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Local money systems and their features

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Local money systems and their features

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Abstract

The aim of the paper is to characterize so-called local money schemes. Such money, being a type of private money, is nowadays drawing more and more attention as a potential alternative for existing monetary solutions. Local monies, opposite to "typical" money, are not focused solely on fulfilling usual money functions, but try to achieve also other goals, often of social character and are perceived as conducive to local community where they are used. With reference to those issues there is described theoretical background of local money along with its advantages and disadvantages, as well as scale of activity. For better understanding of local money in final section of the paper, as an example, is described specific type of local money – so-called 'Ithaca Hours'.

Key words: local money, private money, monetary regimes

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1. Introduction

A typical and inherent feature of the contemporary monetary systems is the superior role of the state (government) in creation and regulation of money. Such activity constitutes the domain of the central banks, who are simultaneously public entities and policymakers responsible for conducting of monetary policy. Such primacy of the state over the monetary area has many consequences. Among them one should especially count evolution of forms and types of a contemporary money, development of economic theories, as well as changes in institutional basis of money issue and circulation.

Since 1978 – official demonetization of gold[1] – money has no character of commodity even from the formal point of view, not mention about practical arrangements and application. It is only credit money, emerging and entering the economy through lending processes, initiated and managed by banks. Such money has no intrinsic value, nor it is backed by any commodity or precious metal[2]. It is only fiduciary money – its value depends on trust put by society in a given monetary unit (Giannini 2011,Seddon 1974). This, in turn, implies the role of the state (government), as under current institutional frameworks it is commonly argued that the state is the only agent able to build and maintain confidence into

[1] In this very year the convertibility of the US dollar for gold was formally abandoned; however, it should be noted that practical convertibility did not exist already since 1971, when the then US President, Richard Nixon, closed so-called "gold window" (deVries 1980, Macesich 2002).

[2] Thus, in many cases such money is also known as „fiat money" or "independent" money (Ingham 2004, Knakiewicz 1981, Wray 1998, 2000).

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money (Britton 2001, Gilbert and Helleiner 2002)[3]. Moreover, it is additionally stressed that money is "common good" and with its functioning are connected numerous externalities which cannot be solved solely by market mechanisms (Holthausen and Monnet 2003]. It makes the necessity of government intervention and controlling of monetary sphere even more important and crucial.

In the literature, however, one may also find very critical assessment of monetary systems with fiduciary money and dominant position of the central bank (see e.g. Bernholz 1990, Dorn 1989, Greenfield and Yaeger 1989, Hulsmann 1996, Rothbard 2008, Sechrest 2008). The critics emphasize that the government often (if not permanently) abuses its powers and competence in order to achieve its own goals, incompatible with the social interest. Such actions result in "inherent" instability of the "monetary systems of central banking", as they are usually labeled. The instability has been expressed in periods of high and volatile inflation rate and occurrence and growing severity of financial crises (both of banking and currency type).

In this context many other options of potential organization of the contemporary monetary systems are discussed, which allegedly might provide more stability and soundness. In general, they refer to some form of the so-called "free banking", like, for instance, denationalization of money, postulated by Hayek (2007), Selgin-White model (1987, 1994) or New Monetary Economics (Black 1970, Fama 1980, Hoover 1984).

With reference to the free banking monetary systems there is also discussed the issue of private money. Somehow paradoxically, the idea is usually connected with radical free market ideology, individualism and "minimum state" concept– however, private money may also be perceived as an instrument of quite different character and may be the subject of research made from opposite theoretical stand. At the same time, private money, that is

[3] This consensus stems from accepting nominalist theories as adequate for explaining character and features of the contemporary money (Hicks 1989, Leijonhufvud 1981, Wray 2000).

nowadays drawing more and more attention, still may be treated as a potential alternative for existing monetary solutions or, at least, their complement.

The aim of the paper is to describe synthetically features and theoretical background of private money with special attention paid to specific type of this money, namely so-called local money and local money schemes. With reference to those issues there are described theoretical background of local money along with its advantages and disadvantages, as well as scale of activity. For better understanding of local money in final part of the paper, as an example, will be described specific type of local money – so-called 'Ithaca Hours'. After this, some general conclusions are drawn.

2. Definitions and types of private money

Private money does not constitute a brand new phenomenon. It already existed in the past, in many different countries, in different periods, under various institutional, social and historical conditions and periods. Moreover, regarding history and evolution of money, it is state money that might be perceived rather as an innovation. According to Cohen (2004), in the beginning of the 19th century the role and position of the private sector as the main issuer of money still was not generally denied and challenged. But even later, with increasing role and importance of national states and state money, there was still significant space for private monetary units. Historically, private money occurred in situations, when – due to many reasons – state money (legal tender) did not function effectively, could not function effectively or its supply was not sufficient[4]. As Cohen (2004) argues, currently, under circumstances of visible increasing demand for money and monetary units, one may assume that currency competition again shall become common feature in monetary systems of

4 Champ (2007) lists in this context three possible situations: making transactions of very small value, providing payments in remote, often separated from civilization places or situations of financial crisis.

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individual countries. According to this author it is obvious that such situation will lead to emergence of new types of private money[5].

Indeed, as a result of the series of various events (sometimes opposing to each other), like increasing demand for money, declared by different groups of individuals, new technical opportunities and devices, lack of trust in state money, central banks and their policy (and, more generally, in financial institutions and systems as a whole), antiglobalist tendencies and movements, individual forms and types of private money (currencies) have been created and exploited. What is characteristic, the scale of this process – as it will be further described – increased after the Global Financial Crisis.

There are many definitions of private (complementary) money[6]. For instance, according to Good [1998] private money is identical with the unit that has not been issued nor guaranteed in any way by any government agenda. Cohen [2004, p. 180] considers private money as "liquid liability, created intentionally by non-government sources (often local ones) on order to fulfill standard money functions". More generally, it may be defined as unit of value issued by any private company or organization (commercial or non-profit) to act as an alternative to a national (state) currency[7].

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5 In other words, as false may be treated so-called currency contraction hypothesis, according to which the number of currencies in the global economy will fall (Cohen 2001, 2004).

6 Before presentation of specific definitions, however, it should be explained that perceiving and treating of a given private unit as money is justified only if one does not share the view that money is and always has to be the product of law. Such statement precludes, in a way, ex definitione , the very existence of private money.

7 Private currencies are often issued and backed by physical commodities or metals, such as gold or silver. By backing a private money with a specific commodity, issuers are able to increase the security of the issued asset, limiting at the same time the effects of inflation on the currency's value, since commodities tend to move closely in line with inflation.

Irrespective of definitions, as types of private money usually are mentioned electronic money[8] (e-money) and local money. The first one is linked with development of IT and telecommunication techniques and devices. According to the ECB (2000) statement, e-money is defined as electronic store of monetary value on a technical device that may be widely used for making payments to entities other than e-money issuer. Additionally, the device acts as a prepaid bearer instrument which does not necessarily involve bank accounts in these transactions[9]. A more concise definition was prepared by BIS (2001). According to it, e-money is untraceable, anonymous bearer payment instrument, allowing for easy payment to any other person, under every circumstances, without intermediation of third parts.

As a local money (currency), on the other hand, one may understand currency created and issued within a given local community. In other words, local currency is a currency that can be spent only within a particular area. Such local monetary unit fulfills the both primary money functions: medium of exchange and unit of account only on the area of this community. Usually such money act as a complementary currency – it is mentioned to be used in addition to a national currency rather than replace it [Helleiner 2002, Lietaer and Belgin 2012].

Still, in this context, there are other definitions and names, like, for instance "complementary currency", "alternative currency", "auxiliary currency", "community currency" or "local currency". Not pretending to discuss in details all these notions, it is

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[8] There arises another controversial issue, namely whether electronic money constitutes separate, new type of money or whether it is just another form of well-known, non-cash, accounting money (Solomon 1997).

[9] The ECB (2000) singles out two forms of e-money: hardware-based products and software-based products. In the first case the purchasing power resides in a personal physical device. Monetary values are transferred here by means of device readers that do not need real-time network connectivity to a remote server. With reference to the software-based products, specialized software is employed that functions on common personal devices (computers, tablets, phones) transfer of monetary value needs here the establishment of online connection with remote server that controls the use of money (purchasing power).

worth to notice briefly four things. First, with individual definitions are linked different goals: complementary currencies aim mainly to protect, stimulate or re-orient the economy; community currencies aim to protect and strengthen a given community; local currencies aim to protect and strengthen a territory, and alternative currencies seek to provide a full alternative or replacement to legal tender currencies. Second, by definition and practice in nearly all cases, complementary currencies should not be treated as alternative currencies. Third, the term especially widely used is "complementary currency", understood as a monetary networks that uses a medium of exchange in complement to the national currency, whether at the local, regional or national level. Fourth, distinction between presented concept and is not fully clear and in many papers and reports they are often treated as synonymous.

3. Benefits of private money

Incentives of individuals involved into creation and functioning of private monies are diverse. Some issuers just want to demonstrate new methods of issuing money, while the others wish to move – due to private currency – towards an ecologically-sustainable steady-state economy, encourage cooperation and reciprocation, self-reliance and mutual aid, local production, micro-small enterprise development, urban revitalization, socio-economic solidarity. There are also present issues of independence from the government (differently justified and motivated).

In principle, there are two main groups of reasons why private monies have become so popular and common these days. They both refer to benefits connected with using private monetary units. The first group consists of purely economic and monetary arguments, whereas the second one includes also social, sociological (or even ecological) issues.

With reference to strictly economic advantages, it is mainly stressed that monetary systems basing on private money and intrinsically connected with it competition between separate private currencies, among which economic agents may choose, would have been more stable than monetary systems of central banking. Under such arrangements, activity of the government in the monetary domain is supposed to be limited what, in turn, would have contributed to elimination of negative consequences connected with overissuance and following this phenomenon inflationary tensions. At the same time, also stability of financial system and overall economy should be greater, as market mechanisms, applying to individual private currencies would eliminate fraud and ruled out dishonest issuers in favor of those conducting sound and reliable business and caring for stable value of their units (Hayek 2007, Glasner 1989, Smith 1990; White 2009).

Clearly, this line of argument draws heavily from the free banking strain, however, even if one is skeptical about this concept, there are still benefits which may be related also to complementary or local currencies. Among them, special attention should be paid to following elements:

1. local currencies are characterized by higher velocity of money. In other words, they tend to circulate much more rapidly than state currencies, especially under conditions of a negative interest rate. The same amount of currency in circulation is employed more times and results in significantly greater overall economic activity. This, in turn, generates more benefits for individuals;
2. local currencies enable the community to more fully utilize its resources (mainly unemployed labor), which has a positive growth effect on the whole local economy. It is assumed here that the community is not fully utilizing its productive capacities, due to insufficient (or even lack of) local purchasing power. Local money may help to increase demand, with subsequent greater exploitation of productive resources. Moreover, as long as the community is functioning at less than full capacity, the introduction of local currency need not be inflationary, even when it results in a significant increase in total money supply and total economic activity;
3. as local currencies are only accepted within the community, their usage encourages and supports the purchase of locally produced and locally-available goods and services. Thus, the benefits accrue to the local community rather than they are drained out to the other parts of the country or the world. Moreover, these local effects become subsequently an incentive for the local population to accept and utilize their own currency;

4. some forms of complementary currency can promote better utilization of resources over a much wider geographic area and help to overcome the obstacles imposed by distance[10];
5. when complementary currencies have electronic form, they are not restricted only to a small geographic area or a country. By using the Internet, complementary currencies of this type may foster and facilitate transactions even on a global basis[11]. Though virtual currencies are not 'local' in the tradition sense, they do cater to the specific needs of a particular community, a virtual community. Once in circulation, they add to the total effective purchasing power of the on-line population as in the case of local currencies;
6. complementary currencies may be especially useful for people who are unfamiliar or uncomfortable with traditional bartering or, opposite, distrustful to state money and financial intermediaries; thus such currencies may be treated as an instrument of fostering activity and avoiding financial exclusion;
7. complementary currencies may be used as instrument of marketing and promotion a given region. They may constitute specific symbol of the region and its tourist attraction. In this context they may also facilitate cooperation in tourism, becoming specific common denominator for various actions and local initatives.

[10] For instance, the Fureai Kippu system in Japan issues credits in exchange for assistance to senior citizens. Family members living far from their parents can earn credits by offering assistance to the elderly in their local community. The credits can subsequently be transferred to their parents and redeemed by them for local assistance.

[11] In China, Tencent's QQ coins, virtual currency, can be bought for Renminbi and used to buy virtual products and services such as ringtones and on-line video game time. They can also be obtained through on-line exchange for goods and services at about twice the Renminbi price, by which additional 'money' is being directly created. The Chinese government has begun to tax the coins as they are exchanged from virtual currency to actual hard currency.

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The last feature contains also clear benefits of social character. The establishment and popularization of private money from the social point of view and benefits of social character is considered mainly with reference to local money. First and foremost it is believed that such currency is in favor of consistency, feeling of identity and mutual support offered by members of a given community to themselves (Helleiener 2000). In this context, private local money is treated as a kind of instrument allowing for fighting and defying globalization and liberalization tendencies – perceived as the causes of continuous disintegration of local communities across the world. Other benefits may include social contact, health care, tuition and training, support for local enterprise and new businesses. Another potential benefit is connected with revitalization and stimulation of economically depressed towns and regions that have goods and services, but little official currency: the local currency schemes do not require outside sources of income as stimulus, thus they may be solution for revival of social initiatives and for overcoming different forms of exclusions and pathologies, typical for depressed areas.

Thus, as Lietaer [2001, p. 187], puts it "anywhere, where the state money is involved, communities erode [...] local currencies have exactly opposite effect, creating communities". Local currency may constitute specific core and binding material of a given community. According to Cohen (2004), such currencies enable effective functioning of a less-scale economy, better suited for needs and tastes of local community members. They also allow for increasing the level of decentralization, through specific privileges for transactions conducting between actors from the same area. All these factors are conducive to establishment of long-term relations ad social interactions within the community. By doing this, local currencies ease and relax, in a way, strict rules and mechanisms of market economy (especially in its most radical, orthodox liberal form). In other words, private money enables creation and/or selection of monetary unit best suited for the needs of a specific region and community.

In such context, private money may be also considered as a specific instrument of limiting government's role and decentralization of monetary domain. Thus, one might observe here a specific contradiction. On the one hand, private money may be considered as an instrument of increasing – through currency competition – effectiveness of market mechanism, an expression of neoliberal or even libertarian tendencies. On the other hand, however, this kind of money is supposed to offer solution to negative sides of free market economy, globalization and supremacy of the financial markets or, more generally, nominal sphere of economy. This contradiction is likely to be the aftermath of different viewpoint. Namely, the first stand is rather macroeconomic one, when one assumes that there is exceeded some threshold of private issue and private money becomes common phenomenon in the economy (its supply equals or exceeds supply of legal tender and it becomes widespread means of payments, not limited only to particular area) whereas within the second main local currencies are examined, created within specific, rather narrow area and devoid of universality attribute. Still, in the both cases it is clear that private money will cause some outflow from "official" monetary circuit.

4. Disadvantages of private money

Despite characterized benefits connected with different forms of private money, this very device is also the source of many controversies and quarrels. What is characteristic and typical here is the fact that problems are mainly connected with macroeconomic aspect of its functioning. Namely it is fiercely questioned whether monetary system based on private money would have actually generated more stability in the economy than 'typical' system of central banking with the fiduciary state money, being the the legal tender. In more general context, it is discussion about legitimacy, effectiveness and sense of the free banking monetary systems.

Opinions on private money effectiveness are highly diverse. For instance, very ambiguous is assessment of free banking system which functioned in the US within the years 1873-1863, i.e. in the period when private issues were allowed and acceptable. There are contradictory views referring to stability of the then monetary system. According to some authors, mentioned years were period of complete chaos in monetary area, but the others argue that the system was sound and operated effectively (for more see e.g. Marszałek 2014). On the other hand, there is consensus in the literature on effectiveness of free banking monetary systems with private money, which existed in Canada since the beginning of 19th century till 1935) and Scotland in the first half of the 19th century (Rolnick and Webber 1983, White 2009, Williamson 1999).

Functioning of private money raises also other doubts. They are of conceptual, purely operational and technical character. Controversies concern here mainly potential scale of market failure, built into the private money systems. According to Williamson (1999), private money is extremely prone to asymmetry of information. Verification and quality assessment of circulating private monetary units is in practice impossible or, at least, very costly. This may lead to equilibrium in which in the economy circulate only low-quality liabilities or – in some cases – to situation in which equilibrium will not be achieved at all.

With introduction and subsequent functioning of private currencies are connected also numerous technical problems and obstacles. First and foremost, potential bearers of private units (customers) should be provided with comfort and convenience of using any private currency[12] and their safety should be guaranteed. It concerns also methods of ensuring reliability (expressed in low probability of bankruptcy of individual private issuers), confidentiality and portability (independence of physical place) that private money should be connected with (Tumin 2002). All these issues are of special importance when electronic money is considered. Apart safety, challenge is here connected with establishment of sufficiently broad transaction network. Only the unit well rooted in such network may be perceived by customers as worthy to hold and use in transactions[13]. However, the establishment of such network is not an easy task, as it requires time and undisputable credibility of the issuer. When one remembers how long and troublesome was the process of building trust in already existing domestic currencies, this fact may be seen as perhaps one of the more serious obstacles in transition to private money,

[12] This, in turn, requires sufficient infrastructure.

[13] Such problem does not exist with reference to local money, which is created within the network of users (Cohen 2001, 2004). Money as a network good characterize for instance Holthausen and Monnet (2003).

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This problem emphasizes the main, as it seems, source of potential problems – psychological issues. They revolve around trust – or, to be more precise, around lack of it. As it was already mentioned, building confidence in a given currency under current institutional conditions of fiduciary, not-backed money is possible only with the government's commitment. The state executes its monopoly with reference to money and promises the society to maintain stable value of money and uninterrupted course of settlements in the economy. Thus, trust is here the outcome of political jurisdiction (Cohen 2004, Helleiner 2002, Ingham 2002, 2004).

Taking all these factors into consideration, it is rather hard to expect that private money could in a foreseeable future threaten significantly position of the state money, having status of the legal tender. Thus, coming "a brand new day for monetary authorities", as Kobrin (1997) names it, seems to be rather distant. Still, the central bank should be prepared for increasing currency competition, not only in its international (among individual domestic currencies) dimension, but also on the country level. Moreover, the competitors may be (and probably will not) not only relatively safe and addressing other goals local currencies, but rather monetary units offered by large multinational financial corporations or even by shadow-banking entities.

It must be noticed here that many of the above mentioned problems do not refer to local currencies. The latter ones do not aspire to become universal, widely used monetary units and their issuers do not intend to be competitors for central banks. Without all those macroeconomic considerations, private money in its local form, becomes far less controversial device, as it is only complementary to the legal tender and not pretends to be its substitute[14]. Quite opposite – local currencies have been rather criticized for failing to address the needs of the wider population (especially lower socio-economic groups). Among disadvantages of such local monetary initiatives have been also indicated their rather limited success in stimulating spending in local economies and unrealistic in some cases strategies of adjust to potential growth of activity (Helleiner 2000, Greco 2001, Lietaer and Belgin, 2012).

[14] Temporarily, and on a lesser scale, such substitution may however, occur.

5. Scale of local money systems

From previous considerations it seems that local currency is the least controversial and probably the most promising form of private money, as potential core and glue that unites additionally local community and generates numerous benefits for its members. It is also the most popular form, operating – with different intensity – in almost all regions of the world.

By the very nature of local currencies, individual schemes and systems of such money are very diverse. They encompass a wide range of forms, both physically and financially, and often are associated with a particular economic. Thus, one may classify local currencies using many criteria. For instance, among them may be distinguished:

1. Transition currencies – they are payment voucher-based systems that are exchangeable with the national currency. Such currencies (e.g. Brixton Pound and Bristol Pound in the UK, BerkShares in the USA, and Salt Spring Dollars in Canada). aim to raise the resilience of local economies by encouraging re-localization of buying and food production. The drive for this change has arisen from a range of community-based initiatives and social movements, like e.g. the Transition Towns originating in the UK and utilizing local currencies for re-localization in the face of energy descent from peak oil and climate change. This form turned to be especially popular since 2002.
2. Rewards currency (based on the frequent flyer model) – consumer spends cash with participating businesses who issue rewards points in a local currency. These rewards points can be used to offset cash prices in future purchases. An example is Oakland Grown in Oakland, CA.
3. Mutual Credit currency based on the mutual credit system. This can be further sub-divided into two:
   3.1. Time-based currency (also known as Time Banks) – they use time as a measure of value. An example is Dane County Time Bank or, problem the most famous Ithaca Hours (which will be discussed in details in the section 5.);
   3.2. Trade exchanges and LETS (Local Exchange Trading System) that use price as a measure of value. They function as locally initiated, democratically organised,

not-for-profit community enterprise that provides a community information service and records transactions of members exchanging goods and services by using the currency of locally created LETS Credits[15]. An example of local currency implemented as a trade exchange is Bay Bucks in the Bay Area of California, USA.

Another classification of complementary currencies proposes Ingham (2002). According to him, these currencies may be divided into three groups[16]. The first contains mentioned LETS. The second group consists of „actual" local currencies, like "*Time Dollars*", "*Ithaca Hours*" or "*Liberty Dollars*". The third group includes platforms (associations) of private credit. Their form is so-called P2P or social lending platforms (see Marszałek 2016).

However, even the systems included into the same group indicate significant diversion. In individual regions or countries operate the local currency schemes based on fiduciary money, schemes of fully backed money (in precious metal, other commodity or basket of commodities), schemes based on time or being quasi-barter. Precise assessment of their numbers is very difficult. Still, it is proved that these systems develop fast. As Lietaer (2001) estimated, in the end of the 20th century functioned already about 2000 systems of local currency, in 2004 – about 2500 and in 20009 – already more than 4000. But in 1980s their number did not exceeded 100, and in 1993 there operated just about 300 local currency schemes (Cohen 2004).

Because of large geographical dispersion, very diverse scale of activity and impressive dynamics of individual systems it is very hard to collect consistent, reliable and comparable data on local currencies. The most coherent source of such data is the Complementary

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15 The term "Local Exchange Trading System" was coined by Michael Linton in 1983. LETS were originally started in Vancouver, Canada; there are currently more than 30 LETS systems operating in Canada and over 400 in the United Kingdom. Also Australia, France, New Zealand, and Switzerland have similar systems (see Table 2.).

16 Separate category are "virtual" currencies, like very popular nowadays bitcoins or QQs – the local internet currency which employs popular in China net communicator [King 2013].

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Currency Research Group database. It started to operate in 2004. The creators of particular systems of local money may there submit and register data on their monetary units. Such registration is, however, voluntary, thus the database encompasses only part of the local currency schemes. Nevertheless, analysis of information collected so far in the CCRG database, with comparison to assessments made by Lietaer and Cohen, justifies the conclusion on large scale of local money systems. Additionally, the dynamic od their development increased in the aftermath of the Global Financial Crisis (see tables 1-2). Still, precise analysis is rather difficult here, as the systems indicate large fluctuations, connected most likely with temporary functioning of some among considered schemes.

Considering geographical decomposition of individual systems it may be noticed that they are especially popular in the development countries (the United States, other Anglo-Saxon countries, Western Europe). Local currency systems in these regions in period between 2010 and 2014 registered impressive growth in number of members, number of operating systems and yearly volume of trade. Also the population of area served by the systems from those regions increased spectacularly. The numbers increased also, but not so impressively, in Asia and Pacific, whereas characteristics for Africa have remained relatively stable. At the same time local currencies have played only minor role in countries of Latin and South America. As it seems, it might be result of specific conditions that should be fulfilled in order to introduce local currency.

Among these conditions one may mention especially civic maturity, trust, understanding of mutual relationship and thorough economic knowledge[17]. In other words, complementary currencies may function effectively in countries with high level of social capital. By no means, very helpful would be also traditions of self-government.

Region	Local Exchange Systems	Size of Membership	Population of Area Served by System	Yearly Volume of Trade (USD
		2010		

[17] Apart mentioned factors, necessary are also adequate regulation and legal frameworks, relatively high level of political stability and sufficiently developed infrastructure.

Africa	3	18519	2 156 983 647	717 500
Asia/Pacific	41	86066	2 1204 807	47 108
Latin America	3	250	1 585 000	b.d.
North America	50	62792	647 391 829	265627
Europe	66	173990	2 562 184 162	55084657
South America	7	60	23 045 450	13
Total	**170**	**341 677**	**5 412 394 895**	**56 114 904**
		2014		
Africa	5	32364	2 160 008 647	717 500
Asia/Pacific	52	110946	2 194 748 121	12 837 108
Latin America	3	250	1 585 000	b.d.
North America	67	127 664	5 114 381 426	418 659
Europe	117	557 159	9 805 098 770	133 825 991
South America	21	1470	23 045 450	13
Total	**256**	**829853**	**19 298 867 414**	**147 799 271**

Table 1. Local currencies worldwide – geographic split, 2010-2014

Source: Online Database of Complementary Currencies Worldwide, http://www.complementarycurrency.org/ccDatabase/les_public.html.

Year	Local Exchange Systems	Size of Membership	Population of Area Served by System	Estimated Yearly Operating Budget (USD)	Yearly Volume of Trade (USD)
			Operating		
--	14	77,145	2,198,897,747	--	--
1982	1	100	--	953	--
1985	1	180	200	--	--
1987	2	415	78	860	--
1989	3	1,23	80,054,500	54,510,735	39,065
1990	5	400	1,040,000	13,009	781
1991	3	60	58	--	--
1992	3	360	48	--	--
1993	3	70,814	800	20,461	--
1994	4	2,12	7,300,000	681	--
1995	6	810	2,100,000	645	28,617
1996	9	51,73	86,680,000	3,399,790	48,090,941
1997	1	400	10	605	--
1998	9	51,13	2,242,484,147	5,2	4,141,978

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1999	2	622	1,544,000	43,301	618
2000	3	620	120	--	--
2001	9	6,645	16,485,458	1,364	1,375
2002	8	4,6	40,080,751	1,281	1,880,670
2003	12	33,35	2,237,683,947	605	717,5
2004	11	6,475	8,005,500	300,045	34,377
2005	16	6,876	25,776,500	169,813	7,761
2006	18	4,106	2,150,630,647	120	100
2007	16	83,545	2,195,349,367	38,286,000	52,035,760
2008	21	1,542	310,045,000	3,36	--
2009	26	55,884	5,404,428,842	73,681,780	266,2
2010	19	151,56	2,061,573,051	108,585	706,046
2011	17	1,727	2,152,398,647	43,01	27,254
2012	22	13,172	2,204,804,690	278,61	114,523
2013	18	24,442	299,000,773	2,707,018	359,729,566
2014	10	1,935	1,007,819	7,387,882	143,63
2015	3	1	2,467,483,647	500	--
Stopped					
2007	1	55	100	--	--
2008	3	80	500	2,2	--
2009	1	--	300	--	--
2011	3	110	547,414	40,881	--
2012	1	30	500	--	--
Overall Totals					
Operating	295	653,996	26,196,169,033	181,086,091	468,066,665
Stopped	9	275	948,414	43,081	0

Table 2. Local currencies worldwide, 1982-2015

Source: Online Database of Complementary Currencies Worldwide, http://www.complementarycurrency.org/ccDatabase/les_public.html.

Still, observed fluctuations of data suggests that thre most serious problem is actually not the very establishment of a given system, but rather maintaining it. Perhaps in many cases, local currencies are mainly the objects of individual effort and ideas. Meanwhile, without more systemic approach, and support of e.g. local government, such system has limited chances to survive and growth.

6. Case study – Ithaca Hours

The most popular (although not the largest) system of the local currency started to operate in 1991 in Ithaca, New York. The system have been based on working time. Its animators were aimed at gaining control of the social and environmental effects of commerce within the community. Since then they issued over $110,000 of local paper money and thousands of purchases and many new friendships have been made with this cash[18].

The basis of introduction the system was the will to avoid situation and processes in which Federal dollars come to town, shake a few hands, and then leave the region, often to buy rainforest lumber and fight wars. Ithaca's Hours, by contrast, were thought as currency that shall stay in region to and help hire each other. While legal tender was perceived as making Ithaca's citizens increasingly dependent on multinational corporations (also financial ones), the aim of the Hours became to reinforce community trading and expand commerce which is more accountable to citizens' concerns for ecology, equality and social justice. The creators of the systems and its members regard Ithaca's Hours as real money, backed by real people, real time, real skills and tools. Instead of dollars as the legal tender, the appreciate the Hours as "local tender".

In more details, the Ithaca Hour is Ithaca's $10.00 bill, because ten dollars per hour is the average of wages/salaries in Tompkins County. There are paper Hour notes (in six denominations –2 HRS, 1 HR, 1/2 HR, 1/4 HR, 1/8 HR, 1/10 HR)[19]. These note buy different services and goods – plumbing, carpentry, electrical work, roofing, nursing, chiropractic, child care, car and bike repair, food, eyeglasses, firewood, gifts, and thousands of other goods and services. Once it is issued, anyone may earn and spend Hours, whether signed up

[18] Additionally, several million dollars value of local trading has been added to the Grassroots National Product.

[19] The Hours notes are protected against counterfeit. They are multicolored, with serial numbers. The District Attorney has declared HOURS a financial instrument, protected by law from counterfeit. For instance, the 1995 Quarter Hour and 1997 Eighth Hour use thermal ink, invented in Ithaca, which disappears briefly when touched or photocopied.

or not, in the Hours directory. But person who agrees to accept Hours is paid two Hours ($20.00) for being listed in the Hours directory. Every year such persons may apply to be paid two additional Hours, as reward for continuing participation. This is mechanisms of gradual increase the per capita supply of this currency. There is also possibility of making loans in the Hours. What important, loans are made without interest charges.

At the same time, the credit union accepts the Hours for mortgage and loan fees. People can pay rent with Hours. The best restaurants in town take them, as do movie theaters, bowling alleys, two large locally-owned grocery stores, our local hospital, many garage sales, 55 farmer's market vendors, the Chamber of Commerce, and 300 other businesses. Thanks to it, Ithaca's locally-owned stores, which keep more wealth local, make sales and get spending power they otherwise would not have. And over $10,000 of local currency has been donated to over 100 community organizations so far, by the elected HOUR board of directors.

Ithaca's new Hourly minimum wage lifts the lowest paid up without knocking down higher wages. For example, several of Ithaca's organic farmers are paying the highest common farm labor wages in the world: $10.00 of spending power per Hour. These farmers benefit by the HOUR's loyalty to local agriculture. On the other hand, dentists, massage therapists and lawyers charging more than the $10.00 average per hour are permitted to collect several HOURS hourly.

Consequence of the Hours circulating within the community is limited dependence on imports. But it is stressed by members of the Hours Programme that this is not isolating Ithaca, but rather greater self-reliance. This, in turn, gives the local entrepreneurs more potential to reach outward with ecological export industry. Moreover, they are able to capitalize new businesses with loans of their own currency.

Summarizing, the Hours constitute efficient and smoothly operating system. Particularly the Hours:

- expand the local money supply;
- promote and expand local trade, with an “endless” multiplier;

- double the local minimum wage to $10.00, benefitting not only workers but businesses as well, who find new and loyal customers;
- enable shoppers to afford premium prices for locally-crafted goods and for locally-grown organic food;
- help start new businesses and jobs;
- reduce dependence on imports and transport fuels;
- make grants to nonprofit community organizations;
- make zero-interest loans;
- stimulate community pride;
- promote Ithaca.

What also important – from the point of view of potential followers – the Hours, opposite for instance to Liberty dollars, are legal (see more Salomon 1996). IRS and FED officials have been contacted by media, and repeatedly have said there is no prohibition of local currency, as long as it does not look like dollars, as long as denominations are at least $1.00 value, and if it is regarded as taxable income. The Ithaca hours meet all these requirements.

7. Conclusions

Local currencies are by no means very useful device. They can help revitalize and strengthen community by allowing all its members —individuals, small entrepreneurs, and voluntary groups — to save money and resources in cooperation with others and extend their purchasing power without resort to the state "external" money. Local currencies bring many specific advantages of economic and social nature.

It should be however, remembering that benefits of this kind of money are rather local – when one starts to consider local currency from the macroeconomic viewpoint, there arise many potential and actual obstacle and disadvantages. Thus, it can be stated that benefits of the local money are inherently connected with its complementary character – regarding it as a substitute to the legal tender is not legitimate and may even be harmful. Better effects can bring using it as a specific glue that limits some shortages of official monetary arrangements and constitutes some buffer in time of monetary and financial disorder. Localness of this currency is its main advantage.

In other words, despite of many benefits influencing from employing private money – for individuals, given region, or, finally, even for the economy as a whole – it is hard to believe that this type of money could (and should) replace the state money in its all functions. Apart of already mentioned issues, another barrier for widespread functioning of private money are political economics considerations, as well as the will to retain exiting status quo in the monetary area. Hard to expect that the central banks and the governments would tolerate significant leakage from the official money circuit and erosion of their monetary monopoly, altogether with potential decree of tax revenues. Still, such erosion would be probably more acceptable and beneficial to the economy than the one connected with activity of large multinational financial holdings, also issuing private units.

Moreover, in the face of the growing frequency and severity of financial crises, occurring in the both developed and developing countries, local currencies might be considered as a kind of "local" medicine. Thus, research on the local currency systems may prove to be very helpful in understanding of the contemporary monetary systems and their shortages. Conducting research, one should however take into consideration signaled contradiction connected with private money – on the one hand, its popularization is perceived as a factor conducive to competition in the monetary area and through this increasing effectiveness of market economy. In this context private monies reflect libertarian, aggressive free market ideology. On the other hand, development of the local currency systems is supposed to eliminate negative sides of non-regulated market, globalization and financialization. Not the device itself is here of crucial importance, but rather the way it will be used.

Nevertheless even with these limitations, locals currencies are positive factor, complementing monetary regimes and friendly for their users. Thus, they should be further researched and implemented.

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THE ABSTRACT OF THE PROJECT IS:

The research programme will integrate diverse levels, methods and disciplinary traditions with the aim of developing a comprehensive policy agenda for changing the role of the financial system to help achieve a future which is sustainable in environmental, social and economic terms. The programme involves an integrated and balanced consortium involving partners from 14 countries that has unsurpassed experience of deploying diverse perspectives both within economics and across disciplines inclusive of economics. The programme is distinctively pluralistic, and aims to forge alliances across the social sciences, so as to understand how finance can better serve economic, social and environmental needs. The central issues addressed are the ways in which the growth and performance of economies in the last 30 years have been dependent on the characteristics of the processes of financialisation; how has financialisation impacted on the achievement of specific economic, social, and environmental objectives?; the nature of the relationship between financialisation and the sustainability of the financial system, economic development and the environment?; the lessons to be drawn from the crisis about the nature and impacts of financialisation? ; what are the requisites of a financial system able to support a process of sustainable development, broadly conceived?'

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