On the Question of Money Endogeneity: Marx vs. the Post-Keynesians

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This paper argues that the conception of 'money endogeneity' formulated and defended by Post-Keynesian economists can be founded on a coherent and theoretically sound way only on the basis of Marx's theory of value, which the author comprehends as the par excellence monetary value theory. The Marxist reformulation of the concept of money endogeneity allows of a thorough critique to the mainstream 'dichotomy' between a supposed economy of 'real' magnitudes and a 'nominal' world of monetary magnitudes. It challenges therefore the foundations of Neoclassical economic theory.

1. Theoretical Limits of the Post-Keynesian Theses on the Endogeneity of Money

Neoclassical economic theory regards money as a neutral means that facilitates economic transactions and whose quantity (all other factors being unchanged) may only influence the level of prices. In this way, money supply is considered to be exogenous, in the means that the public authorities, and more precisely the Central Bank, fully control the money quantity supplied to the economy, according to the policy objectives that they aim at.

The non-neutrality of money and its significance not as a mere means of exchange that facilitates transactions, (by overcoming –in the Classical and Neoclassical traditions– the non-coincidence of the mutual needs of commodity owners on the market[2]), but mainly as a store of value which may be held for future transactions, in response to economic uncertainty and future expectations, has been stressed by both Marx and Keynes (Milios et al 2002; Moore 1988: 207 ff). Further to this, Post-Keynesian theorists, following Kaldor's tradition, formulated the conception that in contemporary developed economies based on credit, money is created endogenously[3] (see for a compendious presentation of these approaches Moore 1988, Rouseas 1992: 65-122, Itoh & Lapavitsas 1999: 207-45, Lapavitsas & Saad-Fihlo 2000, Mollo 1999). According to the Post-Keynesian approaches, the origin of money is economic activity itself: In response mainly to investment spending, money is created in the form of credit, which determines the creation of reserves (and in

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[2] See e.g. Smith [1981]: I.iv.2 and I.iv.4.

[3] Keynes responded to the question of money endogeneity in an ambiguous way and seemed to give an affirmative response to it only at certain points of his *Treatise on Money* and in other works preceding the writing of the *General Theory*. For a detailed presentation of Keynes's views on this issue see Moore 1988: 171-204.

most cases the issuing of fiat money) by the Central Bank; in a different formulation, the money supply is determined by the demand for (credit) money.

However, these approaches, (as well as the tradition of Thomas Tooke and the Banking School, who reversed the flow of cause and effect in the relation between prices and the circulating money supply, thus rejecting the main postulate of the Quantity Theory of Money, see Milios et al 2002: 44-51), define money in a quasi-empirical way, primarily by its 'properties' (and the thereof ensuing functions).[4] As with the development of the capitalist economy credit money becomes the main money form, reducing the significance of fiat money, the creation of overdrafts and other forms of credit deposits issued by commercial banks finally determines the Bank's creation of reserves. Wray (2002) summarises the Post-Keynesian approach in the following way:

> 'In the orthodox story, money comes out of markets, created by barterers to reduce transactions costs. Above all a handy medium of exchange, money plays no essential role in orthodox theory -our economy would function in substantially the same manner even if we were to ban money from the system and return to barter. (…) Finally (…) most mainstream theoretical approaches presume that money is under control of the "monetary authorities" -in theory, if not in practice. (…) In contrast, most heterodox economists, including institutionalists, adopt an "endogenous" money approach (…) Privately issued money (mostly bank deposits today) is issued only on demand, that is, only because someone has deposited cash or is willing to take out a loan. The latter activity has been concisely described by Post Keynesians as "loans make deposits" because when a bank accepts a borrower's IOU it simultaneously creates a bank deposit. (…) The second important point made by Post Keynesians is that "deposits make reserves", reversing the interpretation of the deposit multiplier. (…) Timely and orderly check clearing among banks requires that the Fed automatically provide reserves as required. Banks

[4] 'What is the nature of money? Milton Friedman (…) has argued that it is pointless to try to identify money theoretically (…) Money is widely defined as whatever is generally accepted as the medium of exchange and means of payment (…) Commodity money will henceforth be identified with precious metals, that is, long-lived commodities reproducible only under rather dramatically decreasing returns to scale, so that the supply function may be viewed as nearly vertical in both the sort and the long run (…). Currency (fiat money) is the physical embodiment of the monetary unit of account (numeraire) defined by the sovereign government. It is a sure and perfectly liquid store of value in units of account (…) Credit money is the liability of the issuing financial institution and, behind the institution, the institution's borrower' (Moore 1988: 7-8; 18; 14). 'Both fiat and credit money have exchange value solely because they are subjectively desired. This desirability comes from the fact that they are generally accepted as a means of payment, backed ultimately by the government's definition of what constitutes legal tender in the law of contract' (Moore 1988: 243).

> use reserves for net clearing of checks (…). If the Fed refused to routinely make up for aggregate reserve shortfalls, the payments system could not operate smoothly. Indeed, if the Fed stopped lending reserves as needed, checks would bounce. If a bank were suspected of nearing a position of a shortage of reserves, other banks would refuse to accept its checks. It is because the Fed always credits reserves to the account of a receiving bank without first ensuring that the bank upon which a check is drawn has sufficient reserves that bank checks always clear at par. (…) Finally, payments to the Treasury by bank customers (tax payments, mostly) are also made using bank reserves. Imagine the problems that would be created if a taxpayer's check to the IRS [Internal Revenue Service, J. M.] bounced because her bank did not have sufficient reserves!'.

The above theses are however, as already mentioned, not theoretically founded (on the basis of a theory of the capitalist relations of production), but are formulated by means of model construction based on rather empirical arguments: The empirical observation of different sides of economic life shows, according to this approach, that the point of departure in the process of money creation is the taking out of loans by enterprises, which determines the increases in deposits and, finally, in reserves.[5] The stream of cause and effect runs from (increasing) loans through (equally increasing) deposits to (increasing) reserves, not the other way round.[6]

The empiricist-descriptive character of the Post-Keynesian theses, allows Neoclassical theorists to affirm the opposite statements: Rationally thinking economic agents are not interested in monetary but in 'real' magnitudes (quantities, relative prices. This affirmation is in accordance with the microeconomic foundation of 'orthodox' economics). Loans and deposits are simply the monetary outcome of rational decisions or expectations, which aim at spending or saving of 'real' magnitudes, i.e. of certain quantities of

[5] In a previous version of the Post-Keynesian approach, it has been agued that price increases, caused as result of 'exogenous' (i.e. collectively negotiated) wage increases, put in motion the dynamics of increasing money supply: 'Only by providing just enough new money merely to hold output constant, with prices thus increased, can the Monetary Authority claim not to exert any influence on the economy' (Davinson/Weinstub 1973).

[6] Characteristic of the empiricist character of Post-Keynesian approaches is the following argumentation by Basil Moore: 'My first comment should probably be my astonishment at the naivety of my original beliefs (…) When writing *Horizontalists and Verticalists* [1988, J.M.], after I had thoroughly persuaded myself of the correctness of the endogenous money hypothesis, I naively assumed that, after a short transition period, truth would soon –and surely – conquer. The concept of endogenous credit-money (…) just made sense. (…) The empirical question becomes that of determining the direction of causality between reserves and deposits. In the absence of controlled experimentation, however, it is extremely difficult to establish the direction of causality between any two variables by empirical observation (…) Post-Keynesian monetary theorists are advised, however, to concentrate on presenting, as clearly and persuasively as possible, additional empirical support for the endogenous money hypothesis' (Moore 2000). In this direction of presenting 'additional empirical support', see also Lavoie 2000.

goods and services. The demand for loans by enterprises means nothing more than the demand for 'production factors' from other enterprises or households. As Milton Friedman put it:

> '(…) money is one kind of asset, one way of holding wealth (...) The analysis of the demand for money on the part of the ultimate wealth-owning units in the society can be made formally identical with that of the demand for a consumption service' (Friedman, 1973).

In the following sections of this paper I am going to expose the main tenets of Marx's monetary theory of value and capital, in an effort to show that this approach may allow one to gain a deeper insight into the question of the endogeneity of money in contemporary developed market economies: Marx's value and money theory enables on the one hand a well-founded reformulation of the endogeneity thesis and on the other the comprehension of its consequences in regard with the dynamics of the expanded reproduction of social capital.

2. The Introduction of Marx's Monetary Theory of Value: The Circulation of Commodities

As it has been argued elsewhere (s. e.g. Heinrich 1999, Milios et al 2002, Arthur 2002), Marx's theory of value constitutes not a 'modification' or a 'correction' of Classical Political Economy's theory of value, but a new theoretical domain, shaping thus a new theoretical object of analysis. Marx's notion of value does not coincide with Ricardo's concept of value as 'labour expended', but it constitutes a complex notion, a theoretical 'junction' which allows the deciphering of the capital relation, by combining the specifically capitalist features of the labour process with the corresponding forms of appearance of the products of labour. In this way, value becomes an expression of the capital relation and the Capitalist Mode of Production (CMP) emerges as the main theoretical object of Marx's analysis.

Marx shaped thus a new theoretical discourse and a new theoretical 'paradigm' of argumentation. He showed that the products of labour become values because they are produced within the framework of the capital relation, (i.e. as 'products of capital' see Arthur 2002: 39-62). Further, that value necessarily manifests itself in the form of money.[7] Accordingly, money is the par excellence manifestation of value and thus of capital.

Value is the 'property' that products of labour acquire in capitalism, a property which gains material substance, that is actualised, in the market, through the exchangeability of any product of labour with any other, i.e. through their character as commodities bearing a specific (monetary) price on the market. From the

[7] The product of labour 'cannot acquire the properties of a socially recognised universal equivalent, except by being converted into money' (Marx-Internet 1872, Ch. 3; MEW 23: 120).

Grundrisse (1857-8),[8] to *Capital* (1867),[9] Marx insisted that value is an expression of relations exclusively characteristic of the capitalist mode of production. Value registers the *relationship of exchange* between each commodity and *all other* commodities and expresses the effect of the specifically capitalist homogenisation of the labour processes in the CMP, (production for-the-exchange and for-profit), as delineated through the concept of *abstract labour* (Milios et al 2002: 17-23).

Value is determined by abstract labour; however, abstract labour does not constitute an empirical magnitude, which could be measured by the stopwatch. It is an abstraction, which is constituted (it acquires a tangible existence) in the process of exchange:

> 'Social labour-time exists in these commodities in a latent state, so to speak, and becomes evident only in the course of their exchange. (...) Universal social labour is consequently not a ready-made prerequisite but an emerging result' (Marx 1981: 45).

Marx commences with developing his theory of value (and of the CMP) from an analysis of commodity circulation. In order to decipher the form of appearance of value as money, he introduces the scheme of the 'simple form of value', in which, *seemingly*, a quantity of a commodity is exchanged for a (different) quantity of another commodity (x commodity A = y commodity B). Classical economists have thought this scheme to be barter; they further considered that all market transactions may be reduced to such simple barter acts (merely facilitated by money, since, with its mediation, a mutual coincidence of needs is not required any more).

Marx shows however that in this scheme we do not have two commodities of pre-existing equal values (i.e. measured independently, e.g. by the quantity of 'labour expended' for their production) exchanging with each other. Instead we have only *one commodity* (the commodity acquiring the first, i.e. the 'left-hand position' or the *relative value form*), whose value is measured in units of a different use value (the 'commodity' acquiring the position of the equivalent, and thus serving as the 'measurer of value' of the commodity in the relative form). The second 'commodity' (in the position of the equivalent: B) is not an ordinary commodity (unity of exchange value and use value), but plays simply the role of the 'measure of value', of 'money', for the first commodity.

[8] 'The concept of value is entirely peculiar to the most modern economy, since it is the most abstract expression of capital itself and of the production resting on it. In the concept of value, its secret is betrayed. (...) The economic concept of value does not occur in antiquity' (Marx 1993: 776 ff.).

[9] '*The value form of the product of labour* is the most abstract, but also the *most general form* of the bourgeois mode of production as a particular kind of social production of a historical and transitory character' (Marx 1990: 174).

The value of the relative (A) is being expressed *exclusively* in units of the equivalent (B).[10] The value of the latter (of B) cannot be expressed; it does not exist in the world of tangible reality:

> 'But as soon as the coat takes up the position of the equivalent in the value expression, the magnitude of its value ceases to be expressed quantitatively. On the contrary, the coat now figures in the value equation merely as a definite quantity of some article' (Marx 1990: 147).

It has come out therefore that the 'simple value form' does not amount to an equality in the mathematical sense or a conventional equivalence: x commodity A = y commodity B (which would imply that y commodity B = x commodity A). It is on the contrary characterised by a 'polarisation', i.e. by the fact that each 'pole' occupies a qualitatively different position and has a correspondingly different function. This polarisation and this difference result from the fact that value is manifested (i.e., empirically appears) *only* in the exchange *relation* between commodities, in exchange value.

In other words the simple form of value tells us that x units of commodity A *have the value of* y units of the equivalent B, or that *the value of* a unit of commodity *A is y/x units of B*. In its Marxian version, the "simple form of value" measures only the value of commodity A in units of the equivalent B.

From the analysis of the simple value form, Marx has no difficulty in deciphering the *money form*. For this purpose he utilises two intermediate intellectual formulas, the *total or expanded* and the *general form* for expressing value. The second form in this developmental sequence (the *general form* of value) is characterised by one and only one equivalent in which all the other commodities express their value. These commodities are thus always in the position of the *relative* value form. Only one 'thing' ('commodity') has come to constitute the *universal equivalent form of value* (Marx 1990: 161).

The first feature of money is its 'property' of being *the general equivalent*. Thus the relation of general exchangeability of commodities is expressed (or realised) only in an indirect, *mediated* sense, i.e. through money, which functions as *general equivalent* in the process of exchange, and through which all commodities (acquiring the relative position) express their value.

[10] In a letter to Engels Marx noted: 'Messieurs Economists have hitherto overlooked the very simple fact that the form: *20 yards of linen fabric = 1 coat* is only the base of *20 yards of linen = £2,* and thus that the *simplest form of a commodity*, in which its value is not yet expressed in its relation to all other commodities but only as something *differentiated* from its own natural form, embodies the *whole secret of the money form* and thereby, *in nuce*, *of all bourgeois forms of the product of labour*' (MEW, Vol. 31: 306).

The Marxian analysis does not therefore entail reproduction of the barter model (of exchanging one commodity for another), since it holds that exchange *is necessarily mediated by money*. Money is interpreted as an *intrinsic and necessary element in capitalist economic relations*.

> 'Commodities do not then assume the form of *direct mutual exchangeability*. *Their socially validated form is a mediated one*' (MEGA II, 5: 42).

In Marx's theoretical system there cannot be any other measure (or form of appearance) of value. The essential feature of the 'market economy' (of capitalism) is thus not simply commodity exchange (as maintained by mainstream theories) but monetary circulation and money:

> 'The *social* character of labour appears as the *money existence* of the commodity' (Marx 1991: 649).

The fact that even the most straightforward act, that of exchanging two commodities must be understood as a procedure consisting of two successive monetary transactions, a sale followed by a purchase, in accordance with the formula C-M-C (where C symbolises the commodity and M the money) allows the comprehension of a main inherent trend of the 'market economy': the propensity of money to become independent from its role as a *means* of exchange or a measure of value, its tendency to become an '*end in itself*': On the one hand in the case of 'hoarding' (e.g. as a result of a sale that is not followed by a purchase: C-M), and on the other in the case that money functions as 'means of payment', i.e. when the purchaser appears in the act M-C as 'debtor', 'as the mere representative of money, or rather of future money' (MEW 23: 149; Marx-Internet 1872, Ch. 3).

> 'The circulation of commodities differs from the direct exchange of products (barter), not only in form, but in substance. (...) The process of circulation, therefore, does not, like direct barter of products, become extinguished upon the use-values changing places and hands (...) Circulation sweats money from every pore. Nothing can be more childish than the dogma, that because every sale is a purchase, and every purchase a sale, therefore the circulation of commodities necessarily implies an equilibrium of sales and purchases. (…) No one can sell unless some one else purchases. But no one is forthwith bound to purchase, because he has just sold' (MEW 23: 126-27, Marx-Internet 1872, Ch. 3).

The above presented theses indicate of two conclusions that are of importance for the discussion on the endogeneity of money:

1) In a 'money economy' (in capitalism), money is not a '*numeraire*'. This means that money functions as measure of values not because it already possesses the same dimension with commodities, but because it expresses the value dimension, it constitutes *the* value dimension: 'Money has no price: money is price' (Arthur 2002: 100). Money is the 'material embodiment' of the social relations immanent in the CMP.[11] With Marx's words:

> 'It has become apparent in the course of our presentation that value, which appeared as an abstraction, is only possible as such an abstraction, as soon as money is posited' (Marx 1993: 776).

2) Since no economic activity is feasible without money's mediation (at least as 'unit of account'), whereas money acting as a store of value may always 'break away' from commodity production and circulation, money shall be regarded as relatively independent[12] from commodity production and circulation. The opposite is not true: 'Commodity creation' (production and circulation of commodities) carries with it or rather presupposes money. With Marx's formulation,

> 'the *social* character of labour appears as the *money existence* of the commodity and hence as a *thing* outside actual production' (Marx 1991: 649).

3. Money as Capital

The object of Marx's analysis is, as already argued, the Capitalist Mode of Production (CMP). The method that Marx utilises to fulfil his theoretical project is the 'gradual building up' of concepts, by moving on successive levels of theoretical abstraction and

[11] Marx's notion of money presupposes the rejection of all 'historicist' approaches, which comprehend money as a historically shaped 'means of exchange' that has been inherited by capitalism from previous modes of production. Pre-capitalist money is therefore a distinct notion from money in the CMP (the form of appearance of value and capital). Money had a different nature in societies where pre-capitalist modes of production prevailed: In those societies, money as means of exchange or a store of 'wealth' had played a very different, a marginal role, filling up the 'external pores' of society. In capitalism, by contrast, money is the most general form of appearance of the core economic relation, of capital (see the following section of this paper); it is the 'vehicle' through which the economy's structural relations manifest themselves.

[12] *Relatively* independent because when money functions as 'self-valorising value' (i.e. as capital, see the next section of this paper) on the level of the economy as a whole, it necessarily seeks its 'source of increase' in the production sphere, in the exploitation of the labour force: 'To be self-grounded, value must be produced by value' (Arthur 2002: 104).

including constantly new determinations to these concepts (Arthur 2002: 33 ff.).[13] One comprehends then that in Marx's theory of money the notion of the 'general equivalent' cannot be the final, but an *intermediate*, provisional and 'immature' concept in the course of the theoretical analysis. The same is valid for the sphere of circulation of commodities, which according to Marx builds the outer husk or the surface of the whole capitalist economy. The sphere of circulation is a structural feature of the CMP; it characterises no other mode of production.[14]

We saw that even from the moment that Marx introduces the notion of money as the general equivalent he argues that money does not only play the role of a 'means' or a 'measure', but that it also tends to attain the role of an 'end in itself' (hoarding, means of payment, world money). Here we have to deal with an introductory definition of capital, with the (provisional and 'immature') introduction of the concept of capital: money functioning as an end in itself.

In order to be able to function as an end in itself, money has to move in the sphere of circulation according to the formula M – C –M. Due to the homogeneity of money however, this formula is meaningless[15], unless for the case that it describes a quantitative change, i.e. an increase in value: The aim of this motion cannot be anything else than the

[13] The point of departure shall always be a 'simple', i.e. easily recognizable form, which though may lead to the 'inner'-causal relationships: '*De prime abord*, I do not proceed from "concepts," hence neither from the "concept of value," and am therefore in no way concerned to "divide" it. What I proceed from is the simplest social form in which the product of labour presents itself in contemporary society, and this is the "*commodity*." This I analyse, initially in the *form in which it appears*' (MEW 19: 368, Marx-Internet 1881). 'The simple circulation is mainly an abstract sphere of the bourgeois overall production process, which manifests itself through its own determinations as a trend, a mere form of appearance of a deeper process which lies behind it, and equally results from it but also produces it –the industrial capital' (MEGA II, 2: 68-9).

[14] 'An analysis (...) would show, that the whole system of bourgeoisie production is presupposed, so that exchange value may appear on the surface as the simple starting point, and the exchange process (…) as the simple social metabolism which though encircles the whole production as well as consumption' MEGA II.2: 52 (*Urtext von 'Zur Kritik der Politischen Oekonomie'*, 1858). As Murray (2000) correctly notes, '*Marx's whole presentation of the commodity and generalised simple commodity circulation presupposes capital and its characteristic form of circulation*. It is perhaps the foremost accomplishment of Marx's theory of generalised commodity circulation to have demonstrated – with superb dialectical reasoning – that a sphere of such exchanges cannot stand alone; generalised commodity circulation is unintelligible when abstracted from the circulation of capital'.

[15] Or, better, aimless: it can neither cause a change in the quality nor in the quantity of the entity in motion.

continual ‘creation’ of surplus-money. The formula becomes then M – C –M′where M′ stands for M+ΔM .

However, money can function as such an ‘end in itself’ only in the case that it dominates over the sphere of production and incorporates it into its circulation, M – C – M′, i.e. when it functions as (money) capital. The exploitation of labour power in the production sphere constitutes the actual presupposition for this incorporation and this motion. Thus ‘*the circulation of money leads (...) to capital*’ (Marx 1993: 776).

Marx formulated and then developed the theory of capital on the basis of his concept of value. Capital is value which has been appropriated by capitalists. Precisely because it constitutes value, capital makes its appearance as money and commodities. But the commodities that function as capital are certain specific commodities: the means of production (constant capital) on one hand and labour power (variable capital) on the other.

The capitalist appears on the market as the owner of money (M) buying commodities (C) which consist of means of production (Mp) and labour power (Lp). In the process of production (P), the C are productively used up in order to create an outflow of commodities, a product (C′) whose value would exceed that of C. Finally he sells that outflow in order to recover a sum of money (M′) higher than (M).

In the Marxist theory of the capitalist mode of production both value and money are concepts which cannot be defined independently of the notion of capital. They contain (and are also contained in) the concept of capital. Marx’s theory, being a monetary theory of value, is at the same time a monetary theory of capital.[16]

The motion of money as capital binds the production process *to* the circulation process, in the means that commodity production becomes a phase or a moment (although the decisive moment for the whole valorisation process) of the total circuit of social capital: M—C (= Mp+Lp) [→P→C′]—M′

> ‘Value therefore now becomes value in process, money in process, and, as such, capital. (...) The circulation of money as capital is, on the contrary, an end in itself, for the expansion of value takes place only within this constantly renewed movement. The circulation of capital has therefore no limits’ (MEW 23: 167; 170; Marx-Internet 1872, Ch. 4).

[16] ‘(...) value requires above all an independent form by means of which its identity with itself may be asserted. *Only in the shape of money does it possess this form*. Money therefore forms the starting-point and the conclusion of every valorisation process’ (Marx 1990: 255).

The circuit of social capital attains its dynamics from the exploitation of labour power in the sphere of production. However, it is wider than the commodity production and circulation process, since it embraces also the spheres of credit and finance and the speculation associated with them.

4. Marx's Concept of 'Endogeneity'

The above presentation of the main tenets of Marx's monetary value and capital theory shows at first that money (even 'commodity money') is by definition *no commodity*. It is not the unity of exchange value and use value ('the magnitude of its value ceases to be expressed quantitatively', see above). It constitutes the value dimension of commodities, as it is the embodiment of self-expanding value, of capital. The consequence of this thesis is that despite 'technical' diversification, all forms of money are essentially identical: As '*capital essentially produces capital*' (Marx 1991: 1020), 'commodity', fiat and credit money are forms of appearance of the same social relation: of '*self-valorising value*' (see Marx 1990: 184). Historically, money takes these different forms. However, as Marx shows, it is credit money ('backed' of course by fiat money, as banks must always hold the appropriate amount of cash reserves to maintain the convertibility of their respective deposits into legal tender) builds the most adequate form of money as capital, its ideal form: it is the form appertain to 'self-valorising value', as it manifests capital's ability to put in motion the process of its reproduction on an expanded scale, 'as a pure automaton' (Marx 1991: 523). So the thesis of money endogeneity has to hold for all forms of money. One has of course to bear in mind that the creation of credit money (the expansion of credit) takes place under preconditions which make possible the expanded reproduction of capital at a given rate.[17]

Contrary to Marx's view, Post-Keynesian approaches introduce a 'dichotomy' between credit on the one hand and fiat (and commodity) money on the other: 'When money is metallic or fiat money, its supply can be meaningfully regarded as independent of the demand for it' (Moore 1988: 10).[18] This 'dichotomy' is

[17] See analytically Milios et al 2002: 54 ff. As Lapavitsas & Saad-Fihlo 2000: 329 correctly argue, 'Even when financial institution liabilities are created without idle funds having first accrued from real accumulation (…) the inherent uncertainty of accumulation and the crises it generates impose limits on their ability to extend credit'.

[18] Some Marxists share this view also: 'There is no doubt that supply exogeneity is a relevant concept for fiat money' (Itoh and Lapavitsas 1999: 241). This view arises from an interpretation of Marx's concept of value that is different from ours. According to it, the value of a commodity can be defined in isolation, and is identified with the *quantity* of abstract labour expended on its production. As Lapavitsas (2000: 633, 632) puts it: 'The money commodity (…) possesses intrinsic value determined by socially necessary abstract labor embodied in it in the process of production (…) Assuming that commodities exchange at value (…) money price is the ratio of commodity value to the value of money (…). The value (abstract labor) of commodity money can act as anchor for the exchange value of noncommodity money'. [According to our interpretation

defended on the basis of a 'technical' argument, according to which 'quantity controls over the supply of credit money are simply not feasible', whereas the opposite may be true for fiat money. (Moore 1988: 22 ff., 208). However, the question arises: To what extent and in which direction should the Central Bank 'want' to control the quantity of fiat money, if its control ability over credit money is limited? To give an answer to it, we must first follow Marx's argumentation.

Marx's monetary capital theory implies an 'inversion' of the Post-Keynesian thesis about the endogenous character of money: The creation and circulation of money is not endogenous in the process of commodity production and circulation, but on the contrary, the production and circulation of commodities is endogenous in the overall social circuit of money, whose motion is determined by its function as capital.

With another formulation, the analysis on the basis of Marx's categories has shown that all conceptions of dichotomy between the 'real' economy and money shall be abandoned. Money is not simply endogenous in the economic relations. Its motion *is* the material expression of the capitalist economic relations. Commodity production and circulation shall be comprehended as a moment (both structurally and temporally) of these economic relations, i.e. of the overall social circuit of money capital. The fact that commodity production and circulation constitute the decisive moment of the capitalist relations of production (pumping out of surplus value) does not change anything to the thesis just stated:

> 'This circulation of money in turn leads to capital, hence can be fully developed only on the foundation of capital, just as, generally, *only on this foundation can circulation seize hold of all moments of production*' (Marx 1993: 776, emphasis added).

In this theoretical framework it is easy to understand why monetary authorities of the state neither play the dominant role, nor constitute an instance external to the endogenous money creation. It is neither a matter of a 'money supply' that compels the 'demand for money' to an equilibrium position nor the case of a 'demand for money' to which a 'from outside directed' money supply must adjust. Money is the 'objectification' of the capital relation (the embodiment of 'self-expanding value') and the vehicle of its expanded reproduction.[19]

Money creation can therefore be exclusively the result of the dynamics of capitalist expanded reproduction on the total social level, which, in the last instance, determines the will of all legal, political, technical, etc. agents and the functioning mode of state apparatuses or authorities. The argument that issuing of fiat money is exogenous because it

value is the manifestation of a social relation. It is determined by –not identified with- abstract labour, and it tangibly expresses itself solely in the commodity's price. As money has no price it can never be regarded as a commodity, even if it concerns gold].

[19] 'In order not to petrify as hoard, money must always go into circulation, exactly as it has come out of it, but not merely as means of circulation but (...) as *adequate exchange value,* but at the same time as *multiplied, increased exchange value, valorised exchange value*' (MEGA II/2: 77).

constitutes a state 'decision' and act, does not pose the essential question of 'what determines state decisions'. The fact that, as Marx has shown (see the next section of this paper), credit-money necessarily constitutes the main money form in the CMP means that fiat money cannot substitute for it (or replace it). It is not by chance then that fiat money becomes the main money form only in exceptional conjunctures, such as war or financial collapse.[20]

The same conclusion could be drawn from an 'institutionalist' point of view, focusing on the correlation between the state-institutional framework and economic processes:

The market is empirically not conceivable without the state (the political, legal, institutional, ideological framework of state power). Commodity and labour markets are being regulated and therefore become function-able by means of legislative measures and superintending procedures imposed by the state. This does not mean however that legislative regulations, institutions or state interventions and superintending put in motion the economic processes (that they bring into existence the market). They are structures and functions belonging to the same social edifice with the economy (i.e. to the capitalist social order), contributing to its (and the whole capitalist society's) expanded reproduction.

Correspondingly, the Central Bank shall not be regarded as an 'external authority' regulating the volume of circulating money (this is determined by the process of capitalist expanded reproduction), although its role might be important for the 'unimpeded' functioning of the money and credit system. With a classical Marxist terminology, the Central Bank belongs to the state-institutional superstructure which contributes decisively to safeguarding and reproducing the dominant economic and social structures of capitalism.

5. Theses on Credit Money in the Third Volume of Marx's *Capital*

[20] In this context is Mollo (1999: 17, 14) right when she writes: 'Marx's account of the genesis of money allows us to understand the necessity of the state's monetary intervention as inherent to the logic of capitalism, and in this sense as something endogenous (…) The public character of the monetary authorities does not eliminate, of course, its class foundations (…) this mediation is necessarily non-neutral, because it follows a non-neutral (and necessarily exploitative) capitalist logic (…) As public entities, they have superior status vis-à-vis banks and other private agents; but as a part of society they suffer from pressures determining monetary dynamics as a whole. This makes the autonomy of monetary authorities merely relative and limits their power to intervene in the economy'.

In *Capital* Marx formulates his monetary value and capital theory in the five first Chapters of Volume 1. However, he extensively deals with credit and the endogenous character of money only in Part V. of Volume 3 (Chapter 21-36), i.e. after more than 1.400 pages (MEW edition).[21]

After having stated his monetary value theory in the first chapters of Volume 1, Marx was of the opinion that his analysis should continue on a higher level of abstraction, namely that of abstract labour and surplus value, in order to show that the process of labour power exploitation by capital constitutes the motive force of all economic development (Milios 2003). Nevertheless, he warned his readers of this 'shift' in his analysis:

> 'Capital has not invented surplus-labour. Wherever a part of society possesses the monopoly of the means of production, the labourer, free or not free, must add to the working-time necessary for his own maintenance an extra working-time in order to produce the means of subsistence for the owners of the means of production, whether this proprietor be the Athenian καλός κ' αγαθός, an Etruscan theocrat, a civis Romanus, a Norman baron, an American slave-owner, a Wallachian Boyard, a modern landlord or a capitalist' (Marx-Internet-1872, Ch. 10. Marx 1990: 344-45).[22]

[21] In his *Contribution to the Critique of Political* Economy, firstly published in 1859, Marx criticised the thesis that it is the volume of money in circulation which determines the level of prices. Further, he commented on the expansion or contraction of circulating money and credit: 'If the velocity of circulation is given, then the quantity of the means of circulation is simply determined by the prices of commodities. Prices are thus high or low not because more or less money is in circulation, but there is more or less money in circulation because prices are high or low' (Marx 1981: 105). 'The total quantity of money in circulation must therefore perpetually increase or decrease in accordance with the changing aggregate price of the commodities in circulation (…) This is only possible provided that *the proportion of money in circulation to the total amount of money in a given country varies continuously*. Thanks to the *formation of hoards* this condition is fulfilled' (MEGA II, 2: 197-8, poorly translated in Marx 1981: 136, emphasis added). 'The law regarding the quantity of money in circulation as it emerged from the examination of simple circulation of money is significantly modified by the circulation of means of payment. If the velocity of money, both as means of circulation and as means of payment, is given, then the aggregate amount of money in circulation during a particular period is determined by the total amount of commodity-prices to be realised [plus] the total amount of payments falling due during this period minus the payments that balance one another' (Marx 1981: 147). We have to bear in mind that 'hording' and 'means of payment' are introductory-provisional concepts describing the credit system (deposits, credit money).

[22] This long theoretical detour had serious consequences not only for his readers (who tend to ignore his monetary value and capital theory) but also for Marx himself: At certain points of his work Marx becomes ambivalent towards Classical (Ricardian) Political Economy. On this subject see Heinrich 1999, Milios et al 2002.

Part V. of Volume 3 of *Capital*, in which Marx deals again extensively with money and credit, is formulated rather as a notations text, than as a structured analysis. Despite its provisional character, this text contains however a series of theses which are deduced from Marx's monetary value and capital theory:

Credit money constitutes the most adequate form of money as capital, its "ideal" form: it is the form that corresponds to "self-valorising value", allowing for the process of expanded reproduction of social capital to function "as a pure automaton" (MEW 25: 412. Marx-Internet 1894, Ch. 24). Since the level of monetary circulation is determined by the process of capital accumulation, a process which is intertwined with the creation of credit money, state-created money (fiat money and "commodity money") constitutes a subordinate money form.[23]

a) *With the development of capitalist economic relations, credit-money becomes the main money form*.[24]

b) *The accumulation of capital must therefore base itself on credit relations*.[25]

c) *Capitalism shall be regarded not merely as a money-economy but mainly as credit-economy*.[26]

d) *The extent of credit depends on the level of capitalist development of the country under consideration, which may, on the other hand, be influenced by credit relations*.[27]

[23] The fact that in conjunctures of financial collapse and/or hyperinflation, wealth-holders find recourse to precious metals does not prove a supposedly determinant role of 'commodity money' and its 'intrinsic value'. On the contrary, as Williams correctly notes, 'if confidence in all currency were to collapse, value may take refuge in particular commodities characterised by intrinsic scarcity (…) including bullion. But this process becomes not the flight into a particular manifestation of money, but the flight *from* money in all its functionality, as part of the flight from capital' (Williams 1998: 32, 18).

[24] 'It is a basic principle of capitalist production that money, as an independent form of value, stands in opposition to commodities, or that exchange-value must assume an independent form in money; (...). This must manifest itself in two respects, particularly among capitalistically developed nations, which to a large extent replace money, on the one hand, by credit operations, and on the other by credit-money' (MEW 25: 532. Marx-Internet 1894, Ch. 32). 'And this economy, (…) consists in eliminating money from transactions and rests entirely upon the function of money as a means of payment, which in turn is based upon credit (…)' (MEW 25: 536-7. Marx-Internet 1894, Ch. 33).

[25] 'The advance of money that must take place in the reproduction process appears as an advance of borrowed money' (MEW 25: 522. Marx-Internet 1894, Ch. 32).

[26] Capitalism is 'a system of production, where the entire continuity of the reproduction process rests upon credit' (MEW 25: 507. Marx-Internet 1894, Ch. 30). 'This social character of capital is first promoted and wholly realized through the full development of the credit and banking system. (…). The banking system shows, furthermore, by substituting various forms of circulating credit in place of money, that money is in reality nothing but a particular expression of the social character of labour and its products' (MEW 25: 620. Marx-Internet 1894, Ch. 36). See on this Heinrich 2003.

e) *As credit becomes the main form of money in a capitalist economy, the possibility arises for financial crises to break out, independently of the occurrence of an overproduction economic crisis. An expansive credit policy could ease a financial crisis at its start*.[28]

f) *Credit constitutes not merely the lender's claim on future values (on future production): in the framework of the totality of capitalist social relations, it constitutes property's claim on labour, which appears as a 'fetishist' natural order*.[29]

The above-presented theses are definitively relevant to contemporary discussions and controversies over the theory of money, credit and crises. They constitute a point of departure for a Marxist theory of the credit system in the framework of capitalist expanded reproduction. A prerequisite for such a theory would be to embed in Marx's monetary theory the analyses that Marx had developed without taking money into consideration, as he was feeling obliged to place them on a higher level of abstraction. Michael Heinrich (2003) gave a good example in this direction, in reference to Marx's Reproduction Schemes in Volume 2 of *Capital*:

> 'In Part III. of Volume 2 Marx deals with the problem of how surplus-value *realisation* on the level of social capital could be at all possible. The solution that he found at that point: a treasure must be available, which capitalists mutually advance to each other (...) The conception of a treasure as prerequisite of reproduction is anachronistic, since when a capitalist has a "treasure" at his disposal he attempts to valorise it.[30] (...) If we consider the reproduction of social capital from the perspective of Volume 3 (…) then the following would be obvious: the reproduction of social capital is not possible without credit'.

In addition, credit makes it possible for the total profit of a production period to lag behind the increase in total expenditure of the next period (increase in the sum of constant and variable capital and of the capitalists' private consumption).

[27] 'The maximum of credit is here identical with the fullest employment of industrial capital, that is, the utmost exertion of its reproductive power without regard to the limits of consumption. These limits of consumption are extended by the exertions of the reproduction process itself' (MEW 25: 499. Marx-Internet 1894, Ch. 30).

[28] 'As long as the *social* character of labour appears as the *money-existence* of commodities, and thus as a *thing* external to actual production, money crises – independent of or as an intensification of actual crises – are inevitable. On the other hand, it is clear that as long as the credit of a bank is not shaken, it will alleviate the panic in such cases by increasing credit-money and intensify it by contracting the latter' (MEW 25: 533. Marx-Internet 1894, Ch. 32).

[29] 'In so far as we have hitherto considered the peculiar form of accumulation of money-capital and of money wealth in general, it has resolved itself into an accumulation of claims of ownership upon labour' (MEW 25: 493. Marx-Internet 1894, Ch. 30). 'Interest-bearing capital displays the conception of the capital fetish in its consummate form' (MEW 25: 412. Marx-Internet 1894, Ch. 24).

[30] See also Marx's thesis in Footnote 19 of this paper.

On the basis of this analysis we may also understand that finance (financial commodities such as securities and derivatives) functions as a mechanism of continuous evaluation of the profitability level of enterprises and of the price of fixed capital, which, since fixed in an enterprise, is not circulating on the market any more. In this manner financial transactions commensurate all different forms of assets, imposing profit maximization criteria with which labour is pushed to comply.

Concluding Remarks

According to Marx's monetary value and capital theory commodity production and circulation shall be understood as a moment of the circuit of total-social money capital (M-C-M΄).

Capitalist exploitation and surplus value is not conceived as a simple "subtraction" or "deduction" from the product of the worker's labour but as *a social relation, which necessarily takes the form of (more) money, as the increment in value brought about by the overall circuit* of total-social capital. Value is mobilised for the sake of surplus value (money as an end in itself) and is made possible through surplus value. Capital is a "self-valorising value".

In this context credit and finance (all the secondary markers of bonds, securities, derivatives etc.) do not constitute some 'isolated' sphere of 'speculation', a casino-like 'zero-sum' game of some 'speculators' who are the antipodes of 'productive capital'. Speculation is a moment inherent in *all* capitalist economic forms and relations. The Neoclassical 'real economy' vs. 'monetary sphere' dichotomy shall not be substituted by a supposed 'productive-capitalist sphere' vs. 'speculative sphere' dichotomy. Credit and finance is a *necessary* moment of the overall circuit of total-social money *capital*, a mechanism of asset value commensuration and surplus-value 'socialization' within the ruling capitalist class.

On the basis of the above analysis, the thesis of the endogenous character of money, introduced by Post-Keynesian economists, can thus be vindicated on a theoretically coherent way on the basis of Marx's theory. It t is not money creation that should be comprehended as endogenous in the process of commodity production and circulation, but on the contrary, commodity production and circulation shall be understood as a moment of the circuit of total-social money capital, of 'self-valorising value'.

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