

A Basic Critique of Economic Arguments for Local Currencies

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I. INTRODUCTION

One of the most ubiquitous features of any modern economy is its money system. Present in the majority of economic transactions, money plays a key role in the facilitation of exchange, and represents a common denomination of the value that individuals, and society, place on goods and services. Simultaneously, and somewhat paradoxically, monetary systems, and the institutional landscape in which they function have a certain invisibility. Each person takes it for granted that every other person will accept money at an understood value. For this reason, money, and the historical context in which it arose, fades into the background.

However, for some critics, the origin of centralized national fiat money systems is not forgotten. Authors such as Vera Smith, Friedrich Hayek, and Milton Friedman¹ have argued in various forms against government central banking. A common thread of these arguments is that government monopoly of the money supply does not provide any benefits to the public. Rather, a competitive market-based system of money issue can optimally generate a medium of exchange that is stable in value and in sufficient supply.

Recently academics and community activists have issued different critiques of nationalized fiat money systems. On their view, the current monetary system contributes to underdevelopment of cities and regions, unnecessary unemployment, and environmental degradation. They envision a process of monetary decentralization in which a network of “local” or “community currencies” flourishes. Such systems would

¹ These arguments are outlined in Vera Smith, *The Rationale of Central Banking and the Free Banking Alternative* (Indianapolis: Liberty Press, 1990). See also F.A. Hayek, *Denationalisation of Money* (London: The Institute of Economic Affairs) and Milton Friedman “Has the Government any Role in Money”? *Journal of Monetary Economics* XVII, 37

democratically issue a medium of exchange that reflects and reproduces a more “localized” economic system.

The primary goal of this paper is to scrutinize a subset of the arguments for local currency. Broadly speaking, there are two types of local currency literature. The first type, which I am labeling the “political” literature, advocates the adoption of local currencies based on a critique of the current political economic system. In this literature, the objective of local currency adoption is to facilitate fundamental change in social and economic relationships. The second type analyzes local currencies using the tools of conventional economic analysis, while taking the political economic environment as given. This literature tries to point to possible welfare gains from the establishment of local currency. It is this second “economic” literature that is the focus of this paper.

Much of the economic literature on local currencies analyzes the function of specific systems. There are also two key papers more relevant to my project that try to argue more generally that local currencies are welfare improving. By demonstrating the flaws in these arguments, I hope to show that there is not much to recommend local currencies without appealing to the more general political economic critique offered in some of the political literature. While a thorough evaluation of the political literature is beyond the scope of this paper, the relationship between it and the economic literature is addressed in the conclusion.

II. DEFINITIONS AND EXAMPLES

In the literature, the term local currency is not well defined. The term “local” can sometimes refer explicitly just to the circumstances under which money is issued. In this sense, local currency is antonymic to “national” currency. Far more commonly, the term “local” refers also to the desired geographic sphere of circulation of the media of exchange. The arguments considered in this paper use this second, more restricted definition.

Another feature of most local currency proposals and systems is that the local currency is supposed to function as a *partially* accepted medium of exchange, circulating in tandem with a national currency. Lewis Solomon contends, “we should look to a decentralized approach marked by the parallel existence of various local currencies and the U.S. dollar”². Michael Pacione proposes a “hierarchical” system with a world currency for international trade, national currencies for national trade, and local currencies for local trade³. While the proposed relationship between local and national currencies differs, it can generally be said that a system of local currencies is not intended to replace the national fiat currency.

One local currency system, called the Local Exchange Trading System (LETS) has gained some popularity in England, Australia and New Zealand. The LETS system

² Lewis D. Solomon, *Rethinking Our Centralized Monetary System: The Case for a System of Local Currencies* (Connecticut: Praeger Publishers, 1996) p.94.

³ Michael Pacione, “The Other Side of the Coin: Local Currency as a Response to the Globalization of Capital” *Regional Studies*; Cambridge; XXXIII Feb 1999 p.67

developed in 1983 in Canada's Comcox Valley as a modification of a bartering network. A LETS is a community-based non-profit organization. The principle behind LETS is that each person should be free to issue money. In this spirit, each member of the LETS has an account that is denominated generically in "credits". When they want to use credits in exchange, two members must signal the record keeper to debit the account of the payer and credit the account of the payee. Each account starts at zero, and members can maintain a positive or negative balance. A negative balance means that the member has gone into "commitment" to the system, meaning a commitment to provide equivalent value in goods and services in the future. LETS is distinguished by the fact that there is no physical currency, and that the balance of every account is public knowledge to every other participant⁴.

Ithaca Hours is another somewhat different system circulating in Ithaca, New York. In this system, slips of paper denominated in hours of labor, are issued to subscribers in exchange for Federal Reserve Notes, or as gifts to non-profit agencies. Individuals and businesses that accept Ithaca Hours advertise in a monthly newsletter published by the non-profit organization that prints and issues the money. Hours are not redeemable for any other money, or for goods and services. What distinguishes Hours as a local currency is the premise that the system was "designed to encourage people to spend their money and time in the community"⁵. The unit of account, the "Hour", is distinct from the U.S. dollar, and is supposed to represent the value of one hour of labor.

⁴ For a thorough historical and functional overview of LETS, see Sidonie Seron, *Local Exchange Trading Systems* (Unpublished Master's Thesis, Universite de Bourgogne – Dijon, 1995).

⁵ Bernard Lietaer, *The Future of Money: Creating New Wealth, Work, and a Wiser World* (London: Century, 2001) p.193

However, in practice, people exchange Hours at a rate of one Hour to ten dollars, the average hourly wage in Ithaca⁶.

III. ARGUMENTS FOR A LOCAL CURRENCY

Jayaraman and Oak: Local Currency for Development

In an unpublished paper, Rajshri Jayaraman and Mandar Oak argue that a local currency system can improve economic development in the region where it circulates. They describe the problem as a thought experiment: “Suppose all individuals initially held money in blue notes. Then how (if at all) might productivity and welfare be enhanced by allowing each individual to dye as much of their (blue) money as they wanted red”⁷?

Their argument is that the introduction of a local currency relieves a potential information problem that may curtail development. They claim that the level of investment firms make in production technology depends on the demand for their goods. The firm will invest in new technology only to the extent that they believe they will be able to cover the fixed costs of investment. Therefore, a firm experiencing low demand may not choose to invest in a “better” – lower marginal cost – technology⁸.

In a world where firms know what the demand is for their products, they will choose appropriate investments. But Jayaraman and Oak assert that firms may be

⁶ Information on the history of Ithaca Hours is available from the “Ithaca Money Home Page” at <http://www.lightlink.com/hours/ithacahours/archive/0001.html>

⁷ Rajshri Jayaraman and Mandar Oak, “Local Currency as a Development Strategy” (Unpublished paper, Cornell University, 2001) p.4

⁸ Ibid. p.3

uncertain about this demand. If so, then they are likely to choose a sub-optimal production technology. For example, the demand for a firm's goods might actually be higher than they anticipate. Not knowing this the firm can choose a production technology that is more expensive than necessary. The firm and consumers would both be better off if the demand uncertainty was alleviated and the firm chose the correct level of investment⁹

Local currency partially alleviates this problem by sending information to firms about the demand for locally produced goods. In Jayaraman and Oak's model, local currency has two salient features: the national currency can be used to purchase the local currency, but not the other way around, and local currency is only accepted at locally owned and operated businesses. Therefore, taking it as given that consumers are willing to hold the local currency, the volume of local currency holdings provides information about the amount consumers want to spend on local goods¹⁰.

Jayaraman and Oak prove that local currency holding of this type will lead to more optimal investment choices among local firms in a game theoretic model with N consumers and one local firm. In the model, the firm competes in a perfectly contested market with other non-local firms. Consumers are either high-demand, or low-demand types in terms of their preferences for a locally produced version of the good. Through local currency holding, these types are revealed to the firm, which uses this information in making an investment decision¹¹.

In addition to proving the result, they also demonstrate that it will be more efficient than two other possible policies for relieving demand uncertainty. One

⁹ Ibid. p.2

¹⁰ Ibid. p.4

¹¹ Ibid. pp. 5-17

alternative policy is to poll consumers about their type. However, low-demand types have an incentive to falsely claim they are high-types, knowing that the firm will choose a lower marginal cost production technology leading to lower prices. Another policy Jayaraman and Oak consider is one in which the government takes over local production. The government polls consumers about their type. Then, “if demand revelations are at variance with the anticipated demand, any profits or losses incurred by the government-producer are passed on to consumers in the form of lump-sum transfers or taxes”¹².

Clearly, the issuance of local currency is more efficient than the first alternative, and is less ludicrous, and less costly, than the second. Nevertheless, Jayaraman and Oak concede that there might be other problems with a local currency solution. The assumption that the public will hold the local currency is strong. If consumers are uncertain about what type they are, local currency holding becomes a “dominated asset”. Furthermore, they assert that local firms will have to have exceptional confidence in the local monetary authority to redeem their local currency for national currency)¹³.

Jayaraman and Oak’s argument contains internal flaws as well. First, the game theoretic proof is not sufficient to prove the more general argument. Though the logic of the proof is not contestable, it refers to a limited situation. In a world with one local firm, the amount of local currency holdings *will* signal demand for the firm’s output, clearing up their uncertainty in an efficiency-improving manner. However, the content of this information is diluted if we allow for more firms. In a local economy with perhaps hundreds or thousands of firms, no one firm gets much information about demand for their specific locally produced good from knowing local currency holding. There is an

¹² Ibid. p.17

¹³ Ibid. p.23

inverse relationship between the number of firms in the economy, and the value to the individual firm of knowing about local currency holdings.

From this perspective, it seems that Jayaraman and Oak have proven a case in which a local authority sells gift certificates that can be used at the local firm. Clearly, for this firm to know how many people hold the local “currency” is valuable information. Indeed, it is so valuable that firms have sufficient private incentives to issue just this type of asset. But this casts doubts on the implication in Jayaraman and Oak’s paper that local currency is a public good that relieves information problems. If the information from a local currency was valuable, local firms could act together to issue one. Shopping malls frequently perform this function, selling certificates that are redeemable at any store in the mall¹⁴

This has two implications. First, it suggests that there is no need for a collective action to provide a local currency of this type, as private incentives are sufficient. Second, it is clear that Ithaca Hours, the system that provided Jayaraman and Oak the inspiration for their paper is not such a system¹⁵. Local firms cannot redeem their Hours for dollars, and consequently, organizers of the system struggle to convince local firms to accept them.

Equally problematic for Jayaraman and Oak’s argument is the question of whether demand uncertainty even exists. That imperfect information among consumers regarding product quality leads to development inefficiency is well understood¹⁶. But while it is clear that consumers can be uncertain about the quality of the product offered

¹⁴ Dr. Lawrence White and members of the Monetary Theory and Policy class pointed out this argument during a May 2002 presentation.

¹⁵ Jayaraman and Oak, op. cit. p.3

¹⁶ Ibid. p.2

by a new firm, leading to sub-optimal entry, it is not clear that existing firms do not receive sufficient information about demand through the price mechanism. If consumers prefer locally produced goods, then local firms competing with non-local firms in a competitive market will experience excess demand, since consumers prefer to buy from them at the market price. There is no information problem here. If firms do not experience sufficient demand to compel them to choose a higher investment level, then under the market conditions assumed by Jayaraman and Oak they make the right choice by not investing.

Jorim Schraven: Local Currency increases Exchange

In an unpublished thesis, Jorim Schraven makes a case for local currencies based on a version of optimal currency area theory. The essence of his argument is that a national currency can be drained out of the local economy, leaving people there with insufficient liquid purchasing power to conduct all possible exchanges. Because the national monetary authority is either unwilling or unable to target cash to the deficit region, Schraven contends that the issue of a local currency is the best strategy to supply new liquidity into the economy¹⁷.

Schraven asserts that the optimal area for a currency is a city or a group of small towns in geographic proximity. Referring to Tavlas', he points to "similarity of inflation rates, factor mobility, open economy, high degree of commodity diversification, price and wage flexibility, high degree of goods markets integration, fiscal integration, and

¹⁷ These arguments are contained in Jorim Schraven, "The Economics of Community Currencies: A Theoretical Perspective" (Unpublished Honours Thesis, Oxford University).

political will” as necessary conditions for a potential optimal currency area¹⁸. The city is the optimal currency area, Schraven argues, because labor is immobile. Low-wage workers, who are most likely to suffer in money shortages, are uncertain about the expected benefits of moving, and moving costs constitute a large percent of wages. Because of this, there is immobility of cheap labor.

Schraven also gives a simple numerical example of how a national currency drain can lead to sub-optimal local exchange of non-tradable goods. This example is based on the assumption that “there is neither price and wage flexibility, nor factor mobility, and that net fiscal transfers equal zero”, as well as on simplifying assumptions about the form of trade. In the model, agents begin with initial endowments of non-tradable goods, as well as a demand for both local and non-local goods, i.e. they are in a trade deficit situation. Since the amount of money in the economy is fixed, as trade progresses, money is slowly drained from the local area in exchange for imported goods. Because prices and wages are fixed this eventually leaves the local economy without enough money to clear all markets. Schraven describes this as a situation of “excess capacity”, where people are willing to trade, but cannot do so in the prevailing conditions¹⁹.

The proposed remedy is the introduction of a local currency. Schraven asserts that this policy is better than two alternative solutions: fiscal transfers and trade protection. Fiscal transfers must be repeated every period, while a local currency need be only issued once. Local currency policy is also better than trade protection, as it avoids the welfare distortions caused by tampering with markets²⁰.

¹⁸ G. Tavlas quoted in Schraven, Ibid.

¹⁹ Schraven, Ibid. pp. 18-23

²⁰ Schraven, Ibid. p. 23

But is local currency necessary to solve the supposed problem? If it were, we might expect it to be issued wherever cities are integrated into larger monetary economies. Since this describes almost all cities during at least the last half millennium, one might expect local currencies to have emerged all over the world. Furthermore, there should be more pressure for local currency development when factors are less mobile, *ceteris paribus*. This does not appear to have been the case.

As Richard Timberlake points out, history provides many examples of the capacity for currency to be issued when it is found to be in insufficient supply. The historical record shows at least three situations in which unofficial currencies were issued. When there were legal restrictions on the denominations of banknotes, railroads, canals, and other private firms issued redeemable scrip in the small denominations that were in demand²¹. Also, in periods of national depression, local governments and private firms issued local currencies as a response to the collapse of the money multiplier²². Thirdly, unofficial scrip was issued as money in isolated company towns in which companies were able to economize on cash holdings by offering daily wage-payments in company scrip²³.

These historical events suggest that the problem of an insufficient money stock has been able to call forth its own solution. Schraven's theory needs to explain why local currency has not been more commonly issued in response to increasing trade exposure

²¹ Richard H. Timberlake, Jr. "The Significance of Unaccounted Currencies" *Journal of Economic History*, XLI, (Dec. 1981) p. 856-7

²² Richard H. Timberlake, Jr. "Private Production of Scrip Money in the Isolated Community" *Journal of Money, Credit and Banking*, XIX, (Nov. 1987) p.444. Examples of Depression Scrip in the U.S. are available in Ralph A. Mitchell and Neil Shafer, *Standard Catalog of Depression Scrip of the United States in the 1930s Including Canada and Mexico* (Wisconsin: Krause Publications, 1961).

²³ *Ibid.* p. 438. For more detail on company scrip, see Stuart Brown, Jr., *Scrip* (Virginia: Virginia Book Co., 1976).

between cities. A simpler explanation is that Schraven is incorrect, and a trade deficit does not usually lead to a critical money shortage.

At least two points may be raised in objection to Schraven's model. Most obviously, Schraven defies the neoclassical paradigm by assuming total price and wage inflexibility. The more common assumption is that when there is less money in the economy for whatever reason, prices will adjust downward. To justify this extreme assumption, Schraven contends that prices are sticky between regions due to "national focal points in prices, such as minimum wage, marginal tax rates . . . price transparency and other socio-economic factors"²⁴. Even if true, the simplest policy response would be to remove these restrictions, not to issue a local currency.

The second objection is to the claim of labor immobility. If anything, labor is more mobile now than in the past, especially within a politically integrated society such as the United States. Even low-wage labor is more apt to move in search of higher wages.

IV. CONCLUSION

The economic literature on local currencies fails to demonstrate that they are necessary or sufficient to solve development problems, or to supply a medium of exchange when the money supply fails. While the intention of this paper is not to demonstrate that local currencies are useless, it should provide a dose of clarity as to what people should and shouldn't expect from monetary institutions, in spite of a LETS

²⁴ Schraven, op. cit. p. 24

activist's claim to the contrary that "Since economics assumes a centrally issued currency, when it comes to LETS, then all bets are off"²⁵.

It is important to reiterate that this paper has not critically examined the normative political arguments for local currency. Lewis Solomon argues for local currency based on the argument that the political economic fabric of the world is changing. He asserts that there is, or will be, a pressure for smaller and more locally oriented production and consumption. In this context, local currency is just one component of a larger vision of social change²⁶. As another example, Michael Pacione has argued that globalization and increasing capital mobility has weakened the classical arguments for the gains from trade. From his perspective, local currencies can be used as an alternative form of local protection from capital flight²⁷.

Such arguments have their own flaws as well as merits, which are not taken, up here. However my critiques of Jayaraman and Oak's, and Schraven's arguments have some relevance to the politically normative positions. The normative literature frequently contains arguments that local currencies will help "develop" small communities, or provide a more stable money supply. The critiques developed here simply give evidence that these positions cannot be taken for granted. Nevertheless, that this paper only touches one corner of a growing body of research is a crucial caveat in concluding

A final comment regarding the role of ideology in local currency systems is needed. Some research has been done to show that most people who engage in local

²⁵ Angus Soutar, quoted in Mark Jackson, "The Problem of Over-Accumulation: Examining and Theorising the Structural Form of LETS", *International Journal of Community Currency Research*, I, No. 2, 1997 p.1

²⁶ Solomon, op. cit. A condensed version of Solomon's basic arguments is also available in Lewis Solomon, "Local Currency: A Legal and Policy Analysis" *Kansas Journal of Law and Public Policy*, V (Winter, 1996).

²⁷ Pacione, op. cit. Thomas Greco offers an argument for local currencies based on a political position similar to Pacione's combined with a critique of money issue by fiat of a Central Bank, in *Money: Understanding and Creating Alternatives to Legal Tender*, (Vermont: Chelsea Green Publishing, 2001).

currency use are ideologically motivated, and that they tend to share certain political views²⁸. Schraven uses this fact to dismiss existing systems from his “economic theory”, claiming, “it would be inconsistent to base such standard economic analysis on the actions of such people”²⁹.

But without examining the role of ideology in local currency development, there seems to be nothing that sets them apart from other more general types of monetary decentralization. While it is important to analyze the logic that underlies any kind of economic arrangement, it is equally crucial to acknowledge that these arrangements appear within the confines of historically and ideologically contingent social systems. We should not fear theories about monetary policies that examine the political motives of their advocates. After all, the passage of the Federal Reserve Act was clearly embedded in a heavily contested policy environment, and its passage represented the victory of one political vision over several others. An analysis of the impact of the Federal Reserve Act on the U.S. economy is incomplete without an understanding of this ideological framework. Similarly, acknowledgement of the political goals of local currency advocates and the circumstances that give rise to them are crucial to their study.

²⁸ Caron Caldwell, “Why Do People Join Local Exchange and Trading Systems?” *International Journal of Community Currency Research*, IV, No.1

²⁹ Schraven, op. cit. p. 2

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