How Heterodox Is the Heterodoxy of the Monetary Circuit Theory? The Nature of Money and the Microeconomy of the Circuit*

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1. Introduction

The modern monetary circuit theory has, from its very beginnings, been presented as a heterodox macroeconomic theory, an alternative to the orthodoxy of neoclassical macroeconomics[1]. To be sure, the elements distinguishing the two theories are numerous and deep, but probably the essential ingredients that many circuitists should lay at the base of their approach are the following two: (1) whilst neoclassical theory has always held that money *logically* has the *nature* of producible stuff, the circuit theory takes on board the Cartalist view according to which money is nothing but credit, a pure symbol that in modern economies consists of bank liabilities, issued chiefly at the moment of financing industrial production; (2) to develop a model of authentically monetary economics, one must abandon methodological individualism, which is a distinctive feature of the neoclassical theoretical approach, and recognize that the economy consists of social groups with different aims and constraints[2].

In the following pages I shall seek to show that these two theses are not entirely accurate. By contrast, I shall argue that lending greater empirical content and full internal consistency to the monetary circuit theory – that is, to satisfactorily solve the problems of the original circuit and the closure of the circuit – requires: (1) that the Cartalist theory of money be revised and a *new* institutional theory of the origin of money be developed; (2) to introduce microeconomic elements into the circuit analytical framework.

More specifically, I will maintain the following six propositions:

- the idea that money must always, *logically*, assume the form of (or be convertible to) a producible commodity does not belong to the neoclassical tradition;
- the point originally at the centre of the debate between Metallists and Cartalists

was essentially the *value* and/or *origin* of money (and not its *nature*), hence the different stress on the essential functions to be attributed to money;

- to provide consistent foundations for the monetary circuit theory, a theory of institutional change needs to be developed, which neither Metallism nor classical Cartalism seem able to offer;
- methodological individualism, if understood in a weak form, is not the exclusive domain of neoclassical theory; if understood in a strong form, it is not the domain of all the neoclassical theories;
- many authors who have in the past contributed to develop the monetary theory of production have at least partly used a weak individualist approach;
- the adoption of this perspective is not only perfectly compatible with the monetary theory of production but is also necessary for giving greater realism and full internal consistency to the modern monetary circuit theory.

2. Cartalism and Metallism: Is there an alternative?

It is quite common among circuitists and post-Keynesians to fit their own theory of money in the context of the Cartalist tradition, contrasting it with the Metallist tradition subscribed to by neoclassical scholars. The controversy between Cartalists and Metallists is also widely viewed as a controversy about the nature of money. From this perspective, the Metallists would include all those for whom money is logically a producible commodity, with its own utility independent of its monetary functions. The Cartalists, by contrast, would refute this logical necessity, maintaining the credit nature of money. This, of course, not in the vague meaning, almost universally shared, that money identifies a general draft on the social product, rather in the much more precise meaning that "'money' is the by-product of a balance-sheet operation of a third agent

who, in modern parlance, can be dubbed a 'bank'" (Parguez and Seccareccia, 2000, p. 101)[3].

However, what, from Schumpeter (1954, 1970) onwards, is presented as two opposing positions concerning the nature of money was and is chiefly a dispute over the value and origin of money, which in turn led and leads each author to privilege one of the functions of money over the others and consider this as the essence of the monetary phenomenon[4].

2.1. *The nature of money*

As Schumpeter (1954, 1970) underlined, it was Knapp (1905) who coined the expressions Metallism and Cartalism. However, it was definitely Schumpeter who gave them full analytical dignity by introducing the important distinction between Theoretical Metallism/Cartalism and Practical Metallism/Cartalism. "By Theoretical Metallism – Schumpeter (1954, p. 288) wrote - we denote the *theory* that it is logically essential for money to consist of, or to be 'covered' by some commodity so that the logical source of the exchange value or purchasing power of money is the exchange value or purchasing power of that commodity, considered independently of its monetary role"[5].

Knapp gave a slightly different interpretation of Metallism (of which, as Mises noted polemically, Knapp was unable to explicitly identify any follower), using a very peculiar definition of commodity – an object "capable of a use in the world of art and industry", in the words of Knapp ([1905] 1924, p. 4) – which is hard to find in neoclassical authors.

However, neither Knapp nor Schumpeter, though referring the Metallist theory to the nature of money, offered any positive definition of Cartalism, which they identified as

the doctrine which opposed Metallism. When they devoted themselves to developing *their own* positive Cartalist theory of money, the two authors, though pursuing radically different lines of thinking[6], both analysed the problem of the origin of money. Schumpeter addressed the problem of the logical origin of money, explicitly neglecting any attempt to analyse its historical origin[7]. Knapp, by contrast, unless one considers the statement a "money is a creature of law" as a declaration on the nature of money (1905, [1924, p. 1]), tackled the theme of the historical origin of money and its formal 'validity'[8] on trade.

Schumpeter did not dwell on the distinction between payments in kind and payments in money or between a barter economy and a monetary economy. Rather, he focused on the problem of the logical priority of the different functions of money, attributing first place to that of unit of account. All the payments made in the process of production and consumption, where cash payments are only a special case, imply, according to Schumpeter (1970 [1990, p. 216-7], our translation from the Italian edition), an underlying credit relationship due "to the non-concurrence of reciprocal obligations". As a *means of payment*, money serves to resolve credit relationships arising with exchange: "credit relationships […] and the accounting balances in which they express themselves represent the logical *prius*, by comparison with money differently defined performs a function of technical support". Hence the obvious consequence that "money is neither a good nor a commodity […] in the sense that the unit of account with which commodity transactions are recorded and regulated in a pure accounting system is not itself a commodity and does not become one for this function" (Schumpeter (1970 [1990, p. 239], our translation from the Italian edition).

For Schumpeter the logical origin of money is in economic calculation and its essence may be easily traced, in a socialist economy as in a capitalist economy, as a unit of

measurement of the *use value* of goods, besides their *exchange value*[9]. Hence, it is the function of unit of account which defines the essence of money, and not that of medium of exchange or means of payment. From this standpoint, therefore, Schumpeter must be considered a sponsor of the credit nature of money, but only in the sense that behind every economic exchange, an underlying debt-credit relationship may be detected, and not in the sense, held by circuitists, that money may be logically represented only as liabilities issued by some third-party institution[10]**.**

Moreover, according to Schumpeter the symbolic/accounting character of money does not stem from the logical incompatibility of commodity money with a monetary economy. The essence of money as a unit of account may be equally found both in trades in kind and in those in which money appears as an *intermediary*, whether in a socialist economy or capitalist economy. This is what drives Schumpeter to propose replacing the traditional monetary theory of credit with a credit theory of money. What matters for understanding the essence of the monetary phenomenon is only that for "its *logical* deduction no mercantile antecedent is necessary", in the sense that money does not *have* to be, even at the origin, a commodity that has its own utility and its own exchange value independent of its monetary function. However, Schumpeter pointed out, it remains perfectly *possible* and "even necessary, if people have to use it in exchange", that the unit of account, once it exists and people have learnt to work with it, "then acquires for everyone the significance of a good" (Schumpeter (1970 [1990, p. 225], our translation from the Italian edition)[11].

For their part, the Metallists definitely considered reference to some "mercantile antecedent" necessary for developing a coherent theory of money. However, they did not refute the possibility that money assumed the form of an abstract sign, a stroke of a pen devoid of any utility other than that of a monetary function and without any

immediate link (for example, of convertibility) with any commodity that could be produced through human work. This at least is the position which the founders of neoclassical monetary theory explicitly adopted (including certainly Carl Menger, Alfred Marshall, Ludwig von Mises, Arthur Pigou and Charles Rist), let alone modern neoclassical economists (such as Jones, Kiyotaki, Ostroy, Shubik, Starr and Wright).

As regards Menger, if besides his famous work *On the origin of money* published in 1892 in the Economic Journal we also consider the posthumously published edition of his *Grundsätze*[12], it appears evident that by the expression "money is a commodity" he only meant that money is an exchange commodity which, like others, gains value from its utility. "The value of metallic money - Menger ([1923] 1976, p. 368, our translation from the Italian edition) wrote - derives from the value of the metal and coinage, while that of fiduciary money from the rights linked to its possession".

Moreover, so as not to be misunderstood, Menger preceded his chapter on money with those on the theory of goods, of economic goods and commodities. Putting together the definitions proposed by Menger for these three categories, the statement "money is a commodity " could then be reproduced in the following terms: *money is anything suited to meeting human needs, available in smaller quantities than required and used for exchange*, where its absolute independence of the concept of producibility is evident[13]. However, it was the need to apply utility theory to money that forced Menger to see the nature of money in its function as *a medium of exchange*, to *logically* consider money as a mercantile product and view as misguided those, like Wagner or Schumpeter, who attributed the essence of the monetary phenomenon to its being a standard of value (unit of account)[14].

However, none of this, in principle, prevents money being presented, from its very inception, as a good without its own non-monetary utility[15]. This possibility, instead,

was ruled out by the analytical construct of Mises (1924), who nonetheless adhered to Menger's monetary theory. On reading Mises' work, it seems quite hard to maintain that he was a Metallist, or that he held that money could not logically in any case take on the form of a pure sign or be represented by banks' balance-sheet entries[16].

Mises' aim was simply to present a theory of money that was able to explain its value according to the "laws of exchange". According to Mises, precisely because money in its most advanced forms takes on the appearance of a pure sign, it cannot but have an indirect utility, as a means of procuring goods with their own direct utility. Nevertheless, this is tantamount to maintaining that the utility of money depends on its purchasing power, that is, on its value and utility. To break the circularity of this reasoning, Mises proposed the (in)famous regression theorem, by which the value of money today depends on the purchasing power that the money had yesterday. Moving backwards, however, he could not help reaching the *logical* conclusion that "before an economic good begins to function as money it must already possess exchange value based on some other cause than its monetary function" (Mises, 1924 [1981, p. 132]).

In other words, from the *logical* standpoint, according to Mises *in origin* money can only be something (most likely a real good) having its own utility for people, independent of its monetary function. Now, whatever opinion one might have on the correctness of the regression theorem[17], what must be stressed here is only that the Metallism of Mises implies in no way that money must *always* consist of (or be covered by) a producible commodity.

Finally, also Charles Rist, like Menger and Mises, had little doubts that money could take on non-commodity forms or that money was nothing other than a draft on the social product. He only maintained that, from a theoretical standpoint, as money *also* acts as a store of value, in other words, as money has a *direct utility* besides having an

indirect utility, its value (but especially the stability of its value) also depends on the value of the substance of which money is made[18].

To conclude, with respect to the *nature* of money both parties, Cartalists and Metallists, may be said to have recognised that money has the nature of a social institution that identifies a credit right on existing resources. For both Cartalists and Metallists money may be correctly understood as the *record* of a purchasing power whose support tends to change in time with customs and technology, there being no logical link between the form or support that money takes and its intrinsic essence. For both theories, the latter may be traced in the exchange of goods (Rossi, 2001), whether they are final goods, factors of production or labour, and whether they occur in a planned economy or in a market economy. For the Cartalists, in the contract and in its underlying debt-credit relationship and in the corresponding function of unit of account according to the logical sequence: exchange contract/debt-credit unit of account. For the Metallists, in transaction costs tied to the trading of goods and in its function as medium of exchange according to the logical sequence: exchange transaction costs medium of exchange.

2.2.*The origin of money, the rise of markets and the problem of the original circuit*

The divergence between Metallists and Cartalists concerning the *origin* of money was, instead, far more pronounced[19]. For Menger, like most of the economists considered Metallists, money is an unintentional social product which arises in the exchange of goods, where each rational individual finds it worth selling his/her commodity in exchange for another, which is not directly desired but can be traded more easily (i.e., for which the difference between the supply and demand price is smaller), so as to minimise transaction costs and times of the final exchange, that is, of the acquisition of

goods actually desired. With the passing of time, through experience and habit, one finds that the most tradable commodity is spontaneously established as 'money' in the community, which seeks it and uses it as a general intermediary of exchange. Thus money is the spontaneous product of an evolutionary process that arises from conscious, rational interaction between individuals, but that does not have roots in the purposeful design of some individuals.

By contrast, for Cartalists money is a creature of the State. It originates in an act of imposition on the part of the authorities that, on their own initiative establish by law what object can free people from their obligations to the State or from those protected by the law. Therefore, whatever the State and the law declare to be money, a voluntary demand for money arises in everybody and money acquires its own value, even when its material substance would be devoid of value[20]. Hence, the logical consequence that any *object* or any *sign* is able in principle to act as money - gold, bank deposits or, according to a contemporary Cartalist like Goodhart (1989, 1998), shares issued by investment funds -, and, often (but not in Knapp's case![21]), the practical conviction that, for the economy to work well and develop, credit money is more suitable than commodity money.

However, also regarding the origin of money, the divergences between Metallists and Cartalists are often less fundamental than we are led to believe by arguments similar to those outlined above. Indeed, although they are mostly presented as divergences on the *logical origin* of money (Wray, 1993; 2000; Ingham, 2000), often it is only its *historical origin* that is in dispute. More precisely, given the inevitable absence of conclusive evidence about the true origin of money[22], the real problem under discussion is which of the possible *historical* origins of money is the most *logically* convincing. The proof is that it is possible to consistently maintain the same explanation of the *logical* origin of

money, yet not agree with what monetary function must be considered *historically* antecedent to the others.

For example, whichever function of money is held to be logically essential and historically primitive - unit of account, means of payment, medium of exchange - the explanation of its introduction into exchange and its evolution may be perfectly compatible with a Mengerian evolutionary approach. Thus one may well at the same time believe, along with Innes (1913) and Keynes (1930), that the original forms of money are to be sought in the records of debts and credits and in the drawing-up of price-lists (in other words, that the essential function of money is to perform as a unit of account), and accept the idea that the introduction and evolution of money constitute an unintentional process aiming to minimise the costs of exchange[23]. In addition, it would be possible to continue to explain the introduction of money with the difficulties of barter, and yet maintain that the good that tends to become established as money can be none other than that 'conceived of' and used as a means of payment to rid oneself of State tariffs or sanctions[24].

Put differently, Cartalism and Metallism, though diverging on what is to be considered the original function of money, may very well end up sharing the same explanation of institutional change based on an unintentional evolutionary process resulting from individual action to minimise transaction costs. By contrast, they might also agree on a subjective teleological explanation of the origin of money where institutional changes are the result of precise human design, whether it be that of a 'cunning governor' - as in Knapp (1905) or in Wray (1998) - or that of a 'lazy genius' able to see how to overcome the difficulties of barter - as in Crowther (1940).

Be that as it may, whichever of the two methodological solutions one adopts and whatever the function of money that is considered essential, Metallism and Cartalism

encounter the same logical difficulty of having to precede money with the existence of an adequately developed system of exchange and market mentality. Indeed, only in this case would the introduction of money be able to ensure considerable saving of resources in the exchange (Metallists) or represent an effective tool of seignorage (Cartalists)[25]. Accordingly, it is true to say that the well-known difficulties that Madamoiselle Zélie encountered in the *Society Islands* or Mister Cameron in Tanganyika in obtaining the goods that they urgently needed[26] may be held to be indicative only of the difficulties that any person used to living in a market economy would experience if they were suddenly catapulted into a non-mercantile society, and not of the limits of a barter system *per se* (Einzig, 1966; Dalton, 1982; Ingham, 1996; Bell, 2000). However, it would be equally true to say that the expedient of introducing forms of monetary taxation to persuade native populations to supply their labour without having recourse to slavery (Neale, 1976) – both that conceived by the imaginary colonial governor of Randall Wray (1998) or that which is said to have been actually used by the German governors on the Pacific islands and by their French and English counterparts in the African colonies[27] - is none other than the solution designed by officials from mercantile societies called upon to practice their profession in cultures which know no market, without in the least constituting proof of the State origin of money.

However, to precede the existence of money with a monetary market economy is a fault that also belongs to the monetary circuit theory. Is this not perhaps the decisive element underlying the well-known problem of the original circuit[28]? At what level, one might ask, will monetary salaries initially be fixed if until that moment exchanges in money have never yet occurred[29]?

The solution to this *enigma* may be sought in anthropological studies on ancient economies by Malinowski, Polanyi, Dalton and others, who convincingly showed that

the relationship between money and market goes the other way round[30]. "Trade and money – Polanyi (1977, p. 123) writes - were always with us. Not so the market, which is a much later development"[31].

To comprehend this statement, we need first to recall the two meanings of 'economic' identified by Polanyi: the *substantivist* meaning, which "derives from man's dependence for his living upon nature and his fellows", and the *formalist*, which "derives from the logical character of the means-end relationship" (Polanyi, 1957, p. 243). The two meanings, Polanyi underlines, have nothing in common. The formalist meaning has a logical content and "implies a set of rules referring to choice between the alternative uses of insufficient means" (*ibidem*). By contrast, the substantivist meaning of economic has an exquisitely empirical content and "implies neither choice nor insufficiency of means". It is to the latter meaning that, according to Polanyi, we should refer to comprehend the position that the economic (livelihood) problem assumes in the various systems and to deduce "the concepts that are required by social sciences for an investigation of all the empirical economies of the past and present" (*ibidem*, p. 244).

However, Polanyi continues, the concrete ways of solving problems of man's livelihood necessarily consist in institutionalised processes of interaction between people and their environment. "The human economy, then, is embedded and enmeshed in institutions, economic and noneconomic" (*ibidem*, p. 250). "The instituting of the economic process vests that process with unity and stability" (p. 249). If we adopt this meaning of an economic system, substantivist and institutionalised, it is easy to realise that the marketing approach to trade and money is unable to supply a satisfactory picture of the evolution of such institutions.

Self-regulating market exchange is not the only way of institutionalising the economic process, the only "form of integration" of individuals amongst one another,

nor is it the only one that envisages the use of money. Reciprocity - a form of socially obligatory donation - and redistribution - the assignment of individual or group production to the authority of the community and the subsequent sharing out of goods to members of the community according to customs in force - are equally important, widespread social forms of integration, in which money may still perform its functions as a means of payment, unit of account and/or medium of exchange[32].

However, whilst in a market economy money is general-purpose, performing all the monetary functions, in social contexts in which reciprocity and redistribution are prevailing forms of integration money is special-purpose. Monetary functions appear institutionally separated from one another, confined to limited circuits and, what is more important, always independent of their mercantile significance[33]. As a mean of payment, money originates from the existence of social debts, such as those based on status, kinship, marriage an religion, and not of debts arising from market transactions. As a medium of exchange it originates from external trade with outside communities, rather than from difficulties of bartering on home markets. Finally, as a unit of account, money is a device designed for regulating the redistribution of products and the reciprocity of obligations, and not for recording exchanges that occur on the market.

Thus, in primitive societies, money is not an economic phenomenon that arises from the inconvenience of barter, but an institution which is necessary to guarantee the functioning of society and its reproduction. It is only in modern market economies that the various uses of money become interdependent and oriented to market exchanges and their self-regulation.

According to Polanyi, therefore, the monetary (market) economy does not arise when money originates (in whatever form it takes), but when the evolution of society and its institutions goes so far as to transform money into an *economic good* subject to demand

and supply, that is, the moment in which a market of money is established. At this stage there may already be in force monetary equivalencies for goods established by convention, custom or law. There could be administered prices for the trade of goods, the paying of taxes or fines, that is, there could be a list of non-market prices from which market prices initially originate.

This analytical expedient, i.e. the pre-existence of non-market monetary prices, would perhaps be able to solve the puzzle of the original circuit, but it does not solve the basic questions. How does a monetary economy arise? As regards the institutional change that transforms money from an institution extraneous to market exchange into market money, what does it consist of and how does it occur? Why and how do we shift from a system of fixed prices to a system of self-regulated prices?[34]

These are questions that are still mainly extraneous to the economic debate on the origin of money. Only recently were they taken up by Heinsohn and Steiger (1983, 1987, 2000), who identify the birth of the institution of private property as the essential element leading to the rise of a monetary economy[35]. Yet, even ignoring the fact that Heinsohn and Steiger only show that private property is a necessary condition for monetary economy to arise, but not a sufficient one, their solution only shift the problem backwards: How does private property arise?

The point is, as noted by Maurice Godelier (1978) and Douglass North (1977), albeit from diametrically opposed perspectives, that Polanyi and his followers, just like Heinsohn and Steiger, failed to propose their own theory of institutional change. Certainly, it may be agreed that the market is only one of the forms of possible institutional integration of human societies. However, to explain the prevalence of one of the forms of integration and, especially, to analyse the transition from one form to another, we need a satisfactory explanation of the role and hierarchy of the forms of

integration in different societies and an analysis of the reasons behind the birth of new institutions. Thus, given the lack of a 'Polanyist' theory of institutional change, also the Polanyi theory of money can only be absorbed in one of the existing approaches to social and institutional change, whether it be the evolutionary (linear or multilinear) or the functionalist one[36].

Of course, this is not the place to further tackle such problems and even less to propose a theory of the institutional change. However, in conclusion, what deserves to be stressed is the need for the consistent development of a monetary theory of production of which recognises the fundamentally institutional nature of money and the monetary economy. This would allow the circuit theory to explicitly tackle the problem of the original circuit and present an explanation of the origin and evolution of money which is really different from the Mengerian evolutionary approach.

3. Searching for a microeconomy of the monetary circuit

It is commonly held among circuitists that between the neoclassical theory and the circuit theory there is a still greater, insurmountable difference, which goes beyond the very theory of money and banking, or rather, which would also cause divergences in this field, and which concerns the methodological approach followed. More precisely, what they consider the very feature of all neoclassical schools is adherence to methodological individualism, which circuit theory, by contrast, cannot but reject in its entirety.

In fact, circuitists usually claim, it is this particular methodological approach that is responsible for excluding from analysis the social classes, their interaction and the role of money in the distribution of income and wealth. It is not by chance, then, circuitists conclude, that all those who have sought to develop a monetary theory of production

(not only the circuitists) have recognised these difficulties, and consequently have all started by refuting methodological individualism[37].

What circuitists seem to support, therefore, is the idea that opting in a theoretical inquiry for an individualist perspective would be tantamount to a sharp and clear choice of field, in favour of neoclassical theory and in absolute antithesis to the monetary theory of production. Unfortunately, an explicit definition of methodological individualism is hardly ever offered by circuit theorists[38]. However, what they usually seem to have in mind, rather than a methodological principle, is a particular description of the economic world[39], typical of the Arrow-Debreu general equilibrium model, by which society is understood as a set of full rational, informed and undifferentiated (if not by resource availability and by taste) agents, which act independently one another, without any kind of strategic interaction. A world in which individuals are devoid of any type of 'power' and are not open to reciprocal influences.

However, it is definitely erroneous to place individualism as a methodological principle on the same level with any particular description of reality, of the functioning of the economic system and agents' objectives and behaviour. To be precise, it is possible to distinguish at least two quite different ways of understanding the methodological individualism: weak individualism (like Agassian institutional individualism or partly also Popperian situational analysis[40]) and strong individualism. Now, adopting a weak individualist perspective means only denying that impersonal entities, like institutions, organisations or social classes, are endowed with anthropomorphic properties, with their own wishes, aims and driving forces which are distinct and independent of those of the individuals who constitute and belong to them. This amounts saying that phenomena that involve such impersonal entities and their evolution can be only *explained* by making reference to the actions of single individual

or groups of them, which at least in part are intentional.

Adopting a weak individualist perspective does not mean either excluding classes or other forms of social organisation from economic analysis (as is shown by the analyses of class conflict in individualist terms proposed by the American Marxist school of Bowles, Elster, Gintis, Roemer[41]), or denying that existing institutions are able to affect and direct individual behaviour[42]. Even less does it mean espousing the Robbinsian definition of economics, or adhering to the marginalist theory of distribution, or postulating that actors always behave consciously and fully rationally, or accept a particular theory of money and banking. It does not even mean denying the legitimacy of the study of aggregate phenomena or the conceptual autonomy of macroeconomic laws. Phenomena of fallacy of composition, such as Keynes's savings paradox, or theories like effective demand and its corollary of the independence of investment from saving, are all perfectly compatible with an individualist approach, provided "the aggregation of individual actions is not simply reduced to a sum", but it is recognised that "the aggregation can certainly assume the character of a summation, but does not necessarily presume it" (Boudon, 1984 [1985, p. 101], our translation from the Italian edition); above all, provided it is seriously considered that individuals are heterogeneous and interact amongst one another, that many of their characteristics are of a relational nature, that their behaviour generates externalities and that this is why the market is not a perfect mechanism for coordinating individual choices. After all, the conceptual autonomy of aggregate magnitudes and macroeconomic phenomena is ultimately based on the possibility of associating them to observable magnitudes and hence to the possibility that they are the focus of empirical surveys.

With individualism intended in this weak sense, just as starting from the individual, is hard to deny that Wicksell, Schumpeter, Robertson and Keynes all used, to different

extents and in different forms, individualist methodology in their work.

Of course, if we move on to a strong interpretation of methodological individualism, as the doctrine by which all concepts and social phenomena must be traced back to individuals and the effects, at times not desired, of their intentional and full rational actions[43], the use of macroeconomic concepts and the development of independent macroeconomic thinking (that is, decoupled from its microfoundations) would have to be excluded. The fact is, however, that in this strong sense not even neoclassical theory has always been able to consistently adopt an individualist methodology. At least, not the neoclassical theory of perfect competition which, to arrive at demonstrating the theorem of the invisible hand on a purely individualist basis, has been (and is) forced to refer to the figure of the auctioneer, to an institution endowed with the ability to control the formation of equilibrium prices, in other words, to one of those impersonal entities endowed with anthropomorphic features that an individualist approach should consider as not belonging to the real[44].

To conclude, it is perfectly compatible with individualist approach to consider, along with the monetary circuit theorists, that the society in which we live is divided between those that have access to new issues of money (firms), those that do not have access (employees) and those that create new money (banks), provided only that we recognise that: (1) within this subdivision individual actions (of individual capitalists, employees, bankers) are not completely pre-assigned and the evolution of the economic system depends on them; (2) in principle we may take a step backwards and analyse (from the economic standpoint) the way in which social groups are formed or, symmetrically, take a step forward and ask ourselves how the processes of social mobility are determined.

3.1. *Individualism, monetary profits and the equilibrium concept*

My opinion, however, is that individualism (in the weak sense) is not only compatible with the circuit theory, but it is also absolutely necessary to complement it. In other words, I intend to argue that to extend the empirical significance of the monetary circuit theory and especially to lend greater realism and consistency to the crucial phase of circuit closure, it is even indispensable to supplement the aggregate analysis of the macro-social circuit with microeconomic analysis of micro-social circuits[45].

At the moment, circuit theory offers a definitely more convincing description of the functioning of a modern monetary economy than its 'neoclassical" counterpart does. It also provides effective explanations of some economic phenomena like money supply, inflation, public debt or income distribution. However, there are other aspects of these phenomena and, above all, there are many other economic phenomena that are hard to tackle without introducing rigorous microeconomic analysis into the monetary circuit model. For example, for those interested in comparing the states of different economies (or the pattern of growth of a single economy in time) in which, following the circuit theory itself, banks may create at their own discretion the liquidity which firms need, it would be excessively restrictive to limit the analysis of the bank-firm relationship to determining the overall quantity of money which is thus made available to the economy. It would be far more decisive to enquire how banks establish *to whom* to entrust the liquidity created, that is, how the process of selecting entrepreneurial capacities and credit allocation actually occurs[46]. Besides, given a certain amount of monetary base, also the overall quantity of money that the banking system may create depends, decreasingly[47], on the number of banks belonging to the system, a characteristic that clearly depends on microeconomic and institutional reasons. Not to say of the problems of pricing banking credit, financial securities and labour supply which can be hardly

analysed without taking into account the behaviour of single agents and the bargaining process that take place among them (or between their representative institutions)[48].

However, of even greater importance is the fact that by explicitly introducing the individual component into the analysis, we may provide a consistent, realistic solution to the main difficulty of the circuit theory, that of the formation of aggregate monetary profits and the payment of bank interests in monetary terms. In brief, the question may be posed in the following terms: if in the economic system (closed to exchanges with the outside) the only money existing is what the banks create in financing production, the amount of money that firms may hope to recover by selling their products is at the most equal to the amount to which they have been financed by the banks. Therefore, once the principal has been returned, the possibility is ruled out that firms as a whole can realise their profits in money or can pay interest owed to banks in money.

In the context of circuit theory this problem has essentially been solved in two ways: (1) firms and banks spend in advance the profits expected from their operations[49]; (2) additional money is introduced onto the circuit, typically through public sector spending. Although there is little space here for a detailed examination of the arguments suggested by various circuit theorists, the limits of both solutions appear fairly clear. The first is based on the somewhat unrealistic hypothesis that entrepreneurs and bankers systematically spend their income before earning it, while the second plunges the circuit theory into very similar difficulties to those which, as underlined by the same circuitists, traditional neoclassical macroeconomics encounters. The latter considers the public debt as the only source of monetary base, and is forced to hypothesise a sort "of obligation for the government authorities to regulate the public budget deficit, no longer in relation to the requirements of public spending and the tax burden, but in relation to the monetary requirements of the market" (Graziani, 1994, p. 69, our translation). It is

hardly worth saying that regarding public debt as the external source of liquidity strictly necessary for the circuit closure may be subject to exactly the same criticism.

Having discarded the above solutions, only two other possible avenues remain to justify the existence of profits and bank interest in money, both of which explicitly refer to microeconomic elements: (1) the economy consists of a concatenation of microsocial monetary circuits that overlap and intersect, the opening of one allowing the closure (inclusive of profits and interest) of others in an endless sequential process; (2) the economy undergoes an endless process of change which involves the entry of new firms, the start-up of new initiatives and the failure of others.

The first solution, mentioned several times by circuit theorists (Graziani, 1988), was explicitly considerd by De Vroey (1988), Messori (1988), Dupont and Reus (1989) and Smithin (1997). The second, however, has been surprising overlooked, even though it would constitute nothing other than the introduction, within the analysis of the monetary circuit, of the process of creative destruction as described by Schumpeter (1934), who is unanimously considered the most loyal forerunner of circuit theories.

Of course, considering failure as a physiological element of a monetary economy is tantamount not only to reintroducing stock magnitudes into the analysis, but especially to abandoning any concept of subjective and/or objective *equilibrium*, by which, at the end of the circuit, all the agents (banks, firms and employs) have to balance their budget (Graziani, 1988; 1994), in favour of a systemic concept of *order*[50]. But this, somewhat paradoxically, also means that it is the very introduction of *micro* elements that forces the adoption of a genuine *macro* concept of equilibrium and the introduction of institutional features as an integral part of a monetary economy of production, that is the two essential ingredients for developing an authentic macroeconomic theory.

4. Conclusion

The monetary circuit theory has had the great merit of placing at the centre of macroeconomic theory the sequential nature of the economic process, the problem of financing production and the role performed by banks in determining the macroeconomic equilibrium and in the growth process. However, in this paper I claimed that to develop a monetary theory of production which is fully consistent and distinct from neoclassical theory it is not sufficient to recognise the credit nature of money, the role of banks as creators of money or the subdivision of society into distinct social groups. We also need to recognise the basically institutional nature of a monetary economy, in order to account for its origin and its ordered functioning in a continually changing environment, in which profits, failures and social mobility are an integral part of the economic process.

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[1] Of course, it is always very difficult to assign a precise content to expressions that should identify a school of thought. Herein I adopt a broad – and in many ways, unsatisfactory - solution, but which seems

appropriate to the subject matter covered in the text, and which perhaps would also be acceptable to the majority of circuitist and neoclassical authors. In particular, with the term 'neoclassical theory' I shall refer both to the Walrasian model, as well as the Marshallian and Austrian model. With term 'circuit theory', instead, although the most frequent implicit reference will be to the Franco-Italian circuit model *a là* Parguez-Graziani, I shall at times refer also to the post-Keynesian models (horizontalist or structuralist) and, to a lesser extent, the circuit model of the Dijon-Fribourg school.

[2] Amongst others, see Graziani (1990; 1994); Lavoie (1987; 1992); Parguez (1996; 2001); Realfonzo (1998).

[3] See also Graziani (1990), Realfonzo (1998), Parguez (2001).

[4] As is well known, this was basically also the interpretation of the debate between Metallists and Cartalists given by Mises (1924). Similarly, with reference to the contemporary debate, Heinsohn and Steiger (1989) maintain that the differences concerning the monetary theory between post-Keynesians (personified in Paul Davidson) and neoclassical economists (personified in Frank Hahn) concern the origins and not the nature of money; see also Chick and Dow (2001). The opposite opinion was espoused by Iwai (1997), who not only held that the dispute between Metallists and Cartalists essentially concerned the nature of money, but also emphasised that it must be considered logically distinct from that on the origin and value of money.

[5] In the words of Schumpeter (1954, p. 288), by practical Metallism nothing else was meant other than "a principle of monetary policy, namely, the principle that the monetary unit 'should' be kept firmly linked to, and freely interchangeable with, a given quantity of some commodity", a principle that could well be consistently maintained by those who considered theoretical Metallism unsustainable.

[6] To realise how different were the routes undertaken by these two authors it is sufficient to read the disdainful opinion that Schumpeter (1954; 1970) held of Knapp's *Theorie des Geldes*.

[7] "Is it valid procedure – Schumpeter wondered (1954, p. 64) – to trace as far back as we can the history of an institution in order to discover its essential or its simplest meanings? Clearly no. Primitive forms of existence are as a rule not more simple but more complex than later ones […] Logical and historical origins must, therefore, be kept distinct". The same consideration is restated by Schumpeter (1970).

[8] The expression comes from Mises ([1924] 1981, p. 507), according to whom Knapp's theory consisted of nothing other than statements on the formal validity of nominal monetary units, to trace back to the State's authority, with nothing being said about the validity of such units in trade, that is, about its

substantive validity. A similar opinion was formulated by Max Weber (1922) and recently re-stated by Ingham (1998).

[9] See Schumpeter ([1970] 1990, pp. 28-39). By the same token, Berti and Messori (1996, p. CV, our translation) maintain that for Schumpeter the essence of the monetary phenomenon stems "directly from the founding operation of any economic system: the calculation aimed at the allocation of scarce resources".

[10] Schumpeter's analysis substantially coincides with what Keynes writes in the *Treatise* concerning the nature and origin of money (this comes as no surprise if it is true that Schumpeter abandoned the idea of publishing his book on money after reading Keynes' *Treatise*; on this point see Graziani, 1978; Messori, 1997), and coincides almost word-for-word with the analysis made by John Hicks in his last book (Hicks, 1989). Besides, the idea that, in general, exchange presupposes a debt relationship and an accounting record is not so far removed from contemporary neoclassical theory (Ostroy and Starr, 1990). An interesting discussion on the accounting origin of money, "external" to economic theory, is found in Mathieu (1985). In the latter respect, it should be noted that the Italian philosopher, though clearly adopting an individualist approach, has no difficulty offering a theory of money and credit which, from the conceptual standpoint, is very similar to the most extreme version (the Schmittian version) of circuit theory (on the relationship between methodological individualism and monetary circuit theory I shall return in Section 3).

[11] Just as, Schumpeter maintained, the scarcity of money which, though it is extraneous to its essence of unit of account and may be introduced only artificially into the economy by means of some institutional expedient, is a strict necessary characteristic to determine the monetary prices of goods. In the context of the modern circuitist theory, this feature of money has been extensively analysed by Aasland (1990). It should be noted that, for many circuitists, the scarcity principle is to be rejected not only with reference to the essence of money but also to its actual supply, but then adding, to pay homage to the more common practical experience, that banks restrict their loans to credit-worthy customers (Moore, 1988; Lavoie, 1996; Parguez and Seccareccia, 2000). Yet, one wonders, if the banks can re-finance themselves without limits from the Central Bank, though at a positive rate of interest, why they should ever refuse anyone credit, however low the probability may be of the loan being returned. In other words, if banks are sure that they will never be rationed by central banks, why ever should they worry about expected losses? Yet if there is no such certainty, either concerning the re-financing of losses made by bad loans or overissues

with respect a limit set by the monetary authority, is this not perhaps tantamount to setting quantitative (elastic) limits to the potential supply of credit/money on the part of banks?

[12] As Menger's son Karl recalls in his introduction to the second edition of *Grundsätze,* the chapter on money coincides with the article *Geld* that Menger wrote for the third edition of the *Handbook of Fiscal Studies* (*Handwörterbuch der Staatswissenschaften)* seventeen years after the publication of the article in the Economic Journal.

[13] See Menger ([1923], 1976, pp. 84, 147-6, 320).

[14] "One needs […] to consider – Menger wrote ([1923], 1976, p. 438, our translation of the Italian edition) – that the measure of value […] has as a necessary premise the formation of the price and therefore the appearance of money as a medium of exchange".

[15] This point was clearly expressed by Simmel ([1907] 1984, pp. 226-31). Besides, the lack of any non-monetary utility of money is the underlying hypothesis of modern *search* models *a là* Kiyotaki and Wright (1989; 1993).

[16] As is well known, Mises divided the theories of money into catallactic and acatallactic, the former being those that dealt with the problem of the value of money, the latter those that excluded it from the analysis. An interesting, balanced re-reading of the Mises' theory of money and credit with a Wicksellian (or circuitist) interpretation is proposed by Bellofiore (1998).

[17] It is well known that for Patinkin (1965) the solution proposed by Mises was wholly unsatisfactory. In his view, Mises could have used utility theory more traditionally and constructed a monetary demand curve on the basis of the various hypothetical purchasing power which money could assume tomorrow. Evidently, the solution suggested by Patinkin could be pursued only if one imagines that money has its own direct utility. However, if, like Mises, one accepts the idea that the utility of money is only indirect, the expected prices would affect both the budget constraint and the utility function (hence the map of the indifference curves), preventing the construction of any demand curve (in this respect, see Butler, 1988). From this point of view, therefore, it would not be the regression theorem which would have to be rejected, but the hypothesis that money only has indirect utility.

[18] "Thus – Rist ([1951] 1961 p. 150) wrote – gold or silver money is merely a draft on goods, a purchasing power, and, consequently, all these signs should be equivalent to one another. It is exactly this that the public has never yet admitted, and that the economists who believe themselves modern ought to recognize with the public (sic), as it is definitely the public and not the economists that fixes the value of

the products on the market, as well as that of different "currencies". And the public has discovered that all the "drafts" are not equally *sure* or *universal*". In perfect agreement with Rist, Day (1958, p. 4) wrote "[The] superiority of gold coins did not arise out of any intrinsic superiority of money stamped on valuable metal rather than on paper, it arose out of the greater willingness of some people to accept and hold gold coins than paper notes".

[19] That the divergence between Metallists and Cartalists concerned (and concerns) the origin of money rather than its essence may be further borne out by the fact that a scholar external to the economic debate such as Georg Simmel had no difficulty, in his *Philosophy of money*, in subscribing to Menger's theory and, at the same time, maintain that credit money is the real and purest form of money. "Whatever may be the historical origin of money – and this is far from being clearly established – one fact is certain, that money did not suddenly appear in the economy as a finished element corresponding to its pure concept. Money can have developed only out of previously existing values in such a way that the quality of money, which forms part of every exchangeable object, was realized to a great extent in one particula object; the function of money was at first still exercised, as it were, in intimate association with its previous value significance " (Simmel [1907] 1990, p. 119-80). "[…] the development from material money to credit money is less radical than appears at first, because credit money has to interpreted as the evolution, growing independence and isolation of those elements of credit which already exists in fact in material money" (*ibidem*, p. 179).

[20] Wray (1988) offers effective exposure of the Cartalist theory in modern terms, proposing an original application to themes of political economy.

[21] "I know no reason – declared Knapp in the very first lines of his work (1905, [1924, p.1]) – why under normal circumstances we should depart from the gold standard".

[22] Besides the historiographic and anthropological reconstructions so brilliantly summarised by Einzig (1966), an interesting attempt to offer some statistical evidence to test the various hypotheses on the origin of money is offered by Pryor (1977), who finds slight evidence in favour of the theory that sees money as a means of payment precede money as a medium of exchange on the economic development scale.

[23] See Laughlin (1903), Liefemann (1916) or, more recently, Mathieu (1988), Ostroy (1990), Krozner (1991), Cowen and Krozner (1992, 1994).

[24] There are traces of this possibility also in Menger (1923), who proved to be well aware of the fact that in many circumstances non-commercial payments could have preceded those of a commercial nature, even if he then preferred to define the former payments as non-monetary. See also Cassell (1923), Grierson (1977), Goodhart (1998).

[25] Some cartalists detect the *ratio* of the origin of money not in the acquisition of a seignorage power on the part of the State, but in the fixing by law of tariffs to peacefully sanction offending behaviour in the context of a community, such as to prevent violent reprisals undertaken by the injured parties (Grierson, 1977; Goodhart, 1998). In this case, the preexistence of a market economy would no longer be a strictly necessary hypothesis, even if the transition from money to a monetary economy would still need to be explained.

[26] See Jevons (1875) and Cameron (1885).

[27] See Furness (1910), Stichter (1985), Forstater (1996).

[28] We should not forget that, as Realfonzo (1998, p. 28) rightly underlines, "[…] one of the characteristics of the [circuit theory] is to show how the economic *process* of a monetary economy develops right from the beginning".

[29] Usually, the problem of the original circuit is presented in slightly different terms: how can firms or employees purchase goods if, up to that moment, goods have never been produced (De Vroey, 1988)? In this respect, I feel that the problem identified in the text is of an even more general significance and, indeed, there would be no point hypothesising that employees might spend their salary only at the end of the production process (Messori, 1985).

[30] In the circuitist and post-Keynesian literature there are increasingly numerous references to Polanyi and his followers (see Wray, 1990; 1998; 2000; Ingham, 2000; Heinshon and Steiger 2000).

[31] For a systematic exposition of the monetary theory of Karl Polanyi, see Mélitz (1970) and Servet (1993). On the importance of Polanyi's work for economic theory in general, see Stanfield (1986, 1989).

[32] See Polanyi (1944); Dalton (1968).

[33] Amongst others, see Polanyi (1957); Grierson (1977); Dalton (1982); Courbis, Froment and Servet (1991).

[34] As pointed out by Einzig (1966, p. 347), "it is difficult to see why the fact that certain exchange rates were kept artificially rigid should in itself have led to the monetary adoption of any of the goods

concerned. On the contrary, in so far as the existence of fixed barter ratios facilitated barter it contributed towards the survival of the moneyless system of trading".

[35] Heinshon and Steiger's theories have been fully accepted by the circuitists (see Graziani, 1994; Parguez, 2001; Seccareccia and Parguez, 2000). Interestingly, more than ten years before Heinshon and Steiger's first contribution to the property theory of interest and money, Frederic Pryor (1972) found statistical evidence for the fact that money and property institutions are positively correlated with economic development and that loans at interests occur after the appearance of property institutions and of a general medium of exchange.

[36] This is implicitly recognised by Parguez (2002, p. 47), who, with regard to the evolution of banks, states: "how could modern banks evolve out of a complex debt structure … ? … There are only two alternatives: the first is the solution of Menger (1923), according to whom the banks' existence would spontaneously evolve out of a pure market process without any State intervention; the second is to explain the banks' existence by State intervention".

[37] A clear example of this position is Realfonzo (1998).

[38] As is well known, the expression has been used in the literature with very different meanings. For a broad exposition of methodological individualism, cfr. Donzelli (1986) and Hodgson (1988).

[39] The idea that the adoption of methodological individualism involves adhering to a precise interpretative model of reality, going so far as to impose a precise line of behaviour as regards economic/social policy and rule out the possibility of gainfully employing in the analysis macro-type concepts, is certainly not new among economists. Schumpeter (1954, p. 888-9) already warned against the dangers of confusing methodological individualism, "a purely analytic affair", with political individualism "a laissez-faire attitude in matters of economic policy". As to the difficulties in considering methodological individualism as a criterion to distinguish between alternative approaches and explanations of social reality, see the considerations of Dorman (1991) in response to an article by Heijdra, Lowenberg and Mallick (1988).

[40] For a comprehensive presentation of institutional individualism and situational analysis programme, see, apart the work of Agassi (1975) and Popper (1976), Toboso (2001) and Caldwell (1991) respectively.

[41] On the importance of methodological individualism for Marxian analysis, see amongst others Elster (1982, 1985).

[42] From this standpoint, to use Elster's words (1982 [1992, p. 180]), an individualist approach would be incompatible only with statements like "capitalists are afraid of the working class" while it would be perfectly appropriate to tackle statements like "the profit of capitalists is threatened by the working class".

[43] To the doctrine by which "all social phenomena resolve themselves into decisions and actions of individuals that need not or cannot be further analyzed in terms of superindividual factors" Schumpeter (1954 pp. 888-9) attributed the term "sociological individualism", adjudging it "untenable so far it implies a theory of the social process". For a rigorous analysis of the limits of the strong version of methodological individualism, see Donzelli (1986).

[44] The point is clarified by Donzelli (1986, pp. 104-6; 262-3). On this point, see also Hodgson (1988) and Leijonhufvud (1997). According to Dorman (1991), also the neo-institutionalist theories of Coase, Williamson, North and Posner are all guilty of referring to concepts of a functionalist nature.

[45] The expressions *macro-social circuit* and *micro-social circuit* were proposed by De Vroey (1988, pp. 215-6) who defines the former as "the set of credit operations which take place in a given economy during a given period of time" and the latter as "a specific credit operation […] characterized by specific amount, conditions and maturity". The importance of enhancing macroeconomic schemes of the monetary circuit with the analysis of microeconomic behaviour is convincingly maintained by Messori (1988); Messori and Tamborini (1993); Bossone (2001a, 2001b).

[46] The circuit theorists are perfectly aware of this, as shown by the following words of Graziani (1988, p. 19, our translation): "The banks for their part perform the no less delicate function of choosing the firms to which to grant funding, assessing the capacity of individual entrepreneurs to overcome competition and rivals in the capture of new markets. In many respects, it is precisely in this phase that the structure of production and the configuration of the economic system are implicitly decided". Nevertheless, in the framework of this tradition, only recently have some microeconomic analyses of banking behaviour been proposed. See Dymski (1988; 1996); Messori (1988); Hill (1995); Wolfson (1996); Zazzaro (1997).

[47] This, already clear in Edgeworth (1888), was more recently shown, amongst others, by Olivera (1971), Selgin (1993) and Graziani (1994b).

[48] Once again, considering that banks create money, if one is restricted to aggregate analysis, one can only reach the conclusion that firms, in principle, could satisfy any wage claim, issue securities at almost zero prices and still keep almost the whole physical production, that banks, for their part, could requisition by setting an interest rate very close to that the rate of profit.

[49] The hypothesis of anticipated expenditure of profits has been variously interpreted as the possibility that initial funding obtained to pay salaries also includes expected/desired profits, that is, that having decided in advance the goods to which they will allocate profit expenditure, firms assign part of their employees to the production of non-salary goods and extract all the wage-earners' income via mark-up price mechanism on salary goods (Schmitt, 1984; De Vroey, 1988; Cencini, 2001; Rossi, 2001), or that the product of firms is sold in several stages within a single circuit, thereby increasing the velocity of money (Sadigh, 1988; Dupont and Reus, 1989), or yet again that initial funding includes fixed capital besides circulating capital (Parguez, 1980; Nell, 1986; Seccareccia, 1996). As regards anticipated expenditure of interest on the part of the banks, this has been interpreted either as payment of the workforce employed in the sector (Graziani, 1988) or as a fractional sale of production on the part of firms first to employees and then to banks (Dupont and Reus, 1989). Clearly, all such solutions are fairly artificial expedients when they fail to encounter logical problems.

[50] The concept of *order* belongs as much to the Austrian school, which from an *individualist* perspective introduces the concept of *spontaneous order*, as to the institutionalist school (and in some respects the Marxist one too), which from a *functionalist* standpoint speaks of *economic order guaranteed by institutions, customs and conventions*.