Linux computer. For the productive use it is recommended to get a professional hoster for Cyclos, hosters are listed on the Cyclos Website.

The basis for the platform are one or more Cyclos 3.7 instances (installations), hosting up to 10 regional exchange systems (ORG A, B, C, ...). These instances are called CC-hubs (Complementary Currency hubs). In addition to the automatic internal clearing or interchange functionality of the hubs, a smart solution for a common voucher is integrated. The voucher system is connected to the hub clearing system, which means it provides full transparency on how many vouchers are circling or on the stock of every organization on the hub.

Internal exchanges between members of different organizations on the same hub are executed automatically with defined rules implemented in the setup of the hub. External bookings or swaps with another hub or CC are booked over a third external clearing instance.

In our case, we use the above mentioned, well established clearing organization ZART in Austria.

In order to have a regional or individual marketplace for each organization on different websites, a new marketplace App was developed using the Joomla CMS. This was necessary because Cyclos did not support required features like filtering of ads from the members of the different organizations.

The Joomla-Component CC-Marketplace is fully compatible with the hub and works with standard Cyclos installations too.

More detailed information about the model can be found on the download section of the hub-website (see Appendix below). The CC-Hub-model might save a huge amount of individual effort to run multiple time banks or other CC-systems. Its functionality is based on a modern and sophisticated web platform.

The CC-Hub model could also serve as an example for the further development of Cyclos into a Multi-community purpose and environment.

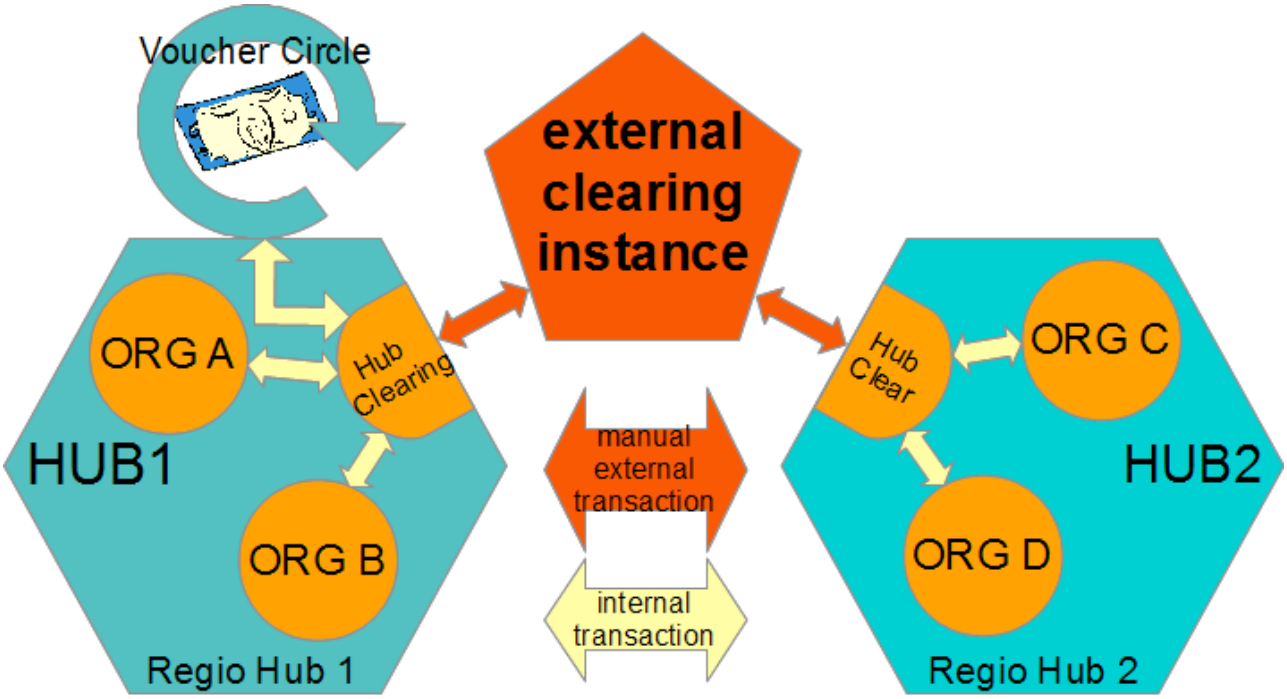

Figure 2: CC Hub platform model

FURTHER DEVELOPMENT

Next to the zuerichtausht CC group, there is a second area in the east of Switzerland where the hub idea might be tested soon. A freshly founded LETS group decided to start their system directly on a hub installation. They are willing to invite other already existing LETS to migrate from their own installation to the hub and hopefully safe technical management and costs. Further technical improvement of the platform might also be necessary. The upcoming Cyclos 4.0 might have some of the hubs functionality already implemented. Then a realignment might become necessary.

Our project includes a further monitoring of the process too. We try to collect more data on interchange and clearing, such as the number and type of the exchanged goods and services linked to same statistical data of the members.

The impacts of interchange on an economic level are not yet very clear. On the one hand trade is normally increasing because of more offers and demands. On the other hand small organizations could become unstable, if members would buy outside but are not be able to sell outside on the same level. More research on this topic is therefore necessary. On this focuses the important question is how to organize and manage skillful negotiation and proper, specific rule-making processes, to build stable platforms. Existing "social-tools" such as meeting systems or online tools for groups, could help to establish this platform-building process. Organizations with experience in interchange and clearing are welcome to participate in this research.

CONCLUSION

For small but mature LETS or CC's it is quite a challenge to think about implementing or joining a hub solution. Even more challenging would be to try to establish an own system like CC-Hub. But to think about such steps could open a perspective towards cooperation and the possibility to gain a larger market. It can be very attractive for members to be able to exchange across borders. It can also support the general movement of CC's or time-exchange in an area. But it is not a fast process, because much of the identity of an organization (and its members) might be built on its close system and long time habits. Therefore the process of negotiation and the making of rules for the clearing and interchange is essential and has to be taken seriously. It could be easier for newly founded initiatives to start already as a potential joined open platform for their area. CC-hub can serve in both situations as a possible technical and partly organisational solution for the implementation. Its free availability and the fact that it is Cyclos based, makes it a good candidate for a lot of regional or purpose focused initiatives. Other possibilities with more centralized architecture like CES (South Africa) do work on a different level of cooperation. A comparison of the development of such different hubs, interchange and clearing systems on a worldwide level might be worth a special study.

APPENDIX

cc-hub.org

The necessary resources are available on cc-hub.org. The already finished software parts and documentation can be downloaded under: http://cc-hub.org/downloads .

The website sees itself as an open platform, where any interested person can register and contribute. For specific software projects and further development of the software platform, a project management tool "projectfork" is implemented. Projectfork is customized as a crowd sourcing tool.

There is also a wiki under http://wiki.cc-hub.org .

The link to CC-MARKETPLACE demonstration/download is: http://cc-hub.org/en/cc-marketplace.

The link to Zuerichtauscht is: http://zuerichtauscht.ch

BIBLIOGRAPHY

Brakken, Marc; Austin, Preston; Rearick, Stephanie; Bindewald, Leander (2012): Thropic currencies: Ecosystem modelling and resilient economies; International Journal of Community Currency Research, 2012: Volume 16, (D) 169-175

Colacelli, Mariana; Blackburn, David J. H. (2006): Secondary Currency: An Empirical Analysis; Economics Department Barnard College, Columbia University

Dellsperger, Roman (2011): Ein Dachverband oder eine Fusion für die Tauschnetzwerke in Zürich?" Masterthesis at VMI Universität Freiburg/Schweiz

Douthwaite, Richard J. (1999): The Ecology of Money; Totnes, Green Books

Gómez, Georgina (2012) 'Sustainability of the Argentine Complementary Currency Systems:four governance systems' International Journal of Community Currency Research Volume 16, (D) 80-90

Huber. Lucas (2008): Solido, eine Währung für den Sozialen Raum - Grundlagen und Modell einer sozialräumlichen Komplementärwährung; Bachelorthesis, FHS St. Gallen/Switzerland

Kennedy, Margrit; Lietaer, Bernard A. (2004): Regionalwährungen - Neue Wege zu nachhaltigem Wohlstand, 2.Auflage, München.

Lietaer, Bernard and Belgin Stephen (2012): Money and Sustainability – The Missing Link, Report from the Club of Rome, Triarchy Press, Devon UK

Lietaer, Bernard; Arnsperger, Christian; Goerner, Sally; Brunnhuber, Stefan (2012): New Money for a New World, Qiterra Press Bolder Colorado

Martignoni, Jens (2011): Typologie von Komplementärwährungen und Erfolgsfaktoren von Komplementärwährungsorganisationen, Masterarbeit an der wirtschafts- und sozialwissenschaftlichen Fakultät der Universität Freiburg/Schweiz

Martignoni, Jens (2012): A new approach to a typology of complementary currencies; International Journal of Community Currency Research, Volume 16 (A) 1-17

Seyfang, G. and Longhurst, N. (2012) A Global Currency Movement? Grassroots Innovations Research Briefing 17 (Norwich: University of East Anglia

Seyfang, G. and Longhurst, N. (2012): Community Currencies and Sustainability; Grassroots Innovations Research Briefing 15 (Norwich: University of East Anglia)

Seyfang, G. and Longhurst, N. (2012): Mapping Community Currencies; Grassroots Innovations Research Briefing 14 (Norwich: University of East Anglia)

CES, (2013), Community-Exchange System, Website, Found 2013 Feb, www.community-exchange.org

STRO, (2012), Social TRade Organizations, Website, Found 2012 Oct, www.socialtrade.org

ZART, (2012), Verein für Zusammenarbeit regionaler Tauschsysteme/Transaktionssysteme, Found 2012 Oct., www.zart.org