Comparative analysis of the Hungarian complementary currency systems

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Abstract

Since the beginning of the crisis, the increasing attention in complementary currencies can be discovered in Hungary as well. There are already some local currencies operating in the country and a couple more initiatives are in progress. Each of them has its own story and results. They have different association forms, receive different level of local government support and have somewhat differing operating strategies and techniques.
The aim of the study is to compare three major systems as well as to analyze some of the critiques that have arisen against them. Hopefully it may help us draw some conclusions about the perspectives alternative currencies can provide for the Hungarian regions and about the future of such systems in the country.

(Keywords: complementary currency, association form, local government, expiration, fee, circulation)

Introduction

During the Great Crash of the 1930s many banks in the United States had been closed, a great portion of the deposits held by them had been lost and for many communities the issuance of own currency became necessary. These communities had many unemployed who not only could but wanted to work; the cities and people still had their needs and resources were still available. The only thing that was missing is the “web of contact” (money) that could allow the flow of the local work and resources and ensure their participation in production (*Brantd*, 2001).
The main purpose of community currency is to complement this missing web, to bridge the demand with supply, the desire with capacity, and to match the unmet needs with the underutilized resources. (These currencies therefore are also called as complementary currencies) The spread of globalization (of the “debt-money system”), the continuous increase of wealth transfer, the widening gap between rich and poor led many regions into difficult economic circumstances. This is especially true in regions where traditional (long lasting) factories closed or moved somewhere else, but the situation is dramatic in many other, more complex regions too, where people suffer from high rate of unemployment and work in uncertain jobs providing insufficient income. The complementary currency system may enable communities to use their underutilized resources and abilities to mutually help each other. It is important to note, however, that local currencies concentrate exclusively on the two key functions of money: standard of value and medium of exchange. This way the speculation with and accumulation of money is extinguished. (*Sárdi and Szendrő*, 2011)

According to experts' estimation about 3000 such working communities exists in the world. About 400 in the UK, more than a 100 in Australia and New-Zealand, many can be found in Canada, Europe and in the United States, and there are a few in Mexico, South-America, Africa and in Asia. In certain communities the number of the members is below 100 while in others it is well above thousands. Some were initiated by a few innovative people in response to downsizing and insufficient money supply, whereas some was introduced by non-profit organizations or by regional development advisors who wished to improve the economic conditions of a specific region (*Brantd*, 2001).

Theoretical review

First of all, it is important to note that since the appearance of the metal based money system, money had become superior to products and services. Although the current monetary system is not metal-based anymore, the previous statement is still valid.
Let us consider a situation where three tired men arrive to a village in the evening and hoping to have a good dinner somewhere. One of them has 20 Euros in his pocket, the other has a basket of fresh potato which worth at least 20 Euros, while the third one takes pride in earning 20 Euros only by sawing trees for an hour. The first one can get into a restaurant and enjoy a meal for his 20 Euros without any problem. The second one has to find someone who is willing to buy his potatoes. The third one faces even greater difficulties, since it is not likely that someone – in the evening – is just looking for a lumberman.
The following example is probably more practical:

Let us imagine that we close

1. a safe with 10 000 Euros in it,
2. a hall with a product worth 10 000 Euros,
3. a room with 5 men in it, who actually earn 10 000 Euros in two weeks.

If we open those doors fourteen days later, it is likely that the five men will be dead, the products will be deteriorated, the bank notes, however, will be as fresh as they were two weeks earlier.
So Money – in contrast to the judgments of Marx and other economists – is not "equivalent" with work and commodities, rather it is superior to them. Even though there are products that do not deteriorate easy, people rather accept money since it provides more opportunities.
(*Creutz*, 1995)

Furthermore, when we analyze money, the system of money and its nature, we face many contradictions:

- Money is a public medium of exchange and private property at the same time

- Multiplication of money – by counterfeiting coins and currency notes – is forbidden, culpable of punishment, but depressing it by extracting money out of circulation is allowed.
- Money is the only legal tender, but it can also be used for speculation.
- Acception of money is compulsary in case of payments but there is no liability for passing on although it would provide more sense for the former one.
- Money is a medium of exchange and an instrument for storing value at the same time. The second function, however, invalidates the first one.
- We use money at the greatest frequency in our economy although its value is not stable.
- Money comes along with interest and compounded interest despite that it is mathematically self-destructive.

(*Creutz*, 1995)

These contradictions would already be enough to understand the problematic nature of money and the problems it generates, especially if we emphasize the basic, central signification of money in our economy.

Prime Minister of France, Eduard Daladier, said the following during the London Conference in 1934:

"In our economic system money has the same function as blood for the body of human beings. In order to fulfil all the different functions of life, circulation of the blood must be ensured without interruption. With money it is the same – it necessarily needs to circulate in order to realize full employment" (*Glötzl*, 1995).

We usually receive money for providing a product or service, and the same way we usually give it away in exchange for a product or service. However, we can use it to other purposes as well, such as donation or lending, or we can just simply let it sit. If we donate the money, it moves from one person to another and the new owner can use it for any good or service she requires. If we lend it, we temporary give up our right for that money. If we let it sit, then we hold the satisfaction of our needs and wants to a later date. This way, however, the circulation of money stops, and this contraction is not a single event, rather a chain-reaction. If, for example, money changes hands two times a month then a deposited 100 Euro will cause a 2 400 Euro shortfall in demand a year. In case of donation and lending circulation remains closed. Holding back money, however, cause disturbance which in the course of time will accumulate. Therefore one of the basic defects of the structure of money lies within its function of storing value. So summarizing the functions of money we end up with the followings: medium of exchange, store of value, measurement of value and standard of deferred payments. Besides that we can gain capital by lending it in exchange for interest payment(s) (*Creutz*, 1995).

The existence of interest as it is known today, however, creates another sort of economy. The great thinkers of ancient time were aware of the deficiencies of such system. It is worth to mention, for instance, how Aristotle (384 BC – 322 BC) made a distinction between the regular economy and the economy of money. He called the latter chrematistic whereas the previous was called economy. In case of economy, the purpose is to create the resources needed for sustaining a society, while money is just a token for mediating economic transactions – and not the purpose of the transactions. Karl Marx (1867), who was also aware of the basic difference between the productive- and the money economy, mentions this topic in his famous book, titled “The Capital”. In that writing he describes how Aristotle opposed economy to chrematistic:

His (Aristotle’s) starting point was the economy. So long as the economy is the art of acquiring income, then it concentrates on collecting the means of sustenance and that of goods useful to households and to government. The real economy consists of such values, because the degree of these necessities is not limitless. But there is another sort of income collection, called chrematistic, which consequently generate the illusion of a limitless economy and property or resources. The trade of goods – by its nature – does not belong to chrematistic since the exchange comes down only to the needs of the participants (buyer and seller). For that reason – as Aristotle further elaborates on that – the original form of the trade of goods was barter. With the expansion of barter, however, the roll up of money was of necessity. As a result of it, barter developed into trade of goods which – contrary to its original function – developed into the art of ‘moneymaking’. Chrematistic, therefore, differs from economy in a sense that the source of economy is the turnover. It seems that everything is about money, because it is the starting and ending point of a transaction – of an exchange. Thus, the economy the chrematistic stands for is limitless. The goal is to grow absolutely rich. Economy on the other hand has its limits. It focuses on other things than multiplication of money. The “fusion” of these two forms may make many believe that the final goal of economy is to keep and multiply money endless. (*Marx*, 1867)

In the center of the “money – economic activity – money” process the swelling of money stands and not the satisfaction of human needs. While the satisfaction of human needs has its end, the money asset has not, because money can never be enough. It is imperative since if someone does not accumulate or multiply his/her money he/she becomes poorer and poorer. As the rotator of the signal does not produce value, the base of his/her well-being is not the creation of value but the money he/she could take from others (by multiplication). By rotating money only the distribution of resources and values (developed by others) can be directed. The goods and services bearing real values are produced by the real economy and not by the money economy or money market. (*Sárdi*, 2009)

Currently, the financial system of most of the countries is based on the central and commercial banks. The bank system creates money – out of thin air – and lends it further in the form of credit.

The Federal Reserve Bank of Chicago used to publish a booklet entitled as “Modern Money Mechanics” in a purpose to describe the basic process of money creation in a fractional-reserve banking system. Within the last paragraph of the sixth page, the following statements can be read:

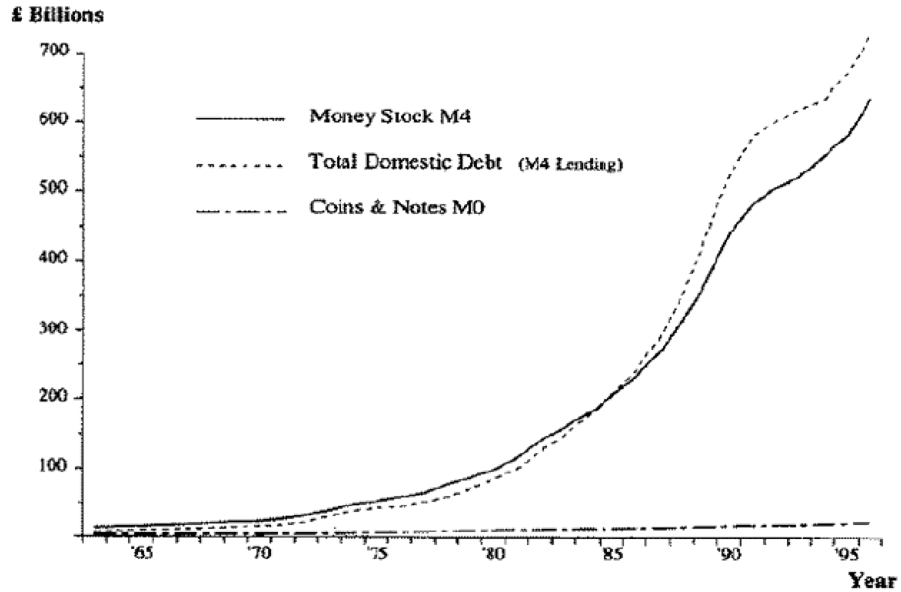
“Of course, they (banks) do not really pay out loans from the money they receive as deposits. If they do this, no additional money would be created. What they do when they make loans is to accept promissory notes in exchange for credits to the borrowers' transaction accounts" (*Federal Reserve of Chicago*, 1996).

The document declares that for a $10,000 deposit, $1000 is kept – at a 10 percent reserve requirement – as reserve and new loan can be created in the amount of the remaining $9000 (excess reserves). So the $10,000 remains in the bank, but a newly created $9000 can be lent out (*Federal Reserve of Chicago*, 1996). In addition "the interest received by the banks is partly paid out again, as its operating expense and dividends to shareholders, but some is retained as "reserves", which have to grow in proportion to the growth of the money stock, and are not then available to perform as part of the money supply" (Leslie, 2008).

We have seen already what disturbances money taken out from circulation can create. The prior example mentioned interest charges on existing money and still it was problematic. Now, even money newly created is charged with certain rate of "fee" and the problem is that the interest which needs to be paid is not. Whether money is created solely by central banks – and passed on in the form of credit by commercial banks – or it is created by commercial banks as well, the only way interests can be paid is by lending more money into the economy. This means that new loans need to be taken out faster than old ones are paid off otherwise the whole economy experience recession or depression. We face the same problem today globally. There are other factors as well, of course, but the essence of the current crisis lies within this process. The rate of debt all over the world is increasing fast reaching record levels along with record levels of wealth of the elite few. Even if those huge profits are spent into the economy, it would likely boost the luxury market alone and would not serve the society as a whole – as the profit is in private hands, the tendency of the economy and market mechanism would depend on their own taste and not on ideas designed to serve the community. But since received interest can serve as a reserve, even the noble-minded beneficiary will not spend the whole profit in the sake of the society. (They may get out of business or competition if they do so). (*Sárdi and Szendrő*, 2011)

Taking this mechanism into consideration, we should assume that debt is growing faster than money stock, and once it should collapse. In the UK, for instance, as *Figure1* represents, domestic debt became greater than the money stock in 1984 and it is growing at a faster pace since then. It means that the sum of notes, coins and money on current accounts is not enough to pay the debt.

Figure 1.: Graph of "Money Stock" (M4) and Domestic Debt 1963-1996



Source: *Leslie*, 2008

Why does it matter?

1. *Cycle of booms and slumps are inevitable.* Money supply charged with interest results in economic booms and slumps. In a growing economy banks confidently give out loans, but when they become worried about the security of their loans – which is imperative as there are not enough money to pay the debts – they start calling them in without lending more. This contraction of the money supply creates a vicious circle: firms – in order to stay in business – pay lower wages to employees; lower amount is available for purchases; hence the lower sales figures make companies run out of business; unemployment increases...etc. Eventually something will reverse the process. Usually this means injecting money into the economy by borrowing (again) certain sum from central banks or from international institutions, funds (*Leslie*, 2008).

2. *"It gives the banks power to decide who can get loans, on what terms, for what purpose"*(*Leslie*, 2008). The decision is based on their own needs, of course. Banks search for clients with reliable ability for repayment and with collateral which they can claim in case of default. This means wealthier – in contrast to poor people – can apply for loans easier and thus, has the opportunity to become even richer. (Advantages of the larger firms over small ones could also be mentioned). Moreover, it makes every debtor – and not debtor as well – think in terms of money and profit, otherwise they will not be able to pay their debt, and unfortunately the socially and environmentally damaging projects seem to be more profitable than the renewable energy projects. Basically, money supply is not – it cannot be – matched to society's needs, only to "profit". (*Sárdi and Szendrő*, 2011)

3. *"It results in growing indebtedness and growing competition* for funds and profits to discharge debts; it causes the crazy, desperate struggle between nations to export their internally-unsalable goods, in exchange for foreign debt. … Banks also impose

high levels of interest on this debt, causing the growing divide of extreme wealth and poverty – and giving the banks huge profits, out of proportion to the service they perform. Practically every country has a fastgrowing national debt – and the country with by far the biggest national debt is the richest: the USA" (*Leslie*, 2008).

4. *It requires a growing money stock* in order to pay the interest on the ever growing debt. When money stock increases we talk about 'economic growth' – usually along with price inflation. However, since money stock comes into existence in the form of debt, we need to mention 'debt growth' as well. Growth of an economy – based on the mechanism being considered – goes hand in hand with the growth of its debt. (*Sárdi and Szendrő*, 2011)

5. *It raises costs and prices.* Interests charged on loans have to be built into prices to cover costs (and still make profit). On average, about 30 to 50 percent of all prices can be traced back to interest charges. Additionally, tax-cuts are more and more difficult to accomplish – although it would be favorable to the public and likely to the economy – since this is the main source of the government by which its debt, more precisely, the interests of its debt can be repaid (*Brown*, 2008).

One very interesting experiment in alternative financing was reported in the October 7, 2000 Wall Street Journal. "It was the brainchild of Professor Giacinto Auriti, a wealthy local academic in Guardiagrele, Italy." (*Brown*, 2008)
According to the Journal Prof. Auriti hopes to convince the world that central bankers are the biggest con artists in modern history. His main thesis is that central banks have been robbing people for centuries by their money creating mechanism. They are not dividing the new cash among the people but lend it through commercial banks at interest. He argues that by this practice people become debtors of the central banks. He also states that this debt-based money has roughly half the purchasing power it would have if it were issued directly to the populace, free. In order to prove his thesis, the Professor issued his own interest-free notes, called simec. He traded simec for lire and agreed to trade them back later for two lire. The townsfolk started to purchase from participating stores at just half the lire price. Later the neighboring towns in central Italy began to use simec as well. "At first, people thought this can't be true, there must be a rip-off hidden somewhere," says Antonella Di Cocco, a guide at a local museum. (*Wall Street Journal*, 2000) "But once people realized that the shopkeepers were the only ones taking the risk, they just ran to buy all these extravagant things they never really needed." The participating shopkeepers – especially the ones who barely complement a living before – couldn't have been happier. "Every day was Christmas," Pietro Ricci recalls from behind the counter of his cavernous haberdashery. (*Wall Street Journal*, 2000) Mr. Ricci just as the other local merchants could turn their simec to Professor Auriti once a week to make up the full price of their products. So they never had to hold their simec for long. "We doubled the money in people's pockets, injecting blood into a lifeless body," says Prof. Auriti. "People were so happy, they thought they were dreaming." (*Wall Street Journal*, 2000) Meanwhile, the stores that were not participating in this test

remained empty week after week. According to the professor's estimation, by mid-August a total of about 2.5 billion simec had circulated. (*Wall Street Journal*, 2000)

In this experiment the money supply was simply doubled by the professor. As a consequence of it, goods that had been sitting on the shelves for the lack of purchasing power started to move. The professor lost money on the deal, of course, but he proved that when there were enough simec in circulation, the system – the economy – could work effectively. The limitation of his system is that it requires a wealthy local benefactor to get it going. Ideally – as Ellen Brown (2008) highlights it – the benefactor would be the government itself, issuing permanent money in the form of the national currency.

Short Review of Historical Examples

Community (local) currencies many times throughout history have shown a beneficial effect. The initiative may start from any economic participator. Let us consider a few examples.

Middle Ages is the major era of the emergence and remarkable development of the German cities. In 1452, the archbishop of Magdeburg had issued small tin plates, which was used solely for completing local economic transactions. The little "backteats" plates had to be submitted twice a year, that was then remade and returned back to the owner in a tax-reduced amount. Merchants lived a prosperous life, nobody wanted to accumulate that medium of exchange, and thus the resulting excess was generally used for developing the infrastructure and the churches. (*Balogh and Parádi-Dolgos*, 2011)

After the Napoleonic wars – due to the lack of national currency resulting from the bankruptcy of British government – the exchange of goods has been threatened. (*Balogh and Parádi-Dolgos*, 2011)

Therefore, in 1816, the citizens of Jersey Islands created their own community currency to keep local trade stable. Thanks to its effectiveness and efficiency all debt accumulated in national currency has been paid within 18 months and notable infrastructural developments have taken place. Nowadays, the local currency circulating in the system is equivalent of USD 36 million and there are about 60,000 economic participants who use this alternative means of payment. (*Balogh and Parádi-Dolgos*, 2011)

After World War I, in 1920, the German government tried to manage the great indebtedness by quickly inflating the Deutsche Mark. Consequently, in order to protect local interests many German cities such as Lübeck, issued their own community currency. (*Balogh and Parádi-Dolgos*, 2011)

Following the monetary crisis of 1929, some American and Canadian municipalities tried to overcome the recession by using local currencies. This kind of solution was even promoted by the great economist, Irving Fischer. (*Balogh and Parádi-Dolgos*, 2011)

The growing trend spread to Europe as well where one success story followed the other. In 1930, in a small village of Bavaria, called Schwanenkirchen, one of the indebted coal mine owner paid his employees with his own tickets, called "wära", and thus local merchants were forced to accept it. The cover of wära was the coal itself as commodity. The tickets had to be validated each month by a stamp. This ensured its rapid circulation and made its accumulation impossible. About 20 000 wära was used by 2.5 million people. (*Balogh and Parádi-Dolgos*, 2011)

In 1932, the local currency system that was just called as the „Wörgl miracle" in Austria was introduced to manage the high unemployment rate. Public works were provided for job seekers who received their salary in the local currency that could be used for purchase at local dealers as well as for tax payment. The results are remarkable. The circulation of the alternative currency was 14 times faster than that of the national currency, the unemployment rate decreased to a natural level in a year and the whole village experienced significant improvement in infrastructural conditions.

The shortly presented local currencies, however, had very short life-cycles due to the actions of the central banks that banned them a few years after introduction[1]. (*Balogh and Parádi-Dolgos*, 2011)

To sum it up, we can come to the conclusion that all community currency systems were aimed to solve crisis in the given region, with considerable success in general. The historical examples therefore suggest that in many cases both the private and public sector (local government) found this sort of alternative solution to be applicable for crisis management. (*Balogh and Parádi-Dolgos*, 2011)

However, the success and effectiveness of local currencies are significantly depending on the legal and cultural environment it is embedded as well as on the attitude of (the related) local authorities.

In Hungary, for instance, all local currencies (both the voucher and electronic based) must have real liquid financial collateral in equivalent value of the surrogate. This collateral can either be Hungarian Forint or Euro.

In this case we cannot talk about additional money creation. Therefore – besides local currencies mostly stay in the region – mainly the possible velocity increase and the interest income on collateral may provide financial benefit for the given region.

The next part of our study, based on a previous work (*Balogh and Parádi-Dolgos*, 2011) emphasizes the different attitude and role of local governments in concern to local currencies.

Local Government and the local currency

The role of local governments can be very divergent in concern to the introduction and operation of community currency. The initiative is not necessary starts from local government, of course, but this option also has to be taken into account.

In regard to local government's role, basically we can differentiate 4 distinct attitudes.

It can be either passive or active player of the alternative finance solution. *Passive local governments* do not want to be involved in any way in this initiative. This case, however, can also be divided into two types.

If the government is *passive* and *dismissive*, the expected results unfortunately may also cast doubt since the initiative is likely to be offended (in all segments) by the public authority including in most cases the key businesses of the region. Even if they cannot participate actively in the community's decision making process, the city administration will surely make decisions that are not favorable or advantageous to them. Thus, the divergent interests will prevent the operation of local currency from its start. The big companies are excluding themselves from the system otherwise their bargaining position of public power may be degraded.

Another form of the passive role of local governments is the *accepting* attitude. There are many examples of this type from history as well as from nowadays. In this case the city administration accepts the initiative of the private sector, but typically due to its uncertainty (in principles) does not join the inchoation. So it does not attack or complicate the participants' activities, therefore the system can operate effectively (with small turnover) in the local economy.

A great example of the above mentioned situation is the complementary currency operating in Sopron.

Kékfrank

Sopron is located in the western border of Hungary, 60 km from Wien, Austria. Its population is approximately 60 thousand people and the total area is close to 170 km^2. The currency, called Kékfrank, was introduced on the May of 2010.

The objective of the issuer, 'Ha-Mi Összefogunk' ("If We Collaborate") European Limited Liability Cooperative having 150 members, is to stimulate the economy of Sopron and its catchment area crossing the border by using the Kékfrank voucher. It wishes to boost economic activity through the businesses of the Hungarian and foreign members of the cooperative.

The members developed and established the currency-system together in order to consolidate local economic participants and to increase the turnovers among them. The use of Kékfrank voucher is unfortunately not supported by the local government though it would help a lot in the spread of the new means of payment, in the increase of its popularity and that of the money stock in circulation, and thus, in the boost of the region's economy. Furthermore, it would have significant touristic impact with the contribution of local authorities. The report of the cooperative and the already completed surveys leads us to the consequence that the lacking local government support or participation is impede the spread and use of Kékfrank. It is likely not to be the only problem, of course; however, it is known that the result of Kékfrank is not so promising – at least not yet.

According to a survey, only 13% of those who know Kékfrank (64% of the 200 respondents) use it. (*University of West Hungary*, 2011)
In addition, 90% of those who know and use Kékfrank, pays with it only casually, 7% on a monthly basis and only 6% use it several times a month. Thus, approximately 13% takes (or can take) the advantage of the local currency on a relatively regular basis, which is way too low to be effective. (*University of West Hungary*, 2011)

Taking the acceptors' own business policy into account each can provide certain degree of discount for Kékfrank payments by which the boost of turnover of local goods and services is addressed. The greatest use of Kékfrank relates to restaurants, wine bars, and groceries. However, as the goals of the cooperative members have not met yet, more marketing and professional PR activities are planned for the future. According to the lesson of a research they need to better facilitate the Kékfrank transactions among acceptors and connect their supply chains in order to decrease the number of redemptions of the alternative means of payment. (*Karner*, 2012)

The active role of local government can also take two types.
It may join the operating organization's (e.g. cooperative) work as a member, and by this undertaking the function of being one of the *recipient place*s. Hence, it provides the opportunity to conduct the financial transactions between the private sector and itself in local currency. We have to consider, however, that for local governments, the measurable financial benefits may appear only in the long run.
The role of local governments in the fourth case is very similar to the previous one. In this case the local government contributes to the introduction of alternative financing as an *active initiator.* Thus, it takes a determinant role in the establishment of the system; it partially or fully provides the necessary initial capital and functions as an accepting and cashing place. *Figure3* illustrates the cycle that will be discussed in the following in detail.
It is very essential that local governments cannot use the deposited 100 percent cover for borrowing, or to generate any of the advantages associated with the issuance of money. Due to Hungarian regulations community currency can only substitute the national currency within a defined circle and form. Additionally, local governments cannot issue local currencies without cover and cannot multiply it either for the sake of the budget or market needs. The primary means of intensifying local purchasing power in this case is the increase of the velocity of money, the different benefits or discounts associated with the local currency and the small costs embedded in the return of community currency. These, of course, can be viewed as realistic chances only if local currency can be used for transactions that were already intended by the economic participants.

Let us see now the other two complementary currency systems as examples of the last form of local government role.

Balatoni Korona

On the March of 2012 the Balatoni Korona Zrt. (Exclusively Limited By Shares) introduced its own surrogate, called Balatoni Korona (Balaton Crown). The founders of the company are the local governments of Balatonalmádi, Balatonfüred, Litér, Nemesvámos, Tihany, Várpalota and Veszprém (so Veszprém county's Eastern-Balaton region; about 380 km^2, 110 000 people) as well as two other local businesses and the Kinizsi Bank Zrt. By the creation of the Balatoni Korona, the issuers wish to achieve two objectives: On the one hand they would like to stimulate the economy of the region, and on the other they want to develop such a micro environment where its members have a uniform way of thinking and use local currency in a conscious collective spirit.
Activities anticipated the issuance can be divided into two separate parts. Firstly there was a need for the construction of the appropriate legal and institutional environment, and then for 5-10 people, who are attached to the project emotionally as well and consequently, are willing to work for the best outcome. The organization of the project started by the meeting between Tamás Perkovátz, founder of the Soproni Kékfrank and Gyula Porga, the mayor of Veszprém. In that meeting Mr. Perkovátz could persuade the mayor to develop a local surrogate. Following that, they visited the small local governments nearby and established an organizing committee for the execution of activities required for the foundation. The extent of issuance had been decided as well as the magnitude of founding capital. Following the formulation of the code of conduct, it was taken to each local government twice, so to make its content suitable and acceptable for everyone. After the careful development of the founding rule, on the November of 2011, Balatoni Korona Zrt. was registered. Since the negotiation with Károly Vagyóczky, designer of the currency, and with the printing house had been started prior to the establishment of the company, the production of the surrogates could be started right after the registration. It was finished on the 20th of January, 2012. The cost of introduction was above 10 Million Hungarian Forint (about 44 335 thousand US dollar), the majority of which related to the design and printing of the currency. A very essential question was how it could be familiarized with people and how the degree of people's openness to such surrogates could be measured. To find out these questions the University of Pannonia provided support by having local students carrying out public surveys. Additionally, a few games related to the Balatoni Korona were presented in the press for publicizing purposes.
The introduction was planned to be accomplished in a 3 year period. It was planned to have 200 acceptors by the end of the first year, and 195 was realized. (30 acceptors joined this year January, by the join of the Észak Balatoni Zrt). According to the major it is necessary in order to have people comfortably use the Korona. Although the greatest turnover realized in groceries the founders were able to achieve a relatively broad coverage in concern to the different sectors as well. At Nemesvámos and Várpalota even a few utility bills (such as the garbage fee) can already be paid by the new "money". Local government of Veszprém is also open to such ideas; however, there are some territories that still keep aloof from it. The

organizers wish to increase the number of acceptors to 300 as well as to increase the number of emitters by the end of the second year. In the third year they would like to focus basically on the number of emitters.
Expanding the number of acceptors, however, is not that simple since the essence of the local currency is not everywhere understood. Many of them wait to see the results of the initiative before considering the join to the system. In contrast, places where other vouchers (like hot meal vouchers) are already accepted, were much more open to the idea of Balatoni Korona.
Acceptors face two types of expenditures following the introduction of the new currency: The degree of discount, which expected to be recovered from the resulting turnover increase, and a 2% conversion fee. Currently, the rate of converted Korona is really low, therefore adequate determination of its velocity is not possible.
Presently, the greatest portion of issuance derives from local governments. Originally, 50% of the social allowances would have been paid in Balatoni Korona by the local governments being members of Balatoni Korona Zrt. However, according to a June 2012 government regulation, 50% of such payments can be paid only in another (hot meal) type of voucher, called Erzsébet-voucher. Therefore, these payments cannot be executed in Korona. Still, local governments are the largest issuers as they provide some other allowances, fees and premiums in Korona. The total amount of such payments is about 12-13 Million Forint, from which 9 Million related to Nemesvámos, and Várpalota. The Korona supply in circulation is planned to be around 50 Million by the end of 2013. Further complication to the issuance is that the University of Pannonia cannot pay student scholarships in Korona because the system managing students' finance cannot handle other currencies than Forint.
From a technical perspective, Balatoni Korona is a voucher based surrogate with specific expiration date. According to Veszprém's major, expiration is needed primarily for accounting reasons. If no expiration date is given, then it would appear at the Balatoni Korona Zrt. as liability redeemable at anytime. This way, however, it has to be converted only a month after the expiration date. It makes its accounting much easier and profit could be gained on the vouchers not converted back to Forint. The expiration time is 5 years. They planned to have a 3 year "ramp-up" period plus a year in case the goals set are achieved slower than expected and the fifth year is to see the viability of Korona as alternative means of payment. In case the currencies do not operate well, they can be easily terminated, however, in case they are functioning well, they just need to be revalidated or reprinted. Besides the actual paper based vouchers, the managers want to issue the surrogate in electronic form as well in the future. They primary think about the pay pass system as a solution, and the final goal is to integrate it with other existing systems, such as the system of the bus transportation (and that of the 'Veszprém card'). Furthermore, they would like to use it as a means of tourism booster. The proper IT background would be ensured by a Hungarian company currently operating in China and working for the Bank of China. The introduction of the electronic format is hampered by two factors. One is linked to the legal perspective, as all surrogates have to be backed by conventional money and the other is

related to acceptors. Are they ready to introduce Korona in this form? If the number of acceptors is too low, then it is not worth to introduce it.
The greatest difficulty in retaining the system is the permanent financial limitations. Marketing activities, for instance, would be necessary in a greater extent; however, unfortunately there are only a few opportunities for that. According to the major’s opinion, the other problem lies within the communities’ mutual helping attitude, which is not rooted in everyone. So far, the general social and economic judgment of the Korona is positive or beneficiary only until something has to be done about it.

Bocskai Korona

István Varga, a Hungarian businessman, financial expert and cofounder of Kékfrank, visited Tibor Szólláth, the current major of Hajdúnánás (roughly 260 km^2 and about 17 000 people), to inform him about the benefits of local surrogate vouchers. Although the idea of constructing a complementary currency system in Hajdúnánás was not taken too seriously at first, one week later people could pay with a 300 Forint worth voucher, called Bocskai Korona at a local festival and fair. Year after the election of Tibor Szólláth, in the summer of 2011, they started to organize a holding company in order to introduce the Bocskai Korona.
For the quick (about half a year) and efficient introduction of the new currency, they received great support and information from a saving cooperative now related to the surrogate. According to the major, all the preparatory work as well as the introduction itself was done in a cost effective manner.
A wide variety of shops – from groceries to a construction company – can be found among the 50 acceptors. The greatest discount (20%) is given by a funeral parlor, while the lowest is typically provided by the grocery shops.
The concept of the town in relation to that project is to keep it local. That is why, for example, they rejected the request to expand it to Debrecen. First, they wanted to develop within their own region and the opportunities to outspread into the settlements nearby would be analyzed only in the current year.
Acceptance of the Bocskai Korona is extremely high; the conversion ratio of the 15 Million Forint worth Korona in circulation is not significant. Only the construction company converts it back to Forint in a continuous manner, but taking its size and business into account, it is not surprising. It is important to mention, however, that 10 Million of the 15 is provided by the local government, mainly in the form of aids and allowances. One of the principal targets actually is to make payments related to aids and allowances (e.g. home maintenance support) in Korona. In addition, even if taxes cannot be collected in the new currency, the local government would like to make at least possible to accept surrogate vouchers as a means of payment for the local public services as well.
The conversion fee of the complementary currency currently operating in the form of voucher is 2% and has an expiration date (December 31. 2016). Although it is still question whether to use the surrogate being successful so far in electronic form as well, the idea is

not rejected. Moreover, taking the technical achievements of our time into consideration, the managers of the system see a great potential in it.

The major and the other governing officials do not see any significant difficulty in operating the local currency system, everything happens in a precisely elaborated, well thought manner, and according to their opinion, it develops dynamically. The town's culture strongly contributes to its success. Given their history, people of that region always wanted to remain as autonomous and independent as possible. Additionally, there were considerable marketing activities that familiarized Bocskai Korona with local population prior to its introduction and that could make the community wanting and waiting for the presented innovation.

Another element of success is the flexibility of the system. All the rules and regulations related to the complementary currency system were designed in consideration to the potentials and needs of the businesses that were revealed during the negotiations and consultations with them.

The following table presents the basic information of the three currencies in a comprehensible form.

Table 1.: Summary of the three local currencies

	Kékfrank	Balatoni korona	Bocskai korona
Date of issuance	7 May 2010	22 March 2012	22 July 2012
Number of Acceptors	650	200	50
Money (voucher) in circulation	about 10	10-15	15
Issuer	Ha-Mi Összefogunk Európai szövetkezet	Balatoni Korona Zrt.	Hajdúnánási Holding Zrt.
Financial Institution	Rajka és Vidéke Saving Cooperative	Kinizsi Bank	Polgári Saving Cooperative
Ongoing costs	-	-	10.000 HUF/year
Conversion fee	0,25 %+VAT, min. 500 HUF + VAT	2 % + VAT, min. 200 HUF	2 % +VAT, min. 500 HUF
Expiration date	no	31 December 2016	31 December 2016

Manager	Tamás Perkovátz	László Leitold	Tibor Horváth
Conversion option	anybody	Shareholder, official, partner institution, and contracted acceptors of the company	Contracted acceptors
Benefits	-	Fringe benefits	Fringe benefits
Local government relationship	no	yes	yes
Outstanding discount			Hajdúnánás Spa 20%, Funeral 20 %
Source: www.balatonikorona.hu, www.bocskaikorona.hu, www.kekfrank.hu, Site visits			

Economic participants' relation with local currency

Taking the stories of community currencies into consideration it can be stated that they are introduced within smaller cities or regions. This is mainly due to the territorial limitations – which is actually their primary disadvantage – and due to the fact that all of them are based on local trust and collaboration. Based on these, the territorial scope of the introduction of a local currency must cover a city and its agglomeration, for which a possible model was developed in one of our previous studies (Balogh and Parádi-Dolgos et al., 2011). The work took Kaposvár (about 114 km^2 and 68 000 people) into the model since efforts to introduce local currency exist in that region too.

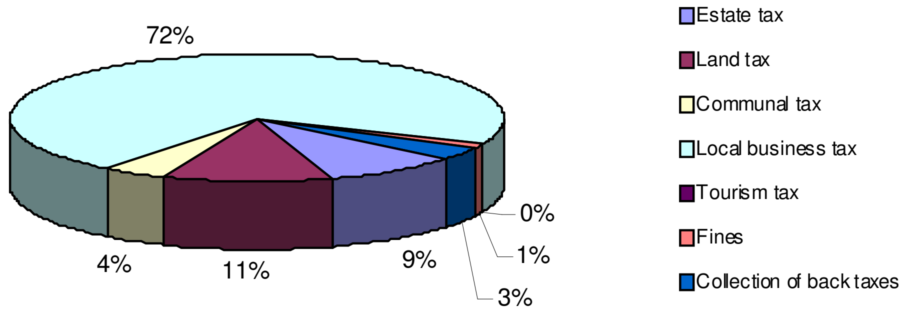
In the study, we carried out an optimum local currency zone determination, based on the extent of wage flows between economic participants. Out of this flow we would like to point out only the role of local governments.

Local currency flow of local governments

In concern to the flow scheme we assumed that if local government is an active participant of the community currency system, the private sector can pay local taxes in the local currency, also assuming that tax code provides this opportunity or that local government can circumvent this problem by conversion. These revenues can be used for paying social benefits or other transfer incomes to the private sector.

Based on the budget of Kaposvár (Hungary), the city generated 2 192 981 thousand HUF local tax revenue in 2010, 70 percent of which was from the business tax.

Figure 2.: Distribution of local tax revenues in Kaposvár 2010.



Source: Own edition based on Kaposvár's budget of 2010

Both individuals and entrepreneurs could pay the local business-, property-, construction- and municipal tax, which are the direct revenues of local governments in Kaposvári Korona ("Kaposvár Crown") and/or in national currency. This way local government would generate income in Kaposvári Korona, which could be used for settling part of the social benefits, financing local projects, but if necessary, it can exchange it to HUF at the rate of 1:0,99.
On the basis of local government expenditure the amount of local currency needed can be determined. They settle payments for the active working age population founded on the following titles[5]:

- On-call support:

The local government provides the unemployed population with public work with wages. When unemployed do not participate in such work, they receive on-call support.

- Regular social assistance:

People with handicap or above the age of 55 can receive this form of allowance and those who are raising a child under the age of 14 and do not receive any child care allowances.
The amount of allowance may range from 25 650 HUF to 60 600 HUF.

- Wage:

Wages are paid to institutional and municipal employees.
Within the micro-region 12 549 persons are employed in the public sector with the average salary of 109 684 per month. Payment based on this title should be disregarded since most of the people working in public sector are paid by the Hungarian State Treasury, not by local governments.

Table 2.: Distribution of government payments

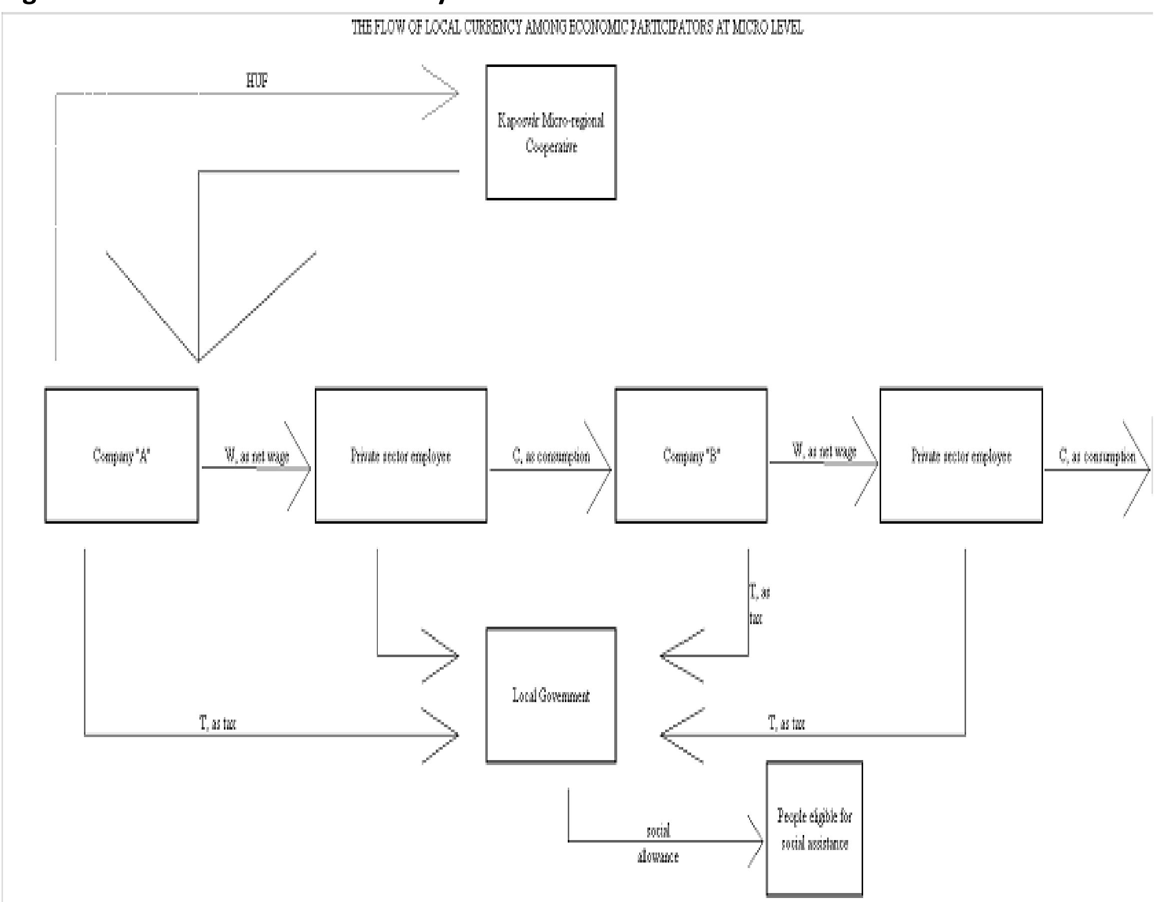
In thousands of Hungarian Forints (HUF)

	Amount to be paid per month	Annually Payable		
		Total	90 % in HUF	10% in Kaposvári Korona
On-Call Support	65 161	781 932	703 740	78 192
Regular Social Assistance	62 600	751 200	676 080	75 120
Total	127 761	1 533 132	1 379 820	**153 312**

Source: Own edition based on data of www.ddrmk.hu

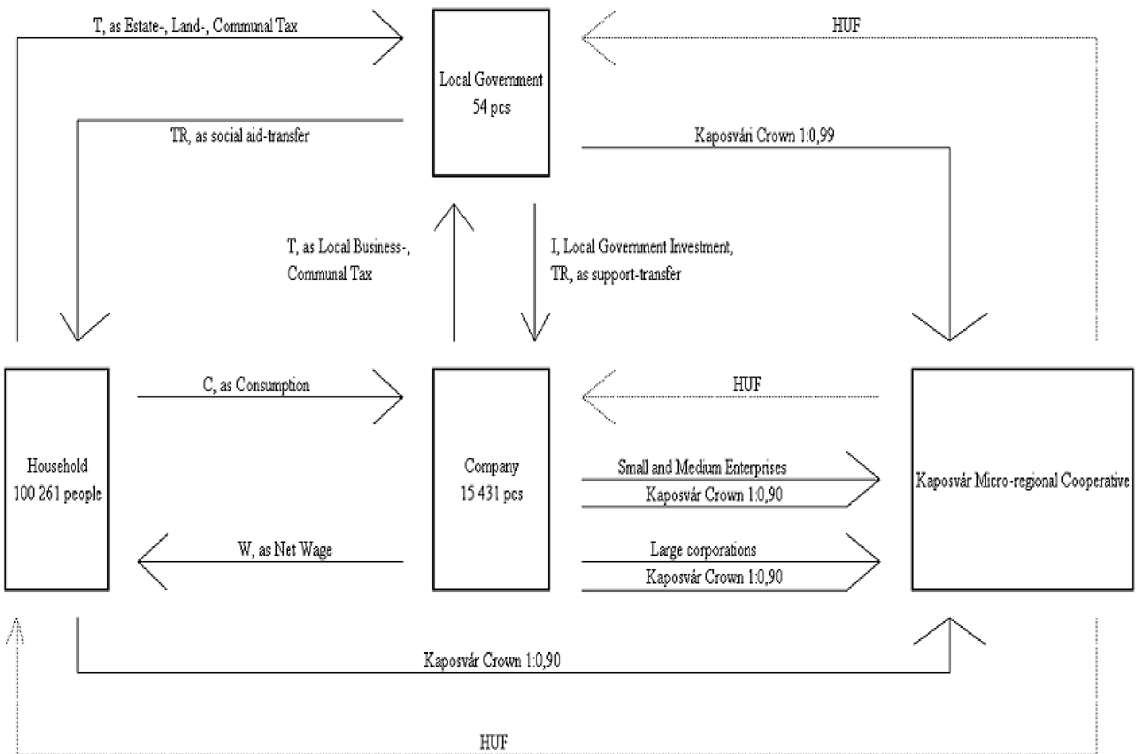
Table2. presents the amounts of payments and their distribution in Kaposvár categorized by the titles mentioned above with the exception of wages. In regard to the legal framework we assume that 10 percent of these allowances are paid in local currency.

Figure 3. The Flow of Local Currency at Micro and Macro Level



Source: Own Edition

THE FLOW OF LOCAL CURRENCY AMONG ECONOMIC PARTICIPATORS AT MICRO LEVEL



Source: Own Edition based on www.ddrmk.hu, City-level labor market data 2011.07.20., Hungarian Central Statistical Office Board of Pécs, Kaposvar Department

Based on the data we can state that about 153 312 thousand HUF expenditure appears in Kaposvári Korona which may be covered by local tax revenues as well. These revenues, however, are received in three installments. At the two advance payment periods (March and September) and at the actual tax payment date, at the end of May. In case the tax revenue settled in local currency is not enough, then local government can convert certain amount to HUF at the given institution. In case it generates surplus in local currency the amount can be used to increase the degree of local currency in the allowances above 10 percent.

Risks, aversions

Besides the potential benefits a local currency may provide, there are a couple of aspects raised by some financial experts that need to be considered.

Regulatory risk

The appropriate definition and regulation of the “voucher” is missing from the Hungarian law. There is no high level external regulation in regard to the vouchers, primary the business codes of the issuing organization is applicable. (*Helmeczi and Kóczán*, 2011)

Although it is true, that there is no fully developed regulation in concern to surrogates, however, regulations on issuing institutions does exist, which already provide certain degree of protection for the users of local currencies.

Costs

According to some economists' opinions, surrogates do not facilitate, rather hinder the circulation of money. Since it is used besides conventional money, it goes with further administration.
In addition, it decreases the use of conventional cash, which reduce the central bank's seignorage income on currency issuance. Given that profit of the central bank fills state budget, such monetary surrogates directly affect the income of the budget.

Other experts, however, believe that the advantage and financial benefits of a well-operating local currency can overcome the additional administrative costs and the potential opportunity costs of the state budget.

Business for a few

In case the private sector initiates and issues the local currency, there is a suspicion that – taking seignorage and interest income into consideration – they are doing this primarily for their own sake, and not for the community.

The only way to circumvent such situation or suspicion is to make the spending of such income limited into the region, and possibly to some sort of social projects beneficial to everyone.

Illusion of total economic-social benefit (comment by author)

It is important to note, that local currencies may provide financial benefits only to the given area or members of the system and not to the whole society of the country or that of the globe. Moreover, since – due to the 100% collateral obligation – there is no additional money created in such systems, part of the turnover increase of an acceptor usually means turnover decrease of another business that does not accept the given surrogate. Furthermore, the interest income on collateral also derives from somewhere, therefore regions not introducing such complementary currency might be lagging behind in the "interest-income competition". Interest may either come from within or outside the country. So as the basic structural problems of our global money system has not changed, and there is no option for additional (interest free) money creation by regions, such innovations may help only the specific areas for which they are designed, and does not provide financial benefit to the whole society.

Summary

Taking the already operating three complementary currency systems and the related surveys into account, it can concluded that the system in Hajdúnánás have the best results so far. It might be another indication toward the idea that though it includes relatively small number of inhabitants and acceptors, smaller city might be better able to reach out to the potential local currency users.

Community currencies in Hungary were not able to contribute effectively to the boost of local economies yet, however, we need to keep in mind that these are very young initiatives.

Therefore it might be still worth to consider the opportunities community currency may offer to a local economy by strengthening as well as by keeping demand and supply in the local area.

First of all it has to be clarified whether there is any interest and willingness of the local economical power as a critical mass to implement and maintain the common settlement system, and whether adequate economical and social conditions necessary for the optimal local currency zone exist.

In case of missing the latter, it could be considered to approach such a state (or conditions) by involving other townships, areas. History proved several times that community (local) currency may have beneficial impact.

For thousands of years, local settlement systems had two essential goals: to ensure the satisfaction of human necessities, that is the flow of products and services, the meeting of demand and supply and the sustention of local economical stability for local economic participants.

All community currency systems strove to solve some kind of crisis situation, generally with success. Historical examples thus verify that both the private and public (local government) sector found this alternative method as a possible solution for handling crisis.

From the perspective of local currency systems, local government is *Passive*, if it is not willing to take part in any way in the initiation. This attitude, however, can be of two kinds. If local government is *passive and dismissive,* the expected results can also be doubtful. Another form of the passive participation is *acceptation*, when local government accepts but does not join the private sector's initiation.

The active role of local government can also be realized in two ways. It can participate in the work of the operating organization and by this undertaking the role of a *recipient* place (acceptor) as well. It ensures the opportunity to make all or part of the transactions between the private sector and itself in local currency. The case of local government is very similar in the fourth case as well, when it *initiates* the introduction as an active partner. It is important, that local governments cannot use the deposited 100 percent cover for borrowing, or to generate any of the advantages associated with the issuance of money.

The primary means of intensifying local purchasing power is the interest income on collateral, the increase of velocity of "money", the different benefits or discounts associated with it, and the small costs embedded in its conversion. These, of course, can be viewed as realistic chances only if local currency can be used for transactions that were already intended by the economic participants.

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