

A Critical Review of **SOFT CURRENCY ECONOMICS**

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INTRODUCTION

Warren Mosler has worked as a fixed income trader for over twenty years and is the cofounder of Ill Finance, an international investment company that specializes in local currency sovereign debt. In his essay **Soft Currency Economics**, he draws from his experience as a practitioner in financial markets in analyzing the underlying forces at work in a modern monetary system. Interestingly, this analysis incorporates several postulates that can be considered logical extensions of Post Keynesian monetary thought. Considering the fact that he had no exposure to the Post Keynesian school of thought before writing his paper, it is fascinating to see the striking similarities between important aspects of his analysis and Post Keynesian monetary theory. Furthermore, Mosler's work deserves serious consideration for the valuable insights into the monetary system that are not currently focused on by the academic world, policymakers, or the general public.

The remainder of this paper will be organized as follows: The first section will review the points of contact between Mosler's *Soft Currency Economics* and Post Keynesian monetary theory. The next section will focus on those aspects of Mosler's analysis that may be considered as possible extensions of Post Keynesian monetary thought.

MOSLER AND THE POST KEYNESIANS

The purpose of this section is to demonstrate parallels between Mosler's analysis and Post Keynesian monetary thought. It will examine overlaps in the discussion of monetary theory as well as the common conclusions that have been derived.

The Myth of the Fed's Ability to Control the Money Supply

One of the leading points in *Soft Currency Economics* that is also an integral element in the Post Keynesian discussion of endogenous money, is the following assessment of monetary policy:

Monetary policy sets the price of money, which only indirectly determines the quantity. (Mosler, 1995, p. 3)

This postulate is also at the heart of Post Keynesian theory of endogenous money. Many economists have asserted time and time again the same imperative:

The banking system has *no...direct* control over the quantity of money. The main direct influence of the banking system is over the shortterm rate of interest. (Keynes, 1930)

[I]t is recognized that in all credit money economies it is the level of nominal interest rates that is determined exogenously by the central bank, rather than the nominal money stock... (Moore, 1988, p. 254)

[I]nterest rate determination is not subject to any general law... The level of interest rates prevailing in any given situation appears clearly to be determined by monetary authority... (Pivetti, 1988, p. 282 as quoted in Lavoie, 1992, p. 194)

Post Keynesian economists acknowledge that the central banks can control the interest rate, and not the money stock. They also recognize that short term interest rate determination is the primary tool of monetary policy. Mosler argues along the same lines:

The Fed has ultimate control over the interest rate...the overnight interest rate* is the primary tool of monetary policy. (Mosler, 1995, p. 3)

*Mosler uses the term "overnight interest rate" for what Post Keynesians term the shortterm rate of interest.

This is consistent with Kaldor's appraisal of the interest rate:

The rate of interest...is the one instrument which is entirely under the control of the Government. (Kaldor, 1985, p. 97 as quoted in Wray, 1990, p. 133)

As Moore (1988) points out, the same conclusion has been reiterated by Goodfriend and Greider, who stress that interest rate controls are the primary implement of monetary authorities, even though they refuse to recognize the fact for political reasons (Moore, 1988, p. 137). Mosler's conclusion holds true not only in the United States but also around the world. Goodhart writes that the central monetary authorities in many countries have had unsuccessful experiences with control of the money supply. Therefore, they have abandoned monetarism and targeting monetary aggregates and have focused on setting the interest rates. (Goodhart, 1989, p. 297)

Mosler's analysis shows that with current reserve accounting regulations the Fed is impotent with respect to direct control of the money supply.

He points out some of the contributing accounting factors:

[A]lthough this system is called contemporaneous it is, in practice, a lagged system because there is a two day lag... (Mosler, 1995, p. 7)

As a result of the lagged system the reserve requirements are predominantly determined in advance. Therefore,

[T]he market for reserves is inelastic in the very short run [and] banks for all practical purposes cannot change their current reserve requirements. (*ibid.*)

This is the same argument that Moore uses:

[T]otal current deposits... predetermine the quantity of reserves...the demand for reserves in each maintenance period is inelastic. (Moore, 1988, p.114)

Mosler continues his discussion of the reserve accounting system. He asserts that the 1984 switch to the present contemporaneous system, shortening the lag between the computation and maintenance period, did not increase the Fed's ability to control the supply of money. This treatment is also supported by Robert D. Laurent:

The shorter accounting lag did not (and could not) increase the Fed's control over the money supply because depository institutions' reserve requirements are based on total deposits from *the previous* accounting period. (Laurent, 1982, p. 3536)

Mosler also concludes that since the banking system faces a "fixed reserve requirement as it nears the end of each accounting period", the Fed has no choice but to act defensively in the monetary markets and add the reserves needed by the banking system. Mosler's conviction, that the Fed must accommodate to the needs of the banking system, is consistent with Post Keynesian analysis:

Unless the Fed provides the additional...reserves, at least one bank will fail to meet its reserve requirement. (Mosler, 1995,p. 8)

If the central bank does not supply the required amounts of base money, no one will! (Lavoie, 1992, p. 165)

If banks cannot obtain their required reserves in the federal funds market, whether calculated on LRA or CRA principles, they must turn to the Fed and borrow at the discount window. (Moore, 1988, p. 139)

Wray cites Moore's claim that the contemporaneous reserve accounting system did not eliminate the Fed's obligation to act as a lender of last resort. In fact the Fed must provide the necessary reserves during the last two days to facilitate the banks in meeting their reserve requirement

obligations. (Wray, 1990, p. 197)

In further discussion of inelasticity, Mosler argues that lending decisions are generally independent of reserve needs. He asserts that "lending is a practical reality of economic growth and the demand for loans is very inelastic in the very short run". This is also supported by Musella and Panico, who say that "in modern financial systems banks cannot modify, on their own initiative, the volume of outstanding loans" (Musella and Panico, 1993, p. 39). Mosler also says that the US banking system does not have the immediate ability to expand or contract deposits to meet short term reserve requirements. Therefore, the Fed must step in again. This analysis has been supported in numerous other writings:

...stability of the financial system requires that the Fed will enter as a lender of last resort since it is impossible for the private banking system in the aggregate to liquidate assets to obtain reserves. (Wray, 1990, p. 210)

The Central Bank's function as lender of last resort...makes it impossible for the Central Bank to set rigid limits to the amount of cash which it is willing to put at the disposal of commercial banks through rediscount. The discount window cannot be closed. (Kaldor, 1981, p. 456)

The Myth of the Money Multiplier

The realization that the Fed is incapable of controlling the money base, has led Mosler to conclude that the concept of the money multiplier is inaccurate. Mosler has independently discovered that the causation between the variables described in a typical money and banking textbook should be reversed. His analysis is notably similar to other Post Keynesian interpretations of the money multiplier model.

As the conventional definition has it:

The money multiplier (m)...tells us how much the money supply (M) changes for a given change in the monetary base (MB). . .i.e. $M=m \times MB$. (Mishkin, 1995, p. 390)

Mosler challenges this view:

The multiplier is properly thought of as simply the ratio of the money supply to the monetary base ($m=M/MB$). Changes in the money supply cause changes in the monetary base, not vice versa. The money multiplier is more accurately thought of as a divisor ($MB =M/m$). (Mosler, 1995, p. 10)

Consider the similarities between Mosler's analysis and Lavoie's rejection of the orthodox definition:

...the quantity of base money is the dependent variable ...money makes

base money...We may speak then of a money divisor, which is again equal to the inverse of money multiplier. (Lavoie, 1992, p. 174)

We have touched on several points raised by *Soft Currency Economics* which illustrate that Mosler's analysis is consistent with the Post Keynesian discussion of endogenous money, and that he belongs to the camp of proponents of Post Keynesian monetary thought.

EXTENSIONS OF POST KEYNESIAN MONETARY THOUGHT

A New Understanding of Federal Debt

After concluding that the monetary authority does not have an immediate effect on the supply of money, Mosler provides an analysis of the process of maintaining the funds rate. He shows how a system with excess reserves will quickly face a federal funds rate of zero. Conversely, he shows how, in a system with a reserve deficiency, the funds rate will rise, theoretically, to infinity. Open market operations are one way of maintaining the rate at the desired level. They simply add or drain reserves when necessary.

Open market operations offset changes in reserves caused by the various factors which affect the monetary base, such as changes in the Treasury deposits with the Fed, float, changes in currency holdings, or changes in private borrowing. Open market operations act as buffers around the target fed funds rate. (Mosler, 1995, p. 11)

Mosler further points out that government* spending, taxation and borrowing play the same role as open market operations, as they also affect the level of reserves in the commercial banking system. For example, government spending adds reserves, while taxing and borrowing are a reserve drain. Mosler thus recognizes the following imperative behind federal borrowing, which can be considered a valuable extension to Post Keynesian monetary thought:

*When he uses the word "government", Mosler includes both the Central Bank and the Treasury, as agencies of the government.

The government spends money and then borrows what it does not tax, because deficit spending, not offset by borrowing, would cause the fed funds rate to fall. (*ibid.*, p. 12)

As government spends and taxes, it adds and drains reserves, *ceteris Paribus*. If $G > T$. government spending exceeds taxation; there are excess reserves in the system that will drive the funds rate to zero. Therefore, the government is obliged to offer securities for sale, as a reserve drain, if the fed funds rate is to stay at the targeted level. Mosler is implying that the whole imperative behind borrowing is not to fund untaxed spending. *It is simply an interest rate support mechanism:*

Over the course of time the total number of dollars that have been drained from the banking system to maintain the fed funds rate is called the federal debt. A more appropriate name would be the Interest Rate Maintenance Account (IRMA). (*ibid.*, p. 14)

As a result of his experience Mosler has recognized that it really doesn't matter to the private sector whether the central bank or the Treasury, through its account at the central bank, offers securities for sale. The difference is merely accounting on the government's side of the ledger, and is of no consequence to the commercial banking system. Therefore, he characterizes sovereign debt not as a funding operation, but simply as an opportunity for the private holders of money to earn a positive rate of interest on deposits (excess reserves) which otherwise would not bear interest!

Mosler further emphasizes:

The federal government has no more money at its disposal when the federal budget is in surplus than when the budget is in deficit. Total federal expense is whatever the federal government chooses it to be. There is no inherent financial limit...the amount of money available to the federal government is independent of tax revenues and independent of federal debt...The only financial restraints, under a fiat monetary system are self imposed. (Mosler, 1995, p. 5)

Fiat Money Revealed

Most analyses of endogenous money begin with a conception of money itself:

Fiat Money is Representative (or token) Money (i. e. something the intrinsic value of the material substance of which is divorced from its monetary face value)now generally made of paper except in the case of small denominations which is created and issued by the State, but is not convertible by law into anything other than itself, and has no fixed value in terms of an objective standard. (Keynes, 1930, p. 7)

Fiat money will be defined as currency issued by the state whose value is purely nominal. (Wray, 1990, p. 27)

Mosler provides a second useful insight for Post Keynesians in his definition of fiat money:

Fiat money is a tax credit not backed by any tangible asset. (Mosler, 1995, p. 4)

To fully grasp this concept consider the process of monetization of African colonies with the currency of the colonial power. African communities that were engaged in subsistence production and internal trade had no need for European currency. Walter Rodney reports on a

widespread practice employed by the colonial powers to force Africans to use their currency:

In those parts of Africa where land was still in African hands, colonial governments forced Africans to produce cashcrops no matter how low the prices were. The favourite technique was taxation. *Money* taxes were introduced on numerous items: cattle, land, houses, and the people themselves. Money to pay taxes was got by growing cash crops or working on European farms or in their mines. (Rodney, 1972, p. 165, original emphasis)

The British and other colonial powers, interested in African produced cash crops and wage labor, refused to accept in-kind payments, instead imposing taxes payable only in their own currency. This turned out to be a highly effective means of compelling Africans to enter cash crop production and to offer their labor services for sale. In addition, as the only local source of British pounds, the colonial authority was also in a position to determine the price it would pay for those goods and services. In his book, *A Political Economy of Africa*, Claude Ake also stresses this process of monetization of African colonies:

African economies were monetised by imposing taxes and insisting on payments of taxes with European currency. The experience with paying taxes was not new to Africa. What was new was the requirement that the taxes be paid in European currency. Compulsory payment of taxes in European currency was a critical measure in the monetization of African economies as well as the spread of wage labor. (Ake, 1981, pp. 333-4)

It is clear that the imposition of the colonial monetary system in African colonies relied heavily on this method of taxation. Samir Amin (1976) echoes this view point. Amin argues that competition was not essential for the vitality of the African village community as it was in the transition from feudalism to capitalism in the west. "Monetization of the primitive economy" was thus seen by the colonial powers as an important step in the incorporation of Africa and her resources into the emerging global capitalist system. According to Amin, the most prevalent method of ensuring this goal was placing upon African peoples "the obligation to pay taxes in money form" (*ibid.*, 1976, p. 204).

These examples illustrate how African colonies were monetized. Recognizing that the clever colonial Governor could have just as well used his own script rather than British pounds, we reinforce Mosler's analysis, the "family currency model". In this model the parent plays the role of the government and wants the children to do certain household chores. To accomplish this, the parent has decided to offer his or her business cards as payment for completed chores. Initially, however, the children have no incentive to accumulate those business cards and are not thereby motivated to do the desired household chores. However, as soon as the parent imposes a head tax for living in the house, payable

only in business cards, demand for the cards is created and chores begin to get done.

The examples of African colonies and Mosler's "family currency model" illustrate that fiat money begins with a tax. The US government, for example, imposes taxes and requires by law that they are paid in dollars. The underlying reason why the government's dollar is accepted is because it is needed to pay tax obligation.

Mosler concludes:

Taxes function to create demand for federal expenditures of fiat money, not to raise revenue *per se*. (Mosler, 1995, p. 5)

As he previously asserted that the government does not borrow to fund itself, he further concludes that taxation also is not a funding operation. This can be considered a third extension of Post Keynesian monetary thought.

Mosler further recognizes that, as the monopoly supplier, the parent cannot collect more tax in the form of business cards than he or she has provided, leading him to state his fourth contribution:

In fact, a tax will create a demand for at LEAST that amount of federal spending. A balanced budget is, from inception, the MINIMUM that can be spent. (*ibid.*)

Mosler makes one addition to the family currency model in order to portray the nature of federal debt in a fiat monetary system. The parent offers to pay interest rate (in terms of business cards) to any child who leaves their cards overnight. By allowing the card holders to earn interest, the parent has, in effect, borrowed the outstanding cards. As Mosler states, "business card deposits are the national debt that the parent owes"(*ibid.*).

Again, however, note that the parent does not borrow to fund expenditures, but to support the interest rate, and that "offering to pay interest (funding the deficit) does not reduce the wealth (measured by the number of cards) of each child" (*ibid.*).

The imperative of taxation described by Mosler has been previously recognized by Minsky:

In an economy where government debt is a major asset on the books of the deposit issuing banks, the fact that taxes need to be paid gives value to the money of the economy. The virtue of a balanced budget and a surplus insofar as the commodity value (purchasing power) of money is concerned is that the need to pay taxes means that people work and produce in order to get that in which taxes can be paid. (Minsky, 1986, p. 231)

What is striking is that this major point has not been further discussed in the contemporary literature, and in Minsky it only appears as a footnote. Mosler has recognized and elaborated on the significance of the tax in relation to fiat money, which leads to the fifth Post Keynesian extension.

Exogenous Pricing

Mosler points out that, for the government, the monetary system can be seen as facilitating the transfer of real goods and services from the private sector to the public sector. The government's tax forces the private sector to trade real goods and services in exchange for the government's (otherwise worthless) dollars, which are ultimately needed by the firms and households of the private sector to pay their taxes. It is essential to realize that the only way the private sector can obtain dollars is if the government provides them by spending or lending. *

*Here an issue arises which, while not explicitly dealt with in Mosler's essay *Soft Currency Economics*, has been addressed by him in subsequent correspondence. Consider the following: since a tax payer can send deposit money, created by lending, to the Federal Reserve for payment of taxes, a reserve drain takes place as the checks clear, which the Fed must offset by adding reserves. This means that the government must lend the taxpaying private sector the dollars it needs to pay taxes if the private sector so demands.

Just as in the case of colonial Africa, the private sector needs the government's currency to pay taxes, making exogenous pricing is the general case in a fiat monetary system.

Mosler addresses this issue when he points out that lending by the Federal Reserve always necessarily reduces the net nominal wealth of the private sector by the amount of that lending. For example, purchasing securities to offset the reserve drain caused by the use of deposit money to pay taxes, reduces the private sector's holding of those securities. If other collateralized lending were to occur, it would serve to increase the liabilities of the private sector, again reducing net nominal wealth. The private sector can, of course, live with a reduced nominal wealth. This, however, is clearly a deflationary bias in that, like taxation, it results in sellers of real goods and services who desire dollars to reclaim their leveraged assets. Notice how in private correspondence Mosler applies the same logic in analyzing the ramifications of the restrictions on deficit spending in the current plan for European Monetary Union:

Operating factors will require reserve adds and drains to keep the system in balance and maintain control of the interbank rate. However, the ECB is able only to act defensively, like all CBs [Central Banks]. It cannot proactively lend Eurosa reserve add, without an offsetting drain. The deficit spending I refer to is needed to offset the need of the private sector to be a net nominal saver in Euros. In the currently proposed

system, even the increasing demand for currency in circulation must be accommodated via collateralized loans from the ECB. Net nominal wealth of the system cannot increase. The private sector demand for an increase in net nominal wealth will have to be from the reverse happening at the member nation level. If member nations are restricted from doing this [to deficit spend], a vicious deflationary spiral will result. (Mosler, 1996)

A government using fiat money has pricing power that it may not understand. (Mosler, 1995, p. 18)

Post Keynesians have long pointed out the need for various forms of price controls to prevent inflation as fiscal stimulus is employed to reduce unemployment and increase capacity utilization. They have particularly advocated *incomes policies* (Weintraub, 1971). This type of policy intervention suggests that the government must provide guideposts for setting the wages and other costs for the private sector.

In advocating these policies, the Post Keynesians assume that the government needs the private sector's money to buy real goods and services at market prices. Clearly they have not recognized Mosler's point, that the dependency is reversed. Consider Mosler's "full employment, zero inflation model":

There is a very interesting fiscal policy option that is not under consideration because it may result in a larger budget deficit. The Federal government could offer a job to anyone who applies, at a fixed rate of pay, and let the deficit float. This would result in full employment by definition.

This new class of government employees, which could be called supplementary, would function as an automatic stabilizer, the way unemployment currently does. A strong economy with a rising labor costs would result in supplementary employees leaving their government jobs as the private sector lures them with a higher wages. (The government must allow this to happen, and not increase wages to compete.) This reduction of government expenditures is contractionary fiscal bias. If the economy slows, and workers are laid off from the private sector, they will immediately assume supplementary government employment. The resulting increase in government expenditures is an expansionary bias. As long as the government does not change the supplementary wage, it becomes the defining factor for the currency. This is the price around which the free markets in the private sector revolve. (Mosler, 1995, p. 17,18)

Mosler goes on to explain the difference between the concept of inflation and allocation through price. Inflation has come to be synonymous with CPI measurement, which Mosler challenges:

Prices going up and down can be the market allocating resources, not a

problem of inflation. (Mosler, 1995, p. 19)

He looks at the defining event, at the margin, to measure the stability of a currency:

In a market economy, it is only necessary to define one price and let the market establish the rest. (*ibid.*, p. 18)

By changing the price that the government has exogenously chosen to pay, the government redefines its currency. All else is allocation *via* price. In other words, a government can constrain its expenditures through the prices it chooses to pay, rather than the quantity of money it spends, and let the deficit float to the so defined fiscal neutral point. This option can be considered sixth extension of Post Keynesian theory worthy of consideration.

Conclusion

The outlined similarities between Mosler's analysis and Post Keynesianism establish a common logical foundation that lead to Mosler's extended analysis. His position can be summarized as follows:

The monetary system is a creation of the government with three exogenous variables:

1. Taxes
2. Prices
3. Interest rates

Furthermore, in no case is the government funding itself. It has no imperative to obtain its own currency per se through taxation or borrowing. Taxes function to create sellers of real goods and services and borrowing functions to pay interest on excess reserves. This entire perspective can be viewed as a logical extension and contribution to Post Keynesian monetary thought.

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