Marx on Money

I. Introduction

Marx's performance in the field of money and credit has never attracted the same attention as, for instance, his labour theory of value or his 'law' of the falling rate of profit. Money and credit is perhaps a field of study in which non-specialists feel a bit insecure and on which they do not want to burn their fingers. The negative opinion of prominent academic economists of Marx's theory of money may also not have been much of an incentive to study that theory. Schumpeter called Marx's performance in the field of money "distinctly weak" and was of the opinion that it "did not succeed in coming up to the Ricardian standard" (Schumpeter, 1962 p. 22). Blaug remarks on Marx's theory of money, as found in "Capital", vol. I, chs. 2 and 3, that "There is nothing in these chapters not found in Ricardo or Mill" (Blaug, 1968) p. 276). Even the Marxist economist Oscar Lange had not much time for the contributions of Marx (and of his followers, for that matter) in the field of money and credit. He wrote that "There are some problems before which Marxian economics is quite powerless, while "bourgeois" economics solves them easily. (...) what has it [Marxian economics] to say on the fundamental problem of monetary and credit theory?" (Lange, 1934 - '5 p. 191).

These disparaging remarks arouse one's curiosity, for the chapters on money take quite a prominent place in a number of *Marx's* main writings. The "Grundrisse" starts, after a 31-page Introduction, with a chapter on money ("Das Kapital vom Geld", 141 pages), "Zur Kritik der Politischen Ökonomie" is (barring a first chapter on commodities) entirely about money, and volume I of "Das Kapital" starts with a part I, titled "Commodities and Money" (Ware und Geld). This seems sufficient reason for investigating what *Marx* had to say about money. This article is, therefore, a review and critique of *Marx's* theory of money*.

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II. Commodity exchange and money

In both "Zur Kritik" and Part I of "Capital", vol. I, money is studied after commodities are treated. This suggests that *Marx* viewed money as a phenomenon which is characteristic for commodity producing societies. As *Marx* expounds his labour theory of value in the chapters on commodities, one is led to suppose that his theory of money rests upon his value theory. *Fritsch* observes that the Marxian law of value and the surplus value doctrine that rests upon it form the foundation of the Marxian theory of money and capital (*Fritsch*, 1968 p. 37). And *Marx* himself remarked that "money does not arise from convention, no more than the state. It arises naturally from commodity exchange and in commodity exchange, is a product of it" (*Marx*, 1953 p. 83). His reasoning is as follows.

He distinguishes between the use-value of a commodity and its exchange value (Marx, 1946 b and 1965 a, ch. 1). A commodity is a use value because it has utility, that is, because its properties satisfy human wants. Now if some quantity of a given commodity is exchanged against some quantity of another commodity, this means that "in two different things (...) there exists in equal quantities something common to both. The two things must therefore be equal to a third, which in itself is neither one nor the other. Each of them, so far as it is exchange value, must therefore be reducible to this third" (Marx, 1946 b pp. 3, 4; 1965 a p. 51). What is this third? "As use-values, commodities are, above all, of different qualities, but as exchange values they are merely different quantities, and consequently do not contain an atom of use-value. If then we leave out of consideration the use-value of commodities, they have only one common property left, that of being products of labour" (Marx, 1946 b p. 4; 1965 a p. 52).

But if we make abstraction from the use-value of a commodity, "we make abstraction at the same time from the material elements and shapes that make the product a use-value.... Along with the useful qualities of the products themselves, we put out of sight both the useful character of the various kinds of labour embodied in them, and the concrete forms of that labour; there is nothing left but what is common to them all, all are reduced to one and the same sort of labour, human labour in the abstract" (Marx, 1946 b pp. 4, 5; 1965 a p. 52). This "human labour in the abstract", or "a mere congelation of homogeneous human labour" is value. So we have found that "the common substance that

manifests itself in the exchange value of commodities, whenever they are exchanged, is their value" (Marx, 1946 b p. 5; 1965 a p. 53).

This value is not determined by the quantity of labour actually spent on it, but by the "socially necessary" labour-time, which is the labour-time that is "required to produce an article under the normal conditions of production, and with the average degree of skill and intensity prevalent at the time" (Marx, 1946 b p. 6; 1965 a p. 53; see also Marx, 1953 p. 54).

Price, value and use-value should be sharply distinguished. Value depends on socially necessary labour-time. The value of diamonds, e. g., is high because their discovery costs, on average, a great deal of labour-time (Marx, 1946 b p. 7; 1965 a p. 55). But some things are use-values without having value; these things have utility which is not due to labour, such as air and natural meadows. A thing can also be a use-value and the product of human labour without being a commodity, sc. if the producer makes it for his own use (Marx, 1946 b p. 8; 1965 a p. 55). On the other hand, a thing may have a price without having value, not being the product of labour. This is so for the powers of nature when they are monopolized, e. g., a waterfall that can be used to drive machines and is let or sold by its owner. As for Marx a price is value, expressed in money, the "price of a waterfall" is for him an irrational expression. He prefers to speak of a capitalized rent (Marx, 1965 b p. 660).

There is no production of commodities without division of labour, for there would in such circumstances be no need to exchange one thing for another. Division of labour is, however, possible without commodity production (*Marx*, 1946 b p. 9; 1965 a p. 56). Goods become commodities when they are produced for exchange, but, as *Marx* remarks, the division of labour need not be organized via an exchange by individual economic units.

Now when goods are produced for exchange in a market, that is, when they become commodities, they are, in *Marx's* words, "transformed into exchange value". This brings with it the necessity for

¹ I cannot agree with *Bose*, who maintains that for *Marx* labour was not the only source of exchange value (*Bose*, 1975 pp. 63 - 69). It is true, as *Bose* argues, that *Marx* wrote in the "Kritik des Gothaer Programms" that labour is not the source of all wealth, but that nature is as much the source of use values as labour (*Marx*, 1946 a p. 17). But use value is not identical with exchange value.

exchange value to get an existence independent from the commodities themselves (Marx, 1953 p. 63). Marx sees, in an exchange economy, a contradiction between use-value and value which must be given expression by the establishment of an independent form of value. This is in the end done by a differentiation of commodities into commodities and money (Marx, 1946 b p. 59; 1965 a p. 102). In the words of Marx, " a particular kind of commodity acquires the character of universal equivalent, because all other commodities make it the material in which they uniformly express their value" (Marx, 1946 b p. 38; 1965 a p. 82). Commodities are brought in relation to one another as values by expressing them in the same equivalent, that is, in one other commodity. This one commodity becomes directly exchangeable with all and every one of the other commodities, and in this way acts as the universal equivalent (Marx, 1946 b p. 37; 1965 a p. 81). The universal equivalent is money: "The particular commodity, with whose bodily form the equivalent form is thus socially identified, now becomes the money commodity, or serves as money" (Marx, 1946 b p. 40; 1965 a p. 83).

III. The value of money and the quantity theory

What determines the value of the money commodity? Like that of every other commodity, its value is determined by the labour time which is socially necessary for its production (Marx, 1946 b p. 64; 1965 a p. 106). This is not to say that there could be no fiduciary money, for in certain functions money can be replaced by "mere symbols of itself" (Marx, 1946 b p. 63; 1965 a p. 105). Gold circulates because it has value, but paper (fiduciary money) has value because it circulates (Marx, 1947 b p. 125).

Marx made use of the equiation of exchange, in verbal form: "for a given interval of time during the process of circulation, we have the following relation: the quantity of money functioning as the circulating medium is equal to the sum of prices of the commodities divided by the number of moves made by coins of the same denomination. This law holds generally" (Marx, 1946 b p. 95; 1965 a p. 133). He was, however, opposed to the quantity theory. Causality does not run, in his eyes, from M (the quantity of money), V (the velocity of circulation) and T (the volume of trade) to P (the price level), but from PT/V to M: "... the money in reality represents the quantity or sum of gold ideally expressed beforehand [my italics, h. v.] by the sum of the prices of the commodities" (Marx, 1946 b p. 92; 1965 a p. 131). Marx emphasizes that,

given the velocity of circulation, the volume of the means of circulation is simply determined by the prices of the commodities. Prices are not high or low because more or less money is in circulation, but more or less money circulates because prices are high or low (*Marx*, 1947 b p. 107).

If, for example, the value of gold falls, because less labour is needed for its production, more gold is needed to finance a given volume of commodity circulation. If the value of gold falls and the value of other commodities does not, commodity prices expressed in gold will rise. So the quantity of money 'in currency', or in active balances, must rise (Marx, 1946 b p. 92; 1965 a p. 131). Marx concedes that the price increases may take quite a long time. The quantity of gold in circulation increases while at its sources of production more articles are bartered directly for them. Gradually the prices in the whole economy rise (Marx, 1946 b p. 93; 1965 a p. 132; 1947 b p. 168). But prices go up because the value of gold falls, not because more gold is produced: "A one-sided observation of the results that followed upon the discovery of fresh supplies of gold and silver, led some economists in the 17th and particularly in the 18th century, to the false conclusion that the prices of commodities had gone up in consequence of the increased quantity of gold and silver serving as means of circulation" (Marx, 1946 b p. 93; 1965 a p. 132).

As for the velocity of money, this is partly an institutional datum, depending on the speed of communication. *Marx* cites the penny-post, the railways and the telegraph as developments which have increased the velocity of circulation (*Marx*, 1965 b p. 539). Corrections must be made in the case of a credit economy, in which commodities may be sold without money payments or debts are repaid without commodity sales and purchases taking place (*Marx*, 1947 b pp. 106, 153; 1946 b p. 116; 1965 a p. 153; 1965 b pp. 462 - '3).

As already noted, fiduciary money may take the place of full-blooded coins or even completely replace them for internal purposes (Marx, 1965 b p. 533). Marx says that copper and silver coins represent certain functions of gold coins within the sphere of circulation. Their own content of copper and silver is not determined by the relation between the value of silver and copper to gold, but is arbitrarily fixed by law. If too much copper and silver coins were issued, prices would not rise, but the coins would accumulate with the retail traders, who would be forced to sell them as metals (Marx, 1947 b pp. 114 - '5). State paper

money (with forced currency) also represents gold, provided its nominal value does not exceed the amount of gold (or silver, as the case may be) which would actually circulate in case it were not replaced by symbols (Marx, 1946 b pp. 103 - '4; 1965 a pp. 141 - '2; 1953 p. 55). According to Marx, the quantity of gold which the circulation can absorb, never sinks below a certain minimum. This minimum can be replaced by paper money. If too much paper money is issued, its value falls to the extent that its volume exceeds the amount of gold coins that would circulate in its absence (it may be noted that paper money has no value in Marx's eyes, it is only a symbol of value). If the nominal amount of inconvertible paper money would be double that of the amount of gold that is necessary for circulating commodities, prices would be doubled. The quantity of gold in circulation depends on the value of the commodities, but the "value" of paper money depends on its own quantity. The same applies to debased gold and silver coins (Marx, 1947 b pp. 122 - '4). A fall in the value of gold or silver leads to higher commodity prices and to an increase in the amount of money in circulation. An increase in the volume of "symbols of value" (fiduciary money) also leads to higher prices. In the former case M follows P, in the latter P follows M. Marx takes Hume to task for not seeing the difference (Marx, 1947 b p. 167).

As usual at that time, Marx makes a sharp distinction between inconvertible paper money and bank money or credit money which is created in the course of granting credit. He says that note issuing banks do not have the power to increase the number of circulating notes as long as they are convertible (Marx, 1965 b p. 539). He therefore adheres to the Banking School idea of the "law of reflux", which says that the volume of circulating notes adapts to the needs of trade, and that every superfluous note directly goes back to its issuer (Marx, 1965 b p. 540)². In accordance with this Banking School stand is his opinion of Peel's 1844 Bank Act. The Bank Act, based on the Currency Principle, aimed at lowering prices by restricting the money supply when gold flowed abroad. According to Marx, this would only raise the rate of interest, and not influence the price level, if we abstract from the possible influence of interest rate changes on prices (Marx, 1965 b p. 567). And Friedrich Engels notes that in times of crises bank-

² Cf. the Banking School ideas of *Thomas Tooke* (Tooke, 1844 p. 60; Gregory, 1928 p. 81) and already of Sir *James Steuart*, who is praised by *Marx* (1947 b pp. 173 - 174), but who in effect says that anything may happen (*Steuart*, 1966 pp. 344 - 355, 355).

notes are hoarded and credit is stifled, and that therefore the Bank of England should liberally grant credit, whilst the 1844 Bank Act on the contrary forces it to reduce the note circulation (*Marx*, 1965 b p. 543).

Marx's anti-quantity theory stand is consistent with his labour theory of value. Value and (long-run equilibrium) prices are determined in the commodity sector of the economic system. The monetary sector is passive. Marx pours scorn on those who, like David Hume, hold "the absurd hypothesis that commodities are without a price, and money without value, when they first enter into circulation" (Marx, 1946 b p. 99; 1965 a pp. 137 - '8; cf. also Marx, 1947 b pp. 171 - '2). Values are, instead, dependent on socially necessary labour time, and prices are determined by the relation between the value of commodities and the value of the money-commodity.

IV. The functions of money 1. Measure of value and standard of price

In the second chapter of "Zur Kritik der Politischen Ökonomie" and the third chapter of "Capital", vol. I, *Marx* analyzes the functions of money, more specifically, of the forms of money that spring up immediately from commodity exchange, ignoring the forms that belong to a higher stage of the production process (credit money). For the sake of simplicity, gold is taken throughout as the money commodity.

The first function of money is to supply commodities with the "material" for the expression of their values (Marx, 1946 b p. 66; 1965 a p. 109). It serves as a universal measure of value. Marx distinguishes between money as a measure of value, or ideal money, and money as a standard of price (Marx, 1946 b p. 82; 1965 a p. 123). "It is the measure of value in as much 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, 1946 b p. 70; 1965 a p. 113; 1947 b p. 69). "As the measure of value it serves to convert the values of all the manifold commodities into prices, into imaginary quantities of gold; as the measure of price it measures these quantities of gold" (Marx, 1946 b p. 70). "In order to make gold a standard of price, a certain weight must be fixed upon as the unit" (ibidem). This means that the value of gold may change without interfering with its function as a standard of price. If, for example, the amount of labour necessary to produce a certain weight of gold falls, more units of gold are needed to represent a certain value, and commodities whose value has not changed will

have higher prices, expressed in gold. Money as a standard of price is stable, as a measure of value it is variable.

Now prices are not expressed in weight units, but in monetary units that, though perhaps originally deduced from weight units (pound, e.g.), have names that bear no particular relation to weight units. Money as a standard of price then serves as money of account (*Marx*, 1946 b p. 73; 1965 a p. 115).

If the value of the monetary unit changes, and the value of a commodity not, the latter's price changes. But though price is an expression of the value of a commodity, it may nevertheless deviate from that value. Prices oscillate around their long-run "normal" level, or around value, under the impact of supply and demand, and in a capitalist economy with capital-labour ratios differing among industries prices will even systematically differ from values. All this may be assumed to be well known, as a result of the endless debates on the difference between vols. I and III of "Capital", the so-called "transformation problem".

V. The functions of money 2. Medium of circulation

In Marx's view, "The division of labour converts the product of labour into a commodity, and thereby makes necessary its further conversion into money" (Marx, 1946 b p. 81; 1965 a p. 122). By being changed for commodities gold becomes real money, as opposed to ideal money or measure of value. Marx stresses the fact that the use of money as a medium of exchange or circulation makes a fundamental break with the situation of direct barter. Multilateral trade now becomes not merely a possibility, but indeed the normal state of affairs.

Furthermore, the introduction of a medium of exchange makes Say's Law in the form of Say's Identity (as defined by Becker and Baumol, 1962) invalid: "Nothing can be more childish than the dogma, that because every sale is a purchase, and every purchase a sale, therefore the circulation of commodities necessarily implies an equilibrium of sales and purchases. If this means that the number of actual sales is equal to the number of purchases it is mere tautology. But its real purport is to prove that every seller brings his buyer to market with him. Nothing of the kind ... no one is forthwith bound to purchase, because he has just sold" (Marx, 1946 b p. 87; 1965 a p. 127). This implies that crises may arise (Marx, 1947 b p. 97; 1953 p. 114).

Marx takes bourgeois economists to task for their identifying "the circulation of commodities with the direct barter of products by simple abstraction from their points of difference" (Marx, 1946 b p. 88 nt. 1; 1965 a p. 128 nt. 73; see also Marx, 1953 p. 11). It is sad to reflect that this criticism held in force a century after it was written; "Capital", vol. I, was first published in 1867, the second edition of Patinkin's "Money, Interest and Prices", which failed to draw a separation between a barter economy and a monetary economy, in 1965 (cf. Patinkin, 1965 p. 75).

Like everybody else, *Marx* acknowledges that money is productive in that it saves labour, because without money numerous barter transactions would be necessary to obtain the desired goods (cf. *Marx*, 1953 p. 129).

As a means of circulation, the function of full-blooded gold money can be taken over by debased or worn coins, token coin or paper money issued by the state (Marx, 1946 b p. 102; 1965 a pp. 140-'1). Such fiduciary money represents the price of a commodity and is but a means to exchange commodities at equal prices, it is only a symbol (Marx, 1953 p. 125).

VI. The functions of money 3. Hoarding; 4. Means of payment; 5. Universal money

Marx treats money under the headings of 1. measure of value, 2. medium of circulation, 3. money, with 3. subdivided in a) hoarding, b) means of payment, c) universal money. It is a bit puzzling that Marx uses the heading "money" when covering the last three out of five functions of money. Suzanne de Brunhoff suggests that the reason for this is that the first two functions do not always require money "in person", in tangible form, while the last three do (Brunhoff, 1973 a p. 24). This might be an acceptable solution, considering that commodities can be circulated by credit, while the "means of payment" function is, in the last analysis, dependent on the supply of hard cash.

Gold which is hoarded, perhaps in the form of gold articles, acts as a reservoir from which the quantity of money which circulates can be fed, if necessary, or to which superfluous gold coins can flow (Marx, 1946 b pp. 110-'1; 1965 a p. 148; 1947 b p. 141). In developed bourgeois countries, the hoards are to be found in the bank vaults (Marx, 1947 b p. 141). Banks are thus assumed to be perfectly passive, in

accordance with *Marx* and the Banking School's idea that banks can only accommodate the "needs of trade" and not themselves influence the volume of credit and money in circulation.

The "means of payment" function differs from the "medium of circulation" function in that it does not refer to sales and purchases of commodities, but to the settlement of debts and to payments that have no direct connection with the circulation of commodities, such as taxes, rents etc. Many debts are settled without the help of money (except as a money of account) by means of clearing mechanisms, and there are long lines of credit. Monetary crises may arise from this when "the ever-lengthening chain of payments, and an artificial system of settling them, has been fully developed. Whenever there is a general and extensive disturbance of this mechanism, no matter what its cause, money becomes suddenly and immediately transformed, from its merely ideal shape of money of account, into hard cash" (Marx, 1946 b p. 115; 1965 a p. 152). In other words, monetary crises imply that the credit mechanism fails and that everybody wants to be paid in hard cash. The means of payment function comes to the fore: ultimately money "in person" is needed, though not necessarily gold; credit money, especially central bank notes, will also suffice (cf. Marx, 1946 b pp. 115 - '6; 1965 a p. 152).

"When money leaves the home sphere of circulation, it strips off the local garbs which it there assumes, of a standard of prices, of coin, of tokens, and of a symbol of value, and returns to its original form of bullion. . . . It is only in the markets of the world that money acquires to the full extent the character of the commodity whose bodily form is also the immediate social incarnation of human labour in the abstract" (Marx, 1946 b p. 119; 1965 a p. 156). "Money of the world serves as the universal medium of payment, as the universal means of purchasing and as the universally recognized embodiment of all wealth. Its function as a means of payment in the settling of international balances is its chief one ... it serves as the universally recognized embodiment of social wealth, whenever the question is not of buying and paying, but of transferring wealth from one country to another ..." (Marx, 1946 b, p. 120/1; 1965 a pp. 157/'8). In a developed industrial economy metal is only necessary for settling balances in international trade, especially when the usual equilibrium in trade between different countries is suddenly disturbed. Within a country, metal is unnecessary, but for international payments countries need "hoards" of the genuine

money-commodity, actual gold and silver (*Marx*, 1946 b pp. 120-'1; 1965 a pp. 158-'9; 1947 b p. 156; 1965 b p. 533).

VII. Credit

Large-scale capitalist production would be impossible without credit. It would have been impossible to produce the amount of gold and silver needed for monetary functions. Moreover, the use of gold and silver is expensive. Credit frees factors of production and enables a higher level of production and consumption to be attained (Marx, 1963 p. 347).

In this connection it should be noted that checking deposits with banks are credit, not money, in the eyes of Marx and his contemporaries. Bank notes on the other hand function as money, as credit money which is based on the granting of credit. Bank notes are not "real" money, but they function as means of circulation. They are based on credit granting, for they are created when the banks supply bank notes, that is bills on the banker, in substitution of private bills (cf. Marx, 1965 b pp. 413, 471). Paper in this way functions as a substitute for gold and so reduces the costs of circulation. It should be noted that gold can also be replaced by paper and token coin without bankers' credit activities taking place, i. e., if the state issues them. It is indeed a shame, in Marx's eyes, that the profit of using bank notes, though a national saving, becomes private profit of a bank (Marx, 1965 b p. 557). In his vivid descriptions of bank credit Marx even gives a rough sketch of the credit creation multiplier (Marx, 1965 b pp. 537 - '8).

Besides lowering the costs of circulation, credit enables the equalization of the rate of profit among industries, presumably by making it easier to direct capital to industries with a higher than normal profit (cf. Marx, 1965 b p. 451).

A third function of credit is that it enables the formation of limited liability companies. This is very important for the development of capitalism. It means, in Marx's eyes, "the liquidation of capital as private property within the confines of the capitalist mode of production itself" (Marx, 1965 b p. 452). The capitalist entrepreneur is replaced by a hired manager, and the capital owner is no more than an owner, a mere money capitalist. The character of profit as appropriation of surplus value created by others, from the manager down to the daylabourer, now becomes very obvious. In the limited liability companies ownership of the means of production and of surplus labour is com-

pletely separated from labour. This result of the highest development of capitalist production is a necessary transition to the transformation of capital back into the ownership of the producers, not in the private ownership of individual producers, but as the ownership of the producers in association, that is in direct social ownership (*Marx*, 1965 b p. 453).

Marx adds that profit in this kind of companies assumes the form of interest, and these companies continue to exist even when they yield no more than mere interest. The fall of the general rate of profit is thereby held up, because these companies, with their very high capital-labour ratio, need not partake in the unification of the general rate of profit (cf. Marx, 1965 b p. 453). I must admit that this passage is not too clear to me, but this may be because Marx did not finish "Capital", vol. III, and only left a mass of notes.

Credit speeds up the material development of productive forces and the formation of the world market, and in this way fulfills its "historical mission" to prepare the way for a new mode of production. At the same time credit speeds up the dissolution of the old mode of production, by way of crises (Marx, 1965 b p. 457). As is common with British economists in the 19th century, crises are in Marx's eyes characterized by the dwindling of credit and the need for hard cash, that is coin and notes (e. g., Marx, 1965 b pp. 476, 500). During such crises, commodities and securities cannot be sold, and bills of exchange cannot be discounted. But crises are not caused, only made possible by credit. The fundamental cause is the underconsumption by the masses of the goods produced. The development of productive forces by capitalist production outstrips consumptive demands (Marx, 1965 b p. 501).

VIII. The rate of interest

Interest is the price of credit, determined by the supply of, and demand for, loanable funds. *Marx*, however, calls interest the price of capital, and finds it a peculiar sort of price. If one wants to call interest the price of money capital, says *Marx*, it is an irrational form of price, completely at variance with the concept of a price of a commodity. It is here a mere sum of money, paid for something that functions in some way as a use-value. It is a price that is qualitatively different from value, and therefore an absurd contraction (*Marx*, 1965 b pp. 366 - '7).

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Interest is a part of profit. Profit is that part of the surplus value which is wrested from the workers, which remains after the landowners have taken their share in the form of rent (cf. Marx, 1965 b p. 829). Interest is that part of profit which is appropriated from the industrial capitalist by the owner of money capital, the "financial capitalist" (Marx, 1965 b pp. 370, 383 ff.). (We could say that the industrial capitalist is "exploited" by the financial capitalist and by the landowner.)

During the trade cycle the rate of interest will fluctuate in a systematic way. In the upswing commercial (inter-company) credit is easy, and not much bank credit is needed. At the upper turning point sales fall and everybody needs credit, so that the rate of interest surges upward (Marx, 1965 b p. 505). In times of crises the rate of profit may be nil or negative and the rate of interest very high. The demand for loanable funds is then only a demand for means of payment, in order to pay off old debts (Marx, 1965 b p. 531). But on average, the rate of interest has the rate of profit as its upper limit, being the part of profit to be paid by the industrial capitalist to the financial capitalist (Marx, 1965 b pp. 370, 528 - '9). If all capital were owned by the industrial capitalists, there would be no interest and no rate of interest (Marx, 1965 b p. 390). This is true in the sense that if there is no market for credit, there is no quoted price for credit either. But even if all capital were owned by the industrial capitalists, there would still be a credit market and a rate of interest if they would grant each other credit. This was overlooked by Marx.

The average rate of interest is not determined by any law. We only know that its upper limit is the rate of profit and its lower limit is nil. Interest not being the price of a commodity, there is no "natural" rate of interest. In the credit market there is no equivalent of value or production price, which is the centre around which the market price of a commodity fluctuates through the forces of competition, of supply and demand. Only supply and demand remain, without the fixed anchor of a production price (cf. Marx, 1965 b pp. 368/9). The rate of interest which results from the supply of and demand for loanable funds is completely accidental (Marx, 1965 b pp. 374).

There is, furthermore, no connection between the volume of money in circulation and the rate of interest, except in times of scareity of coin and notes. This happens when there is a crisis, for in such a situation credit dwindles and bankers hoard notes and coin in order to prevent or survive a run on the bank (Marx, 1965 b pp. 545/6). During

crises people borrow at whatever price, in order to pay off debts falling due (cf. Marx, 1965 b p. 373). For the rest, there is no influence of the amount of money on the rate of interest. Marx also denies the Wicksellian connection between commodity prices and interest rates, though this mechanism was already developed by Thornton and Ricardo and Marx knew of course his Ricardo very well and had also read and excerpted Thornton's masterly "Enquiry into the Nature and Effects of the Paper Credit of Great Britain" (cf. Marx, 1965 b pp. 433, 546; 1953 pp. 701, 1069).

IX. A critique

Marx's theory of money was developed from his labour theory of value. This is not the place to dwell on the many problems into which a labour theory of value runs. I will confine myself to remarking that it may be logically possible to define value as socially necessary labour time, but that such value is of no use in explaining prices (see on this Samuelson, 1971 and Van Drimmelen, 1976).

Marx starts with the assumption that equivalents are exchanged. The next step is to look for something that is common to both goods that are exchanged. This something must be an objective property of the individual commodity and yet be commensurable between commodities. Use-values are no good, because these are particular properties of individual things, rather than a state of mind (cf. Marx, 1946 b p. 4; 1965 a pp. 51/2; Wolfson, 1966 pp. 42/4). And what is common to commodities, is that they are the products of labour. The fact that commodities can satisfy wants is not enough for Marx, though it is a more general quality than that commodities are the product of labour. The marginal utility revolution of the 1870s passed Marx and Engels completely by, and they had, of course, no notion of the concept of opportunity cost. Consequently, Marx had not much to say about the prices of assets and services that are not the product of labour or that are not reproducible (old masters). The defects of Marx's labour theory of value are especially glaring in the case of the rate of interest, for which Marx had no explanation whatever (and which he did not even want to call a price).

With Marx, money is a necessary concomitant of commodity exchange, of a market economy. In money the value of a commodity appears, the "first chief function" of money was "to supply commodities with the material for the expression of their values" (Marx, 1946 b p. 66; 1965 a p. 109). With Marx money is a necessary concomitant of

commodity exchange because he needs it to resolve the "contradiction" between value and use-value, a contradiction which was constructed by Marx himself first of all (cf. W. Becker, 1972 p. 71). Money is, with Marx, a logical necessity. It is not the product of attempts by economic units to reduce information and transaction costs in commodity exchange. Marx of course acknowledges the productive contributions of money. But money is not introduced primarily with an eye to these contributions. Marx does not explain money from the needs and activities of economic units. He gives no economic explanation. His is a purely logical exercise, an exercise that leads to results that conflict with reality, as we shall presently see, and leaves many questions unanswered.

First a note on the function of money as the "universal equivalent". This was essential for the role of money in the framework of "Capital", vol. I. But in "Capital", vol. III, with the organic composition of capital differing, but the rate of profit equalized, among industries, prices systematically differ from values, and the price of gold may differ from its value too. The question arises, but apparently not with Marx, what becomes of the function of being the "universal equivalent". At the most money becomes a "universal equivalent of production prices" (cf. Block, 1926 pp. 89/9). And when in "Capital", vol. III, ch. 50, the equalization of profit rates is abandoned, money is not even that anymore (cf. Marx, 1965 b, pp. 868/9). Money cannot then be more than universal purchasing power, not a very surprising result and somewhat of an anti-climax after the analysis in "Capital", vol. I. What is missing in "Capital", Vol. III, is a discussion of the consequences of the "transformation of values into prices for the role of the money commodity.

An obscure point is how prices increase when the value of gold falls. Marx says that it happens gradually (cf. Section III). But it is not clear by what mechanism, if not through the medium of an increased amount of gold in circulation. Marx could not be content with a solution such as John Stuart Mill had given. Mill combined the quantity theory of money with a cost of production theory. The "permanent value of money" (or long-run equilibrium value) is determined by the cost of producing or of obtaining the precious metals. "An ounce of gold or silver will in the long run exchange for as much of every other commodity, as can be produced or imported at the same cost with itself" (Mill, 1909 p. 523). The long-run equilibrium exchange value of money would be determined by its cost of production, while in the short run there

could be deviations from the equilibrium value. It is, as we have seen, the same with *Marx* (with the labour theory of value in the place of the cost of production theory). But he did not adopt *Mill's* equilibrating mechanism.

Schumpeter surmised that Marx was of the erroneous opinion that the quantity theory of the value of money and the cost of production theory are alternatives between which the analyst has to choose (Schumpeter, 1954 pp. 702/3 nt. 10). It is, however, hard to imagine that Marx could not grasp Mill's rather simple idea. Marx knew Mill's "Principles". He even cited Ricardo's views, from which Mill's will have derived, that in the short run, with much gold in circulation, prices would rise, costs of production also rise as a result, and gold production fall (Marx, 1947 b pp. 180/2). Marx repudiated Ricardo's and Mill's solution, I think, because this implies a two-way causation: from costs of production to quantity of money and from quantity of money to costs of production. For Marx there was only a one-way influence from labour value to quantity of money. This leaves him without a transmission mechanism of monetary impulses (such as would double commodity prices after a reduction of the labour value of gold by one half). His critique of Ricardo is that Ricardo should prove that commodity prices or the value of gold depend on the mass of circulating gold, so that, for instance, gold imports increase the money supply and drive prices up (cf. Marx, 1965 b p. 565). Ricardo assumed instead what had to be proved: that every quantity of the precious metals that functions as money really circulates (Marx, 1947 b p. 183). The solution of course is to assume a money demand function, with the demand for money not only a function of sales volume or national income and price level, but also of interest rates, degree of uncertainty in the economy etc. This opens the possibility of an excess supply of gold, even if some of it is hoarded. The extreme quantity theory implication of a fixed velocity of circulation is thus avoided, but also the implication of the assumed (that is, assumed by Marx) passivity of the monetary sector, namely an infinitely elastic money demand.

Marx's ideas on money demand lead to most curious results on the plane of micro-economics. He asks us to believe that the gold that is not needed to circulate a given amount of commodities at given prices, is hoarded, which implies that the banks are completely passive with regard to the quantity of money and the amount of credit. An increase in their liquidity ratio is not assumed to lead to easier credit conditions,

so that banks are not thought to be profit maximizers. A surprising assumption about these most capitalist of institutions. Alternatively we could assume that easier credit conditions would not lead to more credit being asked, but this would imply that business enterprises are not profit maximizers.

Marx argues that an excess supply of gold will be hoarded, but that inconvertible paper money remains in circulation, whatever its volume, and drives prices up if issued to excess (cf. Section III). But it is not made clear why economic units would behave differently with regard to full-blooded coins than with regard to inconvertible notes, which presumably are never hoarded. Marx gives no justification on the level of decision making by individual economic units. Nor is it made clear why economic units, who are constructed by Marx to have a need for a "universal equivalent", put up with a "symbol of value", which has no value itself.

Finally, the assumed passivity of the monetary sector causes problems with regard to the demand for commodities. With Marx, the amount of money in circulation is dependent on the sum of the values to be realized. But, on the other hand, it is money-backed demand that decides whether labour spent on a commodity is socially necessary labour. If there is no demand for a good, the labour spent on it was not socially necessary labour and no value is embodied in these commodities. Now Marx says in effect that money-backed demand cannot be influenced by monetary policy. Changes in the rate of interest and the volume of money are without consequence for the demand for commodities. Monetary policy is an impossibility, it is no use trying to influence the level of aggregate spending by this means. With Marx, demand is an objective category. It depends on the relative economic position of the various classes in society. A consumer's demand depends on his spending power and his needs. Both are determined by his social position (Marx, 1947 a p. 64; 1965 b p. 191). But consumers' expenditure not only depends on income in practice, it can be influenced by monetary policy. And it is hard to believe that spending on investment goods could be totally insensitiv to monetory policy. Indeed, as Van Santen notes, Neisser's dictum that "money is pure demand" ("reine Nachfrage") is mortal for Marx's theory of money (cf. Van Santen, 1976/7 p. 62).

Now the balance is not completely negative. Marx makes a clear distinction between a barter economy and a monetary economy. With

him, money can never be a veil. And his theory of money could in some circumstances give useful service. Karl Kautsky, for instance, could explain the post-World War One inflation in Germany on the basis of Marx's theory of money from an over-expansion of the money circulation. This was a far from popular explanation, for the quantity theory, from which Marx's views on inconvertible paper money did not differ, did not have many adherents in Germany (cf. Braunthal, 1924 pp. 128/9; Bresciani-Turroni, 1968 pp. 42/3). This was, ironically, to a great extent due to the influence of Thomas Tooke, who was greatly admired by Marx, on German economic thought (see Schumpeter, 1954 p. 709). It should also be mentioned that in "Capital", Vol II, there are extensive discussions of the need for money capital during the process of production and distribution. These discussions are of a highly technical nature (cf. Marx, 1963 ch. 15; Fritsch, 1968). They resemble the well known work of Angell and Ellis on the velocity of circulaton of money (cf. Ellis, 1937/8). These discussions are very insightful, but they stand apart from the main body of Marx's monetary thought and are not dependent on the labour theory of value.

X. Conclusion

In conclusion, I think that Blaug too easily dismisses Marx's theory of money. It is not a repetition of the the ideas of Ricardo and Mill. But Schumpeter was right: Marx's theory of money is weak. It is an artificial construction, in the sense that it is not in any way linked to the decisions of individual economic units. Its implications on the level of micro-economic decision making conflict with experience and it is hard to see how the implied passivity of the banks with regard to their liquidity ratio and of the non-bank private sector with regard to the rate of interest can be reconciled with the quest for profit which is, not the least in the eyes of Marx, the driving force of capitalist society. On the level of macro-economics, this means that there is no place for monetary policy in the sense of a policy that aims at influencing aggregate demand etc. (Monetary policy can, however, be used to make the crisis at the upper turning point of the trade cycle less severe). Marx's theory of money therefore has all the weaknesses of the Banking School ideas and adds some that are the consequences of the labour theory of value. The most glaring of these is that it leaves Marx without a theory of the rate of interest.

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Zusammenfassung

Marx über Geld

Marxens Beitrag zur Geldtheorie ist allgemein etwas vernachlässigt worden. Sofern ihm überhaupt Aufmerksamkeit geschenkt wurde, wurde er ziemlich heftig kritisiert, gerade auch von marxistischen Ökonomen. Es muß indessen betont werden, daß seine Überlegungen zur Geldtheorie für Marxens Analyse der Arbeitsweise Güter produzierender (d. h. marktwirtschaftlicher) Volkswirtschaften von zentraler Bedeutung und in diesem Sinne mit seiner Werttheorie unlösbar verbunden sind.

Ausgehend von Marx's Analyse der Wirkungsweise von Geld und Kredit und von seinen Überlegungen zur Zinsrate wird dargelegt, daß er wegen seiner Arbeitswerttheorie zwangsläufig zu einer starken Annäherung an die Banking-Schule kommen mußte. Seine Geldtheorie offenbart die ganze Schwäche der Banking-Schule. Ferner werden einige Eigenarten der Arbeitswerttheorie behandelt; zum Beispiel Marx's Behauptung, daß in einem Geldsystem mit vollwertigen Münzen die Preise für die Geldmenge ursächlich seien. Auf der anderen Seite kann er keine befriedigende mikroökonomische Erklärung für ein Geldsystem mit nicht einlösbarem Papiergeld geben. Seine Theorie läßt keinen Einfluß der Geldpolitik auf die Gesamtausgaben zu. Darüber hinaus verschließt die Arbeitswerttheorie Marx den Zugang zu einer Zinstheorie, Man fragt sich, warum er nicht die Folgen des Transformationsproblems für das Gebrauchsgut Geld in Betracht zieht, wenn er schon Geld als das "universale Äquivalent" analysiert. Um aber gerecht zu bleiben: Marx hat sehr klar erkannt, weshalb das Say'sche Marktgesetz in der Form von Say's Identitätsregel in einer Geldwirtschaft nicht gültig ist.

Im ganzen jedoch stellt sich Marxens Geldtheorie als ein schwaches Gebilde dar, zumal sie mit irgendwelchen vertretbaren Annahmen über mikroökonomische Entscheidungen nicht in Einklang gebracht werden kann. Indessen ist die Ablehnung durch Blaug mit der Begründung, Marx's Geldtheorie sei eine blasse Wiederholung der Ansichten von Ricardo und Mill, nicht gerechtfertigt.

Summary

Marx on Money

Marx's contributions to monetary theory have generally been somewhat neglected and, if they were paid any attention at all, they have been rather severely criticized, even by Marxist economists. It should be emphasized, however, that they are central to Marx's view of the functioning of commodity producing (i. e., market) economies and are inextricably bound up with his theory of value.

From Marx's analysis of the functions of money and credit and his reflections on the rate of interest it is concluded that his adherence to the labour theory of value could not but result in his embracing the Banking School ideas, and that his theory of money shows all the weaknesses of the Banking School, plus some that are peculiar to the labour theory of value.

E. g. his proposition that causality runs from prices to quantity of money in a system with full-blooded coins, but the other way round in a system with inconvertible paper money, cannot be given any satisfying micro-economic justification; nor does his theory admit of any influence of monetary policy on aggregate spending. Moreover, the labour theory of value leaves *Marx* without a theory of the rate of interest. His analysis of money as the "universal equivalent" makes one wonder why he did not consider the consequences of the tansformation problem for the money commodity.

To his credit, Marx very clearly saw why Say's law of markets in the form of Say's identity is not valid in a monetary economy.

Marx's theory of money turns out to be a weak construction, because it cannot be made consistent with any acceptable assumptions about microeconomic decision making. Blaug's dismissal of it as a mere repetition of the views of Ricardo and Mill does not, however, do justice to Marx.

Résumé

Marx et la monnaie

L'apport de Marx à la théorie monétaire a très généralement été quelque peu négligé. Dans la mesure où il a retenu l'attention, il fut violemment critiqué, et en particulier par des économistes marxistes. Il faut toutefois souligner que ses considérations sur la théorie monétaire sont d'une importance essentielle pour l'analyse marxiste du fonctionnement des économies productrices de biens (c. à. d. des économies de marché) et qu'elles sont en ce sens indissolublement liées à sa théorie des valeurs.

En se fondant sur l'analyse de Marx de l'action de la monnaie et du crédit et sur ses réflexions sur les taux d'intérêt, l'auteur démontre qu'en raison de la théorie de Marx de la valeur du travail force est à celui-ce de cotover la "Banking School'. Sa théorie monétaire expose à l'évidence toute la faiblesse de la "Banking School". L'auteur traite ensuite de certaines particularités de la théorie de la valeur du travail; par exemple, l'affirmation de Marx selon laquelle dans un système monétaire où les pièces métalliques ont conservé leur valeur réelle les prix déterminaient la masse monétaire. Par contre, il ne peut fournir d'explication micro-économique satisfaisante pour un système monétaire où l'argent-papier est inconvertible en métal. Sa théorie n'admet aucune influence de la politique monétaire sur les dépenses globales. Au surplus, la théorie de la valeur du travail de Marx s'interdit tout accès à une théorie des taux d'intérêt. L'on se demande pourquoi il ne tire pas les conséquences du problème de la transformation pour la bien "monnaie", puisqu'il analyse la monnaie comme l'"équivalent universel". Mais pour demeurer équitable, l'on ajoutera que Marx a très clairement discerné pourquoi la loi du marché de Say était dans la forme de la règle d'identité de Say sans valeur pour une économie monétaire.

Dans l'ensemble pourtant, la théorie monétaire de *Marx* se présente comme une constriction fragile, qu'il est impossible de faire concorder avec quelque hypothèse que ce soit sur les décisions micro-économiques. Mais sont rejet par *Blaug* en revanche, sous prétexte que la théorie monétaire de *Marx* ne serait qu'une pâle copie des vues de *Ricardo* et de *Mill*, ne se justifie nullement.