

SEMINAR PAPER

**Economic advantages of
community currencies**

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Abstract

Community currencies are used all over the world, but only sometimes economically advantageous. We introduce liquidity to the debate as a new explanation of success. After developing a working hypothesis, we use two case studies to test it. We find community currencies are only economically advantageous in an environment of insufficient liquidity.

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Chapter 1. Introduction

Since their introduction, the grass-roots movement of community currencies has aimed to improve the economic situation of its surroundings by offering an alternative to traditional currencies. While some networks successfully address this goal, others lack economic advantages even years after introduction. How can this disparity be explained?

We introduce a new concept to the debate: liquidity. If members have insufficient funds, a community currency addresses an actual need in providing additional liquidity and, thus, improves a community's economic situation.

Building on previous research of both community currencies and liquidity, we develop a working hypothesis of when community currencies are economically advantageous. We then test our hypothesis in two case studies. Our findings show that community currencies are only economically advantageous in surroundings of insufficient liquidity.

The next chapter provides a theoretical framework, introducing community currencies and liquidity, from which we derive our hypothesis. The third chapter tests this hypothesis and elaborates on limitations, while the fourth chapter concludes.

Chapter 2. Theoretical framework

The chapter provides an overview on community currencies and the issue of insufficient liquidity. The chapter then draw attention to a gap community currencies may fill and derive a working hypothesis.

2.1 Community currencies

Motivated by Silvio Gesell's theory of *Freigeld*, which translates freely into "free money", a movement criticizing money grew stronger in the 1920s. In their focus was the inherent property of money to keep its value stable while physical investments do not. [Godschalk, H., 2011, 4] The movement especially criticized the overly slow circulation of money and aimed to speed it up using a new kind of currency. It would have the the inherent feature to continually lose its value, which was termed demurrage.

Most prominently, the Austrian town of Wörgl introduced a community currency in 1932, during an economic recession. Unemployment rates decreased due to an increase

in commercial interactions within the community network; investments and employment were paid for with community currency and could, in consequence, be increased. Demurrage forced the money to circulate more quickly, which led to a social product nine times as efficient as conventional money. However, the central bank stopped the experiment six months after it had started.[Unterguggenberger Institut, 2018]

The idea fell dormant after the initial experiments in the 1930s, but has found a revival in the 1990s. Since then, numerous community currencies have been introduced in the Global South and the Global North which vary greatly in their respective implementations. Demurrage and economic aspects such as the critique of slow circulation which started the movement have moved away from the center of focus. Nowadays, networks mostly focus on the local aspect, creating a community sharing more than just a currency. Academic evaluation has increased in the past decades, allowing for a closer study of economic and social impacts.

Essentially the same as any other currency, a community currency is used as a means of payment. It holds the traditional functions of money: means of exchange, store of value and unit of account [Collins, J.R. and Greenham, L.S.T. , 2012, 39]. However, it is restricted to a geographical area, covering only a local community which accepts the currency as an additional means of payment. As a community currency is usually not convertible into another currency (including the official national one), it cannot leave the region of validity and as such cannot become scarce. It may thus complement other

currencies with additional liquidity [Schraven, J. , 2001, 9], providing an alternative when official currency is not or not sufficiently available.

In academia, the impact of community currencies is debated, especially on an economic level. Despite its economic motivation, not many studies show community currencies' economic advantages - especially in the Global North. While *Bangla-Pesa* [Ruddick et al., 2015] and *Red de Trueque* [Gomez and Helmsing, 2008] are prominent examples of successful community currencies in the Global South, European community currencies such as the *Bristol Pound* [Marshall and O'Neill, 2018] and *Ithaca Hours* [Seyfang and Longhurst, 2013] lack evidence of clear economic benefits. Some scholars argue that economic benefits are only due to an effect of redistribution from businesses outside the network to those inside (e.g. [Thiel, 2011, 302]). However, there seems to be a difference in the impact of community currencies in the Global North as opposed to the Global South. This difference and its connection to a community's liquidity level have not yet been addressed in literature. In the following, we discuss the consequences of insufficient liquidity and how this may connect to the economic success of a community currency.

2.2 Liquidity

In a modern society, money as a means of exchange ensures individuals can meet their demands of goods and services. Instead of offering goods or services in direct return, they can use money as a fungible intermediary. To profit from this function of money,

individuals and societies as a whole need to ensure a sufficient level of liquidity. Here, we define liquidity as the quantity of money of which an individual or a society can immediately dispose.

If no money can be accessed immediately, we speak of "no liquidity"; if insufficient sums of money to fulfill an individual's or a society's demands can be accessed immediately, we speak of "insufficient liquidity". In this state, money cannot fulfill its function as a means of exchange. Since consumers lack sufficient funds, supply cannot meet demand (cf. Figure 2.1). This imperfect allocation of goods and services leads to both excess supply on the producers' side and excess demand from the consumers' perspective.

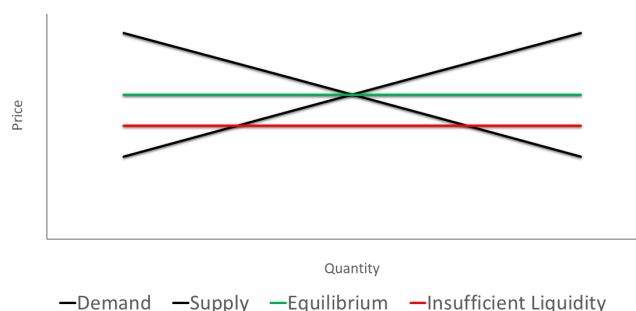


FIGURE 2.1: Demand-supply graph with insufficient liquidity
Data source: author.

While constantly low liquidity may lead to a new equilibrium of supply and demand, seasonal changes in liquidity pose a unique problem. Supply and demand during the season of high liquidity create an equilibrium (green line in figure 2.1) under which. But during the season of low liquidity, the equilibrium cannot be reached because individuals have fewer funds (red line in 2.1). However, demand and supply themselves may be

relatively stable. This leads to the imperfect allocation of goods and services introduced above.

Seasonal liquidity is present especially in rural areas with a majority of population employed in the agricultural sector. Income is created once a year during harvest season [Hong and Hanson, 2016, 5]. It constantly decreases as external goods and services, such as fertilizers, are consumed. Such investments are not only local but also done in urban areas, and therefore continually decrease liquidity for the entire rural area. Especially the poor are affected by seasonal income as they are forced to cut food intake with decreasing liquidity [Lipton, 1986, 4]. In a situation of insufficient liquidity, we identify three core economic disadvantages:

1. **Decreased savings.** Consumers lack sufficient liquidity to meet their demands, so they also lack excess funds which could be saved.
2. **Decreased sales.** Imperfect allocation leads to excess supply, i.e. less sales than in a situation of sufficient liquidity.
3. **Decreased consumption.** Imperfect allocation leads to excess demand, i.e. less consumption than in a situation of sufficient liquidity.

Bank credits usually address these problems, offering extra funds to individuals and businesses when they lack sufficient liquidity to meet their demands. However, especially in rural areas in the Global South, many poor in need of credits do not have access to

financial institutions [Demirguc-Kunt, Asli, et al., 2018, 35]. Thus, these institutions' offer is not tailored to the poor rural population. In this situation, individuals with low liquidity cannot increase their funds.

A solution specific to rural areas in the Global South is the microfinance concept. Using the peer pressure of dense rural networks, it does not require collateral but rather depends on mutual trust in a group of individuals which share a credit. The concept allows individuals to access credits who would not have been credit-worthy in a different context. However, the interest rates are high in comparison to ordinary bank credits, diminishing liquidity in a long-term perspective. It may therefore constitute a poverty trap for borrowers. [Ahlin and Jiang, 2008, 14]

Also, microfinance institutions draw on liquidity that already exists in the region. In a season of low liquidity, this means a re-distribution of already few resources instead of additional liquidity - which is needed to address the issues enumerated above. Micro-credits therefore appear to be a suboptimal or even counter-productive solution to these issues. In the following analysis, we therefore do not consider microcredit as an option to alleviate liquidity issues, but rather introduce an alternative.

In a situation with seasonally low liquidity alleviated by neither bank nor microfinance credits, a community currency may address the issues above effectively. Unlike a bank credit, a community currency does not require financial collateral. It rather draws on the strength of the microfinance concept and uses peer pressure as a form of social collateral,

enabling access to anyone within the rural network. Additionally and unlike the micro-finance concept, a community currency does not require interest. It is created between members as a transferable loan without interest. As such, it represents a constant source of additional liquidity available to any individual within the rural network.

A community currency may allow to address the issues cited above caused by insufficient liquidity. It may increase savings. By increasing liquidity, it may also help to obtain the equilibrium between supply and demand, and thus increase both sales and consumption. A community currency may therefore be a viable alternative to traditional ways of addressing insufficient liquidity. However, it is a complex concept that can only be implemented on a rather local level. Hence, we assume community currencies will be economically advantageous if no formal bank credits are available.

2.3 Hypothesis

The line of thought above lead us to the set of hypotheses detailed below. Since it is difficult to directly prove a hypothesis, we wish to reject its opposite. We therefore formulate the hypothesis aligning with the theoretical framework provided above as the alternative hypothesis, H_1 .

In the following section, we test the hypothesis presented above by regarding two cases of different community currencies. If these cases lead to a rejection of H_0 , we assume hypothesis H_1 to be true.

H_0 : Community currencies are only economically advantageous in a environment of *sufficient* liquidity.

H_1 : Community currencies are only economically advantageous in a environment of *insufficient* liquidity.

Chapter 3. Testing the hypothesis

This chapter tests our hypothesis, first directly and then indirectly. The first case examines an environment of sufficient liquidity, the second a situation of seasonally low liquidity. We then examine implications for our hypothesis and conclude with remarks on limitations and possibilities of further research.

3.1 Chiemgauer: An environment of sufficient liquidity

The German *Chiemgauer* is known as a very strong community currency in comparison with others in the Global North [Marshall and O’Neill, 2018, 273]. It even inspired other currencies such as the British BerkShares [Seyfang and Longhurst, 2013, 74]. If we can show that this strong currency acts in an environment of sufficient liquidity, yet does not entail economic advantages, H_0 can be rejected.

3.1.1 Overview on the Chiemgauer community currency

The community currency was started in 2003 as a school project in the Chiemgau region [Thiel, 2011, 240]. Supported by surrounding businesses and banks [Dittmer, 2013, 8], it has grown to a network of 419 participating businesses and many more members today [Chiemgauer Regiogeld UG, 2019]. Members can either pay using bills or giro-money via cards provided by local banks [Thiel, 2011, 240]. To increase the speed of circulation, a demurrage of 2 percent every three months has been introduced [Dittmer, 2013, 8]; 3 percent of sales are donated to local clubs [Thiel, 2011, 244]. The Chiemgauer is directly convertible to the national currency Euro [Thiel, 2011, 323].

3.1.2 A sufficient level of liquidity

In comparison to other parts of Germany, the Chiemgau region is economically strong [Thiel, 2011, 324]. Also, it is touristy and home to many hotels [Roesl, 2007, 5], attracting liquidity from other regions - both German and internationally. With a strong economic standing and external increase of liquidity, it can be assumed that lack of liquidity is generally not an issue.

Since local banks participate in the network, we assume that members have access to bank credits if they are in need. Members are mostly aged 40 to 60, with an education and salary which are both above-average [Thiel, 2011, 255]. Since this group is employed and well-paid, it can be assumed that its members do not lack liquidity and have access

to bank credits if they are in need. We therefore assume the Chiemgauer circulates in an environment of sufficient liquidity.

3.1.3 Lacking evidence of economic benefits

Despite its high level of circulation in comparison to other community currencies, the Chiemgauer only accounts for 0.01 percent of the regional economic product [Dittmer, 2013, 9]. This indicator for currency acceptance within the regional network is rather low. However, we examine its economic impact and not its popularity, which can also be impacted by other than economic factors. Consequently, the low level of this indicator is an indication, but not evidence of a lack of economic advantages.

Additionally, there are strong doubts whether the Chiemgauer motivates its members to switch currency without further economic consequences [Dittmer, 2013, 8,10]. Members state they do not use the Chiemgauer as a complementary currency; rather, it is regarded as only one form which money may assume [Thiel, 2011, 323]. Therefore, it does not add liquidity or change the way in which members use their resources. In this way, the Chiemgauer does not increase savings.

Members also state they have not changed their quantity of consumption, but rather switched to participating businesses [Thiel, 2011, 302]. Therefore, the Chiemgauer achieves a regional inter-business shift in sales instead of increasing them. If a single participating business experiences an increase in sales, other businesses lose clients and

experience decreasing sales. Consequently, the Chiemgauer increases neither consumption nor sales for its members.

In conclusion, the Chiemgauer fails to address the economic issues listed above. It does not increase savings, consumption or sales but rather represents a luxury money [Thiel, 2011, 282] that is only used by a certain clientele, apparently for non-economic reasons.

3.2 Sarafu credit: An environment of insufficient liquidity

Kenyan *Sarafu credit* is a very well-researched community currency, especially in comparison to other currencies in the Global South (cf. [Cauvet, 2018, Richards and Ruddick, 2013, Ruddick et al., 2015]). If it can be shown that it carries economic advantages in an environment of insufficient liquidity, H_0 can be rejected.

3.2.1 Overview on the Sarafu credit community currency

Started in 2011 in an informal settlement in Mombasa as the *Bangla-Pesa*, the community currency developed into the larger network of *Sarafu credit*. It slowly spread to different regions, both rural and urban, reaching 12 communities today. [Cauvet, 2018, 6] Members can use bills in the first communities that joined, but recently a blockchain-based digital solution similar to mobile money has been introduced. It is intensely used, with 40,000 transactions made by 4,065 members in just a year [Grassroots Economics, 2019a]. While technically feasible, demurrage is currently not implemented. Sarafu credit

is not convertible to the national currency; the total amount in circulation is increased with every new member endowed with an initial sum.

3.2.2 An insufficient level of liquidity

Sarafu credit members are generally poor and live in both rural areas [Cauvet, 2018, 22] and urban informal settlements [Ruddick et al., 2015, 2]. A pattern of seasonal liquidity can not only be shown for rural [Hong and Hanson, 2016, 3], but also for urban areas: An informal settlement in Mombasa seasonally disposes of 144 percent more supply than is demanded during a season of insufficient liquidity [Ruddick et al., 2015, 18].

However, liquidity cannot be restored in a sufficient way with formal bank credits. Sarafu credit members are usually poor and female - and thus members of society with the least access to financial institutions [Demirguc-Kunt, Asli, et al., 2018, 37]. This impedes access to formal credits for a majority of its members. With seasonal changes in liquidity, but insufficient access to bank loans, we assume that liquidity in the environment of Sarafu credit is low.

3.2.3 Evidence of economic benefits

Studies on the impact of Sarafu credit show that members benefit economically in various ways. Daily purchases in community currency allow members to save money in national currency which they would have spent otherwise [Ruddick, 2011, 8]. Savings can then be

used to invest in members' businesses, advancing opportunities of local economic growth and higher levels of liquidity.

Also, members significantly increase their consumption. [Cauvet, 2018, 21-22] reports that members have a significantly higher food consumption than non-members, as well as a generally higher food budget. This may be a case of inverse correlation, i.e. individuals with a higher food consumption and budget may be more likely to join the network than individuals with a lower consumption and budget. But in the context of increased savings and a high proportion of food in reported transactions [Grassroots Economics, 2019a], a causal relationship between membership and increased consumption is likely.

Moreover, sales within the network increase. In the case of *Bangla-Pesa*, the community currency accounted for 22 percent increase in monthly income [Ruddick et al., 2015, 6]. With both consumption and sales increasing, we assume the community currency not only causes a shift of demand towards participating businesses, but an overall increase of sales.

Sarafu credit appears to be an efficient means to decrease the gap between excess supply and excess demand, increasing not only savings but also consumption and sales. This evidence might be questioned if only one of the issues introduced above were addressed. However, in interaction of all three issues, it seems that Sarafu credit is indeed economically advantageous.

3.3 Implications for hypothesis

The case studies above address our H_0 from two different perspectives, helping to evaluate whether or not it can be rejected. In the case of the Chiemgauer, which circulates in an environment of sufficient liquidity, we showed it is not economically advantageous. This result is incongruous with our H_0 which predicts economic advantages. The hypothesis can therefore be rejected; the community currency does not bring economic benefits in an environment of sufficient liquidity.

The case of Sarafu credit shows economic advantages in an environment of insufficient liquidity. This finding is incongruous with the H_0 predicting no economic advantages in this situation. The hypothesis can therefore be rejected; the community currency *is* connected with economic benefits in an environment of insufficient liquidity.

Combined, these two findings reject the H_0 and lead us to assume H_1 : Community currencies are only economically advantageous in an environment of insufficient liquidity. In future considerations of implementing community currencies, this finding may be useful; also, it may provide an innovative way of addressing economic problems caused by insufficient levels of liquidity.

3.4 Limitations and further research

Due to the limited scope of this study, the analysis was confined in various ways. In the following, we explain these limitations and propose further directions of study. Addressing them may lead to a more holistic view of the subject.

The study is limited to two case studies. These may be special cases and therefore not representative for other community currencies. Considering the comprehensive nature of our hypothesis, expanding the analysis to other networks can prove insightful. The hypothesis may be tested more thoroughly to evaluate if our results hold up in other communities.

Additionally, the study only examines, in a qualitative way, evidence on economic impacts found by other researchers. While this is a valid introductory method, it complicates direct comparison between the two cases. A quantitative approach may improve results, providing data which is directly comparable between networks.

This also applies to the examination of the level of liquidity in their respective environment. Within the scope of this paper, only a superficial study of liquidity was possible, based on available data on the respective networks' region and members. To increase precision and enable direct comparability, metrics to measure liquidity could be developed and collected in the communities of interest.

Generally, the study is preliminary. Its results may further be tested in a combination of the approaches addressed above. The number of examined community currencies could be increased while quantitative methods could facilitate comparison. Collecting such panel data is intensive in time and resources but would provide a more complete picture of reality.

Chapter 4. Conclusion

This paper set out to examine the level of liquidity under which community currencies are economically advantageous. Building on existing literature on both community currencies and liquidity, we developed a hypothesis stating community currencies are only economically advantageous in an environment of insufficient liquidity. Since it is difficult to prove this hypothesis, we aimed to reject the opposite, which we refer to as H_0 . We contributed to existing literature by addressing a potential cause of economic success which has, so far, been neglected.

Following the theoretic framework, we further aimed to test the hypothesis with two case studies. The first case showed no economic benefits in an environment of sufficient liquidity. The second case showed economic benefits in an environment of insufficient liquidity. These results were incongruous with our H_0 , which was consequently rejected. Instead, we accepted the alternative hypothesis, stating that community currencies are only economically advantageous in an environment of insufficient liquidity.

The limits of this study point towards possible areas of future research. The number of studied communities could be increased to further validate the hypothesis. Additionally, a quantitative approach of examining a community currency's level of liquidity and economic success would enable direct comparison and provide further insights. A panel study would combine these two methods.

This study not only fills a research gap left by current literature, but also provides an analysis of an important success factor of community currencies. It may improve future implementations of this concept in various settings. Our findings may also enable innovative ways to alleviate poverty - especially in areas who need them the most.

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