Credit money and the functions of money in capitalism•

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1. Introduction

In a widely quoted passage, Marx indicated that money (=gold) could be completely withdrawn from domestic circulation, at the same time as it went on being essential to international trade, as world money[1]. The thorough demonstration of the correctness of that proposition has been given by historical development itself. After 1930 monetary gold has been officially withdrawn from the circulation functions in all capitalist countries, but went on functioning as recognized measure of value and basis of monetary standards, and as means of payment in international transactions.

It should be noted that the passage adduced above appears in *Capital* III, in the context of the presentation of the credit system and credit money. This is not fortuitous, since the hypothesys of the complete withdrawal of gold from circulation is based on the assumption of the full development of the credit system. Marx's proposition, on the other hand, is strictly circumscribed: it refers to the withdrawal of gold from the functions of means of circulation and of payment, where it is replaced by a number of forms of credit money. The functions of measure of value and standard of money, however, are specific to the money-commodity, which means that gold cannot be replaced in such functions. It is also significant to remark that Marx derived his proposition from a clear theoretical grounding of the functions of money and from the development of credit money as the expression of an internal necessity of capitalism[2]. There is therefore no contradiction between the disappearance of gold from those functions and Marx's theory of money. However, the misinterpretation of this phenomenon seems to be one of the reasons why several Marxist authors suggest that Marx's commodity-money theory has become obsolete in view of the actual process of capitalism's development. More recently an additional and seemingly stronger event to corroborate this feeling has been the official abolition, in the seventies, of every connection between current standards of money and any money-commodity taken as a basis.

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[1] "The entire history of modern industry shows that metal would indeed be required only for the balancing of international commerce, whenever its equilibrium is momentarily disturbed, if only domestic production were organised. That the domestic market does not need any metal even now is shown by the suspension of the cash payments of the so-called national banks, which resort to this expedient in all extreme cases as the sole relief" (C, III, p. 517).

[2] It is surprising that several authors consider, on the one hand, that the commodity nature of money has been stated by Marx as a mere conversion of the empirical facts of his time - the gold standard) - into a theoretical concept, do not acknowledge, on the other hand, that the hypothesis of the complete withdrawal of gold from circulation contradicted the same empirical facts and has finally been confirmed by history.

This paper attempts to discuss certain implications of the withdrawal of money (=gold)[3] from ist functions in the sphere of circulation, and its complete replacement by credit money in advanced capitalism. In spite of being a most relevant category in Marx's theory of money in capitalism, credit money and the implications of its dominance have seldom been the object of specific analises by Marxist authors. The main papers to be mentioned in this respect over the past fifteen years, seem to be Lipietz (1982), Foley (1982), Reuten (1988) and Lapavitsas (1991), as well as Klagsbrunn (1992) in Brazil. This is significant, since a sound interpretation of contemporary capitalism, based on Marx's theory, will be impossible in the absence of a carefull clarification of the central concepts of the credit system and of credit money. The present paper attempts to contribute to this aim.

2. Credit money - an attempt at definition

The typical form of credit money in advanced capitalism is bank deposits, which have replaced central bank notes as a result of the development of the banking system led by a central bank. According to Marx credit money originated in the function of money as means of payment, which on its turn derived from trade credit[4]. The sequence of phases is quite simple: commodities are sold against promises to pay, i.e., trade bills, instead of money. Those bills start to circulate, from hand to hand, chiefly in wholesale trade, replacing money (=gold). The fact that capitalists are usually at the same time debtors and creditors gives rise to the systematic balancing of reciprocal debts against each other, which allows money to be largely released even from the function of means of payment. Under these circumstances money is largely withdrawn from both functions, of means circulation, replaced by trade bills, as well as of means of payment, replaced by the balancing of reciprocal debts.

The function of safeguarding of the capitalists' money reserves (=gold) expands along the development of money dealing capital and of capitalist banking activity, giving rise to private banknotes, which are certificates of gold deposited by capitalists and circulate in place of gold. Banknotes should be seen, at their beginning, as nothing more than commercial bills of wider acceptance, hence more suitable as means of circulation and of payment. Bank credit develops at the same time, in the form of discounting of trade bills and money loans by the banks, which issue banknotes corresponding to the gold values of the transactions. The banks that do so are called banks of issue. After that, the so called main banks or national banks arise in regions or countries of stronger economic activity, which grant loans to the state in exchange for a privileged position[5]. Their notes are safer and bear wider acceptance. As a consequence, ordinary banks convert a part of their reserves of gold and bills into notes of the main bank, using them in the discounting of bills and granting of loans. This gives gradually rise to the banking system led by a central bank, which receives from the state the monopoly of issue of banknotes and of the management of the country's gold reserve. Once the framework of the modern banking system with a central bank has been set up, the central banknotes become the main form of credit money, and the gold reserve of the system as a whole concentrates in the central bank.

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[3] In this paper it is accepted that in Marx's money theory money is strictly the commodity which performs the function of general equivalent of value, i.e., gold. The theoretical foundation of this assumption has been presented in Germer (1995, p. 251-63; 1997).

[4] Both commercial credit and the function of means of payment are originated in simple circulation. Their relevant characteristics as well as implications have been analysed by the author in a previous paper (Germer, 1996b).

[5] "At their birth the great banks, decorated with national titles, were only associations of private speculators, who placed themselves by the side of governments, and, thanks to the privileges thei received, were in a position to advance money to the state" (C, I, p. 374).

In the early phases of this development, banknotes circulated as titles of right to gold-money, side by side with gold coins that went on circulating as well. Banknotes were convertible into gold at sight. However, it has to be stressed that banknotes were, from the start, the most usual means of circulation in the transactions at high values, i.e., among capitalists. Banknotes being convertible, the practical experience indicated the lower limit of metalic reserve, as a proportion of total deposits of gold, which the banks should keep in order to meet the average amount withdrawn per period of time. It should be reminded that such a rule can only be effective in times of normal business, but collapses as soon as a crisis occurs, because everyone endeavours to reconvert bills into money (=gold), which is impossible and expresses one of the contradictions typical of the credit system. According to the very nature of the credit system, no amount of reserves will be enough to meet the money demand when the process of reproduction breaks off[6].

In the writings about Marx's theory of money, credit money is usually described in the way just presented. However, it has not been adequately defined as a theoretical category. In attempting to do it, it is necessary to start by stating that credit money is a much more complex and concrete category than money. It consists of elements derived from both money and capital, but is not identical to the one nor to the other[7]. Its derivation from money is acknowledged in the facts that credit money originates in the function of means of payment and that it is essentially a category of the sphere of circulation, where it replaces money in the functions of means of circulation and of payment. Ist derivation from capital is clearly shown by the fact that it is produced by the credit system generated by capitalist development and based on the commercial and banking credit relations among capitalists[8]. As an object of analysis, credit money is strictly a topic of the sphere of circulation. There are no greater difficulties of analysis in this respect, since credit money performs functions already described by Marx in the chapter about money. The greatest difficulties are of a formal nature, and arise when attempting to revive the relevance of the concepts developed by Marx, frequently overwhelmed by the accumulation of ad hoc concepts imported from other theories along the time. Thus, the most challanging theoretical difficulty consits in interpreting, on the basis of Marx's theory, the structure of contemporary credit system and the process of credit money generation in close connection with Marx's definition of value and money.

It follows that credit money designates the set of titles of credit which perform functions of money (=gold) in the circulation, starting with bills of exchange as the original form. There are several titles that do this in contemporary capitalism, but the most important of them is bank deposits. When Marx wrote there was already a banking system led by a central bank, responsible for the management of the gold reserve of the country and for the issue of central banknotes, which was the main form of credit money, used for transactions of higher values, mainly among capitalists. Afterwards, with the expansion of the banking system, the bank deposit gradually became the main form of credit money, which it still seems to be at present. Central banknotes have been reduced to instruments that perform the functions of money in the transactions of lower values[9]. It is the

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[6] "But is is precisely the development of the credit and banking system, which ... reduces the metal reserve to a minimum in a certain phase of the cycle, so that it can no longer perform the functions for which it is intended (...). (...) That the greatest sacrifices of real wealth are necessary to maintain the metallic basis in a critical moment has been admitted by both Tooke and Lloyd-Overstone. The controversy revolves merely round a plus or a minus, and round the more or less rational treatment of the inevitable" (C, III, p. 572-3).

[7] The interpretation in this paper differs from those of other authors, for instance Klagsbrunn, according to whom "money, in its most developed forms, as paper credit money, tends to be money in its full shape, taking over all functions of money ..." (Klagsbrunn, 1992, p.596), and Lapavitsas, for whon monetary gold, paper-money, banknote, and deposits are but different forms of money, the first two ones being "simpler forms" and the last two ones "advanced forms" (Lapavitsas, p. 293).

[8] "The peculiarities of banknote money are best understood when such money is treated as the product of the interaction of commercial and monetary credit" (Lapavitsas, p. 292).

[9] In the USA, for instance, the issue of Federal Reserve notes of $ 500, $ 1.000, $ 5.000 and $ 10.000 has stopped since 1946

responsibility of Marxist researchers to describe the process of this development and examine its theoretical and practical implications, on the basis of Marx's theory of money.

It is relevant to emphasize that credit money is an istrument of circulation which develops from credit, originally commercial credit and in the sequence bank credit. On the basis of this feature it is easier to distinguish the banknote from what Marx called 'inconvertible paper-money issued by the state and having compulsory circulation', which is 'symbol of value'[10] and also replaced money in the function of means of circulation.

3. The distinction between paper-money and credit money

Marx put emphasis on two kinds of monetary circulation in the form of paper tickets: the banknote and 'inconvertible paper-money issued by the state and having compulsory circulation' (from here on simply paper-money). This distinction is relevant for several reasons. In the first place, both circulate in the place of money without being money, replacing it in the functions of means of circulation and/or means of payment. In the second place, the distinction played an outstanding role in Marx's critic of Ricardo's and the currency school's theory of money, which represented monetarism in the 19th century. Thirdly, in Marxist economy the concept of paper money supplied the basis for the untenable suggestion that Marx, in one aspect, made a concession to the quantity theory, inconsistent with his own[11]. To the extent that central banknotes are also, materially, paper tickets performing monetary functions, it follows that the same effects assigned by Marx to paper money may be mistankenly assigned to the former. On the other hand, it has also been suggested that central banknotes may be converted into paper money, which is questionable, as will be shown. For these reasons, the above mentioned distinction is a relevant subject to be dealt with within Marxist theory of money.

To the extent that paper money does not represent gold deposited by its holders, it is not a bill of credit and by its very nature is usually inconvertible into gold. On the other hand, it either seems to be a characteristic of less developed capitalist economies, or arises under critical circumstances in economies with well developed credit system[12]. Paper money is usually issued when the state is unable to pay its debts with real money (=gold), and so, in the absence of a credit system where it could get funds, it issues paper tickets with face value similar to the gold coin in actual circulation. To the extent that paper money does not possess intrinsic value and is not convertible into gold either, being at the same time issued by a bankrupt state unable to pay with real money, the stability of its value is doubtfull, because it may depreciate, therefore being unable to function as means of

[10] Paper-money belongs to the rank of symbols of value, whose theoretical explanation has been given by Marx in Grundrisse and summarized in Capital I. The replacement of mere symbols of value for money is feasible in the simple circulation of commodities because the aim of circulation is consumption, instead of money itself, hence the mediation by money does not require its physical presence. Thus, once the function of measure of value having been socially established, prices of commodities may be only ideally expressed in money, functioning in this case as money of account, which is the reason why it can be replaced, in the function of means of circulation, by objects that are mere symbols of himself.

[11] De Brunhoff charges Hilferding with having introduced a quantitivistic bias in his interpretation of that part of Marx's money theory (De Brunhoff, 1978, p. 150). An account of this polemic has been made in Germer (1995, p. 49-59).

[12] Hilferding stated that inconvertibility converts banknotes into paper-money (Hilferding, 1973, p. 103-4). However, given the essential difference in nature between paper-money and banknotes, this does not seem reasonable. In order to illustrate the case, Hilferding explicitly mentioned the classic example of Great Britain between 1797 and 1821. However, what happened in this case is what has been usual until recently in case of war or severe economic crisis, i.e., to proclaim the temporary inconvertibility of banknotes in order to prevent gold reserves from being drained abroad. The reason was that, in case of war, financial titles became useless in international transactions, where only world money (=gold) was then accepted and necessary to support imports essential for supporting the war effort. On the other hand, the British state was at that time neither bankrutp nor had it lost domestic or international credit.

hoarding. It circulates only on grounds of the discretionary power of the state[13]. Once a banking system with a central bank has developed, the only possible help for public deficit is to take regular credit. By the way, the close connection between the credit system and public finance is a distinctive characteristic of the monetary system in advanced capitalism. In view of the dominance of the credit system in advanced capitalism, the securities issued by the state are regular credit titles and may be seen as the modern analogous to inconvertible paper money issued by the state.

In presenting the characteristics of the symbol of value Marx asserted, as is well known, that the value of the symbols depends on their amount, *when issued in excess*, because in this case they depreciate and this is reflected in the increase of prices. This does not mean, however, that the price level depends on the amount of money in circulation, as in the quantity theory, which assumes that commodities enter the market without prices and money without value, so that the price level is seen as dependent on the quantitative relation between the mass of commodities and that of money. In Marx's analysis, in contrast, the effect upon prices follows precisely from the fact that both the commodities and money already possess value when they get into circulation, meaning that the value relation between commodities and money cannot be altered by the discrecionary issue of paper money. How can the apparent contradiction between these two propositions be explained?

The effect of an excess of paper money upon prices, as indicated by Marx, constitutes a particular case of his money theory, being consistent with it and having nothing in common with the quantity theory. Marx attempts to demonstrate that the introduction into circulation, of paper money having the same denomination as the gold coin, represents an addition to the existing amount of means of circulation, which is determined by the value of commodities to be circulated[14]. With the addition of paper money, the amount of means of circulation exceeds the need of circulation, so that the excess in gold coins is hoarded, since paper money is not an adequate means of hoarding, as noted above[15]. In this way hoarding of gold coins adjusts the circulating medium to the needs of circulation. As long as the amount of paper money is smaller than the total amount needed in circulation, as a mere complement to gold coins, this mechanism works without problem. For this reason, according to Marx, the issue of paper money should follow the practical rule of not exceeding the amount of circulating medium indicated by experience as being the minimum level it usually attains.

In case the amount of paper money exceeds the usual minimum of circulation, an excess of paper money in relation to the need o circulation may arise and be unable to be absorbed by hoarding[16]. The holders of paper money will endeavour to convert it into gold at all cost, thus causing the appearence of a discount of paper against gold (Foley, 1982; 1986, p. 26). The price of $ 1 - a gold coin - will be paid, for instance, with 1,1 units of paper money of the same denomination. This reflects the fact that the unit value of paper money will depreciate against its face value, until the

[13] Lapavitsas in opposition states that "Marx does not treat them as the creation solely of the arbitrary powers of the state", but the reason for this opinion is not clear (Lapavitsas, p. 301).

[14] From the analysis of the circulation of commodities, in the Grundrisse, Marx draws the conclusion that money may be replaced by mere symbols of itself in the function of means of circulation, on the grounds that in this case money merely mediates the exchange of use-values. Since sale is not regularly intended for hoarding, the presence of money as means for circulation is not essential.

[15] It should be noted that the quantity approach, differently from Marx, would explain this increase in means of circulation as an increase in demand, which would cause an increase in the level of prices.

[16] This will be the case if the value of commodities in circulation falls at a level that requires an amount of medium of circulation smaller than the paper-money already present. Since paper-money does not function as means of hoarding, its excess cannot be withdrawn in this way.

total value of the circulating medium meets the value of gold that should circulate. As a result the paper money prices will rise without any change in money prices[17].

As has already been mentioned, the extent to which the concept of paper money, as presented by Marx, is aplicable to contemporary capitalism, is not clear. In the writings of recent Marxist authors the concept is analysed litle more than parenthetically, without being submitted to closer examination, with the apparent exception of Lapavitsas (Lapavitsas, p. 301-4). As already noted, by its nature paper money seems rather to belong to early stages of capitalism, when the credit system either did not exist or was poorly developed. Hilferding, however, related it also to the stage of highest crisis in developed capitalist economies, stating that the proclamation of inconvertibility of banknotes would convert them into mere paper money[18].There are two arguments that suggest the implausibility of this hypothesis. The first one is that Marx, as long as I know, raised the concept of paper money only in connection with simple circulation, having failed to mention it when analysing the circulating medium in capitalism, which at his time consisted basically of banknotes and gold - coin and bullion. This seems to suggest that Marx would not have considered it aplicable to capitalism endowed with a developed credit system. The second argument, which is perhaps on the ground of the previous one, is that the effects of paper money do not follow specifically from the fact of it being inconvertible, but rather from the unreliability of its value, which turns it inappropriate as a means of hoarding. The banknote, in contrast, even when inconvertible, is issued by the banking system and returns to it in the form of deposit at face value when in excess in circulation.

The inflation in contemporary capitalism endowed with a developed credit system may easily be raised as an indication that the later operates with paper money. The apparent incompatibility of this hypothesis with the theory of credit money requires a closer investigation in order to identify its specific nature. This is in the most necessary once one considers that, in Marx's theory - abstracting the case of paper money, just mentioned -, inflation seems only to be explained either as a result of the devaluation of the money commodity against the ordinary commodities, i.e., in case the increase in labour productivity in the production of the money commodity is higher than the average of the economy, or through the devaluation of the conventional standard of money.

The mention of the concept of paper money, even if proved irrelevant to the analysis of advanced capitalism, seems useful to the present debate because it stresses the fact that the function of means of circulation does not need to be performed by money (=gold) itself, without chalenging the integrity of the monetary system based on gold. On the other hand, the phenomenon of the increase in paper money prices, in the absence of any change in money prices, as mentioned above, appears as a convenient expository tool, because it allows to call atention to the relevance of the concept of standard of prices in Marx's theory. For the sake of this presentation, it seemed convenient to divide Marx's concept of price in two distinct categories: 'prices based on the standard of prices' and

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[17] The prices that increase in this case are in fact, as will be shown in the next section, the standard-prices, their increase being a consequence of the actual devaluation of the standard of prices, implicit in the increase in its amount.

[18] Klagsbrunn judiciously mentions an insertion by Engels, in Capital III, which goes in the same sense as Hilferding's opinion. However, it does not seem to match the sense of Marx's presentation, which is what Klagsbrunn seems to believe (Klagsbrunn, 1992, p. 609). Lapavitsas, on the other hand, in commenting on the French 'assignats' as an example of paper-money, seems also to consider their existence to be compatible with a more developed state of capitalism (Lapavitsas, p. 301). Foley seems to share a similar opinion, since he mentions both the British banknotes during Napoleonic wars, when convertibility had been suspended, and the American greenbacks issued during the Civil War as historic examples of the issue of paper-money (Foley, 1986, p. 26). In contrast with this interpretation, the later two cases could well be taken as an illustration of the difference in nature between paper issued in countries with an advanced banking system, like Great Britain at the time just mentioned, where the issues were banknotes, on the one side, and on the other side countries still not counting with a similarly developed banking system, like the USA during the Civil War, whose issues may perhaps better be compared to paper-money.

'prices based on money', which will from here on be abridged as 'standard-prices' and 'money-prices', respectively. This distinction is relevant and deserves to be given a fuller account.

4. 'Standard-prices' and 'money-prices'

As is well known, Marx defined the price as being the value of a commodity expressed in money, i.e., in a definite amount of gold [19]. This is the price here being called money-price. The money-price, by definition, will change only as a result of a change in the value of the commodity, assuming unchanged value of the money commodity. The money-commodity, however, is converted into a conventional standard of prices, consisting of an amount of the money-commodity, so many grams of gold per unit[20]. This is the way the standards of money like the sterling, franc, or dollar used to be defined in the past. 'Standard-prices' are the prices of commodities as expressed in the standard of prices. It is significant to remark that, assuming constant value of the money-commodity, the 'standard-prices' may change without any change in the 'money-prices', which happens if the standard of money, which is conventional, is changed. A simple example may ilustrate the process. Assuming the value of commodity A to correspond to 20 g gold, this amount of gold is its money-price. In case the standard of money, say the sterling, has been set by law at 5 g gold, then commodity A will have a standard-price of £ 4[21]. If the standard of money is changed, for any reason, to 4 g gold, assuming constant value of gold, the standard-price of commodity A will rise to £ 5, without any change in its money-price of 20 g gold. Thus the power of the state to change the standard of money allows it to cause relevant consequences, even without being able to affect the values of commodities, i.e., their money-prices.

The relevance of the distinction between the concepts of money-price and standard-price, which merely expresses the distinction between the functions of money as measure of value and standard of prices, derives from the differences in their consequences just mentioned[22]. It is on the grounds of this distinction that it can be proved that the current standards of money, like the dollar, sterling, mark, etc, cannot be equated to money. Those monetary standards perform the function of standard of prices but not of measure of value, i.e., they are standards of prices, not money. This may be proved simply by adducing the fact that commodity prices expressed in those standards may change - and do change indeed - without the cause being attributable to a change in the values of the commodities. Thus, for instante, the devaluation of the dollar, in 1933-34, changed the standard of money and consequently the standard-prices of commodities, irrespective of any changes in their money-prices. On the other hand, the dollar inflation of the 70s and early 80s corresponded to a change in the standard of prices - dollar - which has been depreciated. As a result a substantial increase in standard-prices of commodities took place, without any relation to changes in the money-prices of the same commodities, i.e., in their values. This strongly supports the notion that the dollar - as well as the sterling, mark, yen, etc. - are not money, and are not measures of value either, rather they are simply standards of prices or monetary standards. In order for someone to argue that they are indeed measures of value would require to admit and explain two questions:

[19] Money (=gold) according to Marx is the material or palpable form of value, whose substance is abstract labor. The amount of gold which expresses the value of a commodity is its price-form.

[20] It should be reminded that according to Marx, money or the general equivalent of value is a category that emerges spontaneously out of the process of exchange, whereas the standard of money is conventional and set by the state, i.e. the later just puts its seal upon a definite though arbitrary amount of the money commodity.

[21] Marx pointed out with emphasis that the appearance of the monetary standards has gradually concealed the fact that the price of a commodity is but a certain amount of the money commodity (=gold), and is one of the reasons for the assignment to money of misterious properties disconnected from the original mere quantitative exchange relation

[22] "As *measure of value* and as *standard of price,* money has two entirely distinct functions to perform. It is the measure of value inasmuch as it is the socially recognized incarnation of human labour; it is the standard of price inasmuch as it is a fixed weight of metal" (C I, p. 44)

first, it would imply the absence of a single or 'general' equivalent, hence of a 'world money'[23]; second, it would be necessary to show how those 'measures of value' do measure values and why and how they change as they did in the examples above-mentioned.

An equally relevant aspect that emerges from this distinction refers to the possible causes of changes in the monetary standard and consequently in standard-prices. The most important case to be mentioned is that a change in the value of the money-commodity changes the value of the monetary standard, but does not require a legal change in the later. The understanding of the implications of this fact requires that it be reminded that the standard of prices consists of the determination of a definite amount, rather than value, of the money-commodity[24]. Thus, if for instance the monetary standard is fixed as 5 g gold, it may keep this definition indefinitely, irrespective of changes in the labor-value of gold[25]. In case the later changes, however, assuming constant values of ordinary commodities, the price level will change. Going back to the previous example: in case the value of gold falls by 20% due to technical improvements, commodity A will have its standard-price raised from £4 to £5, without any change in the gold content of the sterling. This is the reason why the monetary standard is a standard of prices rather than of values: it measures money-prices of commodities (given amounts of gold) based on a certain amount of the money-commodity taken as a standard. It follows that the value of the monetary standard will change whenever the value of money changes, but the monetary authority will be able to go on buying and selling gold for the same 'price', since this one represents nothing else than a certain amount of minted gold - either as coins or bullion, or banknotes representing them - which is exchanged for an equal amount of not minted gold. The 'price' of gold is therefore not affected by the value of gold, since it merely represents a relation between equal amounts of gold under different forms.

This being so, the suggestions of Marxist authors in the sense that nowadays fully simbolic monetary standards perform the function of measure of value seem to find no firm support in Marx's theory[26]. Should they be right, however, one would have to admit that the dollar inflation of the 70s and 80s reflected an extraordinary and uniform valorization (i.e., increase in labor-value) of commodities in general, or in other words, a pronounced and uniform fall in labor productivity in the USA, which is highly unreasonable[27]. Such suggestions reflect a real problem for Marxist theory, which consists in explaining the apparent absence of relation between contemporary monetary standards and an underlying money-commodity, which would be the actual measure of

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[23] This objection to the proposition that the present monetary standards be considered to function as measures of value has been raised by Patrick Murray at the Seminario Internacional Marx: Logica y Capital (Mexico, 1997). The function of measure of value is in effect intrinsic to the general equivalent, which is *general* because it has to be valid for the whole merchant world, turning money into *world money*. Thus, to assign the function of measure of value to each of the different monetary standards like dollar, sterling, mark, etc, implies to assume the abolition of the *general* equivalent of value and its replacement by several *particular* equivalents.

[24] Marx examines this problem extensively in the Contribution (Marx, 1970; p. 76 ss; 1980, p. 149 ss)

[25] Marx strongly emphazised this point: it is not the value of the monetary standard which is fixed, because the value of money may constantly change, like that of any other commodity, whereas the stability of the monetary standard - i.e., its weight - is essential. The gold content of the sterling has actually been kept unchanged for more than a century until 1931, and that of the American dollar from 1791 until 1933 (Foley, 1982, p. 4).

[26] The best known authors who support this hypothesis are Foley (1986, p. 14, 20) and Lipietz (1983, p. 142-3).

[27] It is unreasonable to admit a decrease - and additionally a uniform decrease - in the labor productivity in the economy as a whole, even in the seventies and eighties, which was admittedly a period of decrease in the rate of growth of labor productivity in the USA, but not of negative rates. On the other hand, if such thing were admitted, the USA should have experienced great decrease in the level of prices in the fifties and sixties, a period of high annual rates of increase in labor productivity. This also implies, on the other hand, that the price stability observed in the same decades should be interpreted as the correspondent of a devaluation (i.e., a decrease in the labor value of gold) of the dollar in proportion to the increase in average labor productivity. Taking into account that the dollar was kept unchanged at US$ 35/ounce, and abstracting other circumstances, this would suggest an increase in the productivity of gold production similar to the average of the economy. This hypothesis cannot just be assumed but would require closer examination.

value. However, in their present shape those suggestions seem to lack sufficient support - in theory and practice - and are of a rather inductivist nature, since the explanations they provide are not clearly rooted in Marx's theory, as already mentioned, and additionally do not suggest an alternative theoretical basis. There seem to be two alternatives to deal with this problem within the realm of Marx's theory: either to prove that contemporary monetary phenomena can be explained on grounds of Marx's theory of commodity-money, or to prove that this theory should be changed in view of the historical evolution of the capitalist credit system[28]. In the later case, however, in order to stay within the realm of Marx's theory of value, a consistent alternative explanation should be able to keep a clear connection between prices and social labor contained in commodities. This connection seems to be the theory of the general equivalent or measure of value, which consists in providing a theoretical explanation of the process through which amounts of social labor are converted into amounts of money.

The demonstration, by Marx, that the function of measure of value can only be performed by a commodity, implying the necessity that money be a commodity, has been summarized in a previous paper (Germer, 1997a). It has to be noted that mentioned proposition can not be atributted to the mere adoption, by Marx, of an empirical fact - the dominance af the gold-standard at Marx's lifetime - as a theoretical law, as has been frequently suggested, in a rather inconsiderate way. In view of Marx's theoretical demonstration, it seems accurate to say that the commodity nature of money is an inevitable consequence of the labor theory of value, as laid out by him, and expresses the necessary connection between labor and prices, or between labor and wealth in general, and consequently between labor and surplus labor, and represents the necessary basis of the explanation of the process of exploitation of labor power. If this interpretation is accurate, it follows that the theoretical rejection of the commodity nature of money breaks up the mentioned connection and breaks up Marx's theory of value. This being so, it seems clear that the commodity nature of money can only be objected, in the realm of the labor theory of value, if an alternative theory about the connection between labor and wealth is presented. The essential flaw in the objections to the commodity-money theory, in the Marxist field, is that they reject the commodity nature of money, under the implicit assumption that it can be done at the same time as the validity of Marx's theory of value is maintained. This assumption, however, seems to be inconsistent. Thus, the authors of such objections should be able to present an alternative theory of labor value.

If the measure of value is conceived to be of necessity a commodity, it follows that the monetary standard has of necessity to be defined in terms of the former, in the way already mentioned. As indicated by Marx, the replacement of one commodity for another, in the function of measure of value, for instance of silver for gold, or vice-versa, was quite simple, in technical terms. After 1971, however, the monetary standards seem to have been simply declared independent from any standard-commodity, but the system of prices built upon the dollar standard defined in terms of gold has been maintained. The following problems seem relevant in this respect: in the first place, how does the system of prices adjust, at present, in the absence of an objective standard of value; secondly, why does gold go on being stored in the vaults of central banks and international monetary institutions, and why are the gold reserves officially valued at US$ 42,22/ounce in the USA and at SDR 35/ounce, while its market 'price' has fluctuated between US$ 300 and US$ 400 in the past 10 years?

One relevant conclusion for Marxist theory of money may be derived from the previous presentation: while the existence of an explicit connection between the monetary standards and gold, nowadays, has not been proven, it seems clear, on the other hand, that the function of measure of value cannot be attributed the those monetary standards. In the absence of a measure of

[28] The expression 'monetary system' is used by Marx to designate the circulation of commodities based on money (=gold), whereas the capitalist circulation is based on the 'credit system'.

value in the Marxist sense, the determination of prices becomes inconsistent with the determination of values, since for the former to express labor-values, the amounts of social labor contained in commodities must be previously measured[29].

5. Symbolic money or unit of account?

The function of unit of account plays an important role in Marx's theory, particularly under the dominance of the credit system, but has usually not been taken into account by the authors who work on this subject. The underestimation of the relevance of this function in Marx's theory seems to be one of the causes - or consequences - of the difficulty in acknowledging the relevance of the sharp distinction made by Marx between money and capital, as well as the related difficulty in acknowledging the subordinate and passive role of money in capitalism[30]. An additional difficulty is the underestimation of another distinction emphasized by Marx, between money in the functions of bare money (i.e., as means of circulation and of payment) and as capital in money form in advanced capitalism[31]. This indicates that the inappropriate equation of capital with money has a long story and is at present more explicitly represented in Keynesian theory, particularly in the more recent post-Keynesian school[32]. It is significant to note that some Marxist authors seem to admit - perhaps without closer examination - the existence of affinities between Marxist and post-Keynesian theories, leading to the implicit acceptance of post-Keynesian concepts, particularly in the monetary field, which is precisely where Keynesian monetary concepts look more attractive to Marxists, apparently convinced of their superiority over Marx's. One of the reasons for this rather uncritical acceptance of Keynesianism is the underestimation, by Marxist authors, of the theoretical distinction between money and capital. As a result, the Keynesian concept of 'monetary economy', almost replacing Marx's concept of 'capitalist economy', has come to be used inappropriately by Marxist authors[33].

The basis of Keynes's concept of a 'monetary economy' consists precisely in the theoretical mistake of equating capital to money, i.e., in the proposition that capital is money. This equation may be attributed, in part, to a mistaken observation which is converted into a conceptual mistake: capital being, under all forms, an amount of value, it is necessarily expressed as money, but what is sometimes not adequately acknowledged is that in this case money functions only as money of account in order to describe capital in its uniform quantitative aspect, i.e., express it as an amount of value. This does not mean, however, that capital is in effect materially money although it becomes money fleetingly and excepcionally, in specific forms. What is usually called money is capital in different forms, where money only serves as money of account to estimate its value. On the one

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[29] There are in reality two connected processes: the labor contained in a commodity when it reaches the market is particular labor (private and individual) rather than social, and it only becomes social labor if the particular labor which it contains is validated by means of sale. The amount of social labor contained in it - its value - depends on the average conditions of production in the particular branch, not only in its own specific prodution. In the discussion of this important subject it is sometimes forgotten that the same is true for use value: use value is also a property of the commodity, and as the product of labor only becomes a real commodity by way of its sale, before that it is only potential use value, in the same way as it is only potential value. The product of labor in the merchant economy is use value for others, not for its producer, only becoming realized use value through sale.

[30] In Marx's theory money is a passive element not only in capitalism, but also in the 'monetary system', or simple circulation, itself, since in this case the production and circulation of commodities are determinant. In the 'monetary system' monetary circulation reflects the circulation of commodities; in capitalism it reflects the circulation of capital.

[31] In the preface of Capital III, Engels refers to a long manuscript by Marx with the title "The Confusion", "concerning the relation of money to capital (...) and it was the 'confusion' revealed in identifying money and capital in the money-market that Marx meant treat with criticism and sarcasm" (C, III, p. 6).

[32] The post-Keynesian school is heterogeneous, but it can be represented mainly by the following authors: Davidson, Weintraub, Minsky, Kregel, Harcourt among others (Davidson, 1992, Ch. 1; Hamouda & Harcourt, 1989; Harcourt, 1985; Carvalho, 1989).

[33] I have discussed this specific aspect in another paper (Germer, 1996b).

side, commodity-capitals in circulation, both as means of production and of consumption, as well as productive capital retained in form of both fixed capital and stocks of circulating constant capital, are all of them expressed quantitatively as money, though in a purely ideal way, in the function of unit of account, but they are not materially money, either in circulation or as hoards. Loan capital, on the other side, which is obviously also expressed in money form, does not in fact exist in its greatest part in material form of money, either metalic or as central bank notes, but rather as titles of debt, which represent *money capital* lent away instead of money[34].The mistake in this case is even greater, because the greatest part of money capital expressed in this way in reality exists materially in the form of means of production, which it finances, instead of money[35]. Not to talk about fictitious capital, which is neither capital nor money, but is also ideally expressed in money as unit of account.

The distortion caused on Marxism by the Keynesian influence has important theoretical consequences, since the distinction between money and capital is not merely rhetorical, nor is the function of money as unit of account merely ornamental. In some Marxist writings one can observe the apparently inconsiderate adoption of Keynes's notion that the aim of capitalists is to invest money in order to obtain more money, which he assumed to be expressed in the formula M-C-M', suggested by Marx and adopted in a misinterpreted way by Keynes, and apparently accepted in some Marxist writings as if it in fact represented Marx's view. This notion of Keynes, though reflecting a seemingly unambiguous fact of observation, in fact simplifies an extremely complex reality which Marx does not reduce to the formula just adduced (Germer, 1996b). Marx, in contrast, uses it to ilustrate what he calls the irrational concept of capital as being basically a phenomenon of the sphere of circulation, since M-C-M' describes the movement performed by capital in the sphere of circulation, abstracting the phase of productive capital[36]. Consequently, if capital is conceived as being represented by this formula, the profit implicit in the difference between M' and M becomes a phenomenon of circulation and the exploitation of labor force is eliminated from the analysis. Marx made use of that formula precisely to ilustrate the inconsistency of such a concept of capital.

In Marx's view the concept of capital as an *expanding and continuously repeated movement* is essential, but is altogether absent in Keynes's interpretation of Marx's formula, where it appears as a single cycle. Capital conceived as an expanding and continuous movement implies that the aim of the capitalist cannot be to obtain more money, but to obtain more capital. The fact that it is expressed in money in the function of unit of account, does not mean that the capitalist's aim is to pile up money as such[37]. This would on the contrary drive him to failure. It does not mean, either, that the capitalist demands money in material form as a mediation. The concept of capital as an expanding and continually repeated movement implies that M'_1 is expected to convert into M_2, as starting point of a new cycle, M_2 being greater than M'_1 in the first cycle, assuming constant values

[34] In post-Keynesian theory the inappropriate identification of capital and money goes so far as to define several sorts of credit titles as money or quasi-money, in view of their high liquidity. Thus, in the concept of quasi-money several kinds of credit titles like savings and time deposits are mixed together with fictitious capital like government bonds and stocks. All those titles are interest bearing capital expressed by money in the function of money of account, instead of money. Even when those simplifications are acceptable and even preferable in everyday business affairs, they are not admissible in theory. A similar sort of simplification occurs when outlays in wages and industrial inputs such as raw materials are grouped together in accounting figures as circulating capital, because they are both current expenses, which is acceptable for practical purposes but not as a theoretical distinction. These are examples of theoretical misconduct which Marxists should not follow.

[35] The problem of the transformation of loan capital into productive capital would require closer examination. It should only be mentioned, however that, in case the money reserves of all sorts are deposited at the banking system, the later's reserve funds would consist of the part of total loan capital that has to lay idle. Only the later part of loan capital exists in the form of money and functions at the same time as regulator of the amount of the circulating medium.

[36] "M-C-M' is, therefore, in reality the general formula of capital as it appears *prima facie within the sphere of circulation*" (C I, p. 73, emphasis added).

[37] In capitalism "the accumulation of money is no more an aim in itself" (Klagsbrunn, 1992, 9. 600).

for the sake of simplicity[38]. But M’ and M are amounts of value which need only to be expressed in money of account, because what is relevant is not that they be converted into the money material, but rather into an amount of means of production larger than in the previous cycle, such that $C_2>C_1$. The logic of this statement is that, assumint everything else constant, a larger amount of means of production absorbs a larger amount o living labor and consequently produces a larger amount of surplus-value. In other words, M'_1 has to be big enough to allow the productive capital it represents no only to be replaced to the original extent but to be expanded.

The connection between two cycles of a capital, represented by C'_1-$M'_1(M_2)$-C_2 [39], can be compared to the typical movement of commodities in simple circulation - C_1-M-C_2 -, since in this case the material form of money capital $M'_1(M_2)$ is irrelevant, because the capitalist does not intend to immobilize value in money-form, but to convert it back into C_2. Therefore the money-form of capital is of an ephemeral nature as is money in simple circulation, which means that the money-form of capital in its continued motion functions merely as means of circulation. What is relevant here is that in this case the aim of circulation is to convert C'_1 into C_2, with the mediation of money, which may well be present only ideally by means of the function of unit of account[40]. This is the reason why in simple circulation, as already indicated, the function of means of circulation may be performed by symbols of value. In capitalism, however, the dominant function of money in circulation is of means of payment, which expresses the dominance of credit in the circulation of commodities among capitalists. It follows that it is credit money that functions predominantly as means of circulation, and the value of the credit title - banknote, bank deposit, etc - is equally expressed by money in the function of money of account.

The dominance of credit and the notion that the conversion of C’ in the material form of money (=gold) is not aimed by capitalists are both implicit in the concept of capital as a continually repeated movement, and are reflected in the fact that capitalists usually aim at converting M'_1 back into C_2 even before it is realized as money, in such a way that the start of the new cycle of production does not need to wait for the effective sale of C'_1. It merely expresses the fact that each capitalist aims at reducing as much as possible the <u>turnover</u> of his capital, of which the time of circulation is one component part. Thus, the proceeds of sales are usually already engaged for the settlement of debts before being realized, reflecting the generalization of both commercial credit and the function of means of payment of money, briefly mentioned earlier in this paper. Thus the capitalist usually sells in order to pay, rather than to buy[41]. On the other hand, the movement of capital is at the same time meant to be one of expansion of value, which implies that the capitalist has to increase his capital continually, i.e., to accumulate. In contrast with Keynes, for Marx the aim of the typical capitalist is rather to accumulate more capital than to get more money. Thus, from the point of view of capital, the best would be if profit could be converted back into productive capital right away, exempting it from being converted into money. However, even in case it is necessary to accumulate a larger amount of potential money capital in order to be able to invest it later, there is no advantage for the capitalist in immobilizing his capital in money form, but rather in lending it,

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[38] What is meant here is the sequence of two cycles of a capital, represented by M_1-C_1...P...C'_1-M'_1-M_2-C_2 ... .

[39] The group $M'_1(M_2)$ is meant to indicate that M'_1 is converted back into the starting point of a new cycle of the same capital, M_2.

[40] According to Marx, the value of M'_1 should be broken up into two parts: the first one represents the original means of production contained in C_1, which have to be of necessity replaced and in this case the conversion into real money is not essential; the second one represents surplus-value which, being unable of immediate conversion into new productive capital, would have to be converted into money. However, given a developed credit system, it is converted into interest bearing capital. The later is also true of that part of M’ which corresponds to the depreciation of fixed capital.

[41] This would imply, according to Marx’s definition of the function of means of payment, that the payment should be made with money (=gold). However, it is implicit in the development of the credit system that in the function of means of payment money is replaced by the balancing of reciprocal debts, which is converted into a continual process by the banking system.

which he does either directly or by means of a bank or some other financial agent[42]. What he lends is not money, nor credit money, but a part of his capital in money form[43] represented in money in the function of unit of account. In this case too, therefore, the capitalist's aim is to expand his capital-value, rather than his money-value. The only function of money is to determine the dimension of his capital's value under all forms, and this it does in the function of unit of account.

6. Abolition of hoarding in advanced credit system

After the brief account of the motion of capital and of the function of unit of account of money, just presented, it is possible to attempt at a closer assessment of the function of means of hoarding of money[44]. The concept needs to be defined with greater accuracy. Hoarding is not a function of capital, but of money, and Marx in fact defines it in his analysis of money. According to Marx's definition, hoarding consists strictly in storing money, i.e., gold. The performance of the function of hoarding by banknotes, to the extent that those banknotes were equivalent to gold deposited at the banking system, as indicated by Marx in the analysis of the credit system, in fact already qualifies hoarding differently, since in this case it is hoarding for the individual capitalist, but not for the economy as a whole. Lending money capital is not the same as hoarding and is a category of the credit system (=capitalist circulation) rather than of the money system (=simple circulation). The basic inducement to hoard, as a phenomenon of money or of the money system is to accumulate wealth in its material abstract form - money -, the only way to accumulate wealth as such in this system. The phenomenon that in capitalism expresses the same aim at accumulating wealth is not the hoarding of money, but the *accumulation of capital*[45], which is the contrary of hoarding, in the sense that the condition to accumulate wealth in capitalism is not to withdraw money from circulation, but rather to throw it and keep it permanently in circulation.

Thus, it seems at first sight inadmissible to assign a relevant role to hoarding in capitalism[46]. Given the antagonism to hoarding prevailing in capitalism, it follows that hoarding of value in money form, which is inflicted upon the individual capitalist as an unavoidable burden, must always appear as an anomaly, since it breaks off both the cyclical movement of capital and the process of production of surplus-value that goes with it. On the other hand, the neglect of this aspect of the problem seems to be one of the causes of the difficulties faced by Marxist interpretation of contemporary monetary phenomena. Once the anomalous nature of hoarding in capitalism has been acknowledged, a number of contemporary monetary events either become clearer or may be examined from a new perspective. In the first place, the recognition of the antagonism of capital to hoarding may award theoretical consistency to the complete withdrawal of money (=gold) from the circulation functions by the state. In other words, the withdrawal of gold from circulation, by state's

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[42] The same is true for the depreciation funds.

[43] During the time his money capital lays idle at the bank it consists in an accounting credit in his name. It is not even credit money as such, since during the time he keeps his money capital deposited at the bank, it is loaned out to other capitalists, and in the first place to the bank itself. This is evident firstly in practical terms, in the fact that his money capital, once deposited, adds to the excess reserves, i.e., to the loanable funds of the bank, and is consequently interest bearing capital.

[44] The concept of hoarding, the formation of the credit system, and the contrast between hoarding and the formation of reserves of money capital, in capitalism, have been analysed by myself in previous papers (Germer, 1996b, 1997)

[45] To accumulate capital is not similar to store money. According to the concept of capital, to accumulate capital consists in essence in expanding the mass of means of production in the function of absorbing living labor, i.e., capital in productive form.

[46] Lapavitsas states that the main function of money in capitalism is means of hoarding. I must disagree with this understanding, to the extent that he conflates credit money with money. If Lapavitsas conceived money as being strictly gold, however, he would partly be right, since the empirically perceived function of monetary gold nowadays is only as international reserve, i.e. world money. However, the essential and most important function of money (=gold) is that of measure of value, which requires its physical presence as well, circulating as a commodity from production on.

decision, that might have been seen as an undue ‘external’ interference, may be reassessed as being effectively compatible with the fact that gold is repelled by capital as a category and by capitalists as its agents[47]. In the second place, the legal enforcement of the monopoly of the holdings of monetary gold by the state after World War I in advanced capitalist countries[48], may be assessed from new viewpoints.

The interdiction of holdings of monetary gold by individual capitalists implies the impossibility for them to hoard. At the same time, however, the state prevents monetary gold from disappearing from circulation precisely when it is more needed as the foundation of the credit system, i.e., as crises break out, where it used to be withdrawn from the banks and hoarded by individual capitalists, threatening the banking system - foundation of the credit system - with collapse. In other words, private hoarding has been interdicted for the benefit of collective hoarding or of the socialization of gold for the capitalist class as a whole. At the same time, considering that hoarding has a cost, since hoarded gold does not earn anything, the monopoly of gold seems to imply that it is the state that takes over the cost. In the third place, the interdiction for anomalous individual capitalists to store money (=gold), implies that they are forced to reinvest it as capital, which means that the state assigns a legal and authoritative nature to what is in fact an internal law of capitalism: the uninterrupted and expanding cyclical movement of capital, presented above. This may be taken as meaning that, in advanced capitalism, the state suppresses private hoarding, in a way strictly consistent with capitalist logic, which hoarding opposes. In restraining private hoarding, it would seem that the state prevents the system from being adversely affected by irrational capitalists, hence it may be seen as an anti-cyclical factor which has been made possible thanks to the development of the credit system[49].

How do things go against this new background? Since the central banknote is neither money (=gold) nor is convertible into it nowadays, it follows that it cannot function as means of hoarding, according to the strict theoretical definition, i.e., storing of central banknotes does not represent hoarding. Even acknowledging that the central banknote is insured by the state, this sort of insurance is the greatest only when unnecessary, i.e. in the phases of expansion, where no capitalist would think of storing central banknotes in a strongbox of his own. In times of crisis the support of the central bank is also uncertain, as may be ilustrated by numerous historical events: the depreciacion, even when temporary, of central banknotes as a consequence of the enforcement of inconvertibility, as occurred in a great number of critical circumstances under the so called gold-standard; or the change in the monetary standard, depreciating it, as in the USA in 1933-34 and again in the 70s, etc. Those examples indicate that the insurance provided by the state to the value of central banknotes does not correspond to the insurance represented by the intrinsic value of money (=gold). This is the reason why in times of crisis capitalists, prevented from individual access to gold, look for protection in ‘real assets’ like real estate, jewelry, precious metals, etc. However, this is just an individual remedy, which instead of hoarding the money spent in such purchases, transfers it to another capitalist, and in this way illustrates the efficacy of the interdiction of private hoarding. However, it is frequently suggested that in contemporary capitalism hoarding consists of deposits at the banking system. Yet this is inaccurate, since the deposit corresponds to a

[47] What the state actually does, in this case, is to convert a result of the objective development of capitalism into a law, since gold had already been converted, by way of the development of the credit system, into a collective reserve funds concentrated at the central bank. It is the same development which gradually eliminates hoarding as a relevant phenomenon, since the function of the banking system is “to turn the maintenance of idle money reserves by individual capitalists consistent with its almost complete exemption for the capitalist class as a whole” (Germer, 1996b, p. 9).

[48] As is widely known, in the USA and other advanced capitalist countries, after 1930 monetary gold has been declared a legal monopoly of the central banks, which means that the maintenance of private reserves of monetary gold has been interdicted.

[49] However, private hoarding, i.e., the holding of gold as store of value, has not been given up. On the contrary, it seems to have continued to be significant, at least until the sixties, according to several authors (like Triffin, Harrod, Johnson, and others, in Grubel). I have not been able to search for more accurate and updated data, so far.

loan granted by the capitalist to the banker, thus converting the deposited value into interest bearing capital[50]. To the extent that a credit title represents a right to money instead of money, it cannot be compared to hoarding. Value is not in my hands but in somebody else's, and its repayment cannot be considered safe in the same sense as the access I have to gold stored in my private safebox.

A curious aspect of the problem arises. If gold is in fact the safer way to store value, and considering that there is a gold market, individual capitalists could escape central bank's monopoly by purchasing gold, and they do it, as has been briefly indicated. If this is so, couldn't this revive the function of means of hoarding of gold? On the one hand, capitalists would not purchase great amounts of gold in times of expansion for the reason just adduced above: what they aim at is capital and gold is not capital, but just money that earns nothing. On the other hand, it seems that they would not do it for another reason: the suppression of the circulation of gold in monetary functions implies that gold isn't anymore a legal means of circulation and payment in the domestic market. Paradoxically it is now gold that is legally inconvertible into central banknotes, i.e., its conversion into central banknotes is not warranted. Even when sold back as a commodity, its value is as uncertain as with ordinary commodities, perhaps even more, considering legal restrictions.

Does the fact that gold doesn't function anymore as means of circulation and of payment, on grounds of legal restriction, contradict Marx's theory? It would do so if money (=gold) had by theoretical necessity to perform those functions in person. Yet this is not the case, as Marx attempted to demonstrate, which means that these functions can be separated from the functions os measure of value and unit of account without affecting their regular performance. This being so, it follows that if the evolution of the system leads spontaneously to the separation between the functions of measure of value, on the one hand, and means of circulation and of payment on the other, there seems to be no reason for theoretical objection against the conversion of such separation into a legal rule by the state. The state effectively did it, restricting the private ownership of monetary gold in the advanced capitalist countries.

How is it possible for the state to prevent capitalists from safeguarding their wealth converting it into gold? In other words, why should capitalists accept it? Implicit in this question is the assumption that the legal restriction by the state in some way represented a violation of the laws of capital, yet the historical process does not seem to support this view. In the USA, for instance, the prohibition was introduced in the critical thirties, when every country attempted to prevent its own gold reserves to be transfered abroad. Thus, the interdiction of private hoarding of monetary gold attempted to prevent that the individualistic interests of particular capitalists damaged the collective interests of the capitalist class of the nation. However, gold went on being available from the central bank, though only as bullion for payments abroad. Something similar happened when the dollar became inconvertible in 1971: it represented an attempt to prevent american gold reserves from being exhausted and drained to other countries[51]. In this case the aim was to protect american capital, as a collective category, from a possible fatal attack of the corresponding capitals from other countries, representing their own collective category. Another restriction was then accepted by american capitalist class: that the central banknotes became inconvertible, even for payments abroad. Two progressive phases seem to have taken place: in the thirties private gold was converted into state gold, inconvertible into coin, which did not circulate anymore, but convertible into bullion

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[50] In an already quoted passage, Marx states that "it is precisely the development of the credit and banking system, which tends, on the one hand, to press all money-capital into the service of production (or what amounts to the same thing, to transform all money income into capital) ..." (C III, p. 572).

[51] The seriousness of this event is usually not underlined. The USA refused to fulfil an explicitly agreed obligation of converting dollars held by foreign countries and capitalists into gold. This event seems to be an example of discretionary power similar to that which in the past permitted states to force their citizens to accept valueless paper-money, only now at the international level. However, in both events the states's acts were consistent with the underlying economic reality.

for export; in 1971 this possibility has also been removed and gold stopped to circulate in significant amounts among countries.

In summary: the fact that gold (money as means of hoarding) is state monopoly means that credit titles cannot be converted into it. The impossibility to hoard at all means that all value produced in the economy is converted into capital, on grounds of the credit system, even when their owners would not like to do it. This is so because the all unused money capital - as well as fractions of mere money - is usually deposited at the banking system and converted into capital through credit, subject to restrictions by the central bank. Non of it is money (=gold), it is rather credit money - central banknotes or bank deposits. In a way similar to what happened with symbols of value, which were forced to circulate because they did not function as means of hoarding, the present forms of credit money must also circulate by necessity, though for a slightly different reason. Contemporary credit money in various forms circulates as representative of capital through the mediation of the banking system, performing the functions of means of circulation and of payment, but is not mere symbol of value. It might be labelled symbols of capital. This may be deduced from the fact that all money is a monopoly of the capitalist class, having become a true fact through the credit system[52]: all social wealth in circulation derives from capitalist investment, which starts with a draft on the banking system in order to perform the function M-C, through which M is converted into means of production and wages. Once inactivated money capital becomes concentrated at the banking system in the form of loan capital, the ownership of capital is irrelevant in this respect. While one part of the capitalists is in the process of forming reserves of monetary capital, the others are using them by way of credit. In this way the impossibility for capitalists to hoard converts their reserves into active capital.

7. Concluding remarks

This paper aimed to explore a number of implications of the replacement of credit money for money (=gold) in the functions of circulation. The most significant results from this investigation may be summarized as follows. In the first place, a closer examination of the distinction between standard-prices and money-prices indicated the relevance of the underlying distinction between the functions of money as measure of value and standard of prices, unsatisfactorily explored in Marxist writings about the theory of money. The unfolding of that distinction allowed to uncover the mistaken nature of the assumption that contemporary monetary standards, seemingly free from every connection to a money-commodity, are able to perform the function of measure of value in the context of the labor theory of value as presented by Marx.. It follows that the interpretation of contemporary monetary phenomena based on Marx's theory of value and money cannot be grounded on that assumption. The challenge faced by Marxist theory consists either in explaining, on the basis of the theory of value and money as laid out by Marx, the apparent disconnection of present monetary standards from a money-commodity, or in presenting an alternative to Marx's theory of money which does not break off the connection between money and labor as the source of value.

In the second place, the essential distinction between the concepts of inconvertible paper money issued by the state and central banknote has been analyzed. The relevance of discussing this distinction is given, on the one hand, by the opportunity it provides to disprove the mistaken notion

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[52] "So far as the entire capitalist class is concerned, the proposition that it must iself throw into circulation the money required for the realisation of its surplus-value (...) not only fails to appear paradoxical, but stands forth as a necessary condition of the entire mechanism. For there are here only two classes: the working-class disposing only of its labor-power, and the capitalist class, which has the monopoly of the social means of production and money" (C II, p. 421).

that Marx's approach to money resembles in some degree the quantity theory because of the effect of an excess of paper-money on prices, as pointed out by Marx. This seems to be a still unsettled question among Marxists. It has been pointed out that the effect on prices follows from an argument without connection with the quantity theory of money. On the other hand, it has been shown that the validity of Marx's concept of paper-money and of its effects upon the price level, for the understanding of contemporary monetary phenomena, is a highly relevant subject yet still unsatisfactorily explored by Marxist authors.

In the third place, it has been attempted to show that de function of money of account, another unsatisfactorily analysed subject, is of great relevance as one of the elements required for the understanding of the compatibility of the withdrawal of money (=gold) from the circulation functions with the conditions of operation of developed capitalism. A further element is the understanding of the irrelevance of the function of means of hoarding in advanced capitalism, once a closer examination of its real definition has been accomplished. The development of the implications of both concepts of money of account and means of hoarding in the context of advanced capitalism is also usefull to illustrate the adverse effects of the adoption of concepts belonging to other theories, specifically post-Keynesianism in this case. The discussion of the relevance of the function of money of account, on the one side, and the irrelevance of the function of means of hoarding, on the other, provides an illustration of the fact that Marx's concepts about money, once taken into account to the whole extent of their original contents, present themselves as appropriate theoretical tools for the purpose of understanding the internal logic underlying important aspects of contemporary monetary system.

Finally, it has been attempted to prove that the replacement of credit money for money (=gold) does not affect the principle that money is a commodity. Marx himself proved at lenght that money may be replaced in the circulation functions by other instruments: by symbols of value as a means of circulation and by credit money as a means of payment - without affecting the function of measure of value, which can only be performed by money itself.

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