XI Jornadas de Economía Crítica

Three difficulties with Neo-Chartalism

Eladio Febrero
Universidad de Castilla-La Mancha

1. Introduction

Neo-Chartalists have provided a programme to reach full employment at the same time as price stability (see, for instance, Mosler, 1997-8, or Wray, 1998, chapter 6). They have grounded their proposal on Lerner's 'functional finance' and Knapp's 'money as a creature of the state' (see Lerner, 1943, and Knapp, 1924). Those sympathetic to this approach look to the power of the state within its national borders in order to achieve both objectives. In essence, the powers of the state are the following: it can impose a tax liability on the non-state sector; it can declare what can be used to pay taxes; and it can spend first, issuing its own state money, in order to make the means of payment of taxes available. Although this appears to be acceptable, neo-Chartalists have gone one step further making the following assertions: (*i*) money has value because it is what the state accepts for tax discharge; (*ii*) the state has the ability to determine the value of money; and (*iii*) private bank money can be understood as a leverage of fiat state money.

In the present paper we investigate the validity of these statements and conclude that the first one depends on the institutional framework of reference, with the European Economic and Monetary Union (EMU hereafter) being a counter-example for this assertion. The second one is problematic because there are some factors (workers struggling for higher wages, or energy and raw material shortages) affecting the purchasing power of state money. And with respect to the third one, we find the term 'leverage', relating bank money to state money, a rather troublesome term from a historical perspective (private money predates state money) and because of the logic of endogenous money (banks create deposits when they accept demands for credit and reserves are obtained later).

Despite these criticisms, it should be clear that we do not even focus on the central tenets of neo-Chartalism: the ability of the state to declare a unit of account, to issue money for public spending, to levy the populace with taxes and so on. Nor do we deal with the metallism-chartalism discussion for the origin of money (see Goodhart, 2003). Actually, we believe that the policy implications which can be drawn from neo-Chartalism are essentially correct.

Furthermore, this approach offers a crystal-clear diagnosis of the EMU: the lack of a supranational fiscal authority (similar to the Federal Government in the US) which may give rise to a problem of effective demand and, therefore, poor economic performance.

We ground our critique on a model which is akin to Wicksell's pure credit economy (Wicksell, 1898, chapter 9, section B), where the state provides, by decree, a unit of account, and private banks provide the system with deposits as the means of payment to cancel debts, denominated in such a unit. Yet, this model is enlarged in order to account for a central bank, issuing fiat money when it provides private banks with reserves, and a state which, as in the EMU, obtains liquidity from private banks. This framework is quite close to the one implicitly used by horizontalists and circuitists (see for instance Moore, 1989, Lavoie, 1992, chapter 4, Rochon, 1999, chapter 1).[1]

The value of money depends on its degree of acceptability. And in this model, and in the real world as well, money is accepted first because it is a social convention and, second, because there are always people directly or indirectly indebted to banks and they can use it to cancel pending debts. Of course, when agents are also indebted to the state, because of taxes, this increases the acceptability of money. And this may be the "ultimate" motive to accept money in a transaction when the state issues its own money to monetize public spending. Though, it is not the case when the state relies on private banks, as in the EMU.

2. The neo-Chartalist approach. An overview

The central theoretical standpoint of the neo-Chartalist approach has been aptly summarized by Forstater and Mosler (2005, p. 537) as follows:

1. The government imposes a tax liability payable in its currency of issue.
2. Faced with this need for units of the government's currency, taxpayers offer goods and services for sale, asking for units of the currency in exchange.
3. The government "issues" its currency –spends– in exchange for the goods and services it desires.

And this works because, according to the supporters of this strand:

(i) Money is a creature of the state which has value because it is accepted as payment at public pay offices.

(ii) The state has the ability to control the value of money through its declarations of how much it is willing to pay for a certain (single or composed) commodity, produced by the private side of the economic system.

(iii) Private bank money (chiefly bank deposits) has the properties of endogenous money, though it is viewed as a leverage of fiat, state money, used by private banks as reserve.

[1] Note, however, that these authors do not provide any support for the divorce between the fiscal and monetary arms of the state. Indeed, they use this framework to emphasize the ability of private banks to create money as a rhetorical device to persuade readers of the complete and utter impossibility of the central bank controlling the amount of money supplied. The inclusion of the central bank and the government does not radically alter the central message drawn from an institutional set composed of private banks, firms and households.

Next, the account of the neo-Chartalist view usually goes hand-in-hand with a description of the interrelations between fiscal and monetary policies, related to the US institutional framework (see for instance Bell, 2000, Bell and Wray, 2002-3, Forstater and Mosler, *op.cit.*, Mosler, 1997-8, Wray, 1998, 2003). Although they inform the reader that this fiscal-monetary interrelation 'is not Chartalism, or, indeed, theory of any sort' (Bell and Wray, 2002-3, p. 264), it is viewed as providing support for the neo-Chartalist tax-driven-money thesis.

This interrelated view of fiscal and monetary policies can be briefly stated within the following terms. When the government has to make a payment (transfer) to any private agent, amounting to G monetary units, it writes a cheque on its account at the central bank in exchange for newly created money.

Once the government becomes indebted to the central bank it can make the corresponding payment, thus leading to new high-powered money. Let us assume that, for instance, this consists of a pension payment to a retired person and that the recipient holds the total amount transferred in a deposit at a private bank. The central bank debits the government's account and credits the reserve account of the transfer receiver's bank at the central bank:

Table 1

Transfer recipient			
G	Deposit	Δ Wealth	G
Private bank (the whole private banking system)			
G	Δ Bank reserves	Deposit	G

Later (in a logical sense), the government levies taxes on the public, and these taxes can be paid with bank deposits. Then, (in our example) the payment of taxes means a fall in the pensioner's deposit and a fall in his (or her) wealth and, simultaneously, a fall in reserves for the private bank.[2]

Let us assume, for the sake of our argument, that taxes are lower than public spending. Hence, because of this fiscal deficit, the government remains indebted to the central bank, the beneficiary of the transfer holds a deposit, and the private bank has some excess reserves.

This bank reserve surplus may lead to a zero interest rate (at the margin) because the cost of these reserves is nil for the bank (the opportunity cost is the interest rate on loans) and it would rather lend them at a minimum interest rate than keep them in its vault.

In order to prevent this loss of control over the interest rate, the central bank has to drive the aggregate bank reserves surplus to zero. It can do this in two ways. The first one consists of simultaneously shifting deposits held by the government in private banks (usually called 'Tax & Loans Accounts') towards other government accounts in the central bank. The second alternative is to mop up excess reserves through open market operations: the central bank, in

[2] Therefore, taxes (and bonds) do not fund public spending (cf. Bell, 2000, Bell and Wray, 2002-03, Wray, 1998, chapter 5).

coordination with the Treasury, sells treasury debt to banks and the public. The former procedure is used frequently because government outlays and proceeds do not match in calendar time. The latter mechanism has to be implemented when the government runs deficits systematically.[3]

The central bank, being the monopoly supplier of bank reserves, has the ability to control the base interest rate through the provision of reserves to the banking system, acting as a price maker and a quantity taker in the corresponding market. Yet, this will not work unless private banks wish to hold reserve balances at the central bank. And this requisite is satisfied, even if reserves are not legally required, because of, at least, two reasons: (*i*) to facilitate the settlement of taxes to their clients, as the tax payment has to take place in central bank money, and (*ii*) to make payments to other private banks, since they cannot *create* money to extinguish their own debts. As Fullwiler, 2006, states, the first reason provides a quantitatively far more important justification for the existence of a non-trivial demand for central bank reserves than the second one because of the existence of clearing houses (which make it easier to net debts amongst banks) and the increasingly accessible recourse to money markets.

Regarding the first reason, and because of the impossibility of coordinating the timing and size of treasury receipts and outlays, the payment of taxes may provoke a shortage of reserves within the banking system. Then, banks should look for additional reserves in the federal funds market (as Bell coherently explains, 2000).[4] Yet, if all banks are short of reserves there will be an excess demand and, thus, a rise in the interest rate will probably occur. If the central bank aims to keep the interest rate at a certain level it will became engaged in open market operations in order to provide the banking system with the requisite amount of reserves. Of course the reader could argue that the central bank will refuse to provide the system with reserves to make the interest rate rise and, additionally, to shrink banks balance sheets. But, as Wray (1998, p.113) notes, the demand for reserves is highly inelastic so that the impact of the refusal to provide reserves may lead to high fluctuations in the interest rate and that the sale of assets by banks (when searching for reserves) does not increase the aggregate amount of reserves.

And with respect to the second reason for the demand reserve balances, it would be helpful first, to consider the existence of more than one private bank, say banks A and B. Let us imagine that, according to the endogenous money approach, bank A creates money *ex nihilo* when it grants a credit to client X. Agent X has to make a payment to agent Y amounting to M monetary units and the latter decides to hold the proceeds in a deposit at bank B. In terms of balances we have:

---

[3] As Bell (2000) and Bell and Wray (2002-03) state, private banks are allowed to purchase public debt crediting Tax & Loans Accounts, thus creating money *ex nihilo*. This liquidity is not used to monetize public spending but to increase the balance of government accounts at private banks, making the transfer of larger funds towards the central bank possible if the government predicts an increasing fiscal deficit in the future.

[4] Unless, as stated above, the central bank shifts funds held by the government in Tax & Loans accounts towards private banks.

Table 2

Bank A			
M	Credit to X	Credit from Bank B	M
Bank B			
M	Credit to bank A	Deposit from Y	M

At the end of the day, Bank A cannot remain indebted to Bank B. How can this be possible if A cannot create money for itself? Amongst several options, (see for instance Lavoie, 2003, Rossi, 2005), bank A can obtain reserves from the central bank through an inexpensive daylight credit which bank B will deposite at the central bank. At the end of the day, bank A will ask for an overnight loan (in our example, from bank B which has a reserve surplus) in order to cancel its debt with the central bank. Bank A will not pay more than some basic points above the target overnight interest rate, otherwise it could use the marginal lending facility provided by the central bank. And bank B will not accept an interest rate some basic points below this target interest rate, because it can deposit these funds at the central bank, remunerated at the marginal deposit facility rate. When only private banks are indebted amongst themselves, no new HPM is created and no open market is needed.

Within the operations described above, the central bank determines the ceiling and floor for the overnight interest rate. When the central bank wishes to change its target, it simply announces a change in the bands –the interest on lending and deposit facilities– and the overnight rate shifts automatically towards the new target.

Finally, one more point should be added to this overview. It concerns the independence of the central bank and its ability to provide the Treasury with funds to monetize public spending. The independence of the central bank lies precisely on its ability to set the interest rate exogenously (Bell and Wray, 2002-03). The very fact that the central bank (e.g. the Fed) is not allowed to monetize public debt does not mean that it cannot let the treasury draw cheques on its account at the central bank. Additionally, under a flexible exchange regime (cf. Forstater and Mosler, 2005, p. 535), and with a government able to coerce its citizens into settling taxes using a particular means of payment, the central bank is under no restriction whatsoever to *issue* the amount of money demanded by the treasury. Again, this does not mean that the central bank lacks independence from the government: the treasury cannot manipulate *ad libitum* its balance at the central bank without taking into consideration the consequences of its spending from the amount of reserve balances of private banks at the central bank. Quite the contrary, the treasury uses taxes, bond sales and deposit transfers in order to wipe out the liquidity injected into the system within the act of spending.[5]

[5] These views are in conflict with those of Heinsohn and Steiger (see for instance Heisohn and Steiger, 2006, and Steiger, 2006). Firstly, according to these authors, the neo-Chartalist's notion of a central bank falls into the category 'State bank of issue' and not into that of 'genuine central bank' (Heinsohn and Steiger, 2006, p. 500; Steiger, 2006, p. 158). Therefore, money created by the central bank for public spending is not credit money but debtor's money: the financial arm of the government (the central bank)

3. A critique

Propositions (*i*), (*ii*) and (*iii*) set out at the beginning of the previous section are troublesome. Although, they are interrelated, we will deal with them separately.

Money has value because it is accepted for tax payment at public offices

Wray (1998, chapter 3) illustrates this assertion with the parable of the governor aiming at monetizing a colony with the money of the mother country.[6] To do so, first she imposes a tax on the colonized people, which has to be payable in money, and second she spends this money. People will want to sell their produce, or work for the authorities, to obtain money which shall be used for discharging taxes. In this parable, money is created to finance public spending and it is destroyed with the payment of taxes. The phrase 'money has value' means that money is accepted as a means of payment in exchange for something else.

Apart from being unrealistic (Mehrling, 2000, p. 401) we find a counter-example for this logic in today's Europe. As Bell (2003) states, individual national governments at the EMU cannot make payments by writing cheques on accounts at the ECB or national central banks (all together making up the Eurosystem).[7] Furthermore, the Eurosystem is not allowed to purchase government debt directly or indirectly. Thus, public spending now relies on bank credit (newly created money) and / or the sale of bonds in financial markets or through banking intermediation (hoarded money).

In this institutional framework, all deficit-spending units, including national treasuries, make payments using money created by private banks. Once states have renounced issuing fiat money they have to borrow from private banks when they spend and are 'enforced' to collect taxes (or sell bonds) in order to pay back bank debts. This is the same logic which holds for private firms when they ask for credit today to obtain working capital to meet future demand and which will have to be reimbursed to the bank with debt from future sales proceeds.[8]

---

creates money for the fiscal arm (the treasury) in exchange for IOUs issued by the latter. And such financing usually leads to the destruction of monetary systems. In our view, these authors confuse the ability of the treasury to draw cheques from its account at the central bank with a lack of independence of the latter. And, secondly, the aforementioned authors ground their explanation of the rate of interest on the notion of property: a borrower has to pay interest on credit as a compensation because the lender burdens or encumbers its property (bank capital) in the very act of lending newly created money (Heinsohn and Steiger, 2006, p. 491 and ff.). This, we believe, is interesting as a heuristic explanation for the phenomenon 'interest rate', but in a modern-money era (in Wray's sense, 1998) the central bank needs neither to burden nor encumber any property of its own when it *lends* its own money (unless it is in a fixed exchange regime), although it is still relevant for the working of the Eurosystem (see below). Furthermore, although the 'property explanation' provides some rationale for the charge of an interest rate on credits of private banks, it cannot give a quantitative measure of such a rate without recourse to a central bank.

[6] Peacock (2003-4) offers a historical appraisal of this view, related to the theory of the state.

[7] A description of the institutional structure of the Eurosystem and of its working is provided by Steiger (2006, p. 159 and ff.).

[8] Lavoie, 2003, has called this post-Chartalism.

This means that although people might wish to give something in exchange for money to pay taxes, this is not really why they accept money.[9] Taxes are not the refflux mechanism (to use Tooke's apt term) but simply the way the state collects money to pay back bank debt. It is the cancellation of bank debt and not tax settlement that moves all agents in the European economy (national states included), in the last instance, to accept money which, in turn, is the logical consequence of (private) bank credit.[10]

The state controls the value of money

Neo-Chartalists argue that the state has the ability to provide state-money with a certain *amount* of value (Wray, 2003, p. 104). Here, the term value stands for purchasing power. The argument can be described as follows. Imagine that one person works 10 hours a day and produces 100 units of commodity A. The state wishes to purchase 20 units of A paying 20 monetary units (say, 20 dollars). In theory, this means that the price of one unit of commodity A equals one monetary unit or, alternatively, that the *normal* price of one unit of labour amounts to one hundred monetary units.

Is this argument sound? It goes without saying that, when we give a numerical value to a single or composite commodity we are choosing a *numeraire* for the set of prices. And this is precisely what we do if we define public spending as a basket of commodities and simultaneously say that public spending amounts to a certain amount of dollars.

There is no problem *a priori* with this neo-Chartalist argument from a logical-mathematical viewpoint . But from an economic point of view, this means that if we fix a *numeraire* from the outside (as neo-Chartalists do) and one distributive variable, for instance the rate of profit, determined by the interest rate, as in Pivetti, 1991, or the rate of growth of output, as in Nell, 1998, then the nominal wage becomes predetermined. In other words, there is no margin for nominal wage bargaining. However, this is difficult to reconcile with the fact (widely admitted by postKeynesians) that banks create money to finance the payment of wages, and the purchase of material inputs, amongst other things, leading to the conclusion that, in the general case, changes in the money supply follow changes in prices and nominal wages, and not *viceversa*.

If production is essentially financed with bank credit (as neo-Chartalists admit) price increases can occur as banks accommodate the money supply to an increasing demand from creditworthy

[9] Note the following sentence in Wray (1998, p. 167): "Indeed, because taxes could be paid using bank money, the public would no longer need to obtain fiat money (except, perhaps, for illegal transactions and vending machines)". In the European case, it is not that taxes "could be paid using bank money" but that *taxes are paid using bank money* because it is the money injected into the economic system to monetize public spending

[10] We agree with Nell (2003) when he writes: "The euro is […] a [chartalist] system, but an unusual one, in that it is not backed by the sovereign power of a state, and does not have the backing of a tax system or a fiscal policy" (p. 131). Next he adds that the euro in fact relies on a fiscal policy of austerity (p. 133) which means that the euro will be weak because, in demand constrained economic systems, fiscal austerity leads to poor economic performance, with the latter being the real backing for a currency.

borrowers. Thus, we find it troublesome trying to reconcile the neo-Chartalist assertion that the state can determine the value of money with the experience of wage-led inflation.[11]

Bank money is a leverage of fiat money

Following the parable of the colony, Wray (chapter 7) suggests the possibility of tax liabilities giving rise to private lending. In the first stage, households with a hoard of fiat money may lend their surplus to deficient households for the payment of taxes, in exchange for IOUs issued by the latter. Secondly, these surplus households may specialize in accepting deposits from other surplus households and lend to deficient ones both in the currency of the mother country, following a fractional reserve system. Thirdly, instead of lending fiat-money, banks may realize that it is more profitable to lend notes issued by themselves, denominated in fiat-money units. A further step in this process is the introduction of cheque accounts: bank deposits which can be used as a means of payment. If bank failure is the exception to the rule, people become used to privately issued money, seen as a close substitute for fiat-money. The acceptance of privately issued money depends on the fact that it can be converted into fiat-money on demand, and can be used to make further bank deposits or to cancel bank debt. Fourthly, we might consider the existence of more than one private bank, thus requiring the creation of an inter-bank market for fiat-money reserves and a 'clearing house'. Finally, the state bank, the issuer of fiat-money, might eventually accept to play the role of lender in the last resort in order to provide the monetary system with stability, to regulate financial practices and to conduct monetary policy through changes in the interest rate.

If our interpretation is correct, neo-Chartalists use the term 'leverage' to mean that (i) fiat money logically precedes bank credit money and (or) that (ii) private banks can create money if they have previously collected a certain amount of state money. In our view, the first interpretation has one drawback, whilst the second one is somewhat irrelevant.

According to the first interpretation, Wray fully accepts that, in the general case, fiat money is an economic consequence of historical, non-intentional evolution from private money, essentially driven by the chronic financial needs of the state. The following quotation, in relation to the Bank of England, a private institution until 1946,[12] clarifies this point: "By generating special monopoly advantages, the central bank's notes became fiat money which could provide purchasing power to the state. At the same time, a mono-reserve system was created. […] The central bank only very slowly came to recognize that it could exercise some control over the financial system, because its liabilities had become the primary reserve as a side-effect of various state policies which were designed merely to enhance state purchasing power" (Wray, 1990, p. 53).[13] This illustrates the point that it is private money which precedes state money and not the other way around. One way to solve this puzzle might be to distinguish between money and money-proper (Keynes, 1930, p. 5, Ingham, 2000, p. 28) or modern money (Wray, 2001,

[11] Of course, the ELR (see Wray, 1998, chapter 6) aims to provide price stability controlling (at least at the margin) the nominal wage. Hence, they realize that public spending is not enough for such political ends.

[12] For more details about the history of the Bank of England see, for instance, Cameron (1967).

[13] The same view is shared by Goodhart (1989).

section 3) with the latter taking place when 'the state actually issues the money-thing answering to the description it has provided –that is HPM' (Wray, *ibidem.*). However, although this distinction may be useful in that when the state participates in the monetary system it becomes sounder, it seems misleading to talk about 'leveraging' on fiat money when considering bank money if the latter predates the former.

And with respect to the second interpretation of the term 'leverage', Lavoie (1999, p. 370) and Parguez and Secareccia (2000, p. 120) have pointed out that neo-Chartalists totally agree that state money is fully endogenous but that bank money is constrained by the former. This criticism is perhaps difficult to reconcile with the fact that neo-Chartalists fully accept the central tenets of the endogenous money approach. Yet, according to the argument illustrated with the parable of the colony, it is not clear what the role of state money within the endogenous money supply process is. One is tempted to conclude that banks have to collect state money (or public debt, i.e. treasury bills and bonds) first (in a logical sense), and then they can make loans and create deposits later. In this interpretation, state money should not be understood as reserves in the text book conventional view, but as a sort of bank capital which should be used when a bank has to make a payment either to another bank or when its clients have to settle taxes. If this is correct, then there are, at least, two snags: first, if private banks "move forward in step" to use Keynes's (1930 p. 23) terms, there is no limit for the creation of bank money; and second, if a particular bank creates deposits beyond a prudent threshold (given by reserves plus bank capital) the central bank will initially help this bank and then penalize it.[14]

4. Money for taxes or for bank debt reimbursement?

If we classify the three conclusions stated in the section above according to their relevance to the neo-Chartalist approach, perhaps the first position suits people who accept money because it is what the state declares it will accept at its public pay offices. However, there is, at least, one alternative to answer the question of its acceptability: because it is accepted to pay back bank debt.

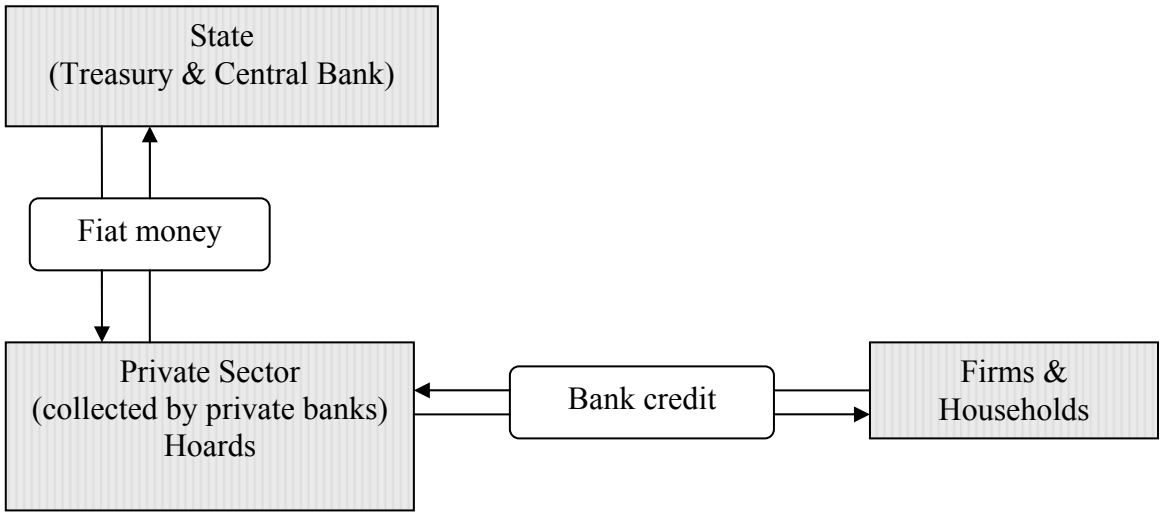
This disparity of opinions depends on the institutional reference framework, making the neo-Chartalist approach more limited than its supporters claim. Neo-Chartalists usually speak of the government or the state, thus bringing the treasury and the central bank together. Although they fully realize that these are different institutions, they combine their balance sheets for three reasons: first, it helps to understand the working of the system; second, because the Treasury's account is on the central bank's book, by definition changes in the Treasury's account leads to changes in the central bank's balance sheet, and third, it helps to understand the distinction between the government and the non-government sectors.[15] As described above, the central bank provides the treasury with liquidity to make payments to the private side of the economy,

[14] Two more problems can be added: first, the European System of Central Banks accepts some privately issued debts as collateral when it lends reserves to private banks. In our view, in this European framework, the private-public debt issue has more to do with solvency than authority. And second, some countries, like Canada or New Zealand for instance, have zero reserve requirements. How can we explain the working of these monetary systems out of leverage on fiat money?

[15] These arguments have been provided by one of the referees.

and the treasury collects taxes and sell bonds in order to remove that liquidity. So, the activity of banks (the bank money supply) may be understood as a leveraging of hoarded state money (consequence of the public deficit). This graphic description can be found in Wray (1998, pp. 111-115, especially figure 5.1). The US institutional framework fits this view.

Figure 1

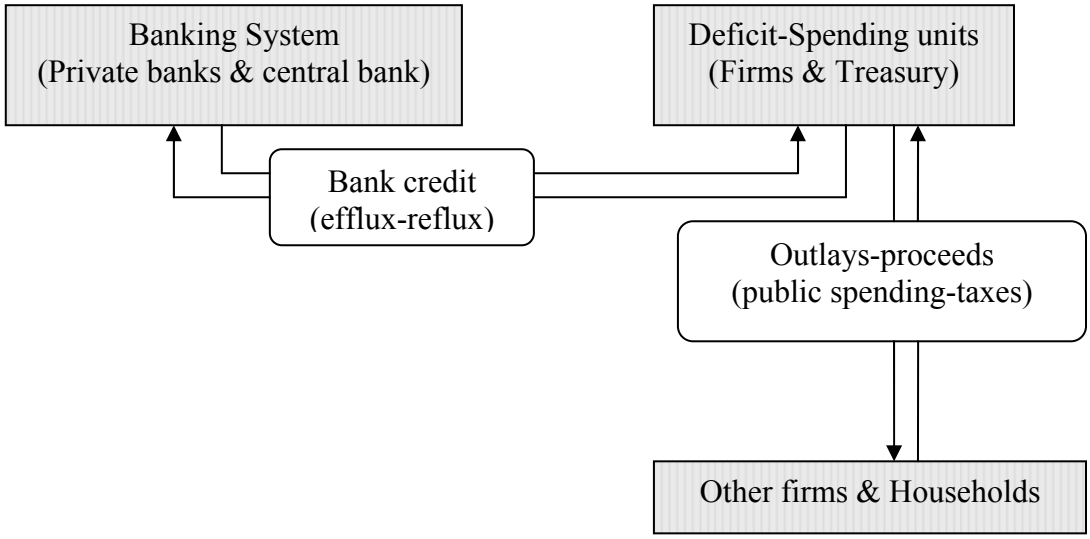


Alternatively, other non-orthodox authors (e.g. Lavoie, 1992, chapter 4, Parguez and Secareccia, 2000, Graziani, 2003, chapter 4) tend to place the central bank next to (behind) private banks, whilst the treasury is viewed within the group of deficit-spending units (along with private firms) requiring liquidity to make payments to third agents (chiefly other firms and workers).[16] These authors stress the importance of money as debt issued by banks on themselves. In this view, public spending is part of the efflux stage (creation of new money), with taxes and bonds being (different) forms of treasury proceeds, prior to the destruction of money.[17] The central bank plays two roles. First, it is the bankers' bank. Second (and, to some extent, of secondary importance), it may be the government's bank, with relations between them being essentially the same as between a private bank and a firm. The current Euro zone institutional framework is quite close to this description.

Figure 2

[16] Actually, the basic elements in these authors' ideal economic system are (private) banks, firms and workers / households. The central bank and the government can be added later without radically altering the nature of the system.

[17] Lavoie (1992, p. 166; 2003, pp. 525-6) assumes that private banks create deposits when they purchase treasury bonds to finance public spending. Alternatively, here we simply assume that banks create deposits when they grant demands for credit from the government in exchange for a promise to pay. The latter issues bills and bonds at the end of the circuit, to collect liquidity to reimburse banks with debts which cannot be paid back with proceeds coming from taxes.



Neo-Chartalists have rightly argued that, state money, issued by the central bank in order to monetize public spending, is not a liability of the issuer in the usual sense of the word. That is, the central bank, in a flexible exchange rate, is not required to give 'another thing' in exchange for its money. The state's liability, considering the treasury – user – and the central bank – issuer – as a whole, consists of the populace being made to pay taxes using fiat money.[18] This state money is used for tax discharge and for debt clearance amongst banks: private banks cannot pay issuing debt on themselves. Both motives justify its acceptance in transactions. The hierarchical superiority of state money (Bell, 2001), based on the issuer's right to give nothing else in exchange for its liability, leads neo-Chartalists to give a *secondary*, subordinate place to private bank money and a *primary* role to taxes in the money process.[19]

By contrast, some post Keynesians (particularly the so called horizontalists) and circuitists (e.g. Moore, 1988, Lavoie, 1992, Rochon, 1999, Graziani, 2003)[20] shift the emphasis towards the ability of private banks to create deposits *ex nihilo* with central banks providing reserves at a target interest rate.[21] Borrowers are usually firms which need money to pay for working capital

[18] Thus, Rossi (1999) confuses private bank money, which requires the issuer to give a third agent's liability to discharge its own liability, with state money which it is not, when he claims that 'the emission of modern money is never a purchase for the issuer' (p. 480). Mehrling (2000, p. 405) appears to make the same error.

[19] As pointed out above, Ingham (2000, p. 28) distinguishes between money and money-proper. Wray (2001, section 3) speaks about modern money. Even Keynes (1930, chapter I) identifies money-proper with state money. For diverging views see Heinsohn and Steiger (2000, 2006) and Rossi (2003). In this paper, we agree that the first function of money is as money-of-account but, then, we accept that bank money (essentially bank deposits) is money-proper.

[20] This list includes Schumpeter (1912) as well. For a wider account from the perspective of the history of economic thought see Realfonzo (1998, chapter 6).

[21] Heinsohn and Steiger (2005, p. 78) query writing : 'money proper is never created ex nihilo from the viewpoint of property titles that […] must always exist before money can come into existence'. It goes without saying that, with the sentence 'banks create deposits *ex nihilo*' those sympathetic to the notion of

and which expect to be able to reimburse the banks with debts in the future, in an environment of uncertainty (e.g. Davidson, 1988, p. 334-5). But we should also include the state as another deficit-spending unit. Within this view, according to Parguez and Secareccia (2000, p. 103): 'money appears when there is a set of agents, which we shall call 'banks' (including the central bank), whose debts are accepted by all other agents in an economy as a means of payment to settle their own debt commitments'.

The current European framework fits this view.[22] European national states have agreed on a common legal tender, to be issued by a public, though an independent set of national central banks, coordinated by the ECB, and, next, they have a self- imposed agreement not to obtain liquidity from it to make public spending possible. Money is universally (amongst the members of the community) accepted, first, because of social consensus[23] and, second, because a great number of agents in the community are indebted directly or indirectly to banks, whose deposits can be converted to legal tender on par. The states' acceptance of bank money at their public pay offices reinforces the acceptability of bank money, though it does not generate it. Therefore, it is one thing that the state encourages the acceptance of money, even that the 'which thing' should be accepted, but it is quite another thing that the acceptance of money depends on the means to pay taxes.[24]

Neo-Chartalists might reply that, despite European national states having decided not to issue fiat money, the European currency maintains its value because it is what these national states accept for tax discharge. Yet, this argument cannot hold because, as we have seen, these states do not issue money when they spend, and taxes and bond sales are mechanisms at the disposal of national states to collect money in order to cancel bank debts. Furthermore, we could conceive a situation where the economic size of states is negligible, with taxes being almost irrelevant, and the European currency would still be accepted because of the directly or indirectly broad indebtedness of agents towards private banks. Thus, it is bank debt reimbursement that makes money acceptable in the last instance.

Summing up, Neo-Chartalists are right when they claim that the source of money's value is to be found on the state's declaration of what it accepts at its public pay offices if, and only if, the state issues its own money when it makes payments and levies the populace with taxes. When

---

endogenous money understand that banks need not collect deposits first, in order to make loans, later. Neverthess, we realize that the concept of bank capital poses some difficulties for *endogenists*.

[22] By no means should the reader believe that post Keynesians and Circuitists provide support for the European institutional framework. On this see, for instance, Arestis and Sawyer (2004, chapter 10), or Parguez (1999) amongst others. And for further criticisms, see Spethmann and Steiger (2005).

[23] Each agent accepts money in the belief that the rest of agents it deals with will accept it as well. Rossi (2003) doubts whether this argument is sufficient. He grounds the acceptance of money on the intimate relation between the creation of money and the financing of production. In our view, although much of his points are correct, he fails to show why workers accept bank deposits as a payment for their labour services if there is no previous social consensus on the acceptability of money.

[24] Davidson (2002, p.145) appears to share this view when he writes: ''[i]f things other than legal tender instruments are customarily accepted in discharge of tax obligations to the state *or by central bank in exchange for the central bank's liabilities* (legal tender), then those other other things will be accepted to discharge private contractual obligations. These other things are as good as legal tender and therefore they are money' (my italics).

states do not issue their own money but rely on private banks that claim is no longer valid. In this case, money has value because it is accepted as a means to cancel pending bank debt.[25]

5. Conclusions

Neo-Chartalists have made three statements: (*i*) money has value because it is what the state declares to be accepted at public pay offices; (*ii*) the state has the ability to determine the value of money (i.e. its purchasing power), and (*iii*) money is endogenous (that is, credits create deposits) though bank money can be understood as a 'leverage' of fiat money.

In this paper, we have shown that the validity of the first statement depends on the institutional frame of reference: it may hold for some Anglo-Saxon fiscal-monetary systems,[24] though not for the EMU, with a set of national central banks utterly independent on national states where the fiscal authority resides. The second assertion is, in practice, incompatible with the endogenous money view. Although the government may declare the value of a basket of commodities (how many monetary units it is worth), workers can invalidate such a relation when their struggle for larger nominal wages is successful. Private banks will accommodate the required amount of money for the economic process and, therefore, the government will have to pay more for the same basket. Lastly, the third statement is also problematic. Historically, private money precedes state money. In practice, banks create deposits when they accept demand for credit from creditworthy borrowers first and look for reserves later.

We should add that these drawbacks correspond to a *positive* interpretation of the neo-Chartalist approach. If we interpret these statements from a *normative* standpoint, oriented to persuading the reader of the potential soundness of the ELR program (acronym for the government as 'employer of the last resort': Wray, 1998, chapter 6) things become somewhat different. Significantly, we find the following two points highly relevant. (*i*) When the central bank provides the treasury with liquidity to make payments, it is easier to assist a demand constrained economy, because the government does not face narrow financial constraint (Wray, 1998, p. 137). (*ii*) When the government manages a buffer stock of labour, nominal wages may be more stable (the government decides on the price of labour at the margin) thus providing the system with price stability as well.

Acknowledgements

The author would like to thank Óscar de Juan, Stephanie Kelton, Edward Nell, Marc Lavoie, Fernando Pellerano, two anonymous referees and, specially, Alfons Barceló for helpful comments. The usual disclaimers apply.

References

Arestis, P. and Sawyer, M. 2004: *Re-examining Monetary and Fiscal Policy for the 21st Century*. Cheltenham: Edward Elgar.

[25] See for instance Lavoie (2005) or Fullwiler (2006).

Bell, S.A. 2000: “Do taxes and bonds finance government spending?” *Journal of Economic Issues*, September, XXXIV (3), 603-620.

Bell, S.A. 2001: “The role of the state and the hierarchy of money.” *Cambridge Journal of Economics*, March, ***25*** (2),

Bell, S.A. 2003: “Neglected costs of monetary union: the loss of sovereignty in the sphere of public policy.” In Stephanie A. Bell and Edward J. Nell (eds.) *The State, the Market and the Euro. Chartalism versus Metallism in the Theory of Money.* Cheltenham: Edward Elgar, 160-183.

Bell, S. and Wray, L.W. 2002-3: “Fiscal effects on reserves and the independence of the Fed.” *Journal of Post Keynesian Economics*, Winter, ***25*** (2), 263-271.

Cameron, R. 1967: *Banking in the Early Stages of Industrialization.* New York: Oxford University Press.

Davidson, P. 1988: “A technical definition of uncertainty and the long-run non-neutrality of money.” *Cambridge Journal of Economics*, ***12***, 329-337.

Davidson, P. 2002: *Financial Markets, Money and the Real World.* Cheltenham: Edward Elgar.

Forstater, M. and Mosler, W. 2005: “The Natural Rate of Interest is Zero.” *Journal of Economic Issues*, June,XXIX (2), 535-542.

Fullwiler, S. 2006: “Setting interest rates in the modern money era.” *Journal of Post Keynesian Economics*, Spring ***28*** (3), 495-525.

Goodhart, C.A.E. 1989: “Central Banking.” In John Eatwell, Murray Milgate and Peter Newmann (eds.) *The New Palgrave: Money*. London: W.W. Norton, 88-93.

Goodhart, C.A.E. 2003: “The two concepts of money: Implications for the analysis of optimal currency areas.” In Stephanie A. Bell and Edward J. Nell (eds.) *The State, the Market and the Euro. Chartalism versus Metallism in the Theory of Money.* Cheltenham: Edward Elgar, 1-25.

Graziani, A. 2003: *The Monetary Theory of Production*. Cambridge: Cambridge University Press.

Heinsohn, G. and Steiger, O. 2000: “The property theory of interest and money.” In John Smithin (ed.) *What is money?* New York: Routledge, 67-100.

Heinsohn, G. and Steiger, O. 2006: “Interest and money: the property explanation.” In Philip Arestis and Malcolm Sawyer (eds.) *A Handbook of Alternative Monetary Economics.* Cheltenham: Edward Elgar, 490-507.

Ingham, G. 2000: “‘Babylonian madness’: on the historical and sociological origins of money.” In John Smithin (ed.) *What is money?* New York: Routledge, 16-41.

Keynes, J.M. 1930: *A Treatise on money. The Pure Theory of Money.* London: Macmillan. Reprinted as *The collected writings of John Maynard Keynes*. Vol XXIII. New York: Cambridge University Press, 1971.

Knapp, G.F. 1924: *The State Theory of Money*. London: Macmillan.

Lavoie, M. 1992: *Foundations of Post Keynesian Analysis*. Aldershot: Edward Elgar.

Lavoie, M. 1999: “Understanding modern money: The Key to Full Employment and Price Stability.” *Eastern Economic Journal*, Summer, ***25*** (3), 370-372.

Lavoie, M. 2003: “A Primer on Endoegenous Credit-Money.” In Louis-Philippe Rochon and Sergio Rossi (eds.) *Modern Theories of Money. The Nature and Role of Money in Capitalist Economies*. Cheltenham: Edward Elgar, 506-543.

Lavoie, M. 2005: “Lessons from Asset-Basset Financial Systems with Zero-Reserve Requirements.” In Giuseppe Fontana and Riccardo Realfonzo (eds.) *The Monetary Theory of Production. Tradition and Perspectives*. New York: Macmillan, 257-268.

Lerner, A.P. 1943: “Functional Finance and the Federal Debt.” *Social Reseach*, ***10***, pp. 38-51.

Mehrling, P. 2000: “Modern money: fiat or credit?” *Journal of Post Keynesian Economics* Spring, ***22*** (3), 397-406.

Moore, B. 1988: *Horizontalists and Verticalists: The Macroeconomics of Credit Money*. New York: Cambridge University Press.

Moore, B. 1989: “A simple model of bank intermediation.” *Journal of Post Keynesian Economics*, Fall, ***12*** (1), 10-28.

Mosler, W. 1997-8: “Full employment and price stability.” *Journal of Post Keynesian Economics*, Winter, ***20*** (2), 167-182.

Nell, E.J. 1998: *The General Theory of Transformational Growth: Keynes after Sraffa*. Cambridge: Cambridge University Press.

Nell, E.J. 2003: “Nominal money, real money and stabilization.” In Stephanie A. Bell and Edward J. Nell (eds.) *The State, the Market and the Euro. Chartalism versus Metallism in the Theory of Money.* Cheltenham: Edward Elgar, 111-137.

Parguez, A. 1999: “The expected failure of the European Economic and Monetary Union: A false money against the real economy.” *Eastern Economic Journal*, Winter, 25(1), 63-76.

Parguez, A. and Secareccia, M. 2000: “The Credit Theory of Money: The Monetary Circuit Approach.” In John Smithin (ed.) *What is money?* London: Routledge, 101-123.

Peacock, M.S. 2003-4: “State, money, catallaxy: underlaboring for a chartalist theory of money.” *Journal of Post Keynesian Economics*, Winter, ***26*** (2), 205-225.

Pivetti, M. 1991: *An Essay on Money and Distribution.* London: Macmillan.

Realfonzo, R. 1998: *Money and Banking: Theory and Debate (1900-1940)*. Cheltenham: Edward Elgar.

Rochon, L.-P. 1999: *Credit, Money and Production: An Alternative Post-Keynesian Approach.* Cheltenham: Edward Elgar.

Rossi, S. 1999: “Review of Wray’s *Understanding Modern Money: The Key to Full Employment and Price Stability.*” *Kyklos*, ***52*** (3), 483-5.

Rossi, S. 2003: “Money and Banking in a Monetary Theory of Production.” In Louis-Philippe Rochon and Sergio Rossi (eds.) *Modern Theories of Money. The Nature and Role of Money in Capitalist Economies*. Cheltenham: Edward Elgar, 339-359.

Rossi, S. 2005: “Central Banking in a Monetary Theory of Production: The Economics of Payment Finality from a Circular-Flow Perspective.” In Giuseppe Fontana and Riccardo Realfonzo (eds.) *The Monetary Theory of Production. Tradition and Perspectives*. New York: Macmillan, 139-151.

Schumpeter, J.A. 1912: *The Theory of Economic Development: An Inquiry into Profits, Capital, Credit, Interest and the Business Cycle* [Spanish translation in Fondo de Cultura Económica, México, 1944].

Wicksell, K. 1898: *Interest and prices* [Spanish translation in Ediciones Aosta, Madrid: 2000].

Spethmann, D. and Steiger, O. 2005: "The Four Achilles' Heels of the Eurosystem." *International Journal of Political Economy*, Summer, ***34*** (2), 46-68.

Steiger, O. 2006: "The endogeneity of money and the Eurosystem: a contribution to the theory of central banking." In Mark Setterfield (ed.) *Complexity, Endogenous Money and Macroeconomic Theory. Essays in Honour of Basil J. Moore.* Cheltenham: Edward Elgar, 150-169.

Wray, L.W. 1990: *Money and Credit in Capitalist Economies: The Endogenous Money Approach.* Aldershot: Edward Elgar.

Wray, L.W. 1998: *Understanding modern money: : The Key to Full Employment and Price Stability.* Cheltenham: Edward Elgar.

Wray, L.W. 2001: *Understanding modern money*. Paper presented at the workshop 'Understanding Unemployment in Australia, Japan and the USA. A cross-country analysis' 10-11 december, The University of Newcastle, Newcastle (Australia).

Wray, L.W. 2003: "The neo-Chartalist approach to money." In Stephanie A. Bell and Edward J. Nell (eds.) *The State, the Market and the Euro. Chartalism versus Metallism in the Theory of Money.* Cheltenham: Edward Elgar, 89-110.

[25] See for instance Lavoie (2005) or Fullwiler (2006).