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Credit Money and the Functions of Money in Capitalism

In a widely quoted passage, Marx indicated that money (gold) could be completely withdrawn from domestic circulation at the same time that it continued essential to international trade, as world money.[1] The correctness of this proposition has been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 Since 1930, monetary gold has been officially withdrawn from the circulation functions in all capitalist countries, but it continued to function as a recognized measure of value, as the basis of monetary standards,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

It should be noted that the passage referred to above appears in volume III of *Capital* in the context of the presentation of the credit system and credit money. This is not fortuitous, since the hypothesis of the complete withdrawal of gold from circulation is based on the assumption of 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. Its functions as a measure of value and a standard of money, however, are

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specific to the money commodity, which means that gold cannot be replaced in such functions. It is also significant that Marx derived his proposition from a clear theoretical grounding in 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 reason why several Marxist authors suggest that Marx's commodity money theory has become obsolete in view of the actual development of capitalism. More recently, an additional and seemingly stronger corroboration of this feeling has been the official abolition, in the 1970s, of every connection between current standards of money and any money commodity taken as a basis.

This paper discusses certain implications of the withdrawal of money (gold)[3] from its functions in the sphere of circulation, and its complete replacement by credit money in advanced capitalism. Although it is 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 analyses by Marxist authors. The main papers 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 is impossible in the absence of careful clarification of the central concepts of the credit system and of credit money.

Credit money—An attempt at definition

The typical form of credit money in advanced capitalism is bank deposits, which have replaced central banknotes 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 in turn derived from trade credit.[4] The sequence of phases is quite simple: Commodities are sold against promises to pay, that is, 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 both debtors and creditors at the same time gives rise to the systematic balancing of reciprocal debts against each other, which allows money largely to be released even from the

function of means of payment. Under these circumstances, money is largely withdrawn from both functions, as means of circulation, where it is replaced by trade bills, and as means of payment, where it is replaced by the balancing of reciprocal debts.

The function of safeguarding 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, initially, 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 banks, which issue banknotes corresponding to the gold value 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 have 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 gradually gives 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.

In the early phases of this development, banknotes circulated as titles of right to gold-money, alongside gold coins, which went on circulating as well. Banknotes were convertible into gold on sight. However, it has to be stressed that banknotes were, from the start, the most common means of circulation in high-value transactions—that is, among capitalists. Because banknotes were convertible, practical experience indicated the lower limit of metallic reserve, as a proportion of total deposits of gold, and the banks had to regulate the reserve to maintain the average amount withdrawn per period of time. It should be remembered that such a rule can only be effective in times of normal business but collapses as soon as a crisis occurs, because everyone endeavors 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 writings about Marx's theory of money, credit money is usually described in just this way. However, it has not been adequately defined as a theoretical category. In attempting to do so, 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 identical to neither one.[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. Its 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 we attempt to revive the relevance of concepts developed by Marx and are frequently overwhelmed by the accumulation of *ad hoc* concepts imported from other theories along the way. Thus, the most challenging theoretical difficulty is interpreting, on the basis of Marx's theory, the structure of the 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 that perform the functions of money (gold) in circulation, starting with bills of exchange as the original form. Several titles do this in contemporary capitalism, but the most important is bank deposits. When Marx was writing, there was already a banking system led by a central bank responsible for managing the gold reserve of the country and for issuing central banknotes, which were the main form of credit money, used for transactions of higher values, mainly among capitalists. Afterward, as the banking system expanded, the bank deposit gradually became the main form of credit money, which it apparently remains. Central banknotes have been reduced to instruments that perform the functions of money in transactions of lesser values.[9] It is the responsibility of

Marxist researchers to describe the process of this development and to 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 instrument of circulation, which develops from credit, originally commercial credit and eventually 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 a "symbol of value"[10] and also replaced money as the means of circulation.

The distinction between paper money and credit money

Marx emphasized 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: First, both circulate in the place of money without being money, replacing it in the functions of means of circulation and/or means of payment. Second, the distinction played an outstanding role in Marx's critique of the theory of money of Ricardo and the currency school, which represented monetarism in the nineteenth century. Third, in Marxist economy, the concept of paper money supplied the basis for the untenable suggestion that Marx, in one respect, made a concession to quantity theory that was 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 mistakenly assigned to central banknotes. 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 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 systems.[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, since it is at the same time issued by a bankrupt state that is unable to pay with real money, the stability of its value is doubtful—it may depreciate and would therefore be unable to function as a means of 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 corollary of inconvertible paper money issued by the state.

In presenting the characteristics of the symbol of value, Marx, as is well known, asserted 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 increased 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 the money already possess value when they enter circulation; this means that the value relation between commodities and money cannot be altered by the discretionary issue of paper money. How can the apparent contradiction between these two propositions be explained?

The effect of an excess of paper money on prices, as indicated by Marx, constitutes a particular case of his money theory—it is consistent with it and has nothing in common with the quantity theory. Marx attempts to demonstrate that the introduction into circulation of paper money of the same denomination as the gold coin represents an addition to the existing 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 any problems. For this reason, according to Marx, the issue of paper money should follow the practical rule of not exceeding the amount of circulating medium, which experience has indicated as 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 for circulation may arise that cannot be absorbed by hoarding.[16] The holders of paper money will endeavor to convert it into gold at all costs, thus giving rise to a discount of paper against gold (Foley, 1982; 1986, p. 26). The price of one dollar—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 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 mentioned, the extent to which the concept of paper money, as presented by Marx, is applicable to contemporary capitalism is not clear. In the writings of recent Marxist authors, the concept is analyzed little more than parenthetically, without being submitted to closer examination, with the apparent exception of Lapavitsas (1991, pp. 301–304). As noted, paper money by its nature seems rather to belong to the 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] Two arguments suggest the implausibility of this hypothesis: The first is that Marx, as far as I know, raised the concept of paper money only in connection with simple circulation, having failed to mention it when he was analyzing the circulating medium in capitalism, which in his time consisted basically of banknotes and gold—coin and bullion. This seems to suggest that Marx would not have considered it applicable to a state of capitalism endowed with a developed credit system. The second argument, which perhaps stands on the ground of the previous one, is that the effects of paper money do not follow specifically from its inconvertibility, but

rather from the unreliability of its value, which renders 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 found in contemporary capitalism, which is endowed with a developed credit system, may easily be taken as an indication that the latter operates with paper money. The apparent incompatibility of this hypothesis with the theory of credit money requires closer investigation to specify its nature. This is necessary in view of the fact that in Marx's theory—abstracting from the case of paper money, just mentioned—inflation seems 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 labor 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 analysis of advanced capitalism, seems useful for 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 challenging the integrity of the gold-based monetary system. 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, is a convenient expository tool because it draws attention 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 into two distinct categories: "prices based on the standard of prices" and "prices based on money," hereafter abridged as "standard prices" and "money prices," respectively. This distinction is relevant and deserves a fuller account.

"Standard prices" and "money prices"

It is well known that Marx defined the price as the value of a commodity expressed in money—that is, in a definite amount of gold.[19] This is the price here called the money price. The money price, by definition, changes only as a result of a change in the value of the commodity, assuming an 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 how standards of money such as sterling, the franc, or the dollar used to be defined. "Standard prices" are the prices of commodities as expressed in the standard of prices. It is significant that, assuming a 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 illustrate 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, 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 a 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 bring about relevant consequences, even if it is unable to affect the values of commodities—that is, 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 a measure of value and a standard of prices, derives from the differences in their consequences just mentioned.[22] This distinction proves that the current standards of money, like the dollar, sterling, mark, and so on, cannot be equated to money. Those monetary standards perform the function of standard of prices but not of measure of value—in other words, 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 being the result of a change in the values of the commodities. Thus, for instance, 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 1970s and early 1980s 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, with no relation to changes in the money prices of the same commodities—that is, in their values. This strongly supports the notion that the dollar—as well as the sterling, mark, yen, and so on—are not money, and are not measures of value either; rather, they are simply standards of prices or monetary

standards. To argue that they are indeed measures of value would require admitting and explaining two questions: 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 mentioned above.

An equally relevant aspect that emerges from this distinction involves 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 latter. Understanding the implications of this requires that we remember 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, this definition may hold indefinitely, regardless of changes in the labor value of gold.[25] If the latter changes, however, assuming constant values of ordinary commodities, the price level will change. Let us return to the previous example: If the value of gold falls by 20 percent thanks to technical improvements, the standard price of commodity A will be raised from 4 to 5, with no change in the gold content of sterling. This is 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 represents nothing but a certain amount of minted gold—either as coins or bullion, or banknotes that represent 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 in different forms.

If this is so, suggestions from Marxist authors that today fully symbolic monetary standards serve as the 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 1970s and 1980s 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 United States,

which is extremely unreasonable.[27] Such suggestions represent a real problem for Marxist theory—namely, explaining the apparent absence of a relation between contemporary monetary standards and an underlying money commodity, which would be the actual measure of value. However, in their present form, those suggestions 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, and they also do not suggest an alternative theoretical basis. There appear to be two alternatives for dealing with this problem within the realm of Marx's theory: either prove that contemporary monetary phenomena can be explained on the grounds of Marx's theory of commodity money, or prove that this theory should be changed in view of the historical evolution of the capitalist credit system.[28] In the latter case, however, in order to keep within the realm of Marx's theory of value, a consistent alternative explanation should be able to maintain 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 of providing a theoretical explanation of the process through which amounts of social labor are converted into amounts of money.

Marx's demonstration that the measure of value can only be performed by a commodity, implying that money must be a commodity, has been summarized in a previous paper (Germer, 1997). Note that the mentioned proposition cannot be attributed to the mere adoption, on Marx's part, of an empirical fact—the dominance of the gold standard in 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 Marx explains it; it 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. In this case, it seems clear that the commodity nature of money can only be objected to, in the realm of the labor theory of value, if an alternative theory about the connection between labor and wealth is offered. The essential flaw in objections to

the commodity money theory, in the Marxist field, is that they reject the commodity nature of money under the implicit assumption that they can do so at the same time that they maintain the validity of Marx's theory of value. This assumption, however, seems inconsistent. Thus, those who articulate such objections should be able to present an alternative theory of labor value.

If the measure of value is thought to be of necessity a commodity, the monetary standard must of necessity be defined in terms of the former, in the manner 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. Since 1971, however, the monetary standards seem to have been simply declared independent from any standard commodity, but the system of prices built on the dollar standard defined in terms of gold has been maintained. The following problems seem relevant here: First, how does the system of prices adjust, at present, in the absence of an objective standard of value? Second, why is gold still 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 United States and at SDR 35/ounce, while gold's market "price" has fluctuated between US$300 and US$400 in the last ten years?

One pertinent conclusion for the Marxist theory of money may be derived from the previous presentation: While an explicit connection between the monetary standards and gold today has not been established, it seems clear nonetheless that the measure of value cannot be attributed to those monetary standards. In the absence of a measure of 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 amount of social labor contained in commodities must be previously measured.[29]

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 it is usually not taken into account by authors writing on this subject. The underestimation of the importance of this function in Marx's theory seems to be a factor making it difficult to acknowledge the relevance of

Marx's sharply drawn distinction between money and capital, as well as acknowledging the subordinate and passive role of money in capitalism.[30] Another difficulty is underestimation of another of Marx's distinctions—that between money functioning as bare money (i.e., as means of circulation and of payment) and money functioning as capital in the money form in advanced capitalism.[31] This suggests that the inappropriate equation of capital with money has a long history and is at present more explicitly represented in Keynesian theory, particularly in the more recent Post Keynesian school.[32] It is significant that some Marxist authors seem to admit—perhaps without closer examination—to affinities between Marxist and Post Keynesian theories, leading them implicitly to accept Post Keynesian concepts, particularly in the monetary field, which is precisely where Keynesian monetary concepts look more attractive to Marxists, who are apparently convinced of their superiority over Marx's monetary concepts. One reason for this rather uncritical acceptance of Keynesianism is the underestimation, on the part of 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," is 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 with money—that is, in the proposition that capital is money. This equation may be attributed, in part, to a mistaken observation that is translated into a conceptual mistake: Because capital is, in all forms, an amount of value, it is necessarily expressed as money; what is sometimes not adequately acknowledged, however, is that in this case money functions only as money of account in order to describe capital in its uniform quantitative aspect—that is, to 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 exceptionally, 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 side, commodity capitals in circulation, as means both of production and of consumption, as well as productive capital retained in the form of both fixed capital and stocks of circulating constant capital, are all 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 hand, which is obviously also expressed in money form, does not in fact exist in its greatest part in the material form of money, either metallic or as central banknotes, but rather as titles of debt, which represent *money capital* loaned 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] We have not even considered fictitious capital, which is neither capital nor money, but is also ideally expressed in money as unit of account.

The distortion wrought in Marxism by the Keynesian influence has important theoretical consequences, since the distinction between money and capital is not merely rhetorical, and the function of money as unit of account is not merely decorative. 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 but misinterpreted by Keynes, and apparently accepted in some Marxist writings as if it in fact represented Marx's view. Although this notion of Keynes reflects a seemingly unambiguous fact of observation, it in fact simplifies an extremely complex reality that Marx does not reduce to the formula just mentioned (Germer, 1996b). Marx, in contrast, uses it to illustrate what he calls the irrational concept of capital as 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 represented by this formula, the profit implicit in the difference between *M'* and *M* becomes a phenomenon of circulation, and the exploitation of the labor force is eliminated from the analysis. Marx made use of that formula precisely to illustrate 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 must be 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 or her to failure. Nor does it mean 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 the starting point of a new cycle, where M_2 is greater than M'_1 in the first cycle, assuming, for simplicity, constant values.[38] But M' and M are amounts of value that 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 that they be converted 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, assuming everything else constant, a larger amount of means of production absorbs a larger amount of 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 not 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 with 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 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 as 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, and so on—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 the aim of capitalists are both implicit in the concept of capital as a continually repeated movement and are reflected in the fact that capitalists usually aim to convert M'_1

back into C_2 even before it is realized as money, so that the start of the new cycle of production need not wait for the effective sale of C'_1. It merely expresses the fact that each capitalist aims to reduce the *turn-over time* of his or her capital as much as possible; the time of circulation is one component of this aim. Thus, the proceeds of sales are usually already engaged for the settlement of debts before they are realized, reflecting the generalization of both commercial credit and the function of means of payment of money, briefly mentioned earlier. 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 an expansion of value, which implies that the capitalist has to increase his or her capital continually—that is, to accumulate. Unlike for Keynes, for Marx the aim of the typical capitalist is to accumulate more capital rather 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 if it is necessary to accumulate a larger amount of potential money capital to invest later, there is no advantage for the capitalist in immobilizing capital in the money form; the advantage lies in lending it, which he does either directly or by means of a bank or some other financial agent.[42] What he lends is not money, or 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 or her capital value, rather than his money value. The only function of money is to determine the dimension of his or her capital's value under all forms, and this it does in the function of the unit of account.

Abolishing hoarding in an advanced credit system

After this brief account of the motion of capital and of the function of unit of account of money, we may attempt a closer assessment of the function of means of hoarding of money.[44] The concept needs to be defined with greater accuracy. Hoarding is a function not 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—that is, 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 his 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 of 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 of accumulating wealth in capitalism involves not withdrawing money from circulation but throwing it into circulation and keeping it there permanently.

Thus, it seems at first sight inadmissible to ascribe a relevant role to hoarding in capitalism.[46] Given the antagonism toward hoarding that prevails under capitalism, 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 attendant process of production of surplus value. On the other hand, the neglect of this aspect of the problem seems to be one cause 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, recognition of the antagonism of capital to hoarding may impose theoretical consistency on the complete withdrawal of money (gold) from the circulation functions by the state. In other words, the withdrawal of gold from circulation, by state decision, which might have been seen as an undue "external" interference, may be reassessed as 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 needed more as the foundation of the credit system, that is, as crises erupt, 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 earns nothing, the monopoly of gold seems to imply that it is the state that assumes 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. This may be interpreted as meaning that, in advanced capitalism, the state suppresses private hoarding in a way that is strictly consistent with capitalist logic, which hoarding opposes. In restraining private hoarding, the state seems to protect the system from the adverse effects of irrational capitalists; hence, it may be seen as an anticyclical factor made possible by the development of the credit system.[49]

How do things go against this new background? Since the central banknote is neither money (gold) nor convertible into it nowadays, it cannot function as a means of hoarding, according to the strict theoretical definition (i.e., storing of central banknotes does not represent hoarding). Even if we acknowledge that the central banknote is insured by the state, this sort of insurance is the greatest only when unnecessary, as in expansionary phases when no capitalist would think of storing central banknotes in his or her own strongbox. In times of crisis the support of the central bank is also uncertain, as illustrated by numerous historical events: the depreciation, albeit 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, leading to its depreciation, as in the United States in 1933–34 and again in the 1970s. More examples could be cited. These examples indicate that the state's insurance of the value of central banknotes does not correspond to the insurance represented by the intrinsic value of money (gold). This is why, in times of crisis, capitalists, prevented from individual access to gold, seek protection in "real assets" such as real estate, jewelry, precious metals, and other tangible items. This is only an

individual remedy, however, which transfers the money spent in such purchases to another capitalist, instead of hoarding it, and so illustrates the efficacy of the interdiction of private hoarding. However, it is frequently suggested that, in contemporary capitalism, hoarding consists of deposits in the banking system. This is inaccurate, since the deposit amounts to a 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 with hoarding. Value is not in my hands but in someone else's, and its repayment cannot be considered as safe as my access to the gold stored in my private safe.

A curious aspect of the problem arises. If gold is in fact the safer way to store value, and since there is a gold market, individual capitalists could escape the central bank's monopoly by purchasing gold, and they do so. Then, couldn't this revive gold's function as a means of hoarding? On the one hand, capitalists would not purchase great amounts of gold in times of expansion for the reason just mentioned: What they aim at is capital, which gold is not—it is 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 is no longer a legal means of circulation and payment in the domestic market. Paradoxically, it is now gold that is legally inconvertible into central banknotes—that is, 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 so, considering legal restrictions.

Does the fact that gold no longer functions as a 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 of measure of value and unit of account without affecting their regular performance. 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 can be no apparent theoretical objection to the state's converting such separation into a legal rule. The state effectively did so, 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 by converting it into gold? In other words, why should capitalists accept the state's restrictions? Implicit in this question is the assumption that the state's legal restriction in some way violates the laws of capital, yet the historical process does not support this view. In the United States, for instance, the prohibition was introduced in the critical 1930s, when every country attempted to prevent its own gold reserves from being transferred abroad. Thus, the interdiction of private hoarding of monetary gold represented an attempt to prevent the individualistic interests of particular capitalists from damaging the collective interests of the nation's capitalist class. However, gold continued to be available from the central bank, though only as bullion for payments abroad. Something similar happened when the dollar became inconvertible in 1971: This move 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 possibly fatal attack of the corresponding capitals from other countries, representing their own collective category. Another restriction was then accepted by the American capitalist class: The central banknotes became inconvertible, even for payments abroad. Two progressive phases took place: In the 1930s, private gold was converted into state gold, which was inconvertible into coin, which did not circulate anymore, but it was convertible into bullion for export; in 1971 this possibility was also removed and gold ceased circulating in significant amounts among countries.

In summary, the fact that gold (money as a means of hoarding) is a state monopoly means that credit titles cannot be converted into it. The impossibility of hoarding at all means that all value produced in the economy is converted into capital, on the grounds of the credit system, even when the owners would prefer not to do so. This is so because all the unused money capital—as well as fractions of mere money—is usually deposited in the banking system and converted into capital through credit, subject to central bank restrictions. None of it is money (gold); it is 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 merely a symbol of value. It might be labeled a symbol 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 in the banking system in the form of loan capital, capital ownership is irrelevant. While one segment of capitalists is in the process of forming reserves of monetary capital, others are using them by way of credit. In this way, the inability of capitalists to hoard converts their reserves into active capital.

Concluding remarks

The aim of this paper was to explore a number of implications of the replacement of money (gold) by credit money in the functions of circulation. The most significant results from this investigation may be summarized as follows: First, 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 us 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 lies either in explaining, on the basis of the theory of value and money as laid out by Marx, the apparent discontinuity of present monetary standards from a money commodity, or in presenting an alternative to Marx's theory of money that does not break the connection between money and labor as the source of value.

Second, the essential distinction between the concepts of inconvertible paper money issued by the state and central banknote has been analyzed. The relevance of this distinction is given, on the one hand,

by the opportunity it offers us to disprove the mistaken notion that Marx's approach to money in some way resembles the quantity theory because of the effect of an excess of paper money on prices, as pointed out by Marx. This seems still to be an unsettled issue among Marxists. It has been pointed out that the effect on prices follows from an argument without connection to the quantity theory of money. On the other hand, 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 that has yet to be satisfactorily explored by Marxist authors.

Third, the function of money of account, another unsatisfactorily analyzed subject, is of great relevance as one of the elements required to understand the compatibility of the withdrawal of money (gold) from the circulation functions under the operating conditions of developed capitalism. A further element is understanding the irrelevance of the function of means of hoarding in advanced capitalism, after closer examination of its real definition. The development of the implications of both concepts of money of account and means of hoarding in the context of advanced capitalism illustrates the adverse effects of the adoption of concepts derived from other theories—specifically, in this case, Post Keynesianism. 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, illustrates that Marx's concepts about money, once taken fully into account in their original contents, are appropriate theoretical tools for understanding the internal logic behind important aspects of the contemporary monetary system.

Finally, this discussion has sought to prove that the replacement of money (gold) by credit money does not affect the principle of money as commodity. Marx himself proved at length 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.

Notes

1. "The entire history of modern industry shows that metal would indeed be required only for the balancing of international commerce, whenever its equilib-

rium is momentarily disturbed, if only domestic production were organized. 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" (Marx, 1967, vol. III, p. 517).

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

3. In this paper it is accepted that, in Marx's money theory, money is strictly the commodity that performs the function of general equivalent of value, i.e., gold. The theoretical foundation of this assumption has been presented in Germer (1995, pp. 251–263; 1997).

4. Both commercial credit and the function of means of payment originate in simple circulation. Their relevant characteristics as well as implications have been analyzed by the author elsewhere (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 they received, were in a position to advance money to the state" (Marx, 1952, vol. I, p. 374).

6. "But it 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" (Marx, 1967, vol. III, pp. 572–573).

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 whom monetary gold, paper money, banknote, and deposits are just different forms of money, the first two being "simpler forms" and the last two "advanced forms" (Lapavitsas, 1991, 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, 1991, p. 292).

9. In the United States, for instance, the issue of Federal Reserve notes of $500, $1,000, $5,000, and $10,000 has stopped since 1946.

10. Paper money belongs among the rank of symbols of value whose theoretical explanation has been given by Marx in *Grundrisse* and summarized in volume I of *Capital*. The replacement of mere symbols of value for money is feasible in the simple circulation of commodities because the aim of circulation is consumption, rather than money itself; hence, the mediation by money does not require its physical presence. Thus, once the function of measure of value has been socially established, prices of commodities may be only ideally expressed in money, functioning in this case as money of account, which is why it can be

replaced in the function of means of circulation by objects that are mere symbols of itself.

11. De Brunhoff charges Hilferding with having introduced a quantitativist bias in his interpretation of that part of Marx's money theory (de Brunhoff, 1978, p. 150). An account of this polemic is found in Germer (1995, pp. 49–59).

12. Hilferding stated that inconvertibility converts banknotes into paper money (Hilferding, 1973, pp. 103–104). However, given the essential difference in nature between paper money and banknotes, this seems unreasonable. In order to illustrate the case, Hilferding explicitly mentions the classic example of Great Britain between 1797 and 1821. However, what took place in this case is what usually took place, until recently, in cases of war or severe economic crisis—namely, banknotes were temporarily proclaimed inconvertible 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 accepted and necessary to finance the imports essential for the war effort. On the other hand, the British state was at that time not bankrupt, nor had it lost domestic or international credit.

13. Lapavitsas (1991, p. 301), 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.

14. From the analysis of the circulation of commodities, in the *Grundrisse*, Marx concludes 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 simply 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, unlike 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 to a level that requires a smaller amount of circulation medium than the paper money already present. Since paper money does not function as means of hoarding, its excess cannot be withdrawn in this way.

17. The prices that increase in this case are, in fact (as shown in the next section), the standard prices, whose increase is 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 volume III of *Capital*, that tends to make the same point 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, also seems to consider their existence compatible with a more developed state of capitalism (1991, p. 301). Foley seems to share a similar opinion, since he mentions both the British banknotes during the Napoleonic wars, when convertibility was 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 latter two cases could well be interpreted as illustrations of the difference in nature between paper issued in countries with an advanced banking system, such as Great Britain at the time of the Napoleonic wars, where the issues were banknotes, on

the one side, and on the other side countries that were still not counting with a similarly developed banking system, such as the United States during the Civil War, whose issues may perhaps better be compared with paper money.

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

20. Remember 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—in other words, the latter just stamps its seal on a definite though arbitrary amount of the money commodity.

21. Marx emphasized that the appearance of the monetary standard has gradually concealed the fact that the price of a commodity is only a certain amount of the money commodity (gold), and is one reason for endowing money with mysterious 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" (Marx, 1952, vol. I, p. 44).

23. This objection to the proposition that the present monetary standards function as measures of value was 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 such as dollar, sterling, mark, etc., assumes 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 emphasized this point: It is not the value of the monetary standard that 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 sterling was actually unchanged for more than two centuries 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, pp. 14, 20) and Lipietz (1983, p. 142–143).

27. It is unreasonable to admit a decrease—and, moreover, a uniform decrease—in labor productivity in the economy as a whole, even in the 1970s and 1980s, which were admittedly a period of decrease in the rate of growth of labor productivity in the United States, but not of negative rates. On the other hand, if such a thing were admitted, the United States should have experienced a great drop in the level of prices in the 1950s and 1960s, 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 corresponds to 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 stayed 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.

28. Marx used the expression "monetary system" to designate the circulation of commodities based on money (gold), whereas the capitalist circulation is based on the "credit system."

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 that 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 production. Discussions of this important subject sometimes forget that the same is true for use value: Use value is also a property of the commodity, and since 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 that 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 to Volume III of *Capital*, 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 to treat with criticism and sarcasm" (Marx, 1967, vol. III, p. 6).

32. The Post Keynesian school is heterogeneous, but it can be represented mainly by the following authors: Davidson, Weintraub, Minsky, Kregel, and Harcourt, among others (Davidson, 1992, ch. 1; Hamouda and Harcourt, 1989; Harcourt, 1985; Carvalho, 1989).

33. I have discussed this specific aspect elsewhere (Germer, 1996b).

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 such as savings and time deposits are mixed together with fictitious capital, such as 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; this, too, is acceptable for practical purposes but not as a theoretical distinction. These are examples of theoretical misconduct that Marxists should not follow.

35. The problem of the transformation of loan capital into productive capital would require closer examination. It should be mentioned, however, that, in case

the money reserves of all sorts are deposited in the banking system, the latter's reserve funds would consist of the part of total loan capital that has to lie idle. Only the latter 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*" (Marx, 1952, vol. I, p. 73, emphasis added).

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

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 into two parts: The first represents the original means of production contained in C_1, which have of necessity to be replaced and in this case the conversion into real money is not essential; the second represents surplus value which, since it is incapable 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 latter is also true of that part of *M′* that 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, implicit in the development of the credit system, money is replaced in the function of means of payment by the balancing of reciprocal debts, which is converted into a continual process by the banking system.

42. The same is true of the depreciation funds.

43. During the time his money capital lies idle at the bank, it consists of 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 first 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. I have analyzed 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 elsewhere (Germer, 1996b, 1997)

45. To accumulate capital is not the same as storing money. According to the concept of capital, to accumulate capital consists in essence of 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, to the extent that he conflates credit money with money. If Lapavitsas conceived money as being strictly gold, however, he would in part be correct, 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 a measure of value, which requires its physical presence as well circulating as a commodity from production on.

47. What the state actually does, in this case, is 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 collective reserve funds concentrated at the central bank. It is the same development that 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 United States and other advanced capitalist countries, since 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 banned.

49. However, private hoarding—i.e., the holding of gold as store of value—has not been abandoned. On the contrary, it seems to have continued to be significant, at least until the 1960s, according to several authors (Triffin, Harrod, Johnson, and others, in Grubel [1965]). I have not been able to find more accurate and updated data so far.

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)" (Marx, 1967, vol. III, p. 572).

51. The seriousness of this event is usually not emphasized. The United States refused to fulfill an explicitly agreed obligation to convert dollars held by foreign countries and capitalists into gold. This seems to be an example of discretionary power similar to what 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' acts were consistent with the underlying economic reality.

52. "So far as the entire capitalist class is concerned, the proposition that it must itself 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" (Marx, 1967, vol. II, p. 421).

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