The Monetary Aspects of the Capitalist Process in Marx
A Re-reading from the point of view of the Theory of the Monetary Circuit

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1. *Introduction*

Karl Marx's critique of political economy is a unique case in the history of economic thought. It is even inappropriate to speak of monetary 'aspects' of the Marxian system. What he offers is indeed a view of the capitalist economic process as a whole where real production, circulation and distribution are deeply affected by money and finance so that any dichotomy is futile. If there is an author for whom the label 'monetary theory of production' is appropriate, this is Marx.

The peculiarity of Karl Marx, however, does not come out from the analysis of the capitalist process as a monetary sequence of successive and intertwined phases. There were predecessors (James Steuart, Quesnay, Malthus), and there were followers: the most lucid were Knut Wicksell's in *Interest and Prices* (1898), Joseph Alois Schumpeter in *The Theory of Economic Development* (1911) and *Business Cycles* (1939), and Keynes in the *Treatise on Money* (1930) and in his articles on finance (1937-39). These authors stressed how bank finance to production made dynamic or structural instability the norm, allowed innovative behaviour and intra-capitalist competition, let the capitalist class determine real distribution of income and productive resources irrespective of any consumer sovereignty. The uniqueness of Marx lies in the fact that his monetary approach was embedded in his own (abstract) labour theory of value.

With few exceptions, attention to money in Marx is a relatively recent phenomenon of the last three decades. May be the earlier of these attempts, going back to the mid-1970s, was the re-reading of Marx provided by the theory of the monetary circuit. This stream includes the two competing French schools (the Paris one, whose leader is Alain Parguez, and the Fribourg-Dijon one, whose main representative is Bernard Schmitt), and the Italian group led by Augusto Graziani. Focusing on my own version of this latter (for references, see the bibliography), the aim of this chapter is to present a concise review of Marx's monetary labour theory of value showing that the theory of the monetary circuit may help reformulate it overcoming some of its problematic features.

In Sect. 2 I provide a sketch of the capitalist process according to the the theory of the monetary circuit, and in Sect 3 I show how this approach depicts the working of the monetary system. In Sect. 4 I review Marx's theory of 'money as a commodity' in *Capital* Volume I, highlighting both its rational and its problems. I will argue that a view of money as finance to production in a non-commodity perspectives is fundamental in grounding the reference of (new) value to (direct) labour. In Sect. 5, following Marx's assumption of the real wage as the known datum, I concentrate on the class determination of income distribution. In Sect. 6 I deal with the problem of the monetary realization of surplus value. In Sect. 7 I show how Marx's dynamic view of capitalist competition gains from a confrontation with Schumpeter. In Sect. 8 I look at Marx's analysis of banking and credit in *Capital*, Volume III, and I evaluate the role that money as commodity has in it.

2. *The cycle of the money capital and the theory of the monetary circuit*

The capitalist process is depicted by the theory of the monetary circuit as a ‘macro’ and ‘monetary’ sequence of successive concatenated phases set in a discrete time interval, rather than as timeless simultaneous exchanges (a detailed description of this approach is now available in English: cfr. Graziani 2003). A triangular structure of agents is assumed (the banking system, the firm sector as a whole, and the totality of wage earners). The sequential process of capitalist production and circulation is initiated by the banks advancing money-capital to firms. These latter can then use this purchasing power to make monetary payments which allow them to obtain inputs for production in view of selling the output on the commodity market. From a macroeconomic perspective, all firms taken together need money only to buy labour-power from workers, and then be entitled to implement their production decisions.

The simplest circuit model assumes a closed economy without a government sector (the Central Bank is part of the banking system). The ‘opening’ phase is that in which money is created and enters the economy, with the banking system supplying the firm sector with the initial finance needed to commence production. Firms as a whole need the money to buy labour power if they are to set the productive process going. Command over the flow of credit money provides entrepreneurs (together with banks) the power to control the whole process of allocation of productive resources, then immediate production, then distribution of income and the rate of accumulation. The bargaining in the labour market sets the level of the money wage bill and employment, and it depends on the negotiations between banks and firms in the money market on the amount and ‘price’ of finance.

There is then the intermediate phase, in which firms can use the power of command over productive resources conferred by their money to actualise their production plans according to their expectations. The level of employment together with the size and composition of output are affected mainly by entrepreneurs’ decisions about production during the period. If we do not consider the possibility of workers’ struggles within the labour process, they are completely realized. Only two types of commodities are produced, according to how the labour force is allocated: consumption goods and investment goods.

After production, there is the ‘final’ phase, where individual workers freely choose how to divide their money income between (monetary) consumption and (monetary) saving. The working class can only buy the real consumption goods supplied by the firms and made available to them. If workers’ propensity to consume is unity, firms get back all the money wage bill from the commodity market and pay off their debt to banks, except for the payment of the (short-term, bank) interest. If workers’ propensity to consume is less than one, firms may recuperate the liquidity not spent on consumption goods selling new securities on the financial market. Thus, firms get final finance from both the market for consumption goods and the stock market. The monetary circuit is closed with the reflux of the initial finance to the banks and, thus, with the destruction of the money originally created. If some of the flow of money savings is retained as liquid balances - that is, as store of value - firms will not get back all the money they advanced to workers. This net addition to the money stock merely reflects firms’ outstanding debt not yet reimbursed to banks. Banks may then refuse in the next period to satisfy the demand for finance from firms in the same or higher amount, leading to a crisis.

The theory of the monetary circuit presupposes that firms have privileged access to bank credit - bank credit to consumers is not denied, but is interpreted as an indirect way to finance firms. What matters is the quality of the innovation for which credit is asked. Banks evaluate individual plans of production and supply credit when repayment and the earning of interest seems close to certain. In this view access to money as finance is what determines the real structure of the economy and capital accumulation. Those who have a privileged ‘command’ over money claim real resources, while those who own only labour-power are entitled merely to a money income. Savings, being part of the income emerging after production and the prior bank finance, cannot be a precondition of capital accumulation. This is why firms as a whole decide the share of real output that workers could acquire in the consumption goods market where the latter spend their money wage. Producers’ sovereignty, rather than households individual inter-temporal preferences dominates the capitalist process. Money is strictly endogenous and never neutral.

3. *The creation and circulation of money: a Wicksellian perspective*

In opposition to the Mengerian view, tracing money back to a commodity, circuitists claim that money is a sign without any ‘intrinsic’ value. Money cannot be a commodity because the purchase of labour power is logically prior to the production of commodities. In a pure credit model, it consists in the bank deposits granted to firms when the bank makes the loan. Money is a credit instrument in a triangular transaction in which payments are settled by means of promises to pay from a third agent (the bank).

Decisions about loans are the logical starting-point of deposits, and the banking activity is thought of not as mere intermediation between savers and investors but as creation of money without the prior collecting of deposits. Consequently, circuitists reject the mainstream interpretation of the money supply as a multiple of the monetary base, as well as the thesis of a logical precedence of deposits over loans. Instead, they argue that, even outside Wicksell’s pure credit economy, money remains nothing but a debt, regulated by banks in a social accounting system where claims to real resources are differentially distributed. Even in a mixed-money system, bank deposits and Central Bank liabilities (reserves and notes outstanding) are a consequence of private bank loans and/or Central Banks advances to commercial banks and governments. Loans make deposits and the banking system faces no constraint on monetary creation other than the limits set endogenously by the real interactions of agents in the economic system or the institutional interventions on the monetary system.

The creation of money in a true monetary economy, without an ‘active’ State pursuing a deficit or a surplus, can be described in more detail with the help of the Wicksellian framework. The best contemporary exposition is probably the first chapter *Macroeconomics* by Erich Schneider (1962), who was a pupil of Schumpeter in Berlin. In the simplest case of a single bank in an isolated community, payments are supposed to be made only through book-keeping transfers or by means of the issue of notes in a pure credit economy. With no leakages out of circulation, the single bank can never find itself in trouble. It does not need to keep reserves. The same happens if multiple commercial banks expand in concert, because no individual bank has to face a negative balance at the clearing-house. Things change if we consider multiple banks who do not expand loans in step: the bank which expands faster than the others experiences outflows higher than inflows, and it must find some way of dealing with its debts. In this case, either there is some bank of banks issuing a universally accepted final means of exchange, or again we have to face the problem of how payments are eventually extinguished in a decentralized system. The final clearing could be reached through direct, two party, payments in commodities, - including ‘money as a commodity’ (e.g., gold). But it could be also reached through reciprocal credits among banks. In an unregulated international arrangement we have national monetary areas alongside a world barter, or mere credit, system.

Let us now go on to an open economy with a pyramidal structure of 'mixed' sign-monies. At the apex, there is a monopolistic note-issuing bank, whose customers are mostly contained within the national borders, and which normally has the State behind its privileges. At the base, there are competing commercial banks, whose liabilities circulate among a clientele covering only a share of the deposit market. Here we have a hierarchy between two types of money. The commercial banks can find themselves having to make payments in the Central Bank's money, which they do not themselves produce, and which we suppose to be legal tender. They will hold assets from the Central Bank in readiness for the redemption of their liabilities: hence they will maintain a reserves so as to be able, if need be, to obtain refinancing. The Central Bank, in turn, can be required to settle uncompensated foreign purchases, and this will induce it to hold reserves of some commodity as a final means to extinguish its debts - unless Central Banks are eager to grant each other unlimited credit. In a situation of this sort, therefore, the conclusions reached for the single bank and for banks expanding at the same pace in a closed economy, no longer apply. Both the commercial banks and the national Central Bank are obliged to keep reserves: the former, in legal tender; the latter, in 'money as a commodity'.

Different conclusions are reached in the case of a closed economy with multiple monies, which is equivalent to the fiction of the global economy with a world central bank. The overall amount of credit extended by the commercial banks still depends on the amount of high-powered money chosen by the central bank. Yet now there is no need for the Central Bank to set aside reserves in commodity money. Supposing the commercial banks are not acting in concert, they need to hold reserves; but, in a closed economy, the Central Bank does not, and can expand its liabilities at will. We are back to the case of the 'single' bank.

This picture can be easily adapted to the case of the global economy with a three-tier banking structure. Allowing for a convertibility of commercial banks' liabilities in some metallic currency within national borders, or for an external drain of money as a commodity, the reserve ratio of the commercial banks or of the national Central Banks in an open economy, rises. This does not compromise the independence of the banking system from money as a commodity. A convertibility of the legal tender in a closed economy - or in the global economy with a world Central Bank - has no inner necessity. It is an institutional constraint. It must also be remember that even in an unregulated world system the conversion of banks' liabilities in commodities is only one of the instruments by which an imperfect offsetting of debt-credit relationships at the clearing-house can be overcome, since commercial or central banks may give each other enough credit to resolve the difficulty.

4. *Marx: Money and production'*

The contemporary theory of the monetary circuit sees Marx as one of its forerunners because of his picture of the capitalist process as encapsulated in his 'cycle of money-capital' at the beginning of *Capital*, vol. II. The view of the valorization process as 'money begetting money' is also clearly crucial in Volume I, where the 'general formula of capital' is introduced. It is developed in Volume III, with the investigation of interest-bearing capital, credit and fictitious capital. Although the monetary and financial aspect of the process, with a clear separation between firms and banks, is not spelled out in Volume I, the monetary circuit approach considers this a defining feature of the capitalist social relation which cannot be abstracted from – at least, once it is clear that commodity producers in generalized capitalist exchange are nothing but capitalist firms.

In Volume I, capitalism as generalized commodity exchange is presented as an essentially monetary economy. Hence, the impossibility to dichotomise the analysis of value from the theory of money. Value finds its necessary form of manifestation in money as the universal equivalent, which is at first linked to ‘money as a commodity’. We have then to investigate why ‘money as a commodity’ seems to be necessary in Marx’s theory of value.

In generalized commodity exchange, individual producers are dissociated and in competition with each other. The labour of these asocial individuals is immediately private and can become social only on the market. This happens indirectly: each commodity is shown to be equal to other commodities in certain quantitative ratios, to have an ‘exchange-value’, in as much as it is expressed through money as the universal equivalent. Money is a special commodity with general purchasing power as a result of a process of selection and exclusion, sanctioned by the State. The equalization of products that takes place in the market is also, at the same time, an equalization of the labours producing them. Thus, labour is not social in advance, but only in so far as its true end-product will be money: ‘generic’ or ‘abstract’ wealth. Though it is only through money that private labour becomes social labour, it is not money that renders the commodities commensurable. On the contrary. Commodities have exchange-value because, even before the final exchange on the commodity market, they have already acquired the ideal property of being universally exchangeable, so that they have the ‘form of value’. This property, so to speak, grows out from objectified ‘abstract’ labour as the ‘substance of value’.

Commodity values are necessarily manifested as money prices within exchange. The quantity of money that is produced by one hour of labour, in a given country and in a given period, may be defined as the ‘monetary expression of labour’: the socially necessary labour time of a commodity multiplied by the monetary expression of labour gives what has been later called its ‘simple’ or ‘direct’ price. Marx makes at first the assumption that the relative exchange-value between two commodities as the ratio of their simple prices. On this outlook, it is always possible to translate the ‘external’ measure of the magnitude of each commodity’s value in money terms (ideally anticipated by producers before exchange) into the ‘immanent’ measure in units of labour-time. To be effective in regulating market prices, value implies a coincidence between individual supply and demand. In that case the spontaneous allocation of the private labours of the autonomous, independent producers affirms itself a posteriori on the market as a ‘social division of labour’.

Here we have two grounds for an anti-Ricardian perspective. Against Ricardo, for whom money is a commodity because it is like and similar to all the other commodities, money is a commodity in as much as it is excluded from, and opposed to, the entire world of commodities. It is also far away from Ricardo the idea that value and price cannot be fully thought of starting from a scheme where only the methods of production and the real wage is given, and where money is absented. This notwithstanding, Marx argues that given the level of ‘ordinary demand’, the value created in circulation corresponds to the value which congeals as objectified labour the living labour extracted in production.

From Part Two of Volume I, the Marxian capitalist process of valorization is depicted as a process of money begetting money – as a monetary sequence of successive phases. Value and money exhibits on the commodity market nothing but objectified labour. The new value produced in the period has as its source only the living labour of wage workers extracted in production. That labour in motion is the use value of the labour-power bought by variable (money-)capital on the labour market. Though the indirect sociality of the labour producing capitalist commodities is eventually sanctioned only on the 'final' commodity market, Marx's position – as Rubin rightly noted - traces back (new) value to (living) labour referring to 'exchange' not as a separate phase counterposed to the phase of production, but as a form of the whole production process itself. The determination of value comes out from the unity of content and form. More precisely, form arises out of the content itself (labour) which it has shaped in its (capitalist) social organization and association. Thus, living labour as an activity is subjected to a process of abstraction already within the capitalist labour process. Together with the view of 'money as a commodity', this allows Marx to define exploitation already in production before final exchange, after the purchase of labour-power and its use has been effected – that is, when the inquiry is about the capital-labour class relation, without a full account of commodity circulation among capitals.

If however we accept the circuitist view that the nature of money is *not* that of being a commodity, we have in front of us disjointed elements: a money capital without any 'value' at the opening of the cycle; dishomogeneous concrete labours in production; money receipts at the closing of the circuit. A picture where it is unclear why money as the external measure of value should need to be linked to labour as 'substance' and 'content'. The necessary link between value and money is rather to be grounded in capital's necessity to extract living labour from (a potentially counterproductive) working class, so that the whole of direct labour spent in the period is the source of value (including surplus value). On this perspective, finance to production ante-validates the expenditure of living labour, which is then pre-commensurated in production through an organizational and technological process of homogenisation, and eventually validated in final exchange through the metamorphosis with money as universal equivalent.

The preliminary and uncertain sociality of living labour is granted a priori, by an initial process, which is absent in Marx's original argument where the stress is entirely on the universal equivalent. This process imposes on labour - already in the interaction between the labour market and direct production, and thus before final exchange - the quantitative and qualitative properties of being abstract labour spent in the socially necessary measure. If short-term firms' expectation on their outlets are confirmed – that is, if effective demand drives commodity production: as Marx in fact imagined in volume III in chapter 10 when he introduced the notion of 'ordinary demand' – this ideal or latent value comes into being in commodity circulation without no change in magnitude.

5. *Marx: Money and class distribution*

There is enough textual evidence that Marx, while taking variable capital as advanced in money, took the subsistence level of the wage as the known datum in Volume I. There he also defined 'necessary labour' as the labour required to produce the means of subsistence. In several places, the 'macro' income distribution between capital and labour is seen as the outcome of class struggle, which determines the living labour pumped out from all workers and the necessary labour congealed in the wage goods going to the working class. With 'ordinary demand' driving firms' decisions about the level and allocation of employment, these two magnitudes remain unchanged throughout all the three Volumes. What changes moving from 'simple prices' to 'production prices' is that with 'unequal exchange' the 'paid labour' represented in the prices of wage goods is in general divergent from the 'necessary labour' embodied in those wage goods.

This position on the real wage is not compelled in any way by the circuitist approach. Quite the contrary. Since the wage bill is anticipated in money, for the circuitists the real wage may not correspond to the subsistence level. For them money's purchasing power must be analysed in terms of what money can command. At the beginning of the circuit this can only be labour power, workers as bearers of the capacity to work and hence of potential living labour. The 'value' of money as 'initial' finance is the number of workers bought by the money wage bill. Workers have to wait until the products are put on offer in order to know the prices of consumption goods and their real wage. This latter may be known at the beginning of the period if wage goods are thought of as the outcome of a prior production process sold to the workers before production begins anew, as in Wicksell or Schumpeter. Or it may be known after work has been spent, as in Keynes and Marx.

Whatever the road taken, for all these authors the quantity of consumption goods available to the working class is decided by the collective ('unconscious') autonomous choices by firms, within the limits set by class struggle. Firms' production choices fix in real terms the basket of commodities that workers obtain in return for the money wage bill. The choice made by Marx was to assume a subsistence wage as the known datum, as a binding limit to this power of the capitalist class, to give a picture of the capitalist economy in its 'pure' and 'ideal' form. That is, the fact that Marx assumes the real wage as a known datum, and as a given at the subsistence level, is quite specific to his own version of the monetary sequence. This way, the value of money as finance can be taken as a 'given' as an amount of labour-time even when money is not a commodity. It is the labour time congealed in the means of subsistence – or, if one wishes, in the number of workers bought given the average daily wage, which can be transformed in the extraction of living labour according to some expected rate of exploitation. This actually fully replicates Marx's approach to exploitation.

Once the real consumption of the working class is fixed, once the techniques are given, and once the battle over the length and intensity of the working day is ended, we have determined the total living labour expended and the total necessary labour going into the commodities made available to workers: hence, total surplus labour. These labour quantities are independent relative to the price rule because as long as exploitation and the consumption bundles are given they do not change. The only thing which happens is a redistribution of the total direct labour 'exhibited' by money income among capitals, something which does not affect directly the fundamental class relation.

6. *Marx: Money and the realization of surplus value*

Within the 'macro' picture of the monetary circuit, and in a closed economy without the the State, firms as a whole cannot obtain more money than was initially injected, unless some stocks of money have been accumulated in the past. The capitalist class get the surplus as if 'in kind': the surplus value is immediately embodied in luxury goods and new capital goods.

In a closed system without government, firms may pay interest only by surrendering a share of real output to banks, with interest being a tax levied on net revenue. The banking sector appropriate surplus value as the real return for finance, leaving the industrial sector the net profits.In this perspective, the question is opened on how firms pay interest to the banks.

The non-financial business sector may capture sufficient money revenues to repay both principal and interest (net of what banks may pay on deposits) if we admit the State and open the economy, so that we may have money flows from net exports and/or from governments budget deficits (say, for military expenditure, or welfare, or salaries to public employees). This is the Luxemburg-Kalecki solution: firms may even get gross money profits in excess of interests, and partially made themselves autonomous from banks.

7. *Intra-branch competition and finance: Marx after Schumpeter*

A non-commodity theory of money as finance is crucial to enrich Marxian theory in another important anti-Ricardian feature. The Marxian notion of competition is of two kinds. The Ricardian notion of competition, which is also in Marx, is the inter-branch (or 'static') competition: it expresses the tendency to equalize of the rate of profits across industries. This will be the focus of the analysis in Volume III, Part Two. But in Marx, already in Volume I (Part Four, Chapter 12), there is also intra-branch (or 'dynamic') competition. It was this side of Marx's legacy which was a powerful source of inspiration for Schumpeter. The struggle to secure, if only temporarily, an extra surplus-value expresses a tendency to diversify the rate of profits within a given industry.

Within a given sector there is a stratification of conditions of production: firms may be ranked according to their high, average or low productivity. The social value of a unit of output tends towards the individual value of those firms producing the dominant mass of the commodities sold (this, of course, implies that a sufficiently strong shift in demand may indirectly affect social value). Those firms whose individual value is lower (higher) than social value earn a surplus-value that is higher (lower) than the normal. There is, therefore, a permanent incentive for single capitals to innovate in search of extra surplus-value, whatever the industry involved. Starting from a given structure of production within branches of production, the industrial capitalist introducing innovations in techniques or labour organisation is forcing other capitalists to follows her or his path: thus intra-industry competition gives way to a fall in social value and an *extraction of relative surplus value*. This provides the micro-mechanism leading to the systematic production of relative surplus-value, independently of the conscious motivations of the individual capitalists. Relative surplus value extraction depends as much from the need to control the extraction of labour within the capitalist labour process as from the struggle of each single capital against the others within the same sphere of production.

A confrontation of Marx with Schumpeter is here useful. Marx's theory, as Schumpeter's, is constructed out of the equilibrium paradigm where some natural price asserts itself as a resting point of economic activity around which market price oscillates, and disruptions of equilibrium are externally produced. Marx's accumulation, as Schumpeter's, is not balanced reproduction occasionally 'broken' by crises, but un-balanced development where technical change is endogenous, trend is driven by cycle, structural change is the norm. The differences between the two authors are: (i) on the reasons for the endogeneity of innovations; (ii) on the role of bank finance to entrepreneurs as the essential monetary complement to innovation.

For Schumpeter, technological change in the capitalist process is incessant and discontinuous, not only within each industry, but also in the whole economy. In the 'circular flow', from which each prosperity has to begin, agents follow routine behaviour. There are no unused resources, no profits and interest, no savings. Economic processes merely reproduce themselves on the same scale, and the picture would not be altered substituting an equilibrium growth path to stationary equilibrium. Though production takes time and needs to be financed, production is synchronized, and each supply finds its own demand at the expected prices just covering money costs. Bank credit does circulate the same amount of money and may be abstracted from. Money is simply a receipt voucher of past production. Therefore, potential entrepreneurs do not have available to them the purchasing power to command the productive resources required to implement new combinations. Entrepreneurial action needs to be backed by bank-credit creation. Money becomes a claim ticket on resources whose justification comes from the higher quantity and quality of future production allowed by innovative behaviour. Banks, says Schumpeter, are the social accountants of the capitalist system.

Since innovations are financed by a new inflow of money, the demand for labour and other productive resources increases, and so does prices. Inflation is not only an increase in the general level of prices, it is essentially a change in the relative structure of prices. Thanks to this - at first limited, but later generalized - revolution in prices, entrepreneurs may carry out the 'new combinations'. The outcome of bank financing is thus that 'new' entrepreneurs gain access to resources while 'old' managers of traditional firms suffer a squeeze in their purchasing power. When this partial disequilibrium becomes general, innovative activity comes to a halt because uncertainty on the future system of quantity and prices is too high and the calculation of costs and receipts of innovations is impossible. Prosperity turns into recession, bank finance collapses, deflation ensues. The economic system approaches a different circular flow where profits and interests tend to disappear, and whose structure is determined by the prior non-equilibrium path ruled by dynamic competition.

Schumpeter's view of bank finance as the monetary complement of entrepreneurial action fits very well with the Marxian view of competition as struggle among capitals. Finance ex novo is needed to allow technological innovations that take time and that must break routine behaviour, within the branch of production. What's clear is that in Marx the analysis of the link between bank credit creation and intra-branch competition is missing.

In Schumpeter's evolutionary dynamics there is temporary stability of the methods of production when the system approaches the circular flow. In this situation the 'centers of gravitation' are prices equal to values. In prosperity and depression, we first have market prices with unequal profits, and then the definition of a new system of prices equal to values. The extension of the circuitist re-reading of Marx to include the Schumpeterian stress on finance to innovations opens up two perspectives. The first is to re-frame this wave in Marxian terms, starting from simple reproduction (at production prices) as an actual phase in capitalist dynamics - just as Schumpeter's circular flow. Production prices are real centres of gravitation. The second alternative – which I do prefer - allows innovations to be continuous in the whole economy, though discontinuous within industries. The tendency to an uniform rate of profit becomes merely ideal. It never realizes itself because it is constantly overwhelmed by dynamic competition. There are no centres of gravitation. What matters are only values and market prices.

This would show that the redundancy of values in the determination of prices of production is not really a problem for Marx's labour theory of value. The value dimension is essential in defining exploitation and structural change, that is in explaining the formation of the 'data' in the transformation procedure. Nothing more. But nothing less.

8. *Marx: Money and banking*

The sections above have shown how an integration of money as finance to production and as finance to innovation is crucial in reinstating the labour theory of value, both as a monetary theory of exploitation (based on class antagonism at the point of production) and of endogenous technical change (including a consideration of intra-capitalist dynamic competition). In this section I consider Marx's theory of money, looking at some features of his theory of banking in *Capital*, Volume III. I also look at the role 'money as a commodity' plays in that Volume.

In the commodity circulation analysed at the beginning of *Capital* – which, though capitalist, cannot be theorized as such because the notion of capital has yet to be introduced - when money functioned as means of exchange, token money could be replaced by money as commodity. When analysed only in respect to circulation, as means of circulation, money is spent by its possessor to buy commodities that have already been produced. Its value is determined in the same way as that of all other commodities exchanged on the market, as the inverse of the price level. A person who comes into possession of it gains a permanent title to it. When, on the other hand, money is analysed as finance advanced by monetary capitalists (banks) to industrial capitalists (firms) to buy labour-power, it is lent and borrowed. Its price is now the interest rate. A person who comes into possession of it gains only a temporary title to it. With the interest rate, a new principle of evaluation of money capital arises, different from the one strictly based on the labour theory of value: the *capitalisation* of any sum of money. It gives origin to fictitious capital.

Though Marx was a supporter of 'money as a commodity', throughout all of his works we find important insights leading towards the opposite idea of money as essentially sign-money. In some articles written for "The New York Daily Tribune" and in some sections of the *Grundrisse* Marx appears to understand quite well the credit nature of money and the process by which banks create money ex novo. This can also be seen in *Capital*, vol. III, in the fourth and fifth sections. Interest-bearing capital is defined as a given amount of money lent to firms to function as money capital for the purchase of labour power. This money, after the loan in favour of the productive capitalist, flows back first to the functioning capitalists and then to the initial lender. Under average conditions the money borrowed by firms and employed by them as money capital, i.e. a value sum, has the capacity to produce the average profit as its use value. A part of the surplus value must therefore be given up as interest. The interest rate is a levy on surplus value. It has no other origins than the exploitation of labour power. The level of the interest rate is an empirical one, since it depends on the relative level of supply and demand, on the borrower's guarantees and on the duration of the loan.

In interest-bearing capital, the capital relationship reaches its most superficial and fetishized form. A given money sum seems to automatically produce a greater amount of money as self-valorizing value: the product of a mere thing, not of a social relation. The idea spontaneosly emerges that gross profits consist of two heterogeneous parts with different sources: interest, from loan capital; profit of enterprise, from the work of supervision and management. Reality is turned upside down. Surplus value, extorted from the worker by the functioning capitalist, disappears from view, interest appears as the specific fruit of capital, and profit of enterprise is seen as a mere accessory in reproduction. In this inverted situation, money loses its nature of institutional symbol of a social relation, and becomes a simple thing.

How and by whom is money capital supplied to firms? What is the nature of this money capital? Marx initially puts forward a view of banks as mere financial intermediaries. They collect money from subjects who wish to lend, in order to pass it to firms who wish to borrow: deposits make loans, though through a flexible money multiplier. The previous existence of money savings is implied here as the logical condition for bank lending. Having defined banking activity as pure intermediation, it is consequential that Marx considers deposits as the loanable funds at the disposal of banks. But in the alternative perspective Marx opens in other pages, bank credit is advanced without any constraint coming from savings, either real or monetary. It is, so to speak, a forward-looking perspective, where what matters is the expected capacity of entrepreneurs to actually exploit labour and gain profits. The monetary presupposition of the valorization process is posited by the eventual (and uncertain) success of capitalist production itself: “what is decisive is the character of the borrower who confronts the money lender. He or she receives credit in the expectation that he or she will function as an industrial capitalist, that is, in his or her capacity as a potential capitalist” (de Brunhoff 1998).

Following the hints leading to to a view of money as a social symbol and of banks as creator of money, Marx seems to realize that banking activity cannot be defined in terms of pure intermediation. Banks transform non-monetary assets into money claims. Of course, if there are legally prescribed reserve constraints, the issuing bank has no capacity to put an unlimited amount of banknotes into circulation. However, Marx knows well that on a purely theoretical level the issue of notes by the banking system as a whole finds no limits except for demand. Against Ricardo, for Marx note circulation is independent both of the will of the Central Bank and of the level of gold reserves in its vaults which ensure the convertibility of the notes. Given the possibility that the system might function properly even without any reserve of ‘hard’ base money, Marx deemed absurd the hindrances to note issuing imposed by the 1844 Bank Act.

Marx constantly sticks to a less general framework. The institutional arrangement he assumes is the one concretely shaping the monetary system of his times. He refers to competing central banks and not to the banking system as a whole, either at the international level (a single world bank or central banks moving in step) or in a closed economy setting. Gold money as world money and statutory legal regulations to hold reserves are then supposed to be effective. That is why he retains the notion that ‘hard’ ‘money as a commodity’ is at the bottom of the pyramid of credit. In a system of this kind individual - either commercial or Central - banks must first of all collect, respectively, legal tender or gold money in order to make loans. Reserves remain the foundation necessary to build the credit system, and the collecting of deposits stays firm as the preliminary condition in order for banks to make loans, though the deposit multiplier is recognized as a flexible one.

However, if our analysis were to end here, the most interesting and original reflections on credit scattered in Volume III would be lost. Marx’s insistence on the pivotal role of the money commodity is closely connected to the phenomenon of crisis. In the normal workings of a monetary economy free from erroneous legislation based on incorrect theories of money that imposes artificial constraints on reserves, Marx fully recognizes the independence of capitalist money from the metal. The irreplaceable role of money as a commodity is during monetary crises, where the credit system shows that it does not emancipate itself from the basis of the monetary system. Marx saw this ‘reversion’ of the credit system into the monetary system as a vindication of his ‘money as a commodity’ theory as it was presented in the opening chapter of Volume I of *Capital*: “money in the form of precious metals *remain* the foundation from which the credit system can never break, by the very nature of the case”. A view which seems quite appropriate when an hegemonic capitalist regime collapses, as it does periodically.