# Marxian Economics: A Reappraisal

## Essays on Volume III of *Capital*

### Volume 1: Method, Value and Money

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*Economy* (1996), 'Keynes and Marx' in G. C. Harcourt and P. Riach, *A 'Second Edition' of the General Theory* (1997). He is associate editor of the journals *Review of Political Economy, Review of Social Economy* and *Sviluppo.*

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# Introduction

## Riccardo Bellofiore

As we approach the end of the century, if not the end of history, a reappraisal of Marx's critique of political economy may seem a rather odd topic for a group of social scientists especially if, like the contributors to this volume, they are mostly economists. Nevertheless in early 1994, taking advantage of the centenary of the publication by Engels of the third volume of *Capital*, Marco Guidi and I decided to take the risk of proposing two conferences on Marx: the first, in Teramo, to be devoted to the past and present position of the Italian debates; the second, in Bergamo, to provide a forward-looking assessment of the more lively international research programmes. The Bergamo conference, whose participants were partly guest speakers and partly selected through a call for papers, met with unexpected success and a timely interest by Macmillan. The proceedings are now collected in this and a companion volume, with the papers arranged thematically.

As in all human intercourse, a conference rife with questions and answers, the latter very often out numbering the former. I know for sure that the motives that urged me to set up this endeavour were surpassed by the enriching contributions of all the participants. The result is always up to a point unintended, and has a life of its own which only the reader may test and judge. In the following I confine myself first to a personal note, a short description of the theoretical bias behind the preliminary design of the conference, and then provide a more neutral summing up of the papers included in this volume.

### MARX IN QUESTION

Volume III of *Capital* is a good starting point to check the state of health of Marx's theory. Most of the controversies about (and the endless history of the alleged final refutations of) Marx began just after its publication. The two most famous instances are the discussions about the so-called 'contradiction' between the labour theory of value and the determination of prices of production, and about the meaning and validity of the law of tendential fall in the rate of profit. The old and new debates on Marx invariably seem to have two centres of gravity – price theory and crisis theory – and the monetary aspects of volume III (Marx's analysis of bank money and fictitious capital) are generally neglected. The renewal of interest in Marx during the 1960s and 1970s again followed these well-trodden paths, both of which ended in blind alleys.

Take the 'transformation problem'. After volume III was published, the race was on, starting with Dmitriev and Bortkiewicz, through Sweezy, Dobb and Meek, to Seton's simultaneous 'solution', which is formally identical to Sraffa's model in *Production of Commodities by Means of Commodities*. With Marxian value theory reduced to a theory of the determination of relative prices, as both Marx's followers and critics maintained for almost a century, the solution that was eventually reached looks rather like a dissolution. Once the conditions of production are known and the real wage quantified, relative prices and the equal rate of profit may be fixed without the need to start from exchange values, and hence collapses any possibility of a prior determination of the rate of profit in value terms. If, as a consequence, Marx's value theory is rejected, then the notion of exploitation runs into trouble. Having glanced at Marx in the 1950s and 1960s, in the mid-1970s mainstream economists found unexpected allies among some of Sraffa's followers, who declared that 'after Sraffa' not very much of Marx's original building stood up – and they soon passed to other themes.

The tale is not very different with crisis theory. Here again the basis was established at the turn of the century in the German–Russian debate. The discussion about the law of tendential fall in the rate of profit became muddled up with the controversy over volume II's schemes of reproduction, and became just one of several instances of the alleged presence in Marx of a *Zusammenbruchtheorie* (collapse theory), to be either defended or rejected. Hence there were those who stressed the law itself and those who stressed 'the counteracting factors', just as there were those who saw in the schemes of reproduction the analytic tool with which to build an underconsumption version of the collapse theory and those who made the first steps towards a balanced growth theory. Up to a point Marx again became fashionable for the mainstream as a forerunner of Harrod and Domar's 'knife-edge' model; the turmoil in capitalist economies in the late 1960s and early 1970s breathed new life into crisis theory. However, as capitalist restructuring went on, and as the consequent remaking of



the working class on a world-wide scale began to meet one success after the other, Marx was once more relegated to the attic by most of the academic world.

If Marx's record as an economist was deemed low in the 1980s, the breakdown of the Soviet Union and its Eastern satellites apparently came as the final blow – sanctioning the idea that there are no alternatives to the capitalist model, and that the few remaining exceptions are on their way to being assimilated into the world market. But after the initial enthusiasm that followed the fall of communism it has become clear that capitalist contradictions are far from resolved. Capitalism's victory, it is claimed by some, signals the danger of a universal 'commodification' and that there is a need to return to Marx as the most powerful moral critic of capitalism. The collapse of state communism in Europe, others add, has helped rather than hindered a new appraisal of Marx's legacy. Freed from spurious correlation with political realities and passions, Marx's work may at last be approached as one of the great 'classics', and can now be studied with the cool distance reserved, say, for Aristotle, Machiavelli or Smith.

My aim with the conference was quite different. I intended to gather together those – whether Marxian or not – who were interested in Marx as a scientific analyst of capitalism, as an author whose lessons for doing social science (and political economy) are still relevant today. My impression – most likely a minority view, as I am aware – was that traditional debates on Marx have misrepresented the 'core' of his approach – value theory – because it has been disconnected from the essential link with money and reduced to an equilibrium notion – a slide that has been eased by a restricted knowledge of his method and philosophical background. Marx's method was not one of successive approximations, but of moving gradually from the abstract to the concrete in the presentation of capital as the totality whose interior driving power is the dynamics of the valorization process. Rather than being the first, imperfect, approximation to the determination of normal relative prices (with prices of production seen as the centre of gravity of market prices) the notion of value, as introduced by Marx in the first chapters of *Capital*, accurately captures the essence of the capitalist mode of production which is hidden behind the exchange ratios set in circulation. Hence, it is something which does not need any further, more precise, determination.

The notion of value requires, from the start, the notion of money as the general equivalent: value is the eventual social validation of private labour in general exchange. Since the production of value for general exchange is at the same time the production of surplus value, and since exchange is generalised only in capitalism, the capitalist process is depicted by Marx as a money 'cycle' or 'circuit', a sequence of concatenated acts starting from the advance of money finance to industrial capital, going through production as the valorization process where (potential) abstract labour – that is (potential) value – is formed, and ending with the coming into being, the actualisation, of value on the market. It is easy to see that money is at the beginning and the end of the capitalist cycle, and that the capital – labour confrontation over the pumping out of abstract labour is at the centre of the picture, whatever the determination of individual prices. The notion of labour as substance and the notion of money as the expression of value, as well as the laws of capitalist motion, are modified by Marx in the course of his presentation of capital's totality. Labour as substance is the living labour of wage workers commanded by money capital, and hence is subject to a process of commensuration by industrial capital prior to exchange. In Marx, money must be seen as a dual and inherently dynamic, and sequential notion (though Marx's presentation is the reverse of this sequence): first, money as capital – the buying of labour power by money capital, which gives way to industrial capital command over living labour – which allows a prevalidation of private labours within capitalist firms; then, money as the universal equivalent, which eventually sanctions in the final exchange of commodities the indirect sociality of those same dissociated labours.

The theory of value then, is at once a theory of money and a theory of the origin of surplus value – a theory of exploitation in a monetary economy – before being a theory of prices. Value theory encompasses, on the one hand, the 'formation' of economic magnitudes, that is, the process that lies behind the formation of capitalist 'equilibria' and/or the explosion of crises, and on the other hand the essentiality of money even in equilibrium. Thus what have been taken as the data in the 'transformation debate' are dependent from the path marked by the powerful forces and struggles surrounding money, production proper and competition. The basic categories are inherently dynamic in the Schumpeterian sense. As Schumpeter himself emphasized, Marx's theory was in a sense the first genuinely evolutionary economic theory, where the capitalist process incessantly brings about states that will by themselves generate the next ones – a structural morphogenesis that is lost in the unilinearity of balanced growth or collapse theories.



This is not the place to go into the details of this view about Marx – the view behind the questions that prompted me to organise the conference. What matters here is rather if and how the process of capital as a whole, which is the object of volume III of *Capital*, may be read without the straitjacket imposed by interpretations that omit the monetary and sequential aspects of the Marxian system, and that underplay the weight of the philosophical foundations of Marx's critique of the political economy. This volume and its companion are a tentative step in this direction. It is my hope that the contributions, each in its own way, may help provide a deeper understanding of Marx, as well as of present-day capitalism.

## FOUNDATIONS

Part I of this volume is devoted to issues of method. In the opening chapter Chris Arthur deals with the interpretation of the place of volume III in the structure of *Capital* as a whole as put forward by Engels, who assembled the book from Marx's notes. This interpretation is embodied in the 1894 preface and the 1895 supplement. According to Engels, Marx started by depicting, in volume I, a pre-capitalist stage of 'simple commodity production', where exchange ratios are ruled by values, and subsequently shifted his attention to a capitalist economy, where commodity values appear in a 'secondary' derivative form, divergent from values. To this linear logical – historical sequence Arthur counterposes a dialectical, circular view. The role of dialectics is to reconstruct a structured whole, a totality where the very essence of each element depends on its relation to others and the whole; moreover a totality that cannot be presented immediately. Value, the starting point of *Capital*, rather than being a historical presupposition as Engels maintained, depends for its reality on the full development of capitalist production, and is anticipated by Marx in the first pages of *Capital* only as a provisional, immature, abstract moment of a complex totality. Arthur shows that Engels' view of the logical development of Marx's argument as a 'corrected history' fails at both the textual and the substantive level. The law of value is not something pertaining to an 'origin' whether logical or historical. It is something that 'comes to be' in the form determinations of capital as a totality, which is the real subject.

Arthur's chapter is based on a reading of Marx's method that emphasizes the lineage from Hegel. Chapter 2, by David Levine, also supports the relevance of Hegel for a correct understanding of Marx's problematic, and for its contemporary renewal. According to Levine, Marx combined two antithetical methods: the method he took from Classical political economy, where the determination of economic relations is based on given external presuppositions; and the method he took from Hegel, where economic relations are placed in a larger whole and determination is internal or systemic. Levine pursues this tension, ascending from the connected problems of the pairs value/price and surplus-value/profit to the fundamental distinction between capital in general and the system of real particular capitals. Following the method of political economy, value is first determined by labour, and subsequently transformed into price by competition; following Hegel's method, value refers to the place of a particular commodity in a world of commodities, that is, it is nothing other than the sum total of its external relations in their systemic necessity. If we take this second path, we do not know at the outset how value is determined. A similar contrast comes to the fore when considering competition. According to the former method, competition merely redistributes surplus value as a prior given magnitude once the remuneration of the worker in general – though not the remuneration of real particular workers – is known in advance of the market. But this view cannot be consistent with the latter method, because it means that the real particular capitals are relatively unimportant for systemic determination; in other words, it means that competition, the inner nature of capital, is not fundamental in the basic theory of capital itself. Levine argues that too often Marx tried to show that the system of capital as a whole, the unity of universal (capital in general) and particular (real particular capitals) merely reinforces what is already determined before the concrete investigation of real particular capitals. However Marx's most important legacy is precisely that he raised the problem of how we know the system itself, without appealing to external given presuppositions.

In Chapter 3 Gilbert Faccarello also places the Marx – Hegel relationship at the heart of his discussion. He shows that there are different definitions of abstract labour in Marx: a physiological or energetic conception; a definition stressing the growing indifference of workers *vis-à-vis* their task and their labour; a sociological characterization built upon the notions of reification and fetishism; and a conceptual determination, as the notion which encompasses all imaginable kinds of concrete labours. In the course of his complex argument, Faccarello draws the reader's attention to the dialectical



deduction of money in the first chapter of volume I of *Capital*, and to its difficulties. Hegel's *Science of Logic* and *Phenomenology of Spirit* are important here. Marx's definitions of abstract labour may be traced back to Hegelian underpinnings; and the reversal of the endless series of particular equivalents which gives rise to the general equivalent we find in that chapter may be interpreted as the progressive realization of a universal element – value – in its appropriate external expression – money.

The influence of Hegel in Marx's critique of political economy is crucial once again in the next two chapters, which deal with the notion of exploitation and land rent respectively. For Riccardo Bellofiore and Roberto Finelli (Chapter 4), Marx's method in *Capital* is rooted in the Hegelian cycle of 'presupposition' and 'posit', whereby the presupposition is posited by the result itself. At the beginning of *Capital*, abstract labour is hypothetically 'presupposed' on the basis of the deduction of value from exchange as such: value is here reduced to nothing more than objectified and alienated labour. But in the course of the three volumes, abstract labour turns out to be the 'posit' of capitalist labour, that is, of 'labour that is opposed to capital' or wage labour. Thus abstract labour is posited by the mobility of labour power, which is the mere potentiality of labour in general, and by the 'other-directed' nature, within production, of the wage worker's living labour, which is potential value. According to this account, the capitalist organisation of production is determined by processes that are the end result of a consciousness and a will separated from the workers, and are therefore the basis of class struggle. This turns out to be the real mechanism that underlies and legitimates the truth of referring capitalist wealth to labour. The notion of exploitation that is appropriate to this approach cannot be reduced to a merely distributive matter, whether that is understood as a physical surplus over and above workers' consumption (as in neo-Ricardianism) or as the surplus labour behind gross profits (as in traditional Marxism). Both these aspects are secondary in the sense that they derivate from a more essential and fundamental factor, that is, the fact that in capitalism living labour is wholly 'forced' and 'abstract-alienated'. The transformation problem is nothing other than the reconstruction of the (inherently deceptive) surface appearance in circulation, showing how the latter derives from, and at the same time conceals, the exploitation of wage workers' living labour. According to this view, unlike in the so-called 'new interpretation' of the transformation, the rate of surplus value as a ratio between amounts of abstract 'embodied' labour must be different from the rate of gross profits to wages as a ratio between amounts of abstract 'represented' labour.

In Chapter 5 Marco Guidi concentrates on the relationship between land rent and capital in general and on the role of this revenue for the logic of capital reproduction, showing again the peculiar method employed by Marx – namely Hegel's positing of presuppositions. Capital is presented as free, as the Hegelian 'absolute idea': it produces and reproduces itself, its own content and the concrete phenomena of which it is the basis. Land rent is a presupposition of capital, because it is a necessary condition of the 'freedom' of workers from the use of nature and its property. At the same time, rent is shown to be the result of capitalist production: capital is the creator of modern landed property and ground rent. Rent is not created in the shape of a commodity, nor as a concrete type of capital, but just as it is useful to capital, that is, as a pure value: this way it compels labour power to become a commodity, to have a value and to produce commodities. Labour power itself is a presupposition of capital that must be posited. Guidi maintains that the presuppositions of capital and of labour power as a propertyless class are not linked to land rent as a value specifically different from capital, as Marx thought. The method of the positing of presuppositions can explain the reproduction of the capitalist relation without reference to rent. Guidi suggests looking instead at contemporary developments of Marx's analysis of interest-bearing capital. Nowadays the most important obstacles to self-employment or small entrepreneurship are often credit market and credit rationing.

A very different reading of Marx's method is provided by Jack Amariglio and David Ruccio in Chapter 6. They oppose what they call 'modernist' interpretations. Modernist interpretations construct a series of dichotomies – order / disorder, certainty / uncertainty, centring / decentring – and favour the first term in understanding Marx's notion of markets, forms of competition and crises, and in delineating the differences between capitalism and socialism. The authors prefer to take the opposite route, and prioritise the second terms of the dichotomies, thus emphasizing disorder, uncertainty and decentring. In their chapter they concentrate on competition. The modernist view of orderly competition detects in Marx laws and tendencies, driving forces and determinate results. The postmodernist reading uncovers in *Capital* a more disorderly, unpredictable, decentred conception of competition. Attention is turned away from a general logic of capital



towards the more local, negotiated and articulated actions of local enterprises. The difference between capitalism and socialism is consequently redefined: it is not the degree of order or disorder in the two systems that matters, but the local outcomes of competition and the opportunities for agents to shape the identities and consequences of the activities either of capitalist enterprises or of socialist planning agencies.

The last chapter in Part I is by Ernesto Screpanti, who offers two general perspectives from which to look at Marxian theory. Two theories of capitalism are considered. The former sees private ownership of the means of production as the basic institution of capitalism. The two opposing classes – capitalists and workers – are defined on the basis of the distinction between ownership and property lessness. The latter sees the contract of employment as the fundamental institution of capitalism. The working class is made up of agents who sell labour power, whereas the capitalist class comprises those who exercise command in the labour process with a view to the accumulation of capital. The latter need not be the owners of the means of production, nor need the former be 'free' of all wealth. It is argued that elements of both theories are present in Marx, although the former, which was in fact originated by Adam Smith, is prevalent. However it can be proved to be a special case of the latter. Finally, it is suggested that the latter theory can be developed into a general theory of capitalism that is suitable for the study of modern capitalism.

## MONEY

Part II of this volume is devoted to the money chapters in volume III of *Capital*. The first two chapters by German scholars, benefit from the publication in the MEGA of Marx's own manuscript. Engels edited heterogeneous and often ambiguously ordered notes. In chapter 8 Bertram Schefold highlights the differences in language and the arrangement of chapters, and discusses how the manuscript sheds light on Marx's interest in philosophical aspects of mathematical theory. But the focus of the chapter is on the transformation of profit into interest and profit of enterprise. The original manuscript, which separates the illustrative material from the unfolding of the theoretical categories, allows us to see more clearly the central place of Marx's theory of the forms of value, as well as the fact that the analysis of credit and financial institutions are peripheral to the overall structure of volume III. According to Schefold, Marx was not interested in a microeconomic inquiry into the rate of interest because he had already shown at the highest level of abstraction the irrationality of the form interest as the price of capital. At a more concrete level, the movement of the rate of interest is not ruled by the rate of profit, but rather moves in the opposite direction. In his analysis of credit, Marx' primary aim was to confront the ideological statements of exponents of class interests with a better theory and a mass of facts.

In Chapter 9 Heiner Ganssmann describes Marx's argument about money, credit and fictitious capital as an instance of 'successivism' aimed at understanding socioeconomic structures in terms of a process of social learning. In Marx we find the idea that the complex new properties derived from simpler antecedent conditions are part of a condition of alienation, and are likely to be reduced to their primitive origins either by crises or by revolution; but it can also be argued that these complex forms are the result of irreversible processes. Marx has a 'strong argument' for the necessity of money, based on his fundamental analysis of the value form. Commodity values can be socially validated only by relating them to the commodity that serves as the universal equivalent; it is only through exchange against money that private labour is recognised as part of total social labour, that value is 'realised'. The collapse of the credit system and the return to gold illustrate the essential anarchy of the capitalist mode of production. In the course of his argument, Marx downgraded the necessity of the physical presence of money, the one exception being universal money: he repeatedly asserted that an idealistic credit system cannot in the end be freed from the material manifestation of value, namely commodity money. However Ganssmann contends that the link between credit and hard cash has vanished even for money, as 'money of the world'. Once there is sufficient trust in the overall system of international trade and credit, and/or there are new rules or institutions that are reputed to be able to avert crisis situations by renegotiating credit arrangements, Marx's reasons for the reversion of credit into hard money no longer hold. Nevertheless, Marx's successivism enables us to pose important questions about inconvertible, valueless credit money, questions that are normally not raised in mainstream and heterodox theories of money. Money, Ganssmann concludes, is at one and the same time the symbol of the obligation to work for some social agents, and the symbol of its own self-expansion as potential capital, which may end up in the 'game' of speculation.



Theory of forms of value looms large also in Chapter 10 by Carlo Benetti and Jean Cartelier. For them, the value form is one of Marx's outstanding contributions, highlighting his principle of the 'unity of production and circulation'. To be faithful to this principle, money has to be introduced from the beginning on the same footing as the commodity division of labour. Benetti and Cartelier argue that the difficulties of the modern neoclassical general equilibrium theory show that this principle is the rational basis of monetary theory, hence of price theory, whatever one's choice of value theory. Neo-Walrasian theorists leave no room for decentralised processes of exchange and fail to model market prices properly. From a thorough scrutiny of Marx's insights into the forms of value, as well as their shortcomings, two strong results are derived: money is the precondition for an exchange economy to exist, and hence money prices are the only acceptable form of value; a satisfactory theory of money prices cannot be obtained by integrating money into a value theory constructed on the basis of a world without money. Though Marx raised the problem, he did not succeed in linking the determination of value with the money form of value. Benetti and Cartelier suggest a tentative model in which money values are determined according to Marx's principle of unity of production and circulation. Their chapter is followed by a comment by Augusto Graziani.

In Chapter 11 Suzanne de Brunhoff carefully reviews Marx's chapters on money capital in volume III of *Capital*. She shows how features of money as an asset are related to features of money as a general equivalent. In volume I money has a polar relation with commodities. Commodities buy neither commodities nor money, it is money that buys commodities; credit is deferred payment. In volume III, on the other hand, Marx examined money capital as it is lent and borrowed between capitalists: the relation between financial and industrial capital comes to the fore. In the last part of her contribution de Brunhoff deals with the dual relationship between production and finance: on the one hand there is interdependence, or even integration; on the other there is separation, or even conflict. Is finance subordinate to industrial capital, or is it the other way round? In Marx, money capital cannot be self-reproducing or have a self-expanding value: though it has a development of its own, it cannot be interpreted as disconnected from profit due to the exploitation of labour or from monetary constraints. Thus de Brunhoff is critical of some contemporary interpretations which declare that the present financial system is a growing superstructure severed from real production and producing stagnation in the long term.

Chapter 12, by Ferdinando Meacci, is concerned with chapters 25–35 of part V, volume III of *Capital*, 'The Division of Profit into Interest and Profit of Enterprise'. First, Meacci reconstructs Marx's argument about the nature of credit and the notion of fictitious capital in relation to merchants' capital and the phenomenon of crisis. It is the excessive growth of fictitious capital, and not fictitious capital as such, that establishes the condition for crisis. Meacci goes on to describe some contradictions in Marx's unsystematic handling of the relation between financial and real crises: crises are seen as the outcome of an imbalance between the processes of circulation and production, rather than between sectors. Finally, Meacci disputes the alleged similarity between Marx and Keynes on money as a store of value and on financial crisis. The parallel between the two authors may hold for the fictitious capital theory of crisis included in these chapters, where financial crises are the cause of real crises. This runs, however, against Marx's law of the falling rate of profit, where financial crises are the result, rather than the cause, of real crises, which in turn are the essential outcome of accumulation. De Brunhoff and Meacci's chapters are subsequently commented on by Riccardo Bellofiore.

The notion of finance capital is considered by Nelson Prado Alves Pinto in Chapter 13. Finance capital was a high topic in early twentieth-century Marxist literature. Drawing mainly on Marx's observations in chapter 27, volume III, of *Capital* ('The Role of Credit in Capitalist Production'), on Hilferding's *Finance Capital* and on the more general Marxian framework (capital as a social relation), Pinto deems it possible to replace the interpretation of the 'corporate revolution' as the advent of a new age of a 'capitalism without capitalists' with a more plausible interpretation, where this phase of capitalist development is seen as the emergence of a new phase of capitalism in which capitalists are as dominant as before although they operate through a different institutional apparatus. The chapter draws on a wider meaning of finance capital to include not only capital at the disposition of banks but also capital at the command of non-banking entities and/or individuals. Both forms of private wealth – bank deposits and tradable securities – are seen as enjoying the same essential properties of liquidity (being readily convertible into their money equivalents) and increasing value (appreciation, interest, dividends). Breaking away from the notion that the dominance of finance



capital evolves through the dominance of financial institutions, it seems possible to speak of a financial phase as a stage in which an ever-increasing proportion of the capital used in industry is finance capital, without at the same time claiming the preeminence of the banking sector over non-banking activities.

In Chapter 14 Henk Plasmeijer questions whether Marx's theory was a monetary theory of income distribution, where the money rate of interest rules the rate of profit. For Marx, the average rate of interest is mainly determined by conventions in the money market. Moreover the business cycle depends on changes in real wages relative to changes in the market rate of interest, rather than on the absolute level of real wages. It is the interplay between a real business cycle and a monetary cycle that determines the average level of distributional variables. Hence Marx came very close to the notion of an exogenously given rate of interest, and to a reversal of classical theory of income distribution.

The last three chapters, all deal with the relationship between Marx and Keynes, but from different perspectives. In Chapter 15 Duncan Foley faces the problem of explaining the general commodity price level in monetary systems that are no longer based on an international commodity money system (the 'gold standard'). The value of national currency, which is the debt of the state, is not nowadays determined by its convertibility into gold or some other external asset. Foley deals with the issue through a succession of models pertaining to different levels of abstraction. The 'volume I model' assumes a long-run production equilibrium without technical change and with an equal organic composition of capital in all sectors, including gold production. The 'volume III model' introduces unequal organic compositions, while maintaining long-run production equilibrium without technical change. In both models what matters is the relative production costs of gold and commodities in determining the gold price of commodities. The introduction of uncertain future technological change in the production of both gold and other commodities changes the picture: now the emphasis shifts to the expected long-run relative production costs – that is, forward-looking speculation enters the analytical framework. As Foley remarks, the given price level at which, in Marx's latter model, gold and commodities come on to the market is the outcome of the kind of speculation Keynes saw as endemic. In a system without commodity money, the debt of the state is also valued by speculative markets, with speculation focusing on future legislative policy to peg the nominal value of state debt to real variables such as labour, housing, food and subsidised or taxed products. Here again the long-run, speculation-based price level and its short-run volatility reconcile Marx with Keynes.

Like Plasmeijer, Claudio Sardoni (Chapter 16) considers that Marx's theory of money and interest differs significantly from classical theory. Marx was explicitly critical of Ricardo's quantity theory of money. Sardoni looks at Marx's theory and his critique of classical political economists in order to see whether similarities exist with respect to modern monetary theory. Specifically, Marx's approach to money and the rate of interest is compared with Robertson's and Keynes' positions. On the whole, Sardoni regards Marx's theory as closer to Keynes' than to Robertson's on the relation between demand for money and aggregate effective demand, as well as on the determination of the rate of interest. There is also a strong similarity on the basic rationale for an increase in 'liquidity preference': the drive for profits is the motive governing capitalists' behaviour, a motive that is fundamentally different from that governing the behaviour of private consumers. The similarities between Marx's and Keynes' analyses can also be seen by comparing Marx's works with Keynes' publications after the *General Theory:* for both authors, banks are a crucial factor in understanding the dynamics of the economic process.

The last chapter in this volume (Chapter 17) is Randall Wray's proposal to integrate Marx's labour theory of value with Keynes' liquidity preference, which he reads as a theory of value. Following Dudley Dillard, Wray maintains that Keynes adopted the labour theory of value to explain the determination of the level of output as a whole at a point in time – a task for which an adequate unit of measurement was required – and because he regarded labour as the sole factor of production. For Marx as for Keynes, prices are not determined in exchange by supply and demand; however, for the latter, prices equalise only expected profits. The crucial role of expectations about an uncertain future affects the unit of measurement, which now cannot be other than money. Money is also selected as the standard of value because it picks out the particular own-rate of interest that is most closely linked to the volume of output and employment. From the own-rate approach, we may move to the determination of demand prices, to the special status of the return to money, and to the role of liquidity preference. The degree of liquidity preference affects the demand price of assets. Expectations about the future are also a factor in supply prices of current output for any goods that can be carried through time (the reference here is to



Keynes' notion of user cost). The integration of the two theories of value – the labour theory of value and the liquidity preference theory of value – is most important in the investment goods sector. Demand prices for these goods depend on liquidity preference, and cannot reflect embodied labour values, whatever the organic composition of capital in the various branches of production. Supply prices cannot be reduced to factor costs since current prices must also reflect user costs. Hence both theories of value are needed to build a monetary theory of production.

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# Part I
# Method and Value

# 1 Engels, Logic and History

Christopher J. Arthur

It should be remembered that volume III of *Capital* was edited by Engels; furthermore, to a considerable extent he set the framework for its reception through his commentaries. This contribution concerns the interpretation of the place of volume III in the structure of *Capital* as a whole advanced by Engels in his 1894 preface and 1895 supplement. However, there is a continuity between these texts and the logical-historical method Engels claimed to have found when he reviewed Marx's *Contribution to the Critique of Political Economy* (1859). According to this method, Marx's exposition is simply a corrected reflection of the historical development of the system of capitalist production. In his comments in volume III of *Capital* Engels interprets this method as implying that Marx started in volume I by describing a historical stage of 'simple commodity production', that it was there that value attained its 'classical form', and that subsequently the picture changed when, with capitalist production, commodity value appeared in a 'secondary' derivative form.

This reading was dominant until recently and influenced the treatment of the structure of *Capital* even among those cautious enough not to rely on the historical claims made by Engels; for they replaced the historical story with what Meek colourfully described as 'mythodology', or with what Sweezy designated the 'method of successive approximations'. The structure of the argument in Engels, Sweezy and Meek, however, is logically the same. It is based on a *linear* logic (treated in the first section below). I counterpose to this a *dialectical* logic (treated in the second section).

## LINEAR LOGIC

In his review of Marx's little book of 1859, Engels drew on a letter from Marx, in which it was noted that Hegel's *Logic* was of assistance in 'the method of analysis'.[1] However, what exactly was the lesson that Marx learnt from Hegel? It is necessary to distinguish between systematic dialectic (a method of exhibiting the inner articulation of a given whole) and historical dialectic (a method of exhibiting the inner connection between stages of development of a temporal process). Examples of both are to be found in Hegel; but the problem with Engels' account is that he conflated the two. It is clear that Marx was influenced in his work by Hegel's method of developing concepts from one another in accordance with a logical principle. But in his review Engels made the fateful step of inventing a method of exposition that, while 'logical', was 'nothing but the historical method, only stripped of disturbing fortuities'.[2] However, if he had taken the *Logic* as a guide to method, he would have been led to emphasise the *systematicity* of Marx's approach; instead, harking back to his youthful enthusiasm for Hegel's philosophy of history, Engels saw the unity of the text as established historically.

Engels' view dominated Marx scholarship for a long time, but it is now widely contested as it flatly contradicts Marx's unpublished 'Introduction to the Critique of Political Economy' (1857), which, as part of a rather complex discussion, stated that it would be 'wrong to present the economic categories successively in the order in which they played the determining role in history' and that the categories should instead be presented in accordance with the articulation of the existing system.[3] Furthermore, as Marx said in the *Contribution* itself, 'the full development of the law of value presupposes a society in which large-scale industrial production and free competition obtain, in other words, modern bourgeois society'.[4]

In his 1859 review Engels stated that, with the logical–historical method, 'each moment can be examined at the point of development of its full maturity, of its classical form'.[5] However, at what point *is* a moment in 'its classical form'? – in the case of value itself, for example?

Engels came back to this question in his preface to volume III of *Capital*. He started by referring to 'the misunderstanding that one can generally look in Marx for fixed, cut-and-dried definitions valid for all time'. He explained that 'where things and their mutual relations are conceived not as fixed but rather as changing, their mental images, too, i.e. concepts, are also subject to change and reformulation'; thus such concepts 'are not to be encapsulated in rigid definitions, but rather developed in their process of historical or logical formation'.[6]

This dialectical point does indeed apply in full measure to Marx's *Capital*. However, in applying it himself Engels provided a particular interpretation of it that proved enormously influential. He said that in



view of the above propositions, 'it will be clear, then, why at the beginning of Volume I, where Marx takes simple commodity production as his historical presupposition, only later, proceeding on this basis, to come on to capital – why he proceeds precisely there from the simple commodity and not from a conceptually and historically secondary form, the commodity as already modified by capitalism'.[7]

Of course the context in which Engels became involved in the discussion of 'simple commodity production' was that at the time it seemed to many that in the third volume of *Capital* Marx had abandoned the law of value in favour of another principle of price determination. However, intelligent readers could see that in Marx's procedure values were a stage in the process of generating the 'prices of production' of Volume III. Faced with the claim that, if such values were not *empirically* present because they were superseded by these prices of production, they had no substance, Engels reacted by interpreting the stages of Marx's presentation *historically* in order to ensure that the values were indeed empirically visible, but, of course, in the *past*, before capitalism 'modified' the relationships involved.

So strongly did Engels feel about this that he wrote a special paper on the subject, which was placed as a supplement to the second edition of volume III of *Capital*. He was concerned to dispel any doubt that the law of value existed in full measure 'for the entire period of simple commodity production, i.e. up to the time at which this undergoes a modification by the onset of the capitalist form of production'.[8]

Before discussing the merits of Engels' view, it has to be noted that there is precious little textual support for it. Marx certainly did not develop the idea at the point where it was supposed to be under discussion, namely in the first few chapters of volume I. It is true that Engels was able to cite a passage from the manuscript of the third volume in which something like the content of the idea of a stage of simple commodity production was discussed by Marx. Seizing enthusiastically on this, Engels claimed that 'if Marx had been able to go through the third volume again, he would undoubtedly have elaborated this passage significantly',[9] however, it is just as possible he would have decided it was a false trail and eliminated it![10]

Engels rightly drew attention to the fact that, in a dialectical movement, concepts must be grasped in their 'formation'. But *when* do we have a fully formed concept? I shall not enter into a discussion of the historicity of 'simple commodity production', for there is a more interesting question from a theoretical point of view: does the model work *conceptually*? Does the law of value really attain its maturity at such a posited stage of development of commodity exchange, or does it attain its complete development only with capital? The truth is that it does not make sense to speak of value, and of exchange governed by a law of labour value, in a precapitalist society because there is, in such an imagined society, no mechanism to enforce such a law; there is no necessity for value to emerge as anything more than an empty form with the potential to develop a meaningful content with capitalism.

There are two cases to consider: either there is mobility of labour or there is not. In the latter case exchange in proportion to labour time expended can only occur on the basis of a *normative* principle; it might be a widely followed *rule*, but not an objectively imposed *law* to be grasped in its necessity by science. Even if one could find historical examples of this rule, it is clearly irrelevant to commodity production in a market economy based on the driving of hard bargains. In the former case, exchange at 'value' is supposed to take place because otherwise people will switch into the better rewarded occupation. As with the other case, it should be noted that this presupposes everyone knows what labour is expended by others; this is a very doubtful proposition historically. However, even if it is accepted as an ideal assumption, it is still true that nothing like an objective law is operating. For the assumption here is that the *only* consideration affecting the choices of individuals is avoidance of 'toil and trouble', as Adam Smith originally argued. This *subjective* premise has little to do with Marx's hypothesis that there exists in capitalism an *objective* law of value that makes exchange at value necessary. If one relies on a merely subjective perception of producers, then other subjective considerations relating to the trouble of learning new methods, or the preference for one occupation rather than another, may be operative also. Just because there is an exchange of goods produced, this does not mean that any law of value governs the ratio of exchange. Price in such a case could simply be a formal mediation, allowing exchange to take place but *without any determinate value substance* being present. According to Marx the law of value is based on exchange in accordance with socially necessary labour times, but in the case of simple commodity production there is no mechanism to force a given producer to meet such a target or be driven out of business. When all inputs, including labour power itself, have a value form and production is subordinated to valorisation, then an objective comparison of rates of



return on capital is possible and competition between capitals allows for enforcement of the law of value.

It is important to understand that this difficulty remains a problem even in presentations of the argument that are more sophisticated than that of Engels. The same problem arises for Meek, who circumvents the question of the historicity of the superseded stage by taking it as a convenient myth.[11] The problem even remains for those who abjure any talk of a real or supposed historically prior stage of simple commodity production, if they cling to the view that in a non-capitalist 'model' determinate value relationships obtain, and that adding capitalist competition to the model changes nothing essential about value, but merely 'moves it around' in accordance with the complications induced by the effects on prices of the tendency to equalise the rate of profit for capitals of different composition.

Because of thinkers' lack of familiarity with dialectic since Marx, it is not surprising that other logics have been employed. And what better than the kind of method that had proved so successful in Newtonian science? Had not Marx used the metaphor of 'laws of motion' when talking of the capitalist economy? Methodologically sensitive Marxists such as Sweezy have put forward the method of 'successive approximations'; this depends on the notion that in order to exhibit value in its pure form a number of simplifying assumption can be made. After this simplification of the forms, a model of value relationships can be outlined in which the law of value will be perspicuous. Then a series of models of greater complexity can be introduced which will demonstrate both that the phenomena might look different but that the essential relationships established in the pure case still are operative in and through these complexities.

This is a perfectly respectable scientific procedure, but it works only if it really is the case that there is no essential difference between the more complex model and the simple one. For example it is clear that no one has ever seen a body moving in a straight line at the same speed forever, because the forces Newton abstracted from in formulating his law of rectilinear motion are always present; this does not refute the law, which continues in the more complex case to hold as the basic force that combines with a concatenation of circumstances to give rise to the phenomena observed.

According to Sweezy, Marx's method 'consists in moving from the more abstract to the more concrete in a step-by-step fashion', removing simplifying assumptions at successive stages of the investigation so that theory may take account of and explain an ever wider range of actual phenomena.[12] He argued that, since the capital relation is 'in form' an exchange relation, it is 'clearly a special case of a large class of such relations which have a common form and structure'; therefore a beginning should be made with 'analysis of the general phenomenon of exchange'.[13] Sweezy, however, could think of no way this could be done except on the assumption that 'Marx begins by analysing "simple commodity production",'[14] and inevitably this analysis was understood to show that 'the law of value is essentially a theory of general equilibrium developed in the first instance with reference to simple commodity production and later on adapted to capitalism'.[15] Notice that the theory is merely 'adapted' or 'applied' to capitalism because we already have the 'essentials' in the case of 'simple commodity production', with which capitalism shares 'a common form and structure'.

Key to all these views (Engels, Meek, Sweezy) is that whatever is essential to capitalism is already contained in the earlier model and is thus carried through *un*transformed in its nature, even if 'hidden' behind confusing 'surface' phenomena in later versions. All such approaches are based on a *linear* logic, not a *dialectical* logic. The question is whether value relationships are conformable to such a linear logic in their development from simple forms of value to more complex ones, or whether value becomes a truth only with the full development of capitalism.

In the first case the assumption of Engels and his followers is that at the outset the principle of equivalent exchange can be established as a simple law that is analogous to Newton's law of rectilinear motion. In the second case the initial form would give a concept of value that is thoroughly inadequate and would have to be substantiated in its further development. On this account, much more than a complicated secondary determination of value is arrived at in the capitalist relationship. It is rather that the true form of value *results* from the exposition.

Why should this be so? If it is granted that value is not a substance given prior to exchange (as is use value), but one that develops only in



and through forms of exchange, then it is fully developed only when these forms have reached the point at which we can demonstrate that value has become a reality in both form and content, and that its logic has imposed itself on the movement of the economy to the extent that we can speak about a quantitatively determinant law of commodity production. For the reasons explained above this law cannot hold in the postulated model of simple commodity exchange.

However, Engels was right to concern himself with the fact that the capital relation is not addressed in the first few chapters of *Capital*. But the problem is not at all that of a pure or simple case to be isolated from concrete complexity. It is a matter of how to articulate a *complex concept* that cannot be grasped by some sort of immediate intuition.

To use Engels' own words, in the case we are concerned with it is indeed true that concepts such as value and capital 'are not to be encapsulated in rigid definitions'. Unfortunately Engels himself, in the application of his insight, does not reformulate his concept of value but merely suggests that its apparent magnitude is modified. For his account of the matter, no knowledge of Hegel's logic is required, for what changes in the stages of development are simply the observed phenomena. The same is true of Sweezy and Meek. All share a linear logic, in which each stage embodies value relationships in a perfectly adequate fashion and thus provides a ground for the next one to 'add on', so to speak, new external causes of variation.

In assessing the faithfulness of Engels' commentary to Marx's intentions, two distinct issues must be separated.

First, do the early chapters of *Capital* refer to simple commodity production? I think the evidence is clear that *from the start* Marx presupposed that his object was capitalist production and that he began with the commodity because that was its basic unit of output whose conditions of existence he traced. The very first line of *Capital* shows this: 'The wealth of societies in which the capitalist mode of production prevails appears as an immense collection of commodities .... Our investigation therefore begins with the analysis of the commodity.'[16]

Second, notwithstanding this last point, namely that Marx was interested in the commodity as a product of capital, might it not be true that the laws adduced there can nonetheless be referred back to a real (Engels), imaginary (Meek) or modelled (Sweezy) stage of simple commodity production? I have argued above that the law of value cannot govern such a mode of production.

Thus, taking the two points together, Engels' view that the logical development of Marx's argument is a 'corrected history', of a development to capitalism out of 'simple commodity production', fails both at the textual and the substantive level.

Furthermore it is worth noting that Engels set the terms of the debate wrongly. There was no need at all to theorize 'simple commodity production'. For what was at issue in the movement from volume I to volume III was the transition from capital in general to many capitals, from capital in its abstract identity with itself to differentiable capitals. For this a movement of particularisation was required. The problem that upset Engels was not this movement as such – he was evidently happy with Marx's 'transformation' – but that capital in general (especially if interpreted as a system of capitals of identical composition) was 'fictional'; hence his concern that value had to have empirical reality. But since the capital of volume I was not such an empirical concept he had to go back further to a precapitalist stage of history. Unfortunately people such as Sweezy followed this route even though for them there was no problem about setting up models with no historical or empirical referent. Thus for Sweezy the virtue of 'simple commodity production' was not its supposed empirical reality (as it was for Engels) but its supposed theoretical perspicuity as the starting point for a linear derivation.

However, Engels and Sweezy could have adopted the procedure of developing a model at the level of capital itself, and justified the theoretical advantage of starting with capitals of identical composition in much the same way as Newtonians justified starting with point masses, on the basis of which key theorems could be derived, and where problems arising from volume and density could later be added to the model if required. But such a procedure of first considering capital in the abstract, followed by consideration of a system of differentiated capitals, still conforms to a linear logic.[17]

## DIALECTICAL LOGIC

Following Engels' lead, theorists have stressed that dialectic is a principle of movement, primarily of history, thereby leaving in the shade the fact that dialectical argument is better suited to reconstructing the articulation of a structured whole, regardless of whether the whole is stable or likely to transform itself into something completely different.



In this light I want to address the following question: of what exactly does the logical method of development of the argument of *Capital* consist? It must be adequate to its object: I argue that the object is a certain type of whole. It is not a mere *aggregation*, as in a pile of bricks where one brick is placed casually on another. Rather it is a *totality*, where every part clearly has to be complemented by others to be what it is. Hence internal relations typify the whole, such that the very essence of each element depends on its relation to others and the whole. A thing is internally related to another if this other is a necessary condition of its nature. We cannot say what it is without reference to the whole context of its relations and determinants. The relations themselves in turn are situated as moments of a totality and reproduced through its effectivity.

The problem we face is that a totality cannot be presented immediately; its articulation has to be exhibited; we have to make a start somewhere, with some aspect of it. But in the exposition the argument can move towards reconstruction of the whole from a particular starting point because we can move logically from one element to another along a chain of internal relations: in strict logic if the very meaning of an element is at issue (which I would argue is the case in the value forms commodity–money–capital, each of which requires the others to complete its meaning or develop its concept), or with a fair degree of confidence if material conditions of existence are involved (as with the relation of valorisation to production).[18]

In a dialectical argument the meanings of concepts undergo shifts because it is denied that the significance of any element in the total picture can be concretely defined at the outset. In an analytical argument this last *is* the assumption, namely that the analysis of the whole into its elements results in a set of 'atomic facts', and then the whole is grasped, through a linear addition, as their aggregate result. But if, contrary to this, each element is significant only insofar as it is itself determined by its place in the totality as well as contributing to the movement of the whole, then the exposition, in starting with some simple yet determinate relation, is thereby forced to abstract it violently from the other relations that in reality penetrate it and help constitute its effectivity. As the presentation of the system advances to more complex and concrete relationships the originating definition of a concept shifts accordingly, normally towards greater definitude, although sometimes new and broader applications of the concept come into view.

Thus the dialectical method remains open to a fundamental reorganisation of the material so far appropriated, as it gets closer to the truth of things. Given this, the concepts of Marx's first chapter can only have a provisional and indeterminate character and the argument as it advances changes the meanings of these concepts, through grounding them adequately in the comprehended whole.

For a linear logic, value is real from the start of the exposition, and its truth is transparent at that point, only to become clouded when the later modifications impact on the initial posit. I argue that this logic is inappropriate because at the core of capitalism is a *totality*. Thus value depends for its reality on the full development of capitalist production, and makes very little sense outside it.

Yet this 'finished form' of value cannot be artificially held apart from its predecessors. From a systematic dialectical point of view, when the movement to prices of production is undertaken, the law of value is realized only in its negation; for the condition that grants it determinacy, namely capitalist competition, brings with it differences that transform potential values. But the law still holds in an important sense, even in the mode of being denied, because prices of production can be properly understood only as the *outcome* of this dialectical unity between potential and realized values.

We have argued that the object of Marx's investigation is a totality. In this context we can deal with the fact that elements of the totality preexisted it; for we know that prior to the rule of capitalist industry there existed commodities, money and even capital itself in the shape of merchant capital and usurious capital.

For example should Marx's derivation of *M–C–M′* (that is, the exchange of money for commodities followed by the sale of commodities for more money) be taken as abstractly general (as a logical stage in the presentation) or as introducing capital in a particular historical shape, namely merchant capital? Clearly, systematically it must be counted as the abstract form of capital with no such concrete reference.[19] Interpreted *concretely* it could be a description of the cycle of merchant capital; but Marx rightly deals with such capital late in his exposition because in this society merchant capital is subordinate to industrial capital. It has a quite new historical determination owing to its function of circulating and realising values of industrial products and achieving a revenue based on this specific function. This is different from its earlier function of linking otherwise isolated centres of economic activity for the sake of a revenue based on arbitrage. The merchant capital is not now facilitating the circulation of precapitalist surpluses, and profiting from that, but it is dealing in goods *produced for the market*, and helps valorisation of capital in general. 'In the context of capitalist production, commercial capital is demoted from its earlier separate existence.... It now functions simply as the agent of productive capital.'[20]



The same lessons can be drawn for money-lending capital. We must distinguish first the usurer, who originally set up business to fund consumption; then the Shylockian lender to speculators and merchants; and finally modern banking, the bulk of whose lending goes to businesses. Thus the abstract form of interest-bearing capital, *M–M′*, covers very different functions according to the level of historical development of commodity production. In volume III Marx traces these differences, and how they lead to 'the subordination of interest-bearing capital to the conditions and requirements of the capitalist mode of production'; its role is now given in 'the changed conditions under which it functions, and hence also the totally transformed figure of the borrower who confronts the money-lender'.[21]

In volume 1 of *Capital* Marx explicitly concentrated on industrial capital and produced commodities. Whereas merchant capital and money-lending capital came earlier in history because they have fewer real presuppositions than industrial capital, they have a secondary status when functioning in the service of modern industrial capital, and therefore come later in his presentation.

It is important to grasp that when Marx identified industrial capital as the dominant form in the bourgeois epoch this does not mean that it has simply displaced other bases of unearned income such as land and merchant capital, but rather that it is the overriding moment in a totality that restructures the context in which other elements operate, thereby also fundamentally transforming them in their own determinacy and in the role they play in the whole and its reproduction. Thus the 'capital' that 'preexisted' capitalism is *not the same capital* that we have now.

If capitalism is a totality that assigns every element its particular function, then elements in a precapitalist context have rather different determinations, and their nature is not the same, even if superficial similarities across time may allow some sort of nominal definition of them. Now their real definition is given by capital. Thus nominally identical elements differ in accordance with the different contexts in which their effectivity is played out. As Marx put it: 'Even economic categories which belong to earlier epochs of production take on a specifically different, historical, character on the basis of the capitalist mode of production.'[22]

As I briefly indicated in the discussion of 'simple commodity production' this is true of the law of value itself. The law of value is not something lying at an origin, whether logical or historical, it is something that *comes to be* in the form-determinations of the capitalist totality.

Truer to the principle of the dialectical exposition of concepts than treating the starting point of *Capital* as a historical presupposition or a simple model, would be to consider it as a provisional, immature, abstract moment of a complex totality. Only when commodities are viewed as products of capital can the form of value be shown to be infused with a determinate content under the force of valorization. Such an unfolding of form, acquiring deeper essential determinations at each stage, requires not a rigid definition of value, but an exposition of its forms. In such an exposition, however, this system of forms must be grasped as a totality, not as a set of independent stages. Of course this self-relating, self-differentiating, self-grounding totality did not spring from nowhere, but although its elements preexisted it in some shape or other, at that time they did not – precisely because they were not formed by the totality – have the same nature, form, function and law as they subsequently gained within it.

At the deepest level, the failure of the tradition that employs a linear logic and uses the model of 'simple commodity production', is that it focuses on the human individual as the *originator* of value relationships, rather than viewing human activities as objectively inscribed *within* the value form (a curiously similar fault to that of the neoclassicists). In truth, however, the law of value is imposed on people through the effectivity of a system with capital at its heart, capital that subordinates commodity production to the aim of valorization and is the real subject (identified as such by Marx)[23] confronting us.



**Notes and References**

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3. *CW*, vol. 28, p. 44.
4. *CW*, vol. 29, p. 300.
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8. Ibid., p. 1037.
9. Ibid., p. 1034; the full passage from Marx is on pp. 277–8.
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11. R.L. Meek, *Studies in the Labour Theory of Value*, 2nd edn (London: Lawrence & Wishart, 1973), p. 304.
12. Paul Sweezy, *The Theory of Capitalist Development* (1942, reprinted New York: Monthly Review Press, 1968), p. 12.
13. Ibid., p. 17.
14. Ibid., p. 23.
15. Ibid., p. 53.
16. *Capital*, vol. I, trans. B. Fowkes (Harmondsworth: Penguin, 1976), p. 125.
17. In truth, however, 'capital in general' has concrete reality, as Marx pointed out in his *Grundrisse* (*CW*, vol. 28, p. 378).
18. See Christopher J. Arthur, 'Hegel's *Logic* and Marx's *Capital*', in F. Moseley (ed.), *Marx's Method in 'Capital': A Reexamination* (Atlantic Highlands, NJ: Humanities Press, 1993).
19. *Capital*, vol. I, op. cit., p. 266.
20. *Capital*, vol. III, op. cit., p. 444; the whole chapter (ch. 20) is relevant.
21. Ibid., p. 735; the whole chapter (ch. 36) is relevant.
22. *CW*, vol. 34, pp. 358–9.
23. *Capital*, vol. I op. cit., p. 255. The point has been stressed by C. Napoleoni in 'Value and exploitation: Marx's economic theory and beyond', in G. A. Caravale (ed.), *Marx and Modern Economic Analysis*, vol. I (Aldershot: Edward Elgar, 1991).

# 2 The Structure of Marx's Argument in *Capital*[1]

David P. Levine

## INTRODUCTION

The anniversary of the publication of volume III of Marx's *Capital* is a good occasion to reflect on the construction of the work as a whole, and in particular on the rationale underlying the distinctions Marx drew between the analysis in its first and third volumes. This is particularly worthwhile in light of contemporary contributions that develop certain ideas suggested by Marx but in isolation from the larger framework of his work as a whole. In my view, doing so can be of considerable value. But, at the same time something important gets lost. It is this something important that I propose to discuss here.

## METHOD

The structure of Marx's argument in *Capital*, and in particular the difference in the analysis between the first and third volumes, expresses something fundamental about his method. And indeed the various, more concrete, concerns of Marxian economics since Marx – the labour theory of value, the transformation of value into price, the law governing movements in the profit rate and so on – are all best understood in relation to the matter of method.

The presumption has been that Marx employed his own distinctive method, a presumption fuelled by Marx's claims about his work, in particular his claim to have put Hegel on his head. In this chapter I question this presumption. I argue that, rather than having his own method, Marx combined two methods, each the antithesis of the other. The first method is associated with the political economy of Marx's period, the second with German philosophy, especially that of Hegel.

This is not, of course, a new suggestion. But in the past those who saw Marx this way also saw his way of combining these influences as a





creative act resulting in a new synthesis we can speak of as distinctively Marx's method. I dispute this conclusion.

The method associated with political economy seeks to understand economic relations as manifestations of external determination, particularly in nature. The method associated with Hegel seeks to understand economic relations within a larger whole or system that gives them an internal (in this sense systematic) determination. More broadly, then, the two streams, whose confluence some imagine Marx to be, actually flow in opposite directions. One finds determination in externally given presuppositions, the other in a system developed without such presuppositions.

Some aspects of the difference between the analysis in different volumes of *Capital* are by now well known: value and price of production, surplus value and profit, capital in general and the system of real particular capitals. This last distinction expresses the overall difference between two levels of analysis. I will consider these three distinctions, beginning with the more specific and then moving to the third, which is the most general.

## VALUE AND PRICE

Because it is foundational in nature, the question of value continues to hold our interest. Let me begin by separating two lines of argument concerning value and price. The two are connected, some would argue inseparable. Still, I think it helps to keep them apart, at least provisionally.

First, value and price in economics are two different terms for thinking about goods, more specifically commodities, in the context of an exchange system. To clarify the two terms, Marx also deployed a third: exchange value. In volume I of *Capital* the notions of exchange value and price are relatively straightforward, the latter being an instance of the former where one of the commodities in the relation is money.

The concept of value is somewhat less straightforward. But if we leave the link to labour aside for the moment, it becomes clearer. Marx imagines that particular commodities exist in a world of commodities, much as particular massive objects exist in a world of massive objects. In this world, commodities establish specific quantitative relations with each other. These provide a set of measures for each commodity: the amount of each of the other commodities needed to purchase a unit of the given commodity. These are the latter's exchange values.

We might think of this as a barter system, but we need not. Exchange values may be better understood as notional measures. They simply express the nature of exchange systems as systems of quantitative connections between objects (commodities).

If all of these measures are not arbitrary, then they point to a unifying reality of the exchange system as a whole. For Marx and the classical economists the idea that the set of exchange values is not arbitrary was taken to mean that it expresses as a system of external relations an internal, Ricardo terms it intrinsic, quality of the commodities themselves (much as we assume that weight expresses in a relationship something intrinsic to objects – their mass).

If we think that the set of exchange possibilities is not arbitrary in this stronger sense, then we probably think that the exchange relations into which a commodity can enter are simply the outward expression of something internal to it, something we can call the commodity's value. An object's value is its significance in the world of exchange. The world of exchange is the world of property rights and of want satisfaction mediated by property relations. Value, then, expresses and measures the significance of the particular object to the world of objects and their owners, which significance can depend on the structure and nature of that world taken as a whole.

Price, the exchange value in money, helps unify the set of possible measures of the commodity into one and in so doing helps express the notion of value as something intrinsic and non-arbitrary. Without money we could not do this since, as Marx pointed out, we could not find a unified expression for the commodity's diverse exchange possibilities. The unity of the money measure (price) reflects the unity of value. The commodity's money price is the unity in difference of its exchange values.

So far this is all straightforward enough, and has nothing in particular to do with labour time or the so-called labour theory of value. Some interpreters of Marx think that labour time (or at least socially necessary labour time) is value. There is support for this in Marx's writing. I would point out, however, that conceptually the notions of value, exchange value and price do not lead us directly to the notion of labour. And indeed in Marx's argument, as presented in volume I of *Capital*, the connection to labour is not developed except in a purely negative sense.

Marx asserted that the 'common something', or value, of the commodity cannot be its use value or any natural quality such as chemical



composition or geometric shape. He concluded from this that value must be what is left after these aspects of the commodity have been excluded, which he suggested is the quality of being a product of labour. This is not very convincing.

The problem with labour and value has to do with the step we take once we have convinced ourselves that value is, to use Ricardo's expression, 'intrinsic and not arbitrary'. By saying this we are in effect asking what the commodity is made of.

At this point, we can follow two paths, both of which are important to understanding the overall construction of Marx's work. The first path concludes that if value is intrinsic to the commodity, it must be prior to and independent of the exchange relations into which the commodity enters. This is similar to thinking that the mass of an object must be independent of its movement in relation to other objects. Once we draw this conclusion, our quest for the nature of value leads us out of the sphere of exchange and market relations. Having exited that sphere, Marx and his classical predecessors looked to the commodity's production, which they conceived as a labour process, thus the labour theory of value.

The second path is somewhat simpler. Having concluded that the commodity has an internal quality expressed in exchange, we simply take value to be the term that refers to this quality. The term value then refers to the system of external relations understood as an internal quality. It remains to be seen how this quality is determined. In this second interpretation, value refers to the place or location of the particular commodity in a world of commodities. It suggests that what a commodity is inside is nothing more or less than the sum total of its external relations, understood as determinate rather than arbitrary.

One of the disadvantages of the classical procedure adopted by Marx is that jumping immediately to labour as the determinant of value impels us to make labour something given independently of the commodity system. This drove the classical authors to treat labour as something natural. Marx at times followed them in this, for example when he defined labour as an interaction between man and nature, or wrote about labour in the abstract as if it were somehow self-evident and not in need of any special determination, social or otherwise.

Treating labour as something natural severs the labour process from the social determination of the product, which is not implied in its production, but a quality added on afterwards. The social character of the commodity might reside in its being property, or being the subject of a transaction between two persons, or having the capacity to satisfy a peculiarly social need. Yet it seems implausible that the production process could be determined independently of the uses to which its product is put, or of the relations into which it enters.

The idea of labour as something natural leads to all sorts of conundrums, the most obvious of which is the notion of 'socially necessary labour time', something which evidently depends on the market even though it is supposedly a prior determinant of exchange. The treatment of labour as a (natural) given is not, however, overcome by referring to labour's 'social necessity'. Generally, doing so simply attaches the word social to a reality whose social character is not established.

If the labour of relevance in political economy has a social determination, this cannot be simply assumed or somehow attached externally to it by use of language. The social determination of labour must be part of the social determination of economic life as a whole. That is, it must be part of establishing economic life as part of a systematic determination of social life as a whole. This systematic determination conflicts with those aspects of Marx's approach that take labour, even social labour, as a premise, whose nature and magnitude are already given. It may be worth mentioning that systematic determination also conflicts, and for the same reason, with the practice in much contemporary economics of taking the relation between object and consumer as given.

Our two different paths to a conception of value and exchange lead to two different formulations of the relation between the parts of economic theory represented in volumes I and III of *Capital*. The first requires us to reconcile the equation of value and labour time with the system established by the interactions of what Marx termed 'real particular capitals'. In other words, along this path price is determined twice, first by value then by competition between capitals. The two determinations are not the same, as all classical economists know.

Thus the problem of constructing the work as a whole becomes that of (1) reconciling two different and potentially opposed determinations of price, and (2) reconciling the intrinsic determination of price with its determination in the interaction of a system of capitals. Much has been, and continues to be, written on this subject.

The second path sets up the relation between the two parts of economic theory somewhat differently. The first part articulates an abstract – that is, indeterminate – conception. The second develops a concrete determination within a system of relations taken as a whole.



Along this second path, we need not and cannot know at the outset how value is determined. We cannot know that it is or is not equal to labour time; when its money measure is accurate and when it is not; why it changes over time; whether it is in some sense produced by labour alone or also by capital, or land, and so on. To try to know these things from the outset, as the labour theory of value tells us we can, might very well be to 'give the science before the science'.

In the first treatment, determination means determination by a prior reality, one given to the system of relations as a whole. In the second treatment, determination means determined within that system.

I think it reasonable to assume that Marx followed both these paths in his work. Given that he did, if we are interested in making something of his insights we have two options. We can attempt to reconcile the two by showing that they are aspects of a single, unified argument. Or we can attempt to separate them. I think the latter is a more sensible and helpful approach, but this is not the prevailing viewpoint. Later I will return to the issues raised here.

## PROFIT AND SURPLUS VALUE

The problem of surplus value and profit in some ways derives from that of value and price. If we can determine the magnitude of value prior to any interaction of a system of economic agents, we can certainly also determine other important magnitudes. The key to doing so for Marx was the idea of a 'value of labour power'. By assuming that labour power is a commodity like all others, an assumption adapted from Ricardo, Marx could proceed to apply his theory of value to this commodity. Thus Marx could know (logically at least) what the remuneration of the labourer must be without knowing anything about the economic system as a whole (the market).

This is, of course, the remuneration of the worker in general and not of the real particular worker. But the remuneration of the worker in general holds the secret to what the real particular worker is paid. They need not be the same, but the former constrains and ultimately determines the latter.

Once we know the value of the commodity (the commodity in general) and the value of labour power (again in general), there is little to prevent us from determining the residual that remains for other claimants, especially the capitalists. This residual is the 'surplus value'. Marx devoted the better part of volume I of *Capital* to exploring the residual in relation to the value of labour power.

If we leave out of account the other claimants to the surplus value (landlords, finance capitalists, the state), we can express Marx's idea very simply. The labour theory of value, including its application to the commodity labour power, tells us how much surplus value the economy will produce. This aggregate then constitutes a pool from which the real particular capitals will be paid their profits.

A difficulty arises in that the proportion between the residual produced by the worker and the capital investment on the employer's part varies from industry to industry according to differences in the proportion between labour and what Marx called constant capital. But, according to Marx, competition should lead to equality of these proportions (the rates of profit). Thus competition between capitals, as the classical economists understood it, will yield prices that are different from labour time, and profits that are different from the residuals (surplus value).

Beyond this, according to Marx, competition is not a matter of great importance. It moves the surplus around until rates of profit are equal (or at least it creates a tendency in that direction). This doesn't really change very much. So, in Marx's language, competition executes the laws of value and surplus value, but does not really alter them or establish any important laws of its own. But competition is the system of 'real particular capitals' in action. To make it relatively unimportant, as Marx does, is to make that system relatively unimportant. Doing so is perfectly consistent with the idea that the fundamental reality of capitalism is determined independently of capital.

## CAPITAL IN GENERAL AND REAL PARTICULAR CAPITALS

In simplest terms, the first volume of *Capital* explores the general nature of capital. The central idea is self-expanding value. The central concerns are to understand the unity in difference of the world of commodities – their value – and then to indicate that value exists in a process peculiar to it, the process of its self-expansion (capital). Capital is nothing other than value in process, value that sustains itself through its different forms.



Capital is the unity in difference of value. As capital, value moves from form to form – from the money form to the form of a producing apparatus, to the form of the product, and then back to the money form. This movement renews the value and makes its presence the result of a process, and to that extent it is no longer contingent or accidental.

As capital, value maintains itself through time, but only by changing its form. As Marx pointed out, the logic of this change of form, which is always the changing form of value, is expansion of its magnitude. Thus the impulse to expand emerges out of placing value into its process of self-determination. This makes expansion not the accidental but an intrinsic end of value.

Marx referred to this process as 'capital in general'. Without this analysis we could not know what makes units of capital units of capital, why expansion is the characteristic end of capital, why, for example, General Motors is not a begonia.

But knowing how General Motors differs from a begonia does not tell us how it differs from Mitsubishi or IBM. Capital does not exist in general but only as a system of real particular capitals, all of which are units of capital and yet differently so. Without analysis of capital in general we would not know anything about the nature of capital; we might use the term but we could not know its concept. Without analysis of the system of particular capitals, we would not know capital as a living reality. This living reality, the system of real particular capitals, is the 'unity in difference' of capital.

## COMPETITION

A system of competition presumes separate individuals (or individual units), each striving for the same goal. Competition implies that this goal cannot be achieved or cannot be achieved equally by all the different individuals or units. Since each unit strives for the same end, in a sense the different units are the same. In economics they are units of capital.

A unit of capital is so much value (or wealth) dedicated to its own expansion. This value is embodied in a structure, the firm, which organizes the expansion process. As Marx emphasized, the value, which will become capital, begins as something abstract or universal. It is so much purchasing power or money. But, in order to expand, the value must become something concrete and particular.

This movement from abstract to concrete is lost in the usual application of Marx's classical method, as it sometimes was by Marx himself. It is lost because concrete determination, for example of price in labour time or for that matter of labour time itself, is presumed as given from the outset. Thus there is no question of developing the concrete as a concretization of the abstract or the particular as a particularization of the universal.

For capital, the movement from universal to particular is the process of capital investment. Investment dedicates the value to a particular line of production and particular market. The fate of the value invested then depends on circumstances specific to that market and to the way in which its owners have invested it (in particular technology for example). The result of the movement from universal to particular is the differentiation of capitals and eventually of their rates of return.

Since the differences that arise in this way bear on rates of profit and therefore on the prospect of further expansion through investment, these differences bear on the success of the particular unit. But that success is essentially a success of the particular unit in its effort to realize the ideal of capital. The measure of success – value – returns us from the particular to the universal since it reduces all differences to differences in quantity.

Capital in its particular aspect encounters obstacles to achieving its (universal) goal. Among these obstacles is the presence of other capitals, especially those that have particularized themselves in similar ways, that is, within the same lines of industry.

The notion of 'free' competition refers to the inability of the particular capital to prevent other capitals from particularizing themselves in the same way and seeking to expand along the same lines. Barriers to entry limit the opportunities open to capitals for particularization.

Competition, then, is a unity of the universal and the particular. The universal is particularized into a specific form that then determines how well it realizes the universal: the ideal of capital as such. Put another way, competition is a unity of difference and sameness where differences between the units provide the basis for determining their degree of success in achieving the same goal.

Marx's classical approach attempts to make this unity of particular and universal relatively unimportant. Prices of production result from a competitive process that cancels differences in profit rates and, for Marx, rates of expansion. To be sure, Marx must be given credit for raising the problem of particularization in an explicit way, and for insisting on the concrete investigation of the system of particular capitals. All too often, however, his concrete investigation turned out to be an effort to demonstrate that the system of capital as a whole is the redetermination of what is already determined.



Marx's law of the falling tendency of the rate of profit, in many ways the centrepiece of volume III of *Capital*, illustrates this point well. While Marx advanced this law in the course of his exploration of the 'system of capitalist production as a whole', which is the system of real particular capitals, the law has nothing to do with particularity and difference (except for the purely technical matter of capital intensity). It has to do instead with the relationship between aggregates, which as such obliterates any sign of the differences between the elements aggregated.

Other assumptions that are characteristic of Marx's theory have the same meaning. The uniformity of wages across workers and the reduction of skilled to unskilled labour render differences between workers unimportant to the basic movement of the capitalist economy. The idea of a subsistence wage takes attention away from the individual or particular dimension of wants and consumption. Volume III of *Capital* does not even pretend to consider the 'real, particular worker'. Here again the classical method makes the particular aspect disappear.

Marx was aware of the importance of the dialectic of the universal and particular. Indeed the explicit organization of his work expresses exactly this dialectic, and in so doing moves a significant distance from the method of his classical predecessors. Yet in the actual investigation of the system of economic relations as a whole, the method that organized the structure of the overall argument disappears into another method, one in which the fundamental distinctions and connections that shape the overall structure are lost.

## MODERN PRICE THEORY

How might the foregoing considerations bear on some modern price theories? Free entry theories, such as those influenced by Piero Sraffa's work, are closely linked to Marx's formulation of production price in volume III of *Capital*. They conceptualize price determination in a world where profit rates tend towards uniformity across producers. This tendency carries implications for the nature of the particularization of capital, as suggested above. It presumes the existence of well-organized markets for used capital stock so that exit from a particular line of production can be accomplished without special exit costs; and it presumes that significant barriers do not exist to the entry of new competitors into an industry.

These assumptions make particularity either (1) ephemeral, since differences between capitals are easily undone, and indeed the point of competition is to undo them, or (2) purely technical, since any differences remaining after competition have nothing to do with capital but with the differentiation of a technically defined system of reproduction. Differences in what Marx termed the 'organic composition of capital' are of this kind.

The units responsible for the constituent parts of the overall reproduction process, or units of production, are not in any convincing sense units of capital, and Sraffa for one has not used the term capital to describe them. Since the particular units are not particularizations of capital, we should not assume that they embody the general qualities we associate with capital (they might, but they might not). That they receive profit in proportion to a part of their production costs remains an arbitrary assumption. The entire conception is at best implicitly one of a capitalist system.

This becomes clear once we consider the idea of reproduction or self-replacement. Reproduction is a general concept for the state of an organism or system placed into a temporal framework. Natural systems may reproduce themselves, as may non-capitalist social systems. Marx sometimes placed capitalist economy into this seemingly more general framework, for example when he claimed that all societies must deploy their labour in such a way as to sustain themselves from period to period. Then the only peculiarity of capital is the way it goes about accomplishing the more general end.

If we accept this methodology, the analysis of capital is really only a particular instance of what is truly general: labour, reproduction, want satisfaction. The latter then become what is relevant to the human world placed within a natural environment. I will not consider whether this is a fruitful line to explore, but only point out that if it is, it does not fit in very well with the structure of argument in *Capital*, which nowhere systematically develops a conception of the general nature of reproduction taken independently of the concepts of value and capital.

The approach that begins with reproduction leaves out of account what is distinctive to an exchange system, and in particular to a system of economic valuation. This something distinctive is the subject matter Marx refered to as capital in general, abstracted from its particular forms and from the system of concrete relations through which it accomplishes a process of self-development peculiar to it, not reproduction in general but the self-development of value as capital.



The emphasis in free entry theories is on the universal aspect, but separated from any explicit concept of an economy. The universal is an abstraction that has no real need for concrete features. That reproduction occurs through the activity of units of capital is accidental – possible but not necessary.

The seeming aridity of the abstractions of free entry theories discourages some modern authors from any explicit treatment of the universal aspect of price systems. These authors seek to replace theoretical argument with institutional specification. In a sense, their approach is all particular. It strives to bury the universal under the weight of an empirical–institutional specification: degree of monopoly, organization of the firm, legal framework, industry structure, cultural environment and so on.

Institutionalist approaches attempt to reject the universal moment in favour of arbitrary and contingent premises. Sequential approaches attempt to explain a configuration of economic life by appealing to a prior configuration and the dynamic elements embedded in it. They hope that theory can be done by systematizing the commonplace observation that one thing leads to the next. This is reasonable so far as it goes, but we can still wonder if theory can do no more than describe a sequence of connected system states. There remains, after all, the problem of how we know the system itself: its *differentia specifica* and its place in a larger understanding of economic life.

## CONCLUDING REMARKS

Marx did not treat the problem of political economy as one of specifying an institutional or historical setting and then exploring how it might work in theory. Nor did he treat it as primarily a problem of external, especially natural, grounding, although at points he veered in that direction. Marx did not treat economic theory as a matter of modelling price systems and system dynamics, although working out the dynamic properties of a system analytically remained important to his work. Finally, Marx did not treat economic theory as a mere supporting structure for a political agenda, although for him theory had a practical significance. There is something more than this in Marx's work. In the foregoing I have attempted to suggest what that something more might be.

**Note**

1. I would like to thank C. J. Arthur for his comments on an earlier draft of this chapter.

# 3 Some Reflections on Marx's Theory of Value

Gilbert Faccarello[1]

Two controversies concerning Marx's theory of value were of particular importance during the 1960s and 1970s. The first is well known and has attracted most of the attention of Marxian scholars during these decades: I allude to the celebrated 'transformation problem'[2] and to the spirited debates that followed the publication of Sraffa's *Production of Commodities by Means of Commodities*. The second one, however, is much less well known among economists but is also of fundamental importance: it was more methodological in character and centred mainly on Marx's 'logic' and the relationship between Marx and Hegel.

At first sight these two considerations are disconnected and involve very different problems in Marx's writings. The first controversy seems in fact to be mainly technical and mathematical in character, and the second chiefly philosophical. However it has become more and more evident that the fundamental problems they raise are linked and this is precisely what I have tried to do (Faccarello, 1983a, 1983 b). My line of argument is simple. As a result of the Sraffian controversies it is obvious that the 'transformation problem' is destined never to find a solution, since the theory of production prices is 'self-sufficient'. But it is also evident that what is traditionally 'transformed', that is, the system of 'labour values', can no longer be considered as an unproblematic starting point for the entire theoretical construction; old questions have again been raised in this new context and such central concepts as 'abstract labour' or 'socially necessary labour' have proved to be unclear and in need of unambiguous definition. The problem thus faced is that of reinterpreting Marx's statements on value and of trying again to grasp, possibly in a new way, the definition(s) and significance(s) of the related concepts.

Striking facts appear to support this perspective. First, there is Marx's own dissatisfaction with his texts on value (but also on money and capital) and the continuous process of modification from the *Grundrisse* onwards to the last edition of *Capital*. Second, there are the difficulties and embarrassments that commentators generally encounter when trying to state clearly the extent to which Marx's theory of value is fundamentally different from the version that can be found in the works of the classical economists in general, and in Ricardo in particular.

Following this hypothesis and examining again the different versions of these texts, I think it is possible to state that, especially in the opening chapters of *Capital*, Marx's discourse is by no means univocal or unitary. Far from displaying a single, well-defined and 'new' logic, these texts prove much more complex than is usually assumed. On such important topics as value, money and capital, three types of discourse – three different lines of argument – are, in my opinion, tightly interwoven; moreover these kinds of discourse and the different logic and conceptual definitions they entail are conflictual and cannot coexist peacefully, for each of them excludes the other two.

Because of lack of space I can neither develop these points in full nor explain thoroughly why Marx thought it necessary and possible to resort simultaneously to these approaches (see Faccarello, 1983a). What I would like to do instead is, first, simply to illustrate my propositions, emphasising the concept of 'abstract labour'; and, second, on this basis, to show briefly how a careful study of the Marx – Hegel relationship is important in understanding Marx's arguments and evaluating their character.[3]

Let us first note how Marx defined 'abstract labour' or 'labour in general', which forms the 'substance of value'. At least four definitions can be found (I simply report them here without specifying and discussing the problems they raise).

The first conveys a *physiological* or *energetic conception* of abstract labour. 'If we leave aside the determinate quality of productive activity, and therefore the useful character of the labour', Marx wrote, 'what remains is its quality of being an expenditure of human labour-power. Tailoring and weaving, although they are qualitatively different productive activities, are both a productive expenditure of human brains, muscles, nerves, hands etc., and in this sense both human labour' (Marx, 1890, p. 134). 'On the one hand, all labour is an expenditure of human labour-power, in the physiological sense, and it is in this quality of being equal, or abstract, human labour that it forms the value of commodities' (ibid., p. 137).



The second definition of abstract labour stresses the growing indifference of labourers *vis-à-vis* their task and their labour, an indifference that results – as a practical consequence – from the development of the labour market together with the multiplication of the concrete forms of labour (Marx, 1857), and/or from a process of dequalification imposed by technology (Marx, 1863–66). 'Indifference towards specific labours corresponds to a form of society in which individuals can with ease transfer from one labour to another, and where the specific kind is a matter of chance for them, hence of indifference. Not only the category, labour, but labour in reality has here become the means of creating wealth in general' (Marx, 1857, p. 104). The result of the process is most perceptible in modern bourgeois societies such as the United States. 'Here, then, for the first time, the point of departure of modern economics, namely the abstraction of the category "labour", "labour as such", labour pure and simple, becomes true in practice' (ibid., pp. 104–5).

The third definition is purely 'sociological' and is tightly connected to the definition of the 'specific difference' of the capitalist mode of production and to the phenomena of reification and fetishism. It takes into account all the passages where Marx stressed the 'fantomatic objectivity' of the products of labour in a market society and speaks of 'labour in general' as the 'common social substance' of these products, and of the commodity as a 'social hieroglyph':

> The objectivity of commodities as values differs from Dame Quickly in the sense that 'a man knows not where to have it'. Not an atom of matter enters into the objectivity of commodities as values; in this it is the direct opposite of the coarsely sensuous objectivity of commodities as physical objects. We may twist and turn a single commodity as we wish; it remains impossible to grasp it as a thing possessing value. However, let us remember that commodities possess an objective character as values only in so far as they are expressions of an identical social substance, human labour, that their objective character as values is therefore purely social. From this it follows self- evidently that it can only appear in the social relation between commodity and commodity (Marx, 1890, pp. 138–9).

The final definition is purely conceptual. Abstract labour is seen as an 'indeterminate abstraction', as the concept of labour, the category that, in thought, embraces all imaginable kinds of concrete labour: 'the mental product of a concrete totality of labours' (Marx, 1857, p.

104). This definition seldom appears in isolation and is usually associated with the other ones. It is also rather surprising under Marx's pen, and would be uninteresting unless the concept is hypostatized in an idealist way, which Marx, of course, was not prepared to do, at least openly. It will be shown, however, that this definition is also to be found in *Capital.*

Now, how is it possible to characterize the three lines of reasoning mentioned in the introduction of this chapter? In this perspective, is it possible to explain the multiplicity of definitions of abstract labour? The basic points can be summarized as follows.

A first line of argument to be found in the texts on value is obviously closely connected to the traditional analysis of *Capital* and to its stress on the determination of values in terms of incorporated quantities of labour. This approach links the analyses of *Capital* directly to those of classical political economy and, in systematically developing a quantitative and positive economic analysis, confers a 'technological' or 'naturalistic' flavour on the theory of value. It also entails well-known difficulties such as the vexed questions of defining value as a 'substance', the identification of this substance with 'abstract labour' (with the attempt to 'prove', from the second edition of Volume I *Capital* onwards and through a process of elimination of inadequate factors, that the only possible 'substance' is labour), the analysis of money (the specificity of which vanishes), and, of course, the 'transformation problem'.

From this point of view the so-called 'socially necessary labour' that must be spent to produce a commodity, and which forms its value, is defined with respect to technological factors, that is, to what can be considered as the 'normal' or 'average' technological conditions in each branch and for a given period of production. The 'substance' of value, 'abstract labour', is also obviously to be understood in the same perspective. This is why, among the different definitions that can be found in Marx, only the 'physical' ones can be coherently accepted: that is, either the one that stresses the 'energetical' nature of abstract labour, or the one that, in pointing out the process of development in the labour market, eventually simply identifies, in a way, 'concrete' and 'abstract' labour (the first and second definitions noted above).

Independently of the difficulties in these definitions, this kind of 'technological' or 'naturalistic' approach obliterates – and, as will be



shown, is at variance with – a sociological specification of value and a dialectical deduction of concepts.

The second line of argument to be found in the same texts is far less well known. Marx's problem here was to define the 'specific difference' presented by the capitalist mode of production as compared with all other forms of society, and to state logically all the consequences that can be drawn from this definition: in his view, this is an important scientific requirement, which he deduced from his youthful criticism of Hegel's philosophy along Feuerbachian lines. According to this perspective, 'value' is supposed to express this *differentia specifica* and to be, so to speak, the 'incarnation' of the socioeconomic specificity of a market-based society. What matters here is thus the 'qualitative' side of the analysis. As will be shown, however, the development of this essential and most interesting aspect of Marx's theory is not innocuous and does not go without devastating consequences for the first approach; in other words, the 'sociological' or 'qualitative' characterization of value inevitably involves a new *quantitative* determination that is at variance with the traditional 'labour incorporated' analysis.

To single out the specificity of a market-based economy, Marx referred to four other forms of society: 'Robinson on his island', the 'dark European Middle-Ages', the rural and patriarchal family, and a 'society of free and equal men'. In these non-capitalist societies, Marx wrote, (1) only 'concrete labour' matters, (2) the products of labour are not commodities and (3) social relations of production are transparent. In a capitalist society, on the other hand, (2) concrete labour does not matter as such, (2) products are commodities and (3) the social relations of production are hidden behind the apparent equality in exchange relations.

The task, then, is to discover why such differences arise, and to explain how these different characterizations are bound together. Marx's answer is twofold.[4]

First, in a non-capitalist society there is an immediate reciprocal adaptation, that is, coordination, between (1) the different kinds of concrete labour, (2) the produced use values and (3) the needs of the members of society; in other words there is no place here for a break between a 'private' and a 'social' side of activities: 'It is the particularity – and not the generality – of labour that constitutes the social bond here' (Marx, 1859, p. 13).

Second, the cause of this state of things lies, in Marx's opinion, in the existence of a community that acts prior to production and coordinates it. All the societies he mentioned are, in some way, 'planned' ones. The community, whatever it may be, always points out to the individual the part he must play in the productive process: 'the individual labour forces only act as organs of the common force' (Marx, 1872–75, p. 90).

The 'specific difference' presented by the capitalist mode of production is thus defined as the lack of any community prior to production. Producers are independent and isolated; they work privately and their activities are, *a priori*, by no means coordinated. This is why the 'natural' forms of labour are not immediately social. How can a society maintain itself on such grounds?

The social link forces itself *post factum* through the market. It is by transforming their products into commodities that independent producers constitute a coherent set of relationships, that is, a society, and that their private labour is – or is not – validated as a social one as well. Producers' activities have to *prove* their social character by means of exchanges on a market. The market is thus the locus and means of social integration.

At this point Marx's analysis is expressed in terms of (1) a 'system of social needs', (2) a 'social division of labour' and (3) the set of the amounts of different kinds of concrete labour really spent. The 'system of social needs' generates the set of use values required by the members of society at a given time, and depends of course on very different factors, such as moral values or income distribution. The 'social division of labour' is the concrete coordination of labour that allows, given the prevailing technology, the desired amounts of commodities to be produced. If the community regulates production, then the actual concrete labour spent in production corresponds to the social division of labour. If there is no prior community, however, a difference can – and generally will – arise between the two:

> *Products of labour* would not become *commodities* if they were not produced by acts of *private*, autonomous *labour* carried out independently of each other. The *social interconnection* between these instances of private labour exists *materially* to the extent that they *are parts of a natural and spontaneous social division of labour*, and therefore satisfy, through their products, different kinds of needs, needs that, when taken as a *whole*, constitute a system that is also natural and spontaneous: the *system of social needs*. This *material*, social interconnection of instances of *private labour* that are carried out independently of each other is not, however, *mediated*, and therefore is achieved only by *exchanging* the products of this labour (Marx, 1867b, p. 133).



Now, it is possible to see how this approach makes the concept of abstract labour – the 'substance of value' – very specific (in line with the third definition reported above), and how the 'specific difference' of capitalist production is expressed by the concept of money.

In this 'sociological' line of argument, Marx called 'abstract' or 'general' labour the concrete labour that is socially validated through the exchange of its products on the market. Abstract labour is nothing but concrete labour that proves itself part of the 'social division of labour'. It is thus a *result* of exchange, viewed as a means of social integration of independent producers. It is just a social feature and is consequently defined only simultaneously with the exchange rate. Abstract labour is thus by no means a 'substance' prior to exchange, nor does it determine it. 'By what means does the individual prove that his private labour is general labour and that the product of this labour is a general social product?', Marx asked in the urtext of *Contribution*:

> By the particular content of his labour, by its particular use value, which is the object of another individual's need, and which leads the latter to give his own product as an equivalent in exchange for it.... Therefore his proof is that his work represents a particularity in the totality of social labour, a branch that completes it in a specific way. As soon as labour possesses a content that is determined by the social complex – this is both the material determination and the preliminary condition – it is considered to be general labour (Marx, 1858, p. 217).

'General social labour is not therefore a condition that exists beforehand in this form, but a result that is reached' (Marx, 1859, p. 24).

If abstract labour, however, is not an entity and is not a substance prior to exchange, value cannot be defined other than as the quantity of money for which a commodity is exchanged: this quantity acts both as the determining factor and the measure of value, although the reverse is not true. We can now understand the meaning of such sentences as 'general labour time is itself an abstraction, which, as such, does not exist for commodities' (ibid., p. 23).

The function of money is thus clear: it acts as the social link for labours expended independently of each other, without social coordination. Money regulates production, *post factum.* Money is, in Marx's own words, the community (an indirect, *abstract* community) that seems to be lacking in a society based on trade and the private ownership of means of production. Producers meet as owners and

> exist for each other only as objects of their monetary relations; for all of them, this condition makes their community into something that is external, and consequently, accidental... Since they are not subordinated to a community..., the latter must face them as something that is material, equally independent, external and fortuitous. This is precisely the condition that will enable them, as private, independent persons, to be implicated, at the same time, in a social whole (Marx, 1858, pp. 217–18).

It is now obvious that – contrary to what Marx thought – this 'sociological' approach is at variance with the traditional interpretation of *Capital.* Its most striking feature is the inversion of the deduction of value and money. If, in the traditional approach, money is apparently deduced from the concepts of abstract labour and value (but in fact is redundant and vanishes into value) in the approach just mentioned, abstract labour and value are deduced from the concept of money (and indeed value is redundant and vanishes in money). This is a sufficient reason why, in my opinion, the two lines of thought so far depicted cannot be maintained together.

A third line of argument emerges eventually out of Marx's texts on value. It can be called the 'dialectical approach' in *Capital* and stems from Marx's plan to build his construction on a theoretical and rigorous chain of deductions of concepts, from the commodity concept to that of money, from money to capital and then to wage labour and the different kinds of capital.

In Marx's eyes the theoretical introduction of money from what he called the 'specific difference' of the capitalist mode of production is no doubt insufficient because all the concepts are given simultaneously and are not deduced from one another. This creates a break in his chain of reasoning: once money and value are given, there seems to be no place left in this scheme for a rigorous deduction of capital



and wage labour, and the picture that emerges eventually, and quite unexpectedly, is that of a rather harmonious society of independent producers, whereas in Marx's opinion a monetary economy is necessarily a capitalist one.

This is why, of the preceding considerations, Marx – apparently disregarding the monetary character of the process – retained only the necessary transformation of products into commodities. He then stressed the fact that a commodity has a twofold character (value or exchangeable value, and use value) and that these two aspects are 'contradictory'. Then, from this basic 'opposition', Marx dialectically deduced[5] money, capital, wage labour and the different kinds of capital.

The following questions must be asked at this point. What precisely, to use Marx's Hegelian language, is this *opposition* stemming from the analysis of the two sides of commodity – exchangeable value and use value – and why is there a *contradiction* between them? How and with the help of what logical tools is the concept of money generated – or deduced – as a result of the development of this alleged basic 'contradiction'?

The answer to these questions will show that Marx's third, dialectical line of argument is not only at variance with the 'sociological' approach (the third approach, for example, again stresses the anteriority of value to money), but also with the traditional interpretation of *Capital* on which it still seems to rest: as a matter of fact a necessary (but probably not sufficient) condition for speaking of a *contradiction* between the two sides of commodities is to redefine the concepts of 'exchangeable value' and 'use value'.

In the 'technological' or 'naturalistic' approach, the concepts of value (or exchangeable value) and use value have well-defined meanings: value is supposed to be a quantity of labour, and use value, as it emerges from the Marxian deduction of the substance of value, expresses the physical, qualitative and concrete aspect of the product of labour. In this perspective it is impossible to see to what extent these two concepts are 'opposed' to each other.

Nevertheless Marx asserted that, on the one hand, a commodity is not immediately a value, but 'has to become so'. On the other hand, it is also not said to be immediately a use value but again it has to become so. Of course the reader may think that the exchange process could realize a commodity as a value, just as it can simultaneously realize it as a use value. In Marx's opinion, however, this means a 'contradiction': the 'realization' of use value presupposes in his eyes the realization of the commodity as value, and conversely the 'realization' of value presupposes that of use value. As the solution of each problem implies that of the other, we therefore face an endless and vicious theoretical regression from one determination of the concept of commodity to the other.

It is thus clear that, in order to generate the opposition and the endless regression, the earlier meanings of value and use value have been modified. *Use value* is now defined as a direct utility relationship between a thing and its owner (otherwise how is it possible to assert that use value is only realized through exchange?) As for *value*, two possibilities may logically be considered:

- Value can be defined as an expected value (or, in more appropriate terms, expected money), thus expressing the process of the necessary socialization of private independent labour: but then we are back to the 'sociological' approach, and we cannot resort to it here without a vicious circle, for we have to deduce a concept of money that this approach already presupposes.
- Value can also be defined, not as the quantity of money the commodity can be exchanged for, but as the quantity of *such and such commodities* for which it can be exchanged.

In my opinion, only the second definition can be accepted in the 'dialectical' approach. This definition, however, can itself be understood in two different ways: it can express an idealist concept of 'substance of value', or a mere reduction to barter or potential barter. How can this issue be decided?

The 'inner' contradiction of the commodity, Marx continued, brings about the equivalent form, in which a given commodity assumes the 'relative' value form, and the received commodity acts as a 'particular' equivalent. The commodity is then equated with different quantities of all other commodities, which act as many particular equivalents: it is the 'developed' equivalent form. Marx stressed, however, that every attempt to transcend a particular equivalent in order to give value its 'general form' is bound to fail: a commodity can be successively equated with every other commodity, but each of them nevertheless remains a *particular* equivalent. Here we meet for the second time a theoretically endless regression from one determination (this time quantitative and not qualitative) to another: from one amount of a given particular equivalent to a different amount of another particular equivalent.



Now, in this perspective how can the *general* equivalent form be obtained? Marx simply reversed the series of the particular equivalents, which, by means of this operation, express their value in a determined amount of one and the same commodity.

What is, however, the significance of this reversal? Again, as before, two solutions can be put forward. First, an idealist interpretation would stress that this process means the progressive realization of a universal element (value) that aims at a manifestation appropriate to its concept. Second, another solution would interpret the reversal as mere subjective reasoning on the part of the dealer who considers *his* commodity as a general equivalent for all other commodities.

If this process is to be taken in an idealist sense, the reversal of the series of particular equivalents must be understood as realization of the concept of money. But if this process is only a subjective operation of the dealer's fancy, the theoretical genesis of money is not solved: if each dealer wants his commodity to be accepted by the other dealers as a general equivalent in exchange, it is impossible for any particular commodity to become a general equivalent, since *all* commodities might simultaneously be this equivalent; if all dealers think in a similar way and reverse their series or particular equivalents, then this process only leads to a final situation that is the same as the initial one.[6] In both cases the dialectical deduction of the concept of money seems to be – to say the least – questionable, and the concept of abstract labour vanishes, or at best is to be understood as an 'indeterminate abstraction' (the fourth definition noted above).

It can be shown that, to some extent, the ideas discussed above certainly owe a great deal to Hegel's philosophy: not only to Hegel's *Science of Logic* (to which the above discussion on the third line of argument implicitly alludes) but also, and perhaps to a greater extent, to his *Philosophy of Right*. To make this point, let us go back over the three approaches.

As already noted, the traditional, 'technological' approach and all the difficulties it involves are not independent of a particular kind of reasoning that Marx adopted at the very beginning of *Capital* from the second edition onwards. As a matter of fact, the stress put on the concept of absolute value and the way of deducing the labour value by comparing the 'equality' of two commodities in the process of their exchange, seem to come neither from 'political economy' (even if some reminiscence, especially of Ricardo's writings, is obviously not to be ruled out) nor from previous works of Marx, such as the *Contribution* or the first edition of *Capital* (where such a stress and such deduction are absent). Rather these emphases are derived, in my opinion, from Hegel. I think that this fact is worth noting because it is a striking illustration of the *constant* meditation, in Marx's thought, of economic categories through Hegelian philosophy. This point will become more and more striking as we further analyse the other two lines of argument – the 'sociological' and the 'dialectical'.

In the 'technological' context, the way in which Marx dealt with the problem of the 'substance of value' probably came from the first part ('Abstract Right') of Hegel's *Philosophy of Right*. In the section on contract (§§ 72–81), Hegel contrasted the 'formal contract' and the 'real contract', then took exchange into account, and finally stated that, in spite of the empirical non-identity of the things that are exchanged, something does remain constant and the same in this operation: *value* itself:

> Since each party, in a real contract, retains *the same* property with which he enters the contract and which he simultaneously relinquishes, that property which remains *identical* as having being *in itself* within the contract is distinct from the external things which change owners in the course of the transaction. The former is the *value*, in respect of which the objects of the contract are *equal* to each other, whatever qualitative external differences there may be between the things exchanged; it is their *universal* aspect (Hegel, 1821, § 77).

In my interpretation, Marx took up this line of thought at the beginning of *Capital*. This is of course rather surprising, since this kind of reasoning belongs to a purely conceptual dialectics that operates by means of 'indeterminate abstractions'. It is worth noting, however, that Hegel, far from seeing the origin of value in labour, linked the creation of value to needs by means of a deduction in which some references were made to the *Science of Logic*.

> A thing in use is an individual thing, determined in quantity and quality and related to a specific need. But its specific utility, as *quantitatively* determined, is at the same time *comparable* with other things of the same utility, just as the specific need which it serves is at the same time *need in general* and thus likewise comparable in its particularity with other needs. Consequently, the thing is also comparable with things which serve other needs. This *universality*, whose simple determinacy arises out of the thing's particularity in such a way that it is at the same time abstracted from this specific quality, is the thing's *value* (ibid., § 63).



To conclude on this point, we thus can see how Marx, inheriting some Ricardian ideas concerning value, also came to the conclusion of a 'labour value substance' by applying an Hegelian mode of deduction. But in his opinion the meaning of the resulting concept was neither Ricardian nor even Hegelian. As a matter of fact, for Hegel, value was an element of universality, what he called 'substance', but this meaning of the concept of value is quite different from Marx's (except perhaps for the fourth definition of abstract labour noted above). Value, or substance, was defined by Hegel (ibid., § 67) as the total number of 'accidents' and 'particulars', in conformity with his theory of 'essence' and 'phenomenon' expounded in the *Science of Logic*. Conversely Marx identified substance with a measurable entity, and stressed a causal link between this entity and value. What is coherent in *Philosophy of Right*, however, does not necessarily remain coherent in *Capital*.

Ironically, owing to this probable Hegelian connection, Wicksteed and Böhm-Bawerk were, in this respect, perfectly right to emphasize that Marx's argument could be turned upside-down to 'prove' a concept of value based on use value and utility: in a way they rediscovered an aspect of Hegel's analysis.

The second line of thought to be found in Marx's texts on value – the 'sociological' approach – is apparently the least Hegelian (or perhaps simply the most non-Hegelian) of the three. Interestingly, however, it also owes a great deal to Hegel, and again to his *Philosophy of Right*. I refer to the second section of the third part of the book, devoted to the analysis of 'civil society'. There, in a few pages entitled 'The System of Needs', Hegel takes up some Smithian ideas on the division of labour.

As noted, the subject matter here is 'civil society', whose first 'moment' involves 'the mediation of *need* and the satisfaction of the *individual* through his work and through the work and satisfaction of the needs of *all the others* – the system of *needs*' (ibid., § 188). The analysis starts with the subjective needs of men. Their objectivity is formed by the fulfilment of these needs in two different ways: by means of 'external things, which are likewise the *property* and product of the needs and *wills* of others', or of 'activity and work, as the mediation between the two aspects' (ibid., § 189). In this way men are different from animals because they multiply their needs and means of satisfying them and because of the division of labour, which results from the division of 'concrete need into individual parts and aspects which then become different needs, *particularized* and hence more abstract' (ibid., § 190).

Here *abstract* needs are contrasted with *concrete* ones, because they are divided and broken up, and because the activity of labour that is necessary to satisfy them is itself divided and broken up, and is thus abstract. In Hegel, the abstract nature of needs and labour thus results from development of the division of labour and from the more and more indirect satisfaction of needs. Each producer works not to satisfy his own needs, but to satisfy those of other men, for this is the only means of satisfying his own.

But the universal isolation in which the particular needs and the specific related labours find themselves, that is, their 'abstract' character, is by no means definitive. The simple fact that each producer is subordinate to all others implies some kind of reciprocity. This element of reciprocity is at first potential and 'abstract', but it becomes 'concrete' when, by way of exchange, the products of specific labours meet the particular needs that have motivated their production. By way of exchange, both the initial labour activities and needs assume a social character, and the lost concrete feature is restored to these abstract elements:

> Needs and means, as existing in reality, become a being for *others* by whose needs and work is their satisfaction is mutually conditioned. That abstraction which becomes a quality of both needs and means . . . also becomes a determination of the mutual relations between individuals. This universality, as the quality of being recognized, is the moment which makes isolated and abstract needs, means, and modes of satisfaction into *concrete*, i.e. *social* ones (ibid., § 192; cf. also the related addendum).

When this analysis is kept firmly in mind, it is not difficult to see what Marx owed to Hegel and which modifications he imposed upon Hegel's text:

First, the approach connected with 'abstract' labour in Hegel is to be found in Marx too, as I have tried to show. Hegel's basic idea is, in fact, simply taken up: that of a correspondence between the division of labour and the 'system of needs' (needs termed 'social' by Marx).

Second, in Marx as in Hegel, this general approach hinges on the concept of a particular kind of social objectivation: to be socially validated a given labour must produce a thing that is useful to others, and proof of this usefulness only comes about through exchange.

Third, Marx, however, formally reversed a link that, in Hegel's work, proceeds from abstract needs and kinds of labour to their concrete character. According to Marx, it is the specific independent labour that is termed 'concrete', and its social validation by means of exchange is called 'abstraction'.

Fourth, Hegel's approach was transposed by Marx into a historical context: the question of 'abstract' labour is no longer connected with the division of labour as such, but rather with the division of labour at a specific stage in history: that of the generalized market society.

Finally, it is possible to show how the permutation of the Hegelian adjectives 'concrete' and 'abstract' is connected to Marx's acceptance of Feuerbach's definition of abstraction, a definition that Marx also applied to the concept of money (see the section above on Marx's second line of argument).



Now to the third line of argument: the 'dialectical' approach. This is the most openly Hegelian of the three. But how can it be characterized properly? It has been shown that (1) to speak of a 'contradiction' between use value and exchange value, it was necessary for Marx to redefine these concepts, (2) in this theoretical perspective, the concepts of value and of money are unclear and subject to different interpretations, and (3) at two crucial moments of the deduction a logical device, that is, an *endless regression* (first between two qualitative and then quantitative determinations) is at work to produce the new concept that the regression is supposed to express inadequately.

The first point to note is that the new definitions of use value and exchange value seem identical to those Marx could have found in Hegel's *Philosophy of Right* (§ 59),[7] the opposition being added[8] by Marx to generate a dialectical progression.

Second, the two endless regressions we have met and which form respectively the 'contradictions' of the commodity and of the developed equivalent form *are nothing but Marxian applications of a typical Hegelian process*, that of the 'false infinity' (qualitative as well as quantitative) at work in *Science of Logic*. But again, what is coherent in Hegel's system is no longer automatically coherent in Marx; as a matter of fact the solutions to the 'contradictions' are as artificial as the contradictions themselves:

- In the third approach the value of a commodity is defined as the quantities of *such and such commodities* for which it can be exchanged. Two interpretations were proposed one of which was termed 'idealist', and the second of which – bartering – is not an interesting solution at all. It is easy now to see that the idealist meaning only expresses the mere Hegelian concept of 'substance of value'.
- The reversal of the endless series of particular equivalents has been seen as generating the concept of money. The explanation of this reversal and of the endless process itself also appeared unsatisfactory. We can now determine the Hegelian meaning alluded to earlier: the process and the final reversal express the progressive realization of a universal element (value), which aims at a manifestation that is appropriate to its concept – money.

These reflections on Marx's theory of value are presented here in a very sketchy way. I nevertheless hope that the discussion of the possible definitions of a central concept – 'abstract labour' – and the investigation of the three conflicting lines of argument that, in my opinion, are at work in Marx's writings, will contribute usefully to a debate that appears to be taking a new departure.

I hope also to have shown that, in this context, bringing to light Hegelian connections is no mere archaeological exercise. Nor is it a way of escaping the analytical difficulties depicted in the first sections of this chapter – as the recourse to 'philosophy' and 'methodology' in economics sometimes is. Without adding to our analytical knowledge nor suggesting any solution to the problems dealt with, it simply provides us with a better understanding of Marx's thought and reasoning.

## Notes

1. École Normale Supérieure de Fontenay/Saint-Cloud, France. I am grateful to Christopher Arthur, Heinz D. Kurz, David Levine and Geert Reuten for helpful discussions, and to two anonymous referees for their comments.



2. For a comprehensive history of the controversies until the 1980s, see Dostaler (1978) and Faccarello (1983a).
3. After a pause during the 1980s, some attempts have again been made to deal with the 'transformation problem': but nothing new and interesting has been added to what is now well known. In contrast – and probably as a consequence – new research has been done on Marx's method and the relationship of this to that of Hegel (see for example the recent contributions by Arthur, Likitikijsomboon, Reuten and Shamsavari). Owing to lack of space these essays cannot be taken into account here: this is done in another contribution.
4. Cf. for example *Capital*, vol. I, 'The Fetishism of the Commodity and Its Secret'.
5. The dialectical deduction of capital and wage labour is thoroughly expounded in the *urtext* (1858) of the *Contribution*. It is not taken up in *Capital*. Marx invokes political reasons of prudence. This, however, is not a convincing explanation: one may argue instead that this deduction was discarded because of its openly Hegelian and idealist flavour.
6. Marx, 1890, p. 180.
7. 'Through my taking possession of it, the thing acquires the predicate of being *mine*, and the will has a *positive* relationship to it. Within this identity, the thing is equally posited as something negative, and my will in this determination is a particular will, need, preference, etc. But my need, as the particularity of one will, is the positive factor which finds satisfaction, and the thing, as negative in itself, exists only for my need and serves it. – Use is the realization of my need through the alteration, destruction, or consumption of the thing, whose selfless nature is thereby revealed and which thus fulfils its destiny'. (Hegel, 1821, § 59, pp. 88–9).
8. Hegel does not see any contradiction between them.

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# 4 Capital, Labour and Time: The Marxian Monetary Labour Theory of Value as a Theory of Exploitation[1]

Riccardo Bellofiore and Roberto Finelli

> The last point to which attention is still to be drawn in the relation of labour to capital is this, that as *the* use value which confronts money posited as capital, labour is not this or another labour, but labour *pure and simple*, abstract labour; absolutely indifferent to its particular specificity, but capable of all specificities.... This economic relation – the character which capitalist and worker have as the extremes of a single relation of production – therefore develops more purely and adequately in proportion as labour loses all the characteristics of art; as its particular skill becomes something more abstract and irrelevant, and as it becomes more and more a *purely abstract activity*, a purely mechanical activity, hence indifferent to its particular form.... Here it can be seen once again that the particular specificity of the relation of production, of the category – here, capital and labour – becomes real only with the development of a particular *material mode of production* and of a particular stage in the development of the industrial *productive forces*. (This point in general to be particularly developed in connection with this relation, later; since it is here already posited [*gesetzes*] in the relation itself, while, in the case of the abstract concepts, exchange value, circulation, money, it still lies more in our subjective reflection.) (Marx, 1973, pp. 296–7).

## THE METHOD OF *CAPITAL*

There has long been a vigorous debate on the method employed in *Capital*. What is Marx's notion of truth in his most fully developed work? What relationship can we find between that theory of truth and





the way the three volumes are articulated? As Marx himself said in the 'Postscript' to the first volume, this problem is related to the issue of what we understand by dialectical reality, of how dialectical reality can be set out and narrated in a book like *Capital*. However, this merely shifts the problem from the level of epistemology to the, if anything more contested level of the role and meaning we ought to give to dialectic in Marx.

One thing that is certain is that the theory of truth at work in *Capital* has very little to do with the theory of knowledge implicit in the so-called historical materialism set out by Marx himself, for instance in the 1859 'Introduction' to his *Contribution to the Critique of Political Economy*. The relationship between praxis and theory, seen in the light of the dominance of structure over superstructure, draws on some of the more mechanistic aspects of Marx's thought. On the other hand this approach to the theory of knowledge must be located in the superstructure and therefore be regarded as a consequence of a given economic base. This point of view ends up betraying its own inherent inconsistency because it limits the range of the law that it posits: it has to assert, albeit implicitly, that the law does not apply to the theory that gives rise to it.

Rather, the kind of epistemology that underlies the three volumes of *Capital* involves a different theory of knowledge, one that we can describe as centring on the relation 'presupposition–posit'.[2] Marx gave a partial account of it in the 1857 'Introduction' to the *Grundrisse*. According to this conception, the relation between praxis and theory is explicated within a theory of science that: (1) aims to apply only to the social sciences and therefore contrary to the dialectical materialist reading of Marx, is not applicable to the natural sciences; and (2) so far as the social sciences are concerned, comes into focus and is given significance only when a certain threshold of historical development has been passed.[3] The roots of this methodological view can be traced to Hegel, in particular to (Hegel, 1969) *The Science of Logic*.

We are therefore not dealing with a conception of reality and truth in the traditional mould of materialism. Its own peculiar method involves neither a conception of truth as a mirroring of an objective reality that is taken to be independent of the subject, nor a subjectivist theory of knowledge, in which all reference to a reality independent of the knowing subject is wiped out and truth boils down to a logico-syntactic consistency, as in analytic positivism, or is dissolved by the hermeneutic circle, as proposed by postmodernism. In each of these types of theory the opposition, or mutual exclusion, of the knowing subject and the object of knowledge is taken for granted. On these grounds the relationship between truth and reality, and between theory and praxis, is at most one of mere correspondence, or it is one of direct identification.[4]

The circle of presupposition and posit – whereby the presupposition of the result is posited by the result itself – offers a possible escape from this theoretical dead-end.[5] This is how Hegel describes it in the *Science of Logic* (see especially the 'Introduction'): in any theoretical analysis that treats of the subject matter within the human sciences, what at first seems to be a subjective thesis, a hypothetical and mental presupposition (*vorgesetztes*) of the enquirer, turns out to be true insofar as it is shown to be the result of, the product built on, or posited (*gesetztes*) on the generalised practice of a whole social group.[6]

Truth enters the scene, therefore, when a concept or a universal ceases to be the upshot of a purely mental generalisation dependent on the intellectual faculty of an individual subject, and shows itself to be the practical and real-life experience of a whole mass of human beings. Hegel infers from this that truth enters the scene only when the most general category of a given theoretical outlook – the principle of a given theory – comes into agreement with the most widespread and general evidence to which procedures in accordance with that very same theory can lead.

Marx's logic in *Capital* derives from this Hegelian logic of the sciences.[7] The expositionary structure of the three volumes aims to show that the apparently subjective abstractions offered hypothetically in the opening chapters of the first volume as an account of circulation and of exchange ratios (based on the labour theory of value) can be and ought to be filled out objectively, showing themselves to be not mere mental abstractions but genuine and 'real' abstractions: both because the presuppositions from which he began are shown by the movement of the categories to be posits; and because, at crucial points in the analysis, the idealistic character of the mode of exposition is undermined by the theoretical construction when it is shown how capital as a totality is dependent upon social practice.[8] The view that Marx expresses here, which goes beyond the line of continuity with Hegel, is akin to that of Wittgenstein in *On Certainty* (Wittgenstein, 1974), when he writes that, 'one might almost say that these foundation-walls are carried by the whole house' (§ 248); and 'it is our *acting*, which lies at the bottom of the language-game' (§ 204).[9]



This, then, will be the method we employ in our examination of the Marxian category of abstract labour and, so, of the meaning to be given to the claim that the capitalist relation is one of exploitation.[10] At the beginning of *Capital*, abstract labour, which serves as the principle of Marx's theoretical undertaking, is hypothetically 'presupposed' on the basis of the deduction of value through an examination of general exchange as such: value is reduced to nothing other than *objectified* and alienated labour. But in the course of the three volumes, abstract labour turns out to be the 'posit' of *capitalist* labour, that is, of 'labour that is opposed to capital' or wage labour. Thus abstract labour is posited by the mobility of labour power, which is the mere potentiality for labour in general, and by the other-directed nature, within production, of the wage-worker's living labour, which is (potential) value. When it reaches the stage of 'real subsumption', capital determines the concrete features of labour with view to controlling its execution and increasing surplus value. On this account, the capitalist organisation of production is determined by processes that are the end result of a consciousness and a will separated from the workers, and is the basis of class struggle. This turns out to be the real mechanism that underlies and legitimates the truth of referring capitalist wealth to labour.[11]

We shall claim that the notion of exploitation that is appropriate to this theory cannot be reduced to a merely distributive matter, whether that is understood as a physical surplus over and above workers' consumption or as the surplus labour behind gross profits. Both these aspects are secondary, in the sense that they derive from a more essential and fundamental factor. It seems to us no accident that those, such as neo-Ricardians and traditional Marxists, who have stressed one or other of these views have run into insoluble difficulties. We shall show how the Marxian notion of exploitation is founded on the peculiarities that, under capitalism, *living* labour takes on as the *wholly* enforced and 'abstract-alienated' performance of labour.

## ABSTRACT LABOUR, EXCHANGE AND CAPITALIST PRODUCTION

We begin with Marx's tracing of the value of commodities to congealed' assemblages of objectified abstract labour. In his view, commodities are exchangeable because they are already equivalent *before* they meet on the market. That is, commodities have an exchange value and are related one to another because they are *absolute* values – because they ideally represent a given amount of money – before being relative values. Behind this absolute value, Marx discovered nothing other than objectified abstract labour.[12]

The exposition approach at the beginning of *Capital* appears to proceed in accordance with a logical method that leads from exchange value to value and thence to labour. What we appear to be witnessing is the gradual stripping away of all commodities' properties other than those that figure in their being mere products of labour. As has often been stated, it is hard to see why – in addition to labour, which is the active element in production – the passive element, namely nature, should not be left in. After all the latter figures in the productive process as transformed nature and it therefore also includes – in addition to the quantities of labour already accumulated in the means of production – science, technology and innovation. Thus it is hard to see why these other factors should not be regarded as creators of value. Moreover Böhm-Bawerk's objection would be fatal to the theory: as well as being products of labour, all commodities have other properties that are common to them, such as scarcity and utility.

In fact Marx's reasoning ought not to be read as running from value to labour, but in the opposite direction: from labour to value. The question he was asking himself was roughly the following: how are we to understand labour in the specific social situation in which society comes into being not when human beings are actually producing, but only later when they exchange the products of their labour? How, then, are we to understand the nature of labour if, during its performance, individuals are mutually indifferent, immediately separated and their social relations are subordinated to the impersonal mechanism of the market – to mere things – instead of being integrated into that very activity? When, in short, the social aspect of what they have produced arises only *after* production and is embodied in a general purchasing power that is indifferent to any specific determination, namely money.

Marx's answer to this is that, in the socially determined situation where exchange is general, labour is really abstracted from the individuals who perform it. The labour of these asocial individuals is, in the first instance, private and can only become social in the market, turning itself into its own opposite, that is cancelling its concrete,



determinate and useful qualities. As a result of this process, labour is rendered 'pure and simple... absolutely indifferent to its particular specificity, but capable of all specificities'. Its products thus become part of a wealth that is itself generic; they become identical, hence equivalent, and so are comparable in purely quantitative terms. This provides us with a first definition of abstract labour, which is the substance of value: it is labour *objectified* in commodities. As is well known, abstract labour for Marx is labour marked by an *inversion* so that it becomes a real hypostasis. When a society comes into being only through the exchange of commodities, that is, through *dead* labour, the worker is subjected to the power of an impersonal economic mechanism, and hence to the very products he or she has made. The various individual workers now seem – and in fact are – mere appendices to the labour they have performed. Abstract labour, then, is *alienated* labour: workers are cut off from the social dimension of their productive activity, which only at the moment of exchange definitely exists.

So far the abstraction of labour has been depicted as the consequence of a process of alienation going on in the *market*. The enquirer is entitled to isolate labour as the substance of value because concrete labour has been the object of a process of equalisation and abstraction that really has taken place in exchange. By virtue of the investigation of the notions of commodity and circulation, the mental abstraction or hypothesis from which Marx proceeded shows itself to be a *real* abstraction. But he went further: he asserted that, in turn, the alienation–abstraction of objectified labour arising from exchange is posited by the more fundamental abstraction–alienation of *living* labour in the production process. Marx's logical order thus becomes this: given that the *activity* is abstract – as labour whose aim is the eventual exchange of products on the market; hence labour counts only as the expenditure of human labour power as such, and not for its useful concrete characters – we ought to find the same alienation in the product as a commodity. Abstract labour, which is the substance of value, is therefore objectified labour stripped of all qualitative connection with nature and science, and determined in purely quantitative terms, because the performance of labour has been reduced to the status of an abstraction.

But what sort of production is it in which living labour is abstract? We could rephrase this question as follows: is the production of exchange value that Marx discussed at the beginning of *Capital* perhaps that of independent producers in a simple commodity society?

Not at all. As he proceeded, Marx showed how the situation of generalised commodity exchange can only come about in circumstances in which the capitalist mode of production is dominant. The abstraction of labour in the process of exchange is the consequence not of an alienation undergone by some sort of mythical 'natural' labour, but of the subjection to capital of wage workers' living labour.[13] More precisely, value is objectification of the labour present as *potentiality* in labour power; the wage workers' labour as *actuality* is abstract labour in the course of becoming objectified, and thus potential value.

In these circumstances labour is simultaneously everything and nothing. Everything, insofar as, becoming abstract labour, it is capital and dominates concrete workers. Nothing, insofar as the individual worker is emptied by the process of abstraction. For Marx, both these aspects of abstract labour were experientially verifiable in capitalist production: the former in class antagonism; the latter in the features of working conditions.

Once the presupposition of a generalised exchange of commodities, by virtue of movement of the categories – when, that is, abstract labour takes on a second determination, from being alienated labour to being the 'pure and simple' living labour of the wage worker – shows itself to be a posit of capital, then it is clearly necessary to redefine the labour of 'private individuals', whose confrontation on the market produces the abstraction of value. In our view it would be a mistake to accept Engels' account of the matter, according to which those private individuals are to be understood as owner–producers in a simple commodity society.[14] Rather, we accept Napoleoni's judgement that 'the private character of labour consists in the fact that the individual labours of particular workers are brought together in a collective workers' labour by means of *particular* capitals, each of which is *distinct* and *opposed* to each other and in mutual competition' (Napoleoni, 1975, p. 110). We would add that the capitalist process is based on a tentative social antevalidation within firms.[15] It is, as it were, as if the capitalist entrepreneur were making a 'bet' on the (abstract) social nature of the labour performed by the collective worker. In addition to the final sanction of the market, the entrepreneur is subjected to an initial sanction represented by the financing, that is, the 'trust', that the monetary capitalist has to supply to him or her at the start of the capitalist-circuit.[16]

Let us gather together some of the threads so far. We have picked out two distinct, but not conflicting, accounts of abstract labour as the



substance of value. On the one hand labour is considered as *result* (dead labour, objectified in commodities). On the other labour is considered as *activity* (living labour extracted from labour power). The kernel of Marx's critique of political economy is his underlining of the far from straightforward nature of the translation of labour capacity, which is the *potential* to perform abstract labour, into the *actual* execution by wage workers of living labour. That is, it is a mistake to think that contracting in the labour market defines with any certainty the 'effort', or actual labour. For Marx it was equally problematic to make the move from labour under way, that is, from potential value, to the actual creation in the market of a corresponding magnitude of value. That is, it is a mistake to think that production creates its own outlets. Indeed the whole secret of the Marxian theory of value lies in the dialectic between: (1) the *dead* labour sealed up in the commodity – to which both advances of capital (constant as well as variable) and the surplus value (potential new capital) may be reduced; and (2) the wage-workers' *living* labour – which, being the only element in capitalist production that is neither a commodity nor a value, is therefore the sole possible source of value, of surplus value and hence of capital.[17] Without this dialectic, Marx's theory really does become totally useless, both scientifically and politically.

Before moving on, it might be useful to illustrate the way that Marx's argument can be traced back to Aristotle's thought on potentiality. Aristotle distinguished between mere possibility, which is pure conceivability or mere 'capacity to be' (*ἐνδέχεσθαι*), and real possibility or potentiality (*δύναμιζ*), which is taken to be a real being inasmuch as it is capable of 'coming to be', that is, the unfolding of a form already implicit and thus arriving at a higher level of being (cf. *Metaphysics*, Θ, 3 and 6). The form that arises out of this potentiality is described as actuality (*ἐνέργεια*). And according to Aristotle 'being in actuality' is always superior to 'being in becoming', inasmuch as it has no need for further development. This is not what we find in Christian discussions of the issue, where, if anything the opposite holds.[18] In this respect Marx seems closer to St Thomas than to Aristotle.

We can reread the Marxian analysis of the form of labour and the form of value in these terms. Labour power is the potentiality for labour; living labour is labour power in actuality, and at the same time potential value. Money is the fully developed value form as well as potential capital. It becomes capital in actuality, the absolute capacity of abstract wealth for self-reproduction on a growing scale, through two relationships with labour: of exchange on the labour market, and of exploitation within the labour process considered as the valorisation process.

## THE 'FORMAL SUBSUMPTION' OF LABOUR TO CAPITAL: THE 'ORIGINARY' PROFITS

We have said that no simple commodity production supports Marx's tracing back value to labour. Instead the support comes from the claim that, only in capitalism, value is *nothing other than* abstract labour. It is only in that specific historical juncture that a circulation of amounts of 'congealed' labour, and nothing else, underpins the exchange ratios among commodities. At least up to this point Marx provided no defence whatever of this claim. It seems he was putting forward a simple point of view on the nature of labour and its product in a given social situation. The claim that the abstraction of labour is a real and not merely a mental process is pulling itself up by its own boot straps.

Let us look at how this point of view is nevertheless the starting point for an analysis of the *form* that labour takes on in capitalist processes of production, and for a theory of exploitation. We assume as a presupposed given the existence of a labour market in which agents who are juridically free but do not have ownership of the means of production, sell their capacity for labour. As in every market the buyer, in this case the industrial capitalist, buys the right to dispose of the use value of the commodity he or she has bought, to do with as he or she thinks fit. The use value of labour power is labour in actuality, that is living labour that can be extracted from that labour power. Therefore the living labour of the worker literally belongs to someone else. Relative to the rest of the realm of commodities, it is a peculiar and ineliminable feature of this situation, as distressing for the worker as for the capitalist, that the former cannot be materially separated from his or her labour power, even though he or she has already legally ceded or alienated it in favour of the latter.

In the first phase of Marx's argument the exchange ratios are those that would apply if, with a given technology and the historically–socially determined level of workers' subsistence, the economic system would simply allow for workers' consumption, including replacements for the means of production. Firms' expectations of sales are fulfilled, and the real wage per worker is at the historically and 'conflictually' determined subsistence level. This is equivalent to supposing that living labour is exactly equal to necessary labour, and that all the labour expended becomes value on the market. In this wholly imaginary case of simple reproduction where profits are absent (similar to Schumpeter's 'circular flow'), relative prices will coincide with exchange values. In the second phase of the analysis Marx considered what happens when the hours of living labour increase beyond 'necessary labour'. Indeed, as is natural, capital has bought labour power in order to get out of it as much labour as possible. In imagining that the hours of labour carried out by labour power are 'variable' Marx left out of account any change in the terms of exchange. Relative prices are still supposed to be equal to exchange values, though Marx knew perfectly well that the appearance of surplus value, and hence gross profits, makes prices differ from exchange values because of the tendency towards an equal rate of profit among all sectors of production.[19]



What justifies this line of argument?[20] We begin with a two-phase analysis of the emergence of what we call 'originary' profits. It is only by means of a procedure of this kind that Marx could isolate the dynamics of production as central to examining the origin of surplus value. Unlike many of his followers, Marx was fully aware that there is no way of separating the analysis of production as such from the analysis of the circulation and distribution of commodities. Value production is production *for the market*. Thus it is in actual exchanges that the product is certified as a commodity, in the sense that it is only within the actualised universality of the exchange process that embodied labour must establish as objective its claim to be potential abstract labour – posited as such by the capitalist organisation of the individual firms' labour processes. Without anticipating the move through the value form, that is, the metamorphosis of commodities into money, there would be no way of summing the quantities of direct labour that have been expended in the various productive processes, and that, as concrete labours producing different use values, are non- homogeneous magnitudes. Hence Marx had to presuppose a system of exchange ratios in order to investigate the origin of the capitalist surplus. The fiction of the circular flow, in which relative prices are equal to exchange values, gave him just such a system. It represents a meaningful (a vital capitalist process of production must be at least able fully to reintegrate the advanced capital) though impossible (surplus value is absent) situation under capitalism.

What lies behind the assumption that firms expectations are fulfilled and the real wage is steady at the subsistence level? As far as firms are concerned, the reasoning is as follows. Marx's value is created by exchange, at the meeting point of production and reproduction.[21] Therefore the magnitude of value cannot be properly known before the capitalist circuit has been closed. If we stopped here we would have to infer that it is impossible to carry out any analysis of production as such. It is better to suppose that the sales expectations are right, and only at a later stage to suppress this restriction in order to analyse the consequences of an insufficient creation of value.

The hypothesis that the real wage is at the subsistence level answers a different need within the theory. According to Marx, wages are advanced in monetary terms; real wages, on the other hand, are always paid after work is completed. Hence real wages are dependent on commodity prices, which are fixed only at the end of the capitalist circuit. The prices of wage goods are set to equate real supply with money demand: while the latter comes from workers, decisions about the former are made autonomously by firms in agreement with the banking system.[22] If the real wage is at the subsistence level, and the methods of production are given, the abstract labour embodied in the labour power is known *before the production* of commodities.[23] There is nothing, however, in the pure market mechanism to prevent firms from putting fewer wage goods on the market and reducing real wages to below the subsistence level, thus increasing the surplus – this outcome may only be impeded by firms fear of a conflictual reaction by the workers within the labour process. The abstract labour embodied in labour power is no longer a given to which the firms adjust; it is now a consequence of firms' choices. Also, while necessary labour though is not a given before production, it is still a given *before exchange* – it is known as soon as the decisions about the composition of output are taken by the capitalist class, for example when firms as a whole allocate workers among branches of production.[24] A case of this latter sort might however give the impression that the creation of the surplus is due to some injustice against wage workers – a claim as alien to Marx as any. Assuming that wages are at the subsistence level, the exchange on the labour market respects the greatest possible equity: the workers receive precisely the wage goods they 'deserve'. What Marx wanted to show is that, even in this case, the capitalist surplus arises from exploitation.



Let us return to the comparison Marx drew between the situation where there is a circular flow and the situation, in other respects identical, where – with given technology and real wages – the hours of work are lengthened (or there is an increase in the intensity of labour). On the basis of this comparison Marx highlighted the fact that, in capitalism, the capitalist surplus arises from the compulsion to perform labour in excess of necessary labour: surplus labour then depends on the compulsion of labour simpliciter. This can be summarised as follows. According to Marx's hypotheses, before production the exchange value of labour power is seen as given, while its use value, that is, the amount of living labour actually performed, is still to be determined. It depends on the class struggle over labour time. In order to bring clearly into focus the role and consequences of this struggle, Marx assumed that there is no variation in the terms of exchange that apply to the (capitalistically impossible) situation where the labour performed does not exceed necessary labour; and he used those exchange ratios to evaluate production in a normal capitalist situation where workers are compelled to work and to work over and above necessary labour. It is in the *enforced* quality of the living labour of wage workers that we find the first sense of Marxian exploitation.

Thus Marx's account of exploitation depends on an argument from a counterfactual comparison. It is perhaps worth noting that this analysis of capitalism is not carried out from an external point of view. In the light of the comparison he drew, Marx could substract from the total labour that is actually extorted in capitalist labour processes the smaller amount of labour that the workers actually perform to produce wage goods.

## THE REAL SUBSUMPTION OF LABOUR TO CAPITAL: ABSTRACT LABOUR RECONSIDERED

Let us restate the two main considerations discussed so far. First, when determining relative prices with an equal rate of profit surplus value must be considered exogenous. Production is over. We know how much of the means of production was employed and how many wage goods the workers have consumed, as well as how many of the various commodities were produced. When it comes to the process of production, however, the surplus value has to be regarded as an endogenous variable. It has to be established as a posit of the analysis and cannot be taken as a presupposition. Marx's peculiar objective here was valorisation as a dynamic process – 'value in process'. To determine the prices of production 'after the harvest', as Sraffa does, it is quite proper to take the productive configuration (that is, the level and composition of output and the technical conditions of production) as well as a distributive rule to be the fundamental data of the problem.[25] But as Marx's criticisms of Ricardo make clear, it is improper to take the productive configuration as given when the question is how the capitalist surplus arises from production.[26] In *Capital* it is the class struggle over labour time (and everything that directly or indirectly affects it) that explains why a given productive configuration (the methods of production and quantity of labour actually performed) is as it is and not otherwise. It is the class struggle that explains the degree and the socially determined nature of the potential generation of surplus in capitalism.

The second point we have stressed is that, in order to secure surplus labour, capital must first get hold of labour. It must acquire control of the labour process. The never-ending struggle to gain this control lies at the heart of Marx's analysis of absolute as well as relative surplus value. At this point it becomes clear that *Capital* – which at first sight seems to represent only a process 'without a subject' (and indeed in the capitalist process the subject is neither the worker nor the capitalist, but capital itself),[27] – has, as the exposition proceeds, to let history enter into the argument. It has, so to speak, some degree of freedom, in which flesh and blood subjects intervene to limit and in some measure drive the movement of the systemic structure that is commanding their lives. From this point of view, then, in the dispute between Althusser and E. P. Thompson *both* of them were right.

When we move from the *formal* subsumption of labour under capital to *real* subsumption, and so to a specifically capitalist mode of production, the relationship between the worker and his or her labour is reversed, the former becoming a mere appendage to the latter, and this reversal takes on a concrete and material reality, embodied in technologies of production and organisation. Labour no longer respects 'natural' skills and times, for these come to be dictated by consciousness and by decisions that are separated from and dominate the producers. The outcome specific to capitalism is that labour is stripped of all its qualitative determinateness and is reduced to mere quantity – the very abstraction on which, at the outset of the argument, the identity between value and labour depend in a society built on general commodity exchange. We can now see that this outcome is specific to capitalism in two respects: first because the 'dead' (alienated, abstract) labour in commodities is the objectification of the 'living' labour of the wage workers; second, and as a consequence, because the moment that this is recognised, these very concrete characteristics of activity are seen to be dictated by capital's technological and organisational structure. Embodied labour as abstract labour is itself a posit in Marx's inquiry when shifting from exchange as such to capitalist (production and) exchange.



Let us look at this a little more closely. We have said that the private labour that must, in order to become social, be reversed into its opposite as abstract labour, is not the labour of the individual worker, but that of the firm's 'collective worker'. Thus we can view labour performance from two points of view. First, within a given firm considered as that of an *isolated* worker, the labour of the individual worker is labour pure and simple, stripped of all concrete features. Hence it is abstract labour, performed in accordance with the rhythms and norms imposed by capital. Because it is subject to a process of technological equalisation and social precommensuration, the labour of individual workers can be added up to determine the overall contribution to abstract labour coming from that firm. This labour, however, produces no use value. On the other hand, when considered as part of the collective labour within the firm, the labour of the individual worker has certain concrete attributes. The total individual labour that makes up this collective worker is concrete labour producing use value. It is labour whose concrete qualities depend on the material configuration that capital takes on in the accumulation process. The thesis according to which the labour of the collective worker in capitalist firms loses all its concreteness, or the view of a linear tendency to a deskilling of labour as a typical feature of capitalism, are simply wrong.

According to this view, technological progress is a way of controlling the performance of labour in its entirety, with the aim of obtaining surplus labour. Exploitation due to the extraction of absolute surplus value by lengthening the working day or intensifying working practices with a given technology is a *transparent* process. For at least two reasons, the exploitation of wage workers has, *pace* Roemer, little in common with the exploitation of peanuts: (1) once the rate of pay for labour power is fixed, the more it is employed in the productive process, the less it costs in relative terms, and (2) unhappily, the worker cannot be indifferent to what happens to the commodity she or he has sold, because she or he is irrevocably attached to it.[28] So it is understandable that resistance to an intensification of labour increases in line with added pressure to increase 'effort'. Let us look at the intensification of labour with a given technology using the case of Taylorism: the end result of the attempted introduction of Taylorism before the First World War was a wave of worker unrest that resulted in its failure. On the other hand, resistance is weaker if the organisation of labour is transformed following technological change. This can be seen in the case of Fordism, which succeeded in replacing the skilled worker with the mass assembly-line worker, and as a consequence in gaining the power to set working times and practices from above. Here the increase in the intensity of labour goes hand in hand with technological change and ought to be thought of as one way of extracting relative surplus value. It is the standard situation under capitalism. Thus direct control is much less effective than the indirect control on labour that the machinery system provides. It might be interesting to enquire whether this Marxian hypothesis – that where the real subsumption of labour under capital prevails, a revolution in the organisation of labour follows technical change, and not vice versa – also holds good for Toyotaism; we could then understand why this novelty in the organisation of labour became widespread only *after* the microelectronic revolution of the 1970s and *after* the attempts at total automation in the 1980s.

Pulling all this together, we may say that capitalist exploitation is *non-transparent par excellence*. It comes about at the social juncture when capital rules the technological and organisational form that production takes and any temporary worker control over the time and quality of labour is periodically 'broken down'. Once we get to the stage of real subsumption, the great transformations in the organisation of labour do not, as Smithian Marxism would assert, precede but rather follow technological leaps. The drive for relative surplus value is immanent in the capital relation itself, and gives way to dramatic revolutions in the methods of production. Technological discontinuities may however also be imposed by the limits that capital ends up encountering in the process of accumulation when it holds fast to given methods of production. Obstacles to the extortion of living labour play a crucial role here. When a system grows within a given state of technology, it exhausts the reserves of the unemployed and/or needs to intensify working practices in order to increase productivity, thus fostering worker conflict.

At this stage it is worth enquiring into Marx's claim that capitalist relations are relations of exploitation. On our reading, exploitation



should not be understood so much as the expropriation of surplus product or surplus labour, which are common enough phenomena in precapitalist social forms too, but rather as direct and indirect imposition and control that affects *all* labour. Labour is exploited because it is forced and 'abstract-alienated'. What is at issue are determinations of labour that are specific to capitalism; and this is also true of forced labour, so long as we are referring to the labour of free subjects. According to this approach, abstraction and exploitation become virtually coextensive given that when the 'machine and big industry' stage is reached the abstraction of labour is the condition under which and the means by which surplus labour is extorted. Even if, perhaps with good reason, one wanted to uphold the more standard version of the Marxian theory of exploitation, where exploitation is restricted to surplus labour, one would still have to admit that even on that narrow and traditional account exploitation is the necessary consequence of the fact that *all* living labour is forced and abstract-alienated.[29]

## PRELIMINARY NOTES ON THE TRANSFORMATION OF EXCHANGE VALUES INTO PRICES OF PRODUCTION

If we want to see how our account of exploitation has to be adjusted when, we move from relative prices being equal to exchange values to relative prices diverging from exchange values (volume III of *Capital*), we have to draw two conclusions. First, given the way the labour theory of value is based on referring all the value-added that is produced back to living labour as (potential) value, then it follows that it is justifiable, when transforming exchange values into prices of production, to assume as the normalisation condition that the net product expressed in 'value' terms is equal to the 'price' of the net product – in line with the 'new interpretation' put forward by Duménil (1980, 1983–4) and Foley (1982, 1986), and against the traditional solution, which equates the 'value' and the 'price' of the gross product.[30]

Second, the transformation problem has as its given the conditions of production (inputs and outputs), including the real wage. The capitalist class has in fact already fixed the amount of goods to be made available to wage workers. Thus in the transformation wage goods must be revalued in prices of production so that real wages are the same before and after the transformation. The change in relative prices from exchange values to production prices, however, alters the amount of labour that is represented in the wage goods. The wage bill, which is an amount of money' when it is spent receives back from exchange a different amount of 'congealed' labour than before – that is, a different amount than the labour actually performed to produce the wage goods. The reason is that the value of labour power in 'value' terms (the labour required to produce the means of subsistence) and the value of labour power in 'price' terms (the money wage multiplied by the value of money) – namely living labour divided by the money value added: the amount of social labour time a unit of money buys in exchange – cannot but be different. As a consequence the (gross) profit/wage rate measured in amounts of represented labour is different from the rate of surplus value measured in terms of embodied (asbtract) labour.[31] Here we depart from the 'new interpretation', which claims that, when we pass from 'equal' to 'unequal' exchange, the rate of surplus value is the same as the (gross) profit/wage ratio.

To make our point clearer, it is enough to remind ourselves that the rate of surplus value is the appropriate measure of the outcome of the struggle over labour time in production proper, which is at the heart of the whole of Marx's theoretical undertaking. In fact what matters to workers is not the amount of labour that comes back to them represented in the money buying the wage goods, but rather (1) the wage goods themselves and (2) the total amount of labour expended. Likewise for capital 'in general', what obviously counts is the overall labour expended (quantity (2)). Moreover gross profitability and the (maximum potential) rate of growth also depend on how much labour is necessary to produce the wage workers' consumption basket, the share of the social working day that is not devoted to increasing the capitalist surplus: that is to say, the quantity (1) (wage goods themselves) expressed as the labour hours actually spent to create that wage workers' consumption basket; this amount must be subtracted from living labour to give surplus value.

The account of exploitation in Marx is set out in two steps: (1) an inquiry into production as such, where the 'originary' profits are resolved in surplus labour on the fiction of exchange ratios appropriate to the 'circular flow'; and (2) an inquiry into the changes of form that result because of the distribution of the capitalist surplus under different rules. The latter is secondary in the sense of being derivative relative to the more fundamental compulsion and abstraction of all labour, a process that underlies the former account.[32] The rate of surplus value *is the same* in the first and the third volume of *Capital*. It underpins the different (gross) profit/wage ratio, because of



changes in the ruling prices that allow gross profits to diverge from surplus value after the deflation with the value of money, the total value added extracted from living labour in production remaining the same.

## CONCLUSIONS

It might well be asked to what sort of test we should subject so unusual a framework as the one we have been sketching in our rereading of Marx. What makes Marx's line of argument 'scientific' rather than mere question-begging? We have noted several times that Marx started from a particular viewpoint on reality, a viewpoint that had its own 'presuppositions'. He began with the exchange value of commodities, within which he distinguished the elements of value and use value, and then asked himself: 'what sort of labour is it that gives rise to an abstract wealth such as value?' As *Capital* unfolds, the general exchange of commodities turns out to be commanded by the capitalist process of production, and the (abstract) labour embodied in value shows itself to be the result of the living labour of wage workers. In other words, the 'presupposition' of exchange is posited by capital itself. The separation of labour and the means of production, which is the (historical) presupposition of capital, in its turn comes to be seen as (logically) posited by the reproduction process of capital. The same nature of the abstract labour which is embodied in commodities is deepened as the argument unfolds.

The first answer to our opening question is therefore as follows: *the starting points of the analysis are vindicated when the movement of the categories turns the presuppositions into posits*. This view, arising from Hegelian epistemology, could be seen as a special version of the coherence theory of truth.

The second answer appeals to the same structure of 'presupposition-posit', but in such a way as to create a gulf between itself and Hegel's idealism, making a scandalous reference to social reality 'outside' the theoretical scheme. Take the Marxian claim about exploitation: it shows its power and in a certain way its obviousness, when the workers as a class, struggling over labour time, demonstrate in practice that capital depends on them, and force a restructuring of it. The possibility of dismantling reality *theoretically* and of transforming it *practically* are treated as two sides of the same coin. Corroboration or falsification of the labour theory of value is not ready and waiting in

Marx's texts, as it were (finally!) bringing to light an ultimately satisfactory transformation algorithm confirming all Marx's formulations in *Capital*, or (at last!) putting forward an unexceptionable reformulation of the theory of the collapse of capitalism. Rather it is an end-result affected by both theoretical debate and political action. Of course a theory of this sort is highly vulnerable, because, for good or ill, it is not immune to infection from reality. It might be that this speaks in its favour.

**Notes**

1. We wish to thank Chris Arthur, Mino Carchedi, Werner de Haan, Duncan Foley, Gilbert Faccarello, Heinz Kurz, Chai-on Lee, Simon Mohun, Geert Reuten and Aijt Sinha for comments and criticisms. We would like to thank Richard Davies for his help in translating the Italian original into English. MURST 40 per cent and 60 per cent grants have financed one of the two author's researches.
2. Marx himself never clearly spelts out the Hegelian method of positing the presupposition other than in the passage we have used as our epigraph. We agree with Faccarello in this volume that the *Grundrisse* is the clearest source for the dialectical exposition of Marx's theory. Unlike Faccarello, however, we do not think that the first chapter of book I of *Capital* can be fully understood other than in the light of this method. In support of our view, we would refer to the earlier versions of the chapter, which are more visibly dependent on Hegel than in the second German edition, up on which the English translation is based.
3. These two points are consistent with Alfred Schmidt's reading of Marx's 'weak' ontology, as put forward in *The Concept of Nature in Marx* (Schmidt, 1971).
4. For a good critique of traditional epistemologies, cf. 'Marx and the "Problem of Knowledge"', in Suchting, 1986.
5. Cf. G.W.F. Hegel, '*Womit muss der Anfang der Wissenschaft gemacht werden*', in *Wissenschaft der Logik (Erstes Buch)*, in *Werke in zwanzig Bänden (Theorie-Werkausgabe)* (Frankfurt am Main: Suhrkamp, 1969), vol. I, pp. 65–79, English trans. in Hegel, 1969; and also Hegel, *Vorrede* to the *Phänomenologie des Geistes*, in *Werke in zwanzig Bänden* (Frankfurt am Main: Suhrkamp, 1970), vol. II, pp. 11–67, English trans. included in Kaufmann, 1966.
6. See Finelli, 1989. There has recently been a resurgence of interest in the the relationship between Hegel and Marx. Cf., among others, Uchida, 1988, Smith, 1990, Shamsavari, 1991, and the papers collected in Moseley, 1993. Desai, in the Foreword to Shamsavari's book, emphasises the importance of this issue for the economic reading of Marx. Reuten and Williams, 1989, is based on a Hegelian reading of Marx.



7. In this sense the Marxian approach is dialectical and holistic – as Chris Arthur properly reminds us in chapter 1.
8. It is worth adding two comments that Chris Arthur made on an earlier version of this chapter. One draws attention to the issue of how Hegel envisaged the relation between, on the one hand, the overcoming of the epistemological problematic of subject–object, as set out in *Phenomenology*, and, on the other, the methodological question discussed in *Logic*, namely that of how truth claims can be based on anything but dogmatic foundations. The second comment is an objection to our claim that, in *Capital*, Marx set off from a 'subjective' presupposition. Arthur writes that value is the only possible non-dogmatic starting point inasmuch as it is both 'objectively' immanent in the exchange of commodities, and simple enough to figure in the dialectical founding of the categories. In our view, however, in Hegel's *Logic* the starting point is 'subjective' insofar as it is phenomenological. It is the simplest and most immediate experience of each subject – thought in general in Hegel, commodity in Marx. Starting from a presupposition that seems true and uncontrovertible to everyone ensures that one does not start from an empiricist or sceptical position, one that would be 'subjective' in virtue of being arbitrary. In each case the phenomenological presupposition is dualistic: in Hegel as between 'being' and 'non-being'; in Marx as between use value and exchange value. The circle of presupposition–posit picks out the central point at which that duality is produced. Whether it be logico-philosophical or socio-economic, no totality can be maintained unless one principle is dominant; there can be no ontological dualism of opposed principles with equal reality – *duo universalia non dantur*. But here the similarities end. Hegel aims to build a metaphysics that encompasses the whole natural and social realm of what can be thought, a *general* theory of all dimensions of reality. Marx is interested only in the critique of political economy: commodities are the universal experiential given in the specifically capitalist society. Moreover, considered as abstract labour, value is not 'objectively' immanent in the exchange of commodities – would Böhm-Bawerk's objection then be appropriate: why not utility? Abstract labour begins not to be a subjective presupposition only when Marx shows that commodities are a 'posit' of a given practical activity, namely wage labour in its relation not only of subordination to, but also of potential conflict with, capital. This is the point at which Marx shifts his attention from the circulation to the production of capitalist wealth.
9. For related thoughts on this very peculiar (anti)epistemological outlook, cf. Bellofiore's 'Poverty of Rhetoric', in Marzola and Silva, 1994.
10. Simon Mohun has countered that this logic of Hegelian derivation might easily slide into a justification of the world view of whoever is in power. To show that this is not so, he argues, we would have to appeal to extralogical facts, and be compelled to return to the traditional epistemological problems of the relation between a preexistent subject and an external object. The objection does not seem to us telling because, as recent discussion in the philosophy of science shows, the correspondence theory is not sustainable: the relation between a proposition and extra-

linguistic items cannot be regarded as epistemological; for an Althusserians (not an Hegelian) such as Wal Suchting, it is causal. On the other hand science cannot be reduced to a mere play of discourse: truth can never be identified with logical consistency, not even in dialectical logic, nor when logic turns into an ideology capable of moving masses of humans, as in the case of Nazism and Stalinism. We want to escape from the traditional epistemological trap that compels us to choose between some sort of naive realism (or vulgar materialism) and some sort of idealism (of which dialectical materialism is also a species). As we shall see, truth in the Marxian account refers, in the last resort, to the increasingly specific ways in which reality is grasped through forms of transformational activity that is *practical* rather than merely *ideal*: activity that changes external reality at the same time as changing the subject itself.

11. Here we differ from Lucio Colletti's account of abstract labour. Though he rightly sees the importance of this category, he reduces it to the role it has in exchange, and hence to abstract labour as alienated on the market. In our view, however, the alienation of the individual in modern society occurs at the more fundamental level of the abstraction of living labour within capital. Therefore the method of the positing of the presupposition can clarify how, ultimately, labour is alienated in capitalism because it is ultimately abstracted in the capitalist labour process – the 'presupposition' of alienated labour in circulation is shown to be the posit of abstract labour in production. There holds a relation of *appearance* to *essence* between the alienation of labour (derived from the analysis of exchange as such) and the abstraction of labour (derived from the analysis of capitalist production), where, of course, the appearance is the necessary way in which that essence manifests itself. What is certain is that referring abstract labour back to production cannot be immediate, but must be arrived at by a theoretical mediation of the sort we are aiming to offer here.
12. For further details on some aspects of the reading offered in the following paragraphs on the (abstract) labour theory of value, and related bibliography, see Bellofiore, 1989. As we shall see, absolute value is not a substance but a relation. This holds for the value that arises from production and must be actualised on the market: Marx did not see production as separate from circulation, but as needing it for its social validation because it is production *for* the market. At the same time, however, circulation validates what is already posited as a potential sociality within capitalistic labour processes. This 'relativistic', rather than substantialist, vision is also evident in Marx's theory of the origin of value and surplus value, where he refers to the social relation characteristic of capitalism, namely, that between capital and wage labour.
13. We therefore differ from the view offered by Chai-on Lee, who maintains that, though general exchange and capitalist exchange of commodities are one and the same thing (cf. Lee, 1990, §2 and Lee, 1993, §5), in *Capital* the presupposition is not one of *general* exchange, but merely of exchange of commodities. Thus abstract labour is neither wage labour nor natural labour, but any labour that produces commodities.



14. For a powerful critique of the influence of Engels within traditional Marxism, see Arthur, 1997.
15. A similar point is made in Reuten, 1988, p. 54, and Reuten and Williams, 1989, pp. 66–8.
16. As a result, in Marx's account of value, (dynamic) competition among many individual capitals is built in from the start as an essential feature of the capitalist process. This point is important for Marx's analysis of endogenous innovation, and hence for his theory of capitalist development. For reasons of space, this matter cannot be pursued here.
17. Moreover, the wage workers' labour power, not being a commodity produced within a capitalist process of production, is the sole external purchase that the capitalist class as a whole makes.
18. The relationship between Marx and Aristotle centring around the notion of 'real possibility' or potentiality is of course at the heart of Ernst Bloch's *Das Prinzip Hoffnung* (1954–59). The same point was powerfully made in the less visionary but more balanced and convincing argument put forward by Guido Calogero – for a very short statement see Calogero, 1949; cf. also Calogero, 1968. This same topic is treated at length in Vadée, 1992.
19. Simon Mohun raises the suspicion that there is no textual basis for reading Marx as a comparison between the actual capitalist situation and an imaginary 'circular flow' (simple reproduction with no profits). In defence of our view, we refer to Marx's criticism of Ricardo in the chapter entitled 'Surplus Value' in *Theories of Surplus Value* (vol. II, part A, chapter 16, §2):

> The total working-day is greater than that part of the working-day which is required for the production of the wages. Why? That does not emerge [in Ricardo]. The magnitude of the total working-day is therefore wrongly assumed to be fixed.... But it is equally obvious, that [if] with a given labour-time (a given length of the working-day) the productivity of labour [may be very different], on the other hand, with a given productivity of labour, the labour-time, the length of the working-day, may be very different. Furthermore, it is clear that though the existence of surplus-labour presupposes that the productivity of labour has reached a certain level, the mere possibility of this surplus-labour (i.e. the existence of that necessary minimum productivity of labour), does not in itself make it a reality. For this to occur, the labourer must first be compelled to work in excess of the [necessary] time, and this compulsion is exerted by capital. (Marx, 1975, p. 406).

Marx was even more explicit in book I, chapter 7 §2 of *Capital*, entitled 'The Valorisation Process', where he analysed our 'would-be capitalist'. First he imagined that, with given technology, employment, hourly productivity and real wage, the capitalist makes the worker work only for the time necessary to reconstitute what is necessary to 'produce and reproduce' the labour power. At this stage, [o]ur capitalist stares in astonishment. *The value of the product is equal to the value of the capital advanced.* The value advanced has not been *valorized*, no *surplus-value* has been created, and consequently *money* has *not* been transformed into *capital*'

(Marx, 1976–81, p. 298. (In this and the following quotations, the emphases that are suppressed in the Penguin edition have been restored.) '[T]he capitalist paid to the worker a value of 3 shillings, and the worker gave him back an exact equivalent in the value of 3 shillings he added to the cotton: he gave him value for value' (ibid. p. 300). But, Marx continued.

'Let us examine the matter more closely. The *value of a day's labour power* amounts to 3 shillings, because on our assumption *half a day's labour* is objectified in that quantity of labour-power, i.e. because the means of subsistence required every day for the production of labour-power cost half a day's labour. But the past labour embodied in the labour-power, and the living labour it can perform – the daily cost of maintaining labour power, and its daily expenditure in work – are two totally different things. The former determines the exchange-value of the labour power, the latter its use-value. The fact that *half a day's labour* is necessary to keep the worker alive during 24 hours does not in any way prevent him to work *a whole day*. Therefore the *value* of labour-power, and the value which that labour-power *valorizes* in the labour process, are two entirely different magnitudes; and *this difference* was what the capitalist had in mind when he was purchasing the labour power (ibid.; note that a minor translation error has been rectified).

The analytic distinction between the use value and the exchange value of labour power, which is the cornerstone of Marxian critical political economy, clarifies the *origin* of capitalist surplus: 'Our capitalist foresaw this situation, and that was the cause of his laughter. The worker therefore finds, in the workshop, the means of production necessary for working not just 6 but 12 hours.... The trick has at last worked: *money* has been *transformed into capital*' (ibid., p. 301). Marx then sums up: the process of valorisation 'is nothing but the *continuation* of the [process of creating value] beyond a definite point. If the process is not carried beyond the point where the value paid by the capitalist for the labour-power is replaced by an exact *equivalent*, it is simply a process of creating value; but if it is continued *beyond that point*, it becomes a process of valorization' (ibid., p. 302). It is clear that, in the first term of the comparison, namely what we called imaginary 'circular flow', the exchange ratios will be given by 'labour values'. It is also clear that the analysis of the second term – the actual capitalist situation – is made on the assumption that those same exchange ratios hold, so as not to confuse the enquiry into the creation of capitalist surplus with that into its division. A comparison between the two situations can be made not only at a specific historical point (namely when the absolute surplus is extracted for the first time), but at the end of *every* capitalist circuit. Thus we can identify a logico-historical priority of the moment of value relative to that of price, without accepting Engels' way of interpreting Marx. In an unpublished note written in 1973, Claudio Napoleoni offers a reading that fully accords with our account: 'We ought to give to Marx's claim that values are both logically and historically prior to production prices an interpretation different from Engels's; that is to



say, we ought to see the precedence not as happening once for all at a given moment, but as occurring in every phase of the capitalist circuit' (Napoleoni, 1991b, p. 31).

20. In fact Marx conducted his argument in slightly different terms. In the first book of *Capital*, necessary labour is the labour contained in the *equivalent* of labour power. That is, it is contained in variable capital *in money terms*. However, money is supposed to be commodity money. Hence, even prior to the valorisation process, the money wage may be translated into a given amount of labour, since the 'value' of money is known before exchange on the labour market. If capital pays labour power at the historically given subsistence rate, the labour contained in the money wage will be in a bijective mapping with the labour actually needed to produce those means of subsistence, that is, with the value of labour power. Similarly, we can translate the amount of labour embodied in the money arising from the valorisation process into the amount of labour embodied in the commodity product. We may therefore refer equally to the surplus labour contained in the extra money or to the surplus labour required to produce the surplus commodities. This approach runs into trouble for two reasons: (1) the unacceptability of the theory of commodity money (which we cannot go into here; see Realfonzo and Bellofiore, 1996); and (2) the move from 'equal' to 'unequal' exchange, which comes about with the transformation of values into prices of production (of which more below; for further reflection see Bellofiore, 1996).
21. Hence, we agree up to a point with Benetti and Cartelier (1994) in thinking that Marx's originality lies in stressing the 'unity of production and circulation'; but we draw from it rather less dramatic conclusions about the validity of the abstract labour theory of value. For a well-balanced critique of most French authors' 'escape from Marx' during the 1970s see De Brunhoff, 1979.
22. Naturally, this view of price determination, where demand and supply are equal, could be seen as reflecting an equilibrium of perfect competition closer to neoclassical models than to Marxian accounts. We prefer to interpret it as a situation in which firms 'mark up' the commodity product to ensure the desired (average) profit rate.
23. Rosa Luxemburg's discussion of wage labour in her *Introduction to Political Economy* (Luxemburg, 1970, pp. 227–65) is still essential reading for the central role in Marx's theory of the *a priori* 'indetermination' of the unpaid part of the working day against the fact that the worker's 'normal' real wage is known in advance. This *a priori* indetermination, because of capitalist technological and/or organisational innovations, then brings about a downward pressure on the worker's share in the product, with a constant (or even increasing) real wage. According to Luxemburg, this downward tendency of the *relative* wage is the *differentia specifica* of capitalism relative to the precapitalist situation in which legal, customary or even arbitrary norms determined the share owing to serf and master prior to production.
24. For a more detailed analysis of the distribution of income in a Marxian monetary perspective, cf. Bellofiore and Realfonzo, 1995.

25. The phrase 'after the harvest' – that is, after production and independent from actual market exchange – occurs in the first paragraph of the first chapter of *Production of Commodities by Means of Commodities* (Sraffa, 1960, p. 3).
26. Rowthorn (1974) is still worth reading on this point.
27. See Arthur, 1997.
28. David Schweikart brilliantly shows how Marx's argument on the origin of surplus value goes against Roemer's criticism. For Roemer, as for most analytic Marxists, labour power is not unique: Morishima's Fundamental Theorem can be applied to any commodity, thus showing that there are positive profits only if there has been 'exploitation' of any of them, whether it be corn, cotton, steel or peanuts. Schweikart rightly responds to the claim that there is nothing special about labour power:

    [t]he feature that distinguishes labor power from all other input commodities is that *technical conditions* do not determine the mass of use-values (days of labor) that the capitalist receives when he purchases a unit of commodity (a worker for the production period). Given a specified technology, when a bushel of corn is purchased as an input for a particular industry, the quantity of other inputs and the quantity of output is determined. When a unit of labour power is purchased (e.g. a worker for the production period), the quantity of other inputs required and the quantity of output remains indeterminate, 'a circumstance [that] is without doubt, a piece of good luck for the buyer' (Schweickart, 1989, p. 295).

    In short, it is the exploitation of labour that explains the 'exploitation' of corn, without there being any way of putting the two on the same level.
29. The thesis that the abstraction–alienation of labour in its entirety forms the content of capitalist exploitation is also affirmed by Napoleoni (1991a). His argument, however, departs from ours both on philosophical and economic grounds. Through a different chain of reasoning, Foley (1982, p. 43) seems to go in our direction, as far as a non-distributional view of exploitation is concerned.
30. A sympathetic survey of the new solution is provided in Mohun, 1994. Cf. also Desai 1997.
31. It is relevant here that in volume I the 'counterfactual' comparison starts from a monetary definition of variable capital, as we recalled in note 22. For a more detailed discussion of the issue than is possible here, see Bellofiore, 1996.
32. A possible objection is that only the second is concerned with observable magnitudes. As the tradition stemming from Raniero Panzieri's *Quaderni Rossi* and Sergio Bologna's and Marco Revelli's work in *Primo Maggio* clearly shows, this objection fails. Simply put, for Marxian theory the analysis of the labour process as a means towards the valorisation process can be conducted *directly* by means of a workers' inquiry (*inchiesta operaia*), in which production workers and research workers are both involved.



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# 5 Land Rent and the Logic of *Capital*[1]

Marco E. L. Guidi

Marx's theory of land rent was the object of study during the 1970s and early 1980s principally as a by-product of the debate among Marxist and neo-Ricardian economists on the transformation problem.[2] Another issue that has revived interest in Marx's rent theory is the problem of speculation in the building sector (Lipietz, 1974; Broadbent, 1975; Folin, 1976), a problem that has continued to draw attention to draw Marx's contribution until recently (Clark, 1987; Persky and White, 1988; Bovaird, 1993).

For different reasons, both debates have raised the problem of the connection between rent theory and value theory, a connection that forced Marx to emphasise the role of absolute rent (the portion of rent that is determined by the monopolisation of land by landlords, preventing the surplus value produced in this sector from falling to the level of average profits). The reasons advanced by Marx to justify his assumptions lack logical consistency and empirical evidence: there seems to be no reason why, if rent is not a purely differential revenue (as it is in Ricardian theory), it should stick to the level of absolute rent instead of rising to a purely monopolistic price (as Adam Smith had already suggested) (Perri, 1979). Unfortunately, this conclusion has obvious consequences for value theory, and consequently for the transformation problem.

A discussion of this question is not among the aims of this chapter, which will instead focus on a relatively neglected aspect of Marx's rent theory, although it constitutes the core of his analysis (as Roman Rosdolsky, 1955, pointed out): the relation between rent and 'capital in general' and the function of this revenue in the logic of capital reproduction. The interest here is the peculiar logic adopted by Marx. This logic – derived from Hegelian philosophy – is drastically at odds with the methodological individualism now prevailing in contemporary economics, although it cannot be defined as anti-individualist or holistic (Dumont, 1977). As Etienne Balibar (1993) has recently stated, it is a 'trans-individual' logic, founded on the concept of 'social relations'.

## RENT AND THE CAPITAL CIRCUIT

The theory of land rent is the best standpoint from which to scrutinise the logic of Marx's analysis of the capitalistic mode of production. Situated at the end of volume III of *Capital*, this theory is supposed to prove the consistency of the 'scientifically correct method', which moves from abstract relations to explain concrete phenomena and interprets the latter as 'a rich totality of many determinations and relations' (Marx, 1857–58, pp. 100–1).

Capital and rent are connected by dialectic circularity. The analysis of the unity of production and circulation is concluded by the analysis of rent. Once this step is accomplished, the dialectic method points back to the simplest relationships: commodities, money and the concept of capital. Thanks to this circular movement, these elementary relationships appear not as a simple premise, but as the result of the capitalist circuit.

The connection between capital and rent is established in a passage of the *Manuscript of 1861–63*. In this passage Marx explained that rent is a necessary presupposition of wage labour and consequently of capital, because in capitalist production the labourer has to be free from both servitude and ownership of the means of production: 'He has to *work as a non-proprietor*, and *the conditions of his labour have to confront him as alien property*. These conditions include also the fact that land confronts him as alien property, and that he is excluded from the use of nature and of its products' (Marx, 1861–63, vol. I, sect. 1).

On the one hand rent, as a necessary condition of the 'double freedom' of labour power, appears as a presupposition of capital. On the other hand the nature of rent in modern landed property can be understood only after discussing the concept of capital and analysing the processes of production, circulation and distribution that arise from it. This is the logical circularity that concerns the concept of rent, and this circularity is grounded on capital and its determinations. The simplest form of this circularity is described by the circuit of money ($M - C - M$: money as money), presented by Marx at the beginning of the second section of volume I of *Capital* ('The transformation of money into capital'), while its 'complete form' is $M - C - M'$, a formula that describes the production of money by means of money. Now, the passage from money to capital – i.e. the extension of the capitalist circuit to production – requires labour power to become a commodity. At this stage capital takes on the nature of money that is anticipated to be increased, and of the social relationship through which such an increase is realised – 'money as capital' is valorised by the exchange with the labour power. Moreover, as Marx explained in the seventh section of volume I of *Capital* ('The process of the accumulation of capital'), the final end of the capitalist circuit is not the production of additional revenue (profits) to be expended on consumption goods, but the production of additional capital to reinvest in a capitalist circuit of larger scale (accumulation) (Graziani, 1982, 1984). Thus capital is the beginning, the means and the end of the self-generated circuit, which can be described as the production of capital by means of capital.



In capitalist economies this is the way in which the production and reproduction of wealth is organised. Marx insisted that such reproduction concerns not only 'material content' (that is, the goods, means of production, and labour power), but capital as a social relation, as well as all its 'conditions' (Marx, 1867–94, vol. I, ch. 21).

## PRESUPPOSITIONS AND CONDITIONS: FROM HEGEL'S *LOGIC* TO THE CRITIQUE OF POLITICAL ECONOMY

The terms 'presupposition' and 'condition' are drawn from Hegel's *Science of Logic*, which, as is well known, was one of the more influential sources of inspiration for Marx's main work.[3]

Hegel expounded the dialectics between 'presupposition' and 'reflection', and between 'condition' and 'ground', in volume II of his *Science of Logic* (1812–16), which is devoted to the 'logic of essence'. The latter is characterised by the onset of determinations of reflection, whose typical feature is that the negation is not a passage to another being, but an 'absolute recoil [of the essence] upon itself' (Hegel, 1812–16, 402).

The notion of 'presupposition' is introduced for the first time in the first section of chapter 1 of the 'Doctrine of essence', and is strictly related to the concept of 'reflection'. In this chapter, Hegel deals with the *immediateness* of reflection. The latter transforms the juxtaposition between two distinct beings into a relationship in which each of them is the negative of the other: this is 'negation as negation', or 'the negation with negation', in the philosopher's terms (ibid., p. 399). The presupposition is here the surpassing (*Aufhebung*) the immediateness of what is found as already existing, or, more exactly, of what appears as a different being. In this sense, 'to presuppose something' implies that it is posited (laid down) or put in relation to what presupposes it. By this process a nexus is established between single beings, a nexus that only an excessively plain way of thinking could interpret as a simple juxtaposition. Therefore the presupposition is the onset of the process of thinking, and consequently of science, both of which are considered as products of a 'reflecting understanding'. And reflection transforms the essence into a *determined* being.

Yet the nature of this activity of presupposing and positing is still absolutely indeterminate, because of the limits to which pure reflection – reflection in its immediateness – is submitted. Is this activity a mere correlation, or the sticking to a sceptical relationship of antecedence (Hume's causality), or perhaps the setting of identities, differences or even contradictions? The connection could be even more profound than that: nobody can tell. If Marx's reference to the notion of reflection were limited to this level it would merely be a vague Hegelian idiom. However Marx defined land rent as a 'necessary presupposition' of capital, so it is clear that he implied more of the term. For Hegel too, the process of presupposing implied more than simple reference to the presupposition: but we need go beyond pure reflection in order to understand it – we must find its *centre*.

Hegel dealt with this problem in his discussion of the notions of 'ground' and 'ground relation'. The ground is 'the determination which has fallen to the ground', thus becoming 'the true determination of essence' (ibid., p. 444). The essence is no longer the pure reflection of its elements: rather it is the act of determining something. As a consequence, what is accidental or inessential is now grounded in the essence, it is rooted in it and takes from it its own determinations. Every accidental element comes from the essence, and goes back to it as to its own centre. The ground, in turn, must posit everything else – everything that enters into a relationship with it – in order to be distinguished from what it has grounded: it must posit all its presuppositions. Hegel calls the latter 'conditions' in order to stress the more mediated relationship in which they are now posited: 'The immediate, to which the ground is related as to its own essential presupposition, is the *condition*. Therefore, the real ground is essentially conditioned. The determinacy, which it contains, is the otherness of itself' (ibid., p. 470).

The ground is therefore conditioned within itself: it brings back to itself the heterogeneous elements that are necessary to its coming to reality. Conversely a condition that is presupposed by the ground is posited by it: as such it 'is at the same time something surpassed [*aufgehoben*], and an outward appearance which exists' (Hegel 1817; par. 146). But *vis-à-vis* the ground it is *still* an outward appearance (ibid., par. 148).



It ensues on the one hand that the ground determines all its conditions, and on the other hand that the presence of all the conditions is necessary to bring a thing into existence (par. 147). The logic concerning the ground and its conditions is strictly related to Marx's use of the notion of presupposition in order to analyse the relationship between capital and rent. Marx conceives of the 'critique of political economy' as an inquiry into the historical and logical 'conditions of possibility' of capitalist production. Hence the central role of the theory of rent: rent is not only the closing of the concept of capital, it is also the closing, and therefore the opening, of the critique.

However, at the present stage of our analysis of Hegel's *Logic* the ground and its presuppositions are connected one with the other, but the movement through which they interact is not yet clear. It is necessary to understand this interaction as a process, or as a cycle in which the single elements are produced and reproduced through themselves. Only then can the process be understood as a *system* or *totality* (Hegel, 1817, par. 14, 215). Hegel deals with the idea of process and circularity in volume III of the *Science of Logic*, which is devoted to the 'Doctrine of the concept'. The concept is the universality based on itself as a mediated necessity. Necessity is also a property of the Spinozistic substance, to which the last part of the 'Doctrine of essence' is devoted. Here, however, necessity is 'blind' and purely 'internal', insofar as it is confined within the determinations of essence. Conversely, at the stage of the concept, the substance '*posits itself* through the motion of absolute negativity', and hence it 'becomes a *manifested or posited identity*' (Hegel, 1812–16, vol. III, introductory paragraph). Here we find again the process of positing, which was the peculiar activity of the ground, but this time the ground posits itself, that is, its own identity. What the ground posits is neither an alien nor a purely reflected thing: it is its surpassed negativity. The cycle thus created is, according to Hegel, the true expression of liberty.

It is known that, for Marx, the realm of liberty is not at hand. Rather, when applied to capital, such a circularity resting on itself should be interpreted as the self-referential movement of capitalist reproduction, as well as its natural tendency to expand itself and hegemonise the world: it is the cycle of capital that becomes a spiral: 'The tendency to create the *world market* is directly given in the concept of capital itself' (Marx, 1857–58, p. 408). Notwithstanding these limits, Marx devoted specific attention to Hegel's logic of the concept: after his exposition of the circuit of capital in the form $M - C$

– *M'*, he went into the Hegelian analysis of the types of syllogism, the latter being defined as 'the completely posited concept and... therefore, the *rational*' (Hegel, 1812–16, p. 664).

Among the 'figures of syllogism' analysed by Hegel, two are especially important for the logic of presupposition: the syllogism of reflection in general, and the hypothetical syllogism, itself a subspecies of the syllogism of necessity. The former shows how the determinations of essence are posited 'in a mediated and necessary relation' (Hegel, 1812–16, p. 686). This relation is, as it were, practised, yet not completely comprehended – that is, transformed into a concept – as far as one adopts the method of reasoning of the reflecting understanding. Therefore the syllogism represents the operating of reason, which puts the extremes of reflection in a reciprocal relationship and mediates them. The middle term of this relationship is posited as the *totality* of the determinations, and as such it is the posited unity of the extremes (ibid., p. 686). Only in the syllogism of necessity, therefore, is the middle term determined 'as the universality which is in itself and for itself' (ibid., p. 695), thus revealing the proper nature of the concept. The typical structure of the syllogism of necessity is particularity–universality–individuality (*P–U–I*), and the 'figures' of this syllogism are three: categorical, hypothetical and disjunctive. Hypothetical syllogism consists in showing the dynamics between the conditions and that which is conditioned. In its formal structure, this type of syllogism is simply the fulfilment of the hypothetical judgement, 'if A is, then B is'. To this, 'the hypothetical syllogism adds the *immediateness* of the being: If A is, then B is; But A is; Therefore B is' (ibid., p. 698).

Indeed the hypothetical judgement simply relates the totality of the conditions (A) to the 'actual' thing (B). As far as it expresses the necessary relation between the two, it just resumes the formula of the logic of essence: 'When *all the conditions* are at hand, the thing necessarily comes to existence' (Hegel, 1817, par. 147). The conditions are still indifferent to the thing, but in the hypothetical syllogism conditions A are the subject not only of the major, but also of the minor premise, and in the latter they are a being in existence, a *Dasein*. They express the event the judgement had foreseen, and this event generates B, the conditioned thing. As a consequence the totality of the conditions is the middle term: 'Now A is the being *which mediates*, inasmuch as it is *firstly* an immediate being, an indifferent reality, but *secondly* as it is equally, as a being *accidental in itself*, a being which surpasses itself (Hegel, 1812–16, pp. 699–700).



Two points should be noted in this passage: firstly, the conditions are 'surpassed' as soon as the thing comes to life, and are still accidental *vis-à-vis* the result. We can observe that 'A', which was the subject of the two premises, is *not* the subject of the consequence: 'B is'.[4] Secondly however, 'A', as the totality of conditions, is no longer simply a surpassed thing, it is what surpasses itself, that is, an activity. The reason is that 'A' now possesses the universality of the concept: it is not a different existence from what is conditioned (logic of the being), nor is it a presupposition posited by the conditioned thing (logic of essence) – rather it is 'a *necessity which* is'.

In generating the actual thing, the totality of the conditions appears as a necessary part of the concept: it mediates the whole process, of which it contains in itself the unity. By adopting this procedure, philosophy goes beyond empirical sciences, which are the 'products of the reflecting understanding, which admits of the differences as *independent*, and at the same time *posits* their relativity; but it puts them side by side, or the one after the other, connecting them with an *also*. It does not bind together these thoughts, nor put them together within the concept (Hegel, 1817, par. 114). On the contrary, philosophy reasons in accordance with the concept, and has 'the requirement of showing the *necessity* of its content, and of *proving the being and the character of its subjects*' (ibid., par. 1). Therefore only philosophy shows that every presupposition is the result of a process.

The same distinction exists between political economy – one of the empirical sciences, in Hegel's classification – and the critique of political economy. Ricardo's rent theory, for example – which on marginal lands excludes this revenue from distribution, and considers rent as a purely differential income – already stated that rent is posited by capital. Analogously, by asserting that the landlords appropriate the (differential) surplus profits and thus impose a unique rate of profit upon every type of land, Ricardo stated, though implicitly, that rent is the presupposition of capital. However he did not assert it completely: he asserted it 'as an *also*'. Marx's rent theory aims to explain that every presupposition of capital derives from the logic of its circuit.

## RENT AS A 'SPECIFICALLY DISTINCT VALUE'

Capital, as a relation of production as well as the production of capital by means of capital, is the 'ground' of the modern economic world. In order to understand the phenomenon of rent it is necessary to explain its position in the capitalist circuit. This is what Marx stated in a passage of the *Grundrisse*:

> But capital, not only as something which produces itself (positing prices materially in industry etc., developing forces of production), but at the same time as a creator of values, has to posit a value or form of wealth specifically distinct from capital. This is *ground rent*. This is the only value created by capital which is distinct from itself, from its own production. By its nature as well as historically, capital is the *creator* of modern landed property, of ground rent (Marx, 1857–58, pp. 275–6).

This passage is full of implicit quotations from Hegel's *Logic*. Capital is presented in the first place as a subject as free as the Hegelian idea: it produces and reproduces itself and its own content (the forces of production), as well as the concrete phenomena of which it is the ground (prices). Lastly, capital creates values, not merely in the sense that it produces additional capital, but also in that it produces commodities – the unity of value in use and value in exchange – as means towards its own valorisation, and these commodities are useful to this purpose only insofar as they have a value, the result of abstract labour. This point is of great importance from a logical standpoint: to paraphrase Hegel's words, capital 'derives again its commencement' (Hegel, 1817, par. 17) from its result, that is, from the commodity and from value. Its simplest elements are the beginning and the end of the capitalist circuit.

The definition of rent is strictly related to this capitalist production of values: both the 'commencement' (commodity and value) and the presupposition (rent) are the result of capitalist production, both are values, and both are the middle term of the valorisation of capital. The difference consists in the fact that rent, as a presupposition or condition, possesses a permanent – although surpassed – 'otherness' and 'accidentality' *vis-à-vis* the process of valorisation. In its case, capital necessarily creates a value that is 'specifically' distinct from itself, that is, different not only in quantity and individual shape (another capital, or another 'subspecies' of capital, for instance commercial or financial capital), but because this particular value is its own heterogeneous presupposition. Moreover when Marx said 'capital *has to* posit' a distinct value, he alluded to the nature of the capitalist relation of production. The latter is not a simple production of commodities, because it produces commodities and money thanks



to the exploitation of labour power that is 'free in a double sense' (Marx, 1867–94, vol. I, ch. 4, par. 3). Therefore this 'specifically distinct' value is necessarily posited by capital in order to save its identity and its characteristic of ground relation of production. The essential point here is that rent is not created in the shape of a commodity (Marx, 1857–58, p. 740), nor as a concrete type of capital, but just to serve the purposes of capital, that is, as a pure value: only as such, rent obliges labour power to become a commodity, to have a value and to produce commodities. If rent had no value, it would be either an authoritative relation submitting labour power to political or customary bonds (and in this case labour would not be free in the first sense), or would sanction the gratuitousness of land (and in this case labour power would not be free in the second sense, as it could take possession of this factor of production and autonomously work on it).

This 'value' created by capital is in fact a particular type of revenue. One should observe that Marx did not assert that capital creates landed property (which indeed already exists), but that 'capital creates ground rent'. A relation of production creates a type of revenue. This means that all capital has to do is to acknowledge (or posit) landed property by paying a monetary rent: it transforms a social relation, the monopoly over land by a distinct class, into an act of payment. Landed property is subordinated to the purposes of capital. It does not take part in the extraction of surplus value, nor does it become a subspecies of capital. Rather, by being surpassed as a relation of production, landed property enables the capitalist appropriation of surplus value. Hence it plays an accidental role in valorisation. In exchange it receives a share of the surplus in the shape of redistributed value.

It is true that land – or better, landed property – becomes an exchanged commodity, with its own market price. But this fact does not concern capital in general. It is a by-product of capital circulation and of concrete forms of capital, specifically financial capital. Landed property joins the logic *M–M'*, which is peculiar to capital, as an alternative or speculative investment, but it can do that only because the logic of (financial) capital already exists. For Marx, however, this does not concern the extraction of surplus value, but only its reallocation *post festum*. Besides, the fact that the price of land is calculated by capitalising rent at the current rate of interest is the proof that rent as a value logically precedes rent as a commodity, and that the latter presupposes – as well as financial capital – the capitalist production of commodities. In short, land does not need to be a commodity in order to have a value, but must have a value in order to become a commodity (ibid.): it is rent to be exchanged in the last resort.[5]

Moreover the Marxist rent is a revenue produced by capital, but this revenue is not (necessarily) retransformed into capital – or surplus capital. It is a portion of surplus value that typically sinks into simple circulation and is consumed in luxury goods. From this viewpoint, rent limits profit (as Ricardo understood) (ibid., p. 279), though it can indirectly contribute to it as effective demand (as Malthus maintained). Therefore rent is a limit to the production of capital by means of capital, and as a limit it reveals its heterogeneous nature *vis-à-vis* capital.

The external and accidental character of rent is even clearer from a historical viewpoint. Capital – to paraphrase Hegel's *Logic* – 'finds' feudal landed property, then 'surpasses' it by transforming it into an amount of rent. Thus landed property as an essential relation of production is transformed into a presupposition of the new relation of production, that is, capital. Land rent is not created *ex nihilo* – as is wage labour – but 'found' and 'surpassed' only in so far as it cannot be completely eliminated, for the reasons already stated. Hence the aversion of classical economists towards landlords, who, as Adam Smith wrote, 'love to reap where they never sowed' (Smith, 1776, b. II, ch. 6). And hence the hesitation of the Ricardian 'radical bourgeois' – among whom Marx included James Mill – which would see rent nationalised, but avoided suggesting that, lest this should create a social atmosphere that was adverse to private property in general.[6]

In the light of this it comes as no surprise that Marx, in *Grundrisse*, employed the Hegelian syllogism of necessity in order to analyse the circular relationship between wage labour, capital and rent:

> The inner construction of modern society, or, capital in the totality of its relations, is therefore posited in the economic relations of modern landed property, which appears as a process: ground rent – capital – wage labour (the form of the circle can also be put in another way: as wage labour – capital – ground rent; but capital must always appear as the active middle) (Marx, 1857–58, p. 276).

Here capital is presented as the active middle term in which the extremes are already contained and to which 'they go back to their ground' (Hegel, 1812–16, vol. III, sec. 1, ch. 3).[7] And capital is 'the totality of its own relations' only inasmuch as it presupposes landed property. This fully extended process based on capital therefore



corresponds to the syllogism of necessity. Capital is revealed as the only free (autonomous) subject in the mode of production that is grounded on it:[8]

> Capital, when it creates landed property, therefore, goes back to the production of wage labour as to its general creative basis. Capital arises out of circulation and posits labour as wage labour; takes form in this way; and, developed as a whole, it posits landed property as its precondition as well as its opposite. It turns out, however, that it has thereby only created wage labour as its general presupposition (Marx, 1857–8, pp. 278–9).

## IS RENT STILL IMPORTANT AS A PRESUPPOSITION OF CAPITAL?

Looking at the contemporary organisation of capitalist societies, we are led to question the importance of the private appropriation of land as a necessary condition of wage labour and of a large 'reserve army' ready to be employed by capital. This seems more appropriate for the historical period of industrial capitalism, when peasants were expelled from the land and agriculture furnished the largest part of national income, and when the world seemed destined to engage in large-scale production and there was a growing proletariat. In other words, rent appears more important as a historical than a logical presupposition of capital. Many phenomena induce us to raise this issue.

Firstly, mass unemployment – the 'reserve army' – is today, as never before, created by capital itself, with its valorisation mechanisms (Marx, 1867–94, vol. I, ch. 23, par. 3). Contemporary society is not confronted with the problem of obliging the poor to work as wage earners; rather, capitalist production expels growing proportions of the labour force and seems no longer able to reabsorb them during ascending phases of business cycles, nor to provide them with alternative employment. In this economic situation the role of land rent appears absolutely marginal, if not a real obstacle to the reproduction of capital. No need is felt to proletarianise additional masses of people: quite the contrary, it is needless, if not illogical, to prevent those who want to become proprietors of the means of production from fulfilling their ambitions.

Secondly, it is unlikely that, even if land were free, or at least partially free, it could represent a real obstacle to self-employment.

Mass industrial production and Fordism, with their myths of a 'modern way of life', have been successful in ruling out agricultural self-employment as an alternative job. If this were not enough, increasing productivity due to mechanisation and excessive use of fertilisers has rendered mass agricultural production largely redundant in developed countries (the example of EU agricultural policy is prominent), while the introduction to this sector of product innovations that new, small-scale agricultural firms could exploit in adequate sized market niches seems particularly difficult to bring about.

Thirdly, since the 'second industrial divide' (Piore and Sabel, 1984), we have grown used to thinking that capital that exploits wage labour in large-scale firms can live peacefully side by side either with market-oriented artisans and cooperatives (self-employment), or with small-scale firms. Moreover the passage to models of 'lean production' has created stronger links between big firms concentrating on their 'core business' and the small firms that supply them with component parts. It has been argued that entrepreneurship should become one of the main alternatives to contemporary structural unemployment: unemployed workers should be encouraged to become artisans or small entrepreneurs. They should literally invent their own jobs, possibly assisted by special governmental or community training programmes. However it is unlikely that 'rent' and 'price of land' will be found at the top of a list of possible obstacles to their endeavours. Apart from the difficulty of finding a market even for highly innovative products, the principal obstacle to self-employment is certainly the credit market. Credit rationing, at least in less-developed areas of Europe, means exclusion of small and medium-sized firms, and especially innovative enterprises and young entrepreneurs, thus generating adverse selection and impairing the Schumpeterian ideal of banks as 'social accountants' and promoters of innovation. Economists have made some attempts to explain these phenomena, drawing from both the theory of monetary circuit (Graziani, 1984) and new-Keynesian or new-institutionalist arguments (Messori, 1992; Marzano, 1994; Papi, 1994).

In short, it seems that today the presupposition of capital – and consequently of wage labour – is not, as Marx thought, land rent as a value 'specifically different' from capital, but capital itself in its different subspecies, and especially interest bearing capital. To put it more precisely, wage labour, as a presupposition of capital, is likely to be entirely reproduced *within* the capitalist relation of production. Is this an 'inelegant' conclusion from the Marxist viewpoint? Is it a shortcut that falsifies the Hegelian logic adopted by Marx? It is



possible to prove the contrary: the 'logic of presupposition' is indeed able to explain the reproduction of the capitalist relation without reference to rent.

To analyse the whole Marxist theory of the relationships between monetary and productive capital is beyond the scope of this chapter.[9] A more limited undertaking would be to indicate how the logic of presupposition could be extended to these relationships, and this I shall attempt in the remainder of this section.

Let us begin from the end. The 'syllogism of necessity' composed by land rent, capital and wage labour ($LR - K - WL$), to which Marx refers in *Grundrisse*, is no more than the necessary premise to the basic syllogism of capitalist production: $WL - K - K'$ ($K' = K + \Delta K$). In both these syllogisms, capital (the concept of capital) is the middle term, and as such it is a universality that contains within itself its own extremes.[10] The 'syllogism of rent' states that capital, by presupposing rent (particularity), posits wage labour, or 'free' labour power (individuality). Here capital is the universal term ($U$) because it is the subject of reproduction. Rent is the particular term ($P$), because it is a 'specific and distinct' value, subordinated by capital. Finally, wage labour is the individual term ($I$), because it is the joint result both of the presupposition (capital presupposing rent) and of capitalist production (capital as a relation of production): therefore it is the 'unity of the particularity and of the universality', the individual element that makes capitalist reproduction possible. This role of wage labour is explained by the other syllogism we have introduced: the 'syllogism of wage labour'.

This syllogism can be expressed in the following way: capital (universality), through (that is by 'mediating') the exchange with labour power (particularity), valorises itself and increases in quantity (individuality). The only particular element in this syllogism, in which two terms out of three are represented by capital, is wage labour. Labour is wage labour only because it is appropriated and subordinated by capital, as Marx's theory of alienation explains. And surplus capital is the result of this subordination, through which capital reduces concrete (particular) labour to abstract labour and makes wage labour the only instrument of its own valorisation. So the increase of capital is the unity of $P$ and $U$: it is the 'proof' that capital, as a relation of production, has imposed its logic on social reproduction. But capital that mediates itself in the exchange with labour power is the capitalist relation, and capital as a mediated totality is the production of capital by means of capital. So this 'syllogism of labour' should rather be defined the 'syllogism of capital', because it is both consequence and cause of its 'simplest form', represented by the logic of the capitalist circuit: $M - C - M'$ ($M' = M + \Delta M$), itself expressed in the form of a syllogism.

It can be demonstrated that the labour power that produces surplus value is not only the *mediated* element of capital in the syllogism $WL - K - K'$ (nor the *mediating* element in the syllogism $M - C - M'$), but also a *presupposition* of capital. On the one hand, contrary to the shortened circuit of 'interest-bearing' capital $(M - M')^2$, the circuit of productive capital is only imperfectly self-referential, because the relationship between capital and labour is characterised by conflict. In this sense, wage labour possesses the property of 'accidentality', which is typical of all presuppositions. On the other hand, and more essentially, labour power is the presupposition of capital inasmuch as, only by being 'surpassed', it increases capital: thus labour power, because it is there, allows the valorisation of capital, but it is neither the subject (*Subjekt*) nor the beneficiary of valorisation – this role, of course, is left to capital. This is exactly what Marx described in *Grundrisse* as 'inversion of the law of appropriation' (Marx, 1857–58, p. 456). Like rent, labour power is the accidental – or particular – element that is 'found', presupposed and 'surpassed' by capital.[12] The hypothetical syllogism described by Hegel in *Science of Logic* can therefore be applied either to rent or to labour.

One consequence is that, for Marx, the main obstacle to social mobility of proletarianised labourers is not the monopoly of land, but the accumulation of capital. Wage labour, as a presupposition of capital, is in fact reproduced within capitalist production. At the end of the production process, according to Marx, 'every capitalist with his newly gained value possesses a claim on future labour' (ibid., p. 367). But this is more evident when the 'surplus value becomes surplus capital' (ibid., p. 450), that is, when it is invested as capital:

> In the first encounter, the *presuppositions* themselves appeared to come in from the outside, out of circulation; as external presuppositions for the arising of capital; hence not emergent from its inner essence, and not explained by it. These *external* presuppositions will now appear as moments of the motion of capital itself, so that it has itself – regardless how they may arise historically – pre-posited them as its own moments (ibid.).

Through the reinvestment of surplus value, at the end of the process labour itself, working within capitalist relations, produces

> this absolute *divorce*, *separation* of property, i.e. of the objective conditions of labour from living labour-capacity – that they confront him as *alien property*, as the reality of other juridical persons, as the absolute realm of *their* will – and that labour therefore, on the other side, appears as *alien labour* opposed to the value personified in the capitalist (ibid., p. 452).



Moreover the process of concentration and centralisation that ensues from accumulation, as analysed by Marx in chapter 23 of volume I of *Capital*, obstructs the entry of new firms by increasing both the capital intensity of the processes of production and the scale of production. The financial system generated by the same process is another barrier against undesired competitors. In addition landed property, inasmuch as it is transformed into financial rent, restricts social mobility as it becomes a source of revenue for the middle classes: these are the *rentiers* for whom Keynes would later demand euthanasia.

The means by which capital produces labour power as its own presupposition are internal firstly to the circuit of productive capital, and secondly to the enlarged circuit that comprises all the 'phenomenal forms' of capital. But to reproduce labour power is one thing; it is another to hinder access to the capitalist class or to self-employment, and we have seen that these two phenomena may also be contradictory, thus generating 'market failure'. Monetary capital typically restrains this access by rationing credit. Recent economic literature has stressed the role played by an informational asymmetry between lenders and borrowers, though the credit system is distinguished by the fact that, through its organisation, it reduces such asymmetry (Stiglitz and Weiss, 1981; Jaffee and Stiglitz, 1990). Lenders simply suspect that new borrowers, just because they are new, will not be able to valorise the capital created by them. Their preference is for those who can offer personal and/or real securities, that is, those who are already engaged in the capitalist – or at least in the property – circuit. Indeed the ownership of land, which is the most common security, facilitates access to credit. Thus monetary capital, whose end is the growth of capital and whose consequence is the transformation of a selected elite of entrepreneurs into proprietors of the means of production (Graziani, 1994), also prevents the bulk of the non-propertied class from gaining access to capital, while productive capital keeps labour power outside the process of valorisation: both contribute to reproduce wage labour as a presupposition. The adverse selection phenomena that are related to these relationships therefore belong to the structural limits of the capitalist mode of production.

## CONCLUSION

In the logic of the critique of political economy, capital often appears as a personified entity, a Leviathan that subordinates everything to its purposes. This totalitarian tendency, for which Marxist political economy has been reproached, is one of the reasons for its disrepute in recent years. Marx's thought has been considered as one of the more dangerous manifestations of 'scientism' (Hayek, 1942–44).

However, the attraction of Marx's economic theory is undeniable for those who, more modestly, endeavour to *study the relationships* between the economic events of the contemporary world, starting from the central role of capital valorisation and reproduction.

This chapter has evaluated the role played by the Hegelian heritage in this intellectual position. In particular, that the reproduction of presuppositions has been stressed as the mechanism that stabilises the system. Marx developed this analysis when he dealt with rent. I have tried to demonstrate that the direct reproduction of labour power as a presupposition of capital is the most important phenomenon of contemporary capitalism. There are reasons to conclude that, over the course of time, capital – in its different shapes – has presupposed itself.

### Notes

1. An earlier version of this chapter was presented at a preparatory meeting of the Bergamo conference on volume III of Marx's *Capital*, held in Teramo, Italy, from 10–11 November 1994. I owe thanks to Chris Arthur, Nicolò Bellanca and Roberto Finelli for their comments. Usual disclaimers apply.
2. See in Italy: Perri, 1979 and Nassisi 1986; in France: Abraham-Frois and Berrebi, 1979, Cartelier, 1979 and Diatkine, 1979; in the UK: Murray, 1977–78. Some studies by Gerhard Huber – specifically on the role that can be attributed to rent theory in the analysis of the 'solutions' to the transformation problem – should be added to this list. Most of them are unpublished or are difficult to find; for a discussion of Huber's hypotheses see Gianquinto, 1980, pp. 321–73.
3. See letter from Karl Marx to Friedrich Engels, *ca* 16 January 1858, in Marx and Engels, 1856–58.



4. This is also the main difference between the hypothetical and the disjunctive syllogism. In the latter 'A' is the subject of the consequence too. Therefore it is, as a mean term, the universality laid down, which completely corresponds to the concept: 'A is either B or C or D; But A is B; Therefore A is neither C nor D' (Hegel, 1812–16, vol. III, sec. 1, ch. 3).
5. This subject was developed by Marx in the *Poverty of Philosophy* (Marx, 1847) when he commented upon the Ricardian theory of rent.
6. Marx dealt with these aspects in volume II of the *Theories of Surplus value* when commenting on James Mill's proposals on the nationalization of rent (Marx, 1862–63, vol. II). In his *Elements of Political Economy* Mill (1826, p. 250) affirmed that the nationalization of rent is the ideal policy for a 'new country', not for one where it has existed for a long time. In this case, however, he ventured to propose that government should appropriate the additions to rent due to the operation of the law of decreasing returns. Also, John Stuart Mill (1848, b. II, ch. 2, par. 5–6) suggests that the right of property over land can be restrained.
7. On Marx's use of the logic of syllogism, see Rosdolski, 1955.
8. 'This intermediary situation [*Mitte*] always appears as the *economic* relation in its completeness, because it comprises the opposed poles, and ultimately always appears as a one-sidedly higher power *vis-à-vis* the extremes themselves; because the movement, or the relation, which *originally* appears as mediatory between the extremes necessarily develops dialectically to where it appears as mediation with itself, as the subject [*Subjekt*] for whom the extremes are merely its moments, whose autonomous presupposition it suspends in order to posit itself, through their suspension, as that which alone is autonomous.' (Marx, 157-58, pp. 331-2).
9. But see Marx, 1981, Graziani, 1982, and Bellofiore, 1984.
10. The typical structure of the syllogism of necessity, as we have seen, is particularity – Universality – Individuality (*P–U–I*).
11. However, it could be argued that this circuit is unstably self-referential too, insofar as its resolution depends on the success of the circuit of capitalist production to which it is connected.
12. A similar reasoning could be applied to the capitalist transformation of free labour into wage labour, that is, into wage labour as a *historical* presupposition of capital. See Marx, 1867–94, vol. I, ch. 24.

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# 6 The (Dis)Orderly Process of Capitalist Competition

Jack Amariglio and David F. Ruccio

For most of the past one hundred years, Marxist economists have produced and disseminated a particular set of stories about capitalism and socialism. According to these well-known accounts, capitalism is a singularly destructive, crisis-prone system governed by the 'logic of capital', which is often expressed in terms of economic 'laws of motion' and the 'drive to accumulate' on the part of capitalists. Socialism, in contrast, represents the suppression or elimination of such a logic and its underlying laws and drives, and thus creates the possibility of a rational, planned way of organizing economic and social life.

Not surprisingly, many of these stories are based on a certain reading of Marx's *Capital*, especially volume III. There Marx is said to have 'laid bare' the hidden logic of the capitalist system, in particular, to have analyzed the ways in which individual 'units of capital', capitalist enterprises, are compelled (because of their own inner motives and/or the external pressures exercised by other enterprises) to engage in actions and behaviours that wreak havoc on society and are ultimately self-destructive.

Many individuals and political movements have found the stories that Marxist economists have told about capitalism, socialism and the key differences and distinctions between the two systems to be quite compelling. Such narratives have provided a well-developed and comprehensive 'map' of the world. They have served as the theoretical framework for a wide variety of attempts to challenge existing modes of economic and social organization and to bring about radically new alternatives. Similarly, Marxist economists' interpretations of *Capital* and their endeavours to solve the remaining problems in and to further develop the basic concepts and procedures of Marxian value theory have had notable results in challenging the rhapsodic tales of 'vulgar' economics and extending the scope of Marxian economics itself.





We, too, have been profoundly influenced by and have learned much from these stories about capitalism and socialism and the associated interpretations of Marxian value theory over the years. Still, we are concerned that the ways in which the differences between capitalism and socialism have been cast have also had important negative consequences and that key elements of Marx's value theory have sometimes been elided in the 'rush' to analyze capitalism (and distinguish it from socialism) and to defend Marxian value theory against its critics.

In this chapter we focus on the problem of capitalist competition that Marx grappled with in volume III of *Capital*. We detect in many existing treatments of his approach a marked tendency to privilege some elements over others. In particular, since the initial publication of that contentious volume Marxist economists have seemed to understand and portray the competition amongst and between capitalist enterprises as a fundamentally unified or 'orderly' process, with known, predictable results. Perhaps there is a certain defensible logic to such an approach, especially in the context of counterbalancing models of bourgeois economics (themselves often put forward to fend off and challenge the validity of the Marxian critique of political economy) with those of an alternative – but no less 'scientific' – Marxian approach. And, certainly, passages of Marx's own text can be invoked to support such a procedure. However, in the same text Marx put forward other ideas that run counter to the dominant interpretation and give rise to a very different conception of capitalist competition.

What we have chosen to refer to as a 'disorderly' notion of competition stems from the idea that the very identity of a capitalist enterprise is not singular and fixed, but multiple and changing, the result of the complex array of competitive processes that can be found both inside and outside the enterprise. As we see it, this questioning of the presumed unity of the enterprise (and of the value categories, especially profit, associated with the identity of the enterprise) is a key feature of Marx's theory of 'capitalist production as a whole'. It also has the effect of supplementing existing stories about capitalism and socialism, based on an overarching logic and related laws and drives, with more contingent, random, local conceptions of both.

## MODERNISM AND ORDERLY COMPETITION

To be clear, our view is not that fundamental contrasts and distinctions cannot or should not be made between capitalism and socialism.

Quite the contrary! It is only that the particular differences that are often identified and emphasized by Marxist economists are based on conceptual oppositions that are problematic, and in some cases even harmful. Therefore we, too, are interested in exploring the differences between capitalism and socialism – both 'real' systems and 'imagined' alternatives – but on quite different terms.

When Marxist economists criticize capitalism they often take aim at what they understand to be the fundamental instability and irrational consequences attendant upon a system based on private property and markets, especially those in which capitalists and wage labourers operate. Thus, for example, Marxist economists have long pointed out the extent to which capitalist institutions and forms of economic organization typically have devastating economic and social consequences: they involve economic anarchy (for example because sales rarely match actual or anticipated levels of production, or the total amount of savings rarely matches the projected investments, thus provoking business cycles and crises); they lead to inefficient outcomes and/or wasteful expenditures (such as unemployment, starvation and ecological deterioration, not to mention luxury consumption for the few and military escalation); they promote social fragmentation and disintegration (since they generate unequal distributions of income and power and encourage private, individual interests over public, social interests); they create alienation (for example through commodity fetishism, as the creation of 'false' needs is promoted over the satisfaction of 'true' needs, and by denying individuals a 'genuine' knowledge of themselves and of the society around them); and so on. Socialism, by eliminating or at least circumscribing the scope of private property and markets and through the institution of planning, is often portrayed as a system that exhibits a basic stability and rationality. The results, therefore, are quite different: economic balance and coordination (as carried out by a central planning board and followed by ministries and enterprises); efficiency and socially beneficial expenditures (based on rational calculation and elimination of the profit motive); social harmony and unification (once equality is established and private and social interests are allowed to converge); and self-realization (since 'true' needs can be expressed and the nature of social relations is made 'immediate' and 'transparent').

The contrast between the two systems (and of course between these conceptions of capitalism and socialism and those put forward by mainstream economists) could not be more obvious. We should add that these are not the only distinctions made by Marxist economists.



In particular, attention is often directed at the extent to which capitalism is based on individual exploitation (the extraction of surplus value), whereas under socialism the surplus is appropriated socially or communally.[2] Still, we find that in a good deal of Marxist economic literature, either alongside or in place of the issue of surplus labour, the distinction between capitalism and socialism comes down to the difference – often posed as the key ethical or political choice – between one socioeconomic system (capitalism), in which anarchy, fragmentation, alienation and unpredictability are the rule, and another (socialism), in which social stability and unification, rational planning, unalienated and self-conscious subjects, fulfilled expectations and true knowledge are key constituents. To the degree that this is the case, we think that these kinds of distinctions, however convincing they may have been (and still may be, to some), have also carried with them theoretical and political consequences that are questionable. For example we think that Marxist economists have exaggerated both the degree to which socialist planning involves or is capable of generating more stability and rationality than capitalist markets and, especially, the extent to which stability and rationality are always preferable to instability and non-rationality. Our view is that the focus on these kinds of opposition has hindered Marxists both in their criticisms of capitalism and in imagining and attempting to construct socialist alternatives.

We do not have the space here to develop and adequately defend these concerns. Elsewhere we have discussed in some detail the implications of the ways in which Marxist economists have distinguished capitalism and socialism and the elements of our own alternative (Amariglio and Ruccio, 1994). We have also shown how these distinctions are strongly influenced by the modernism that characterizes much of contemporary economics.[3] Our view is that, while Marxist economics differs, often quite substantially, from other – for example neoclassical and Keynesian – economic discourses, it also shares with its mainstream counterparts certain foundational axes that are central to economic modernism. It is that common modernity that has often led Marxist economists to focus on the kinds of constrast we saw above in the distinctions between capitalism and socialism and that expresses their preference for one set over the other. In this case, the modernist Marxist preference is for stability and rationality.

Of course Marxist economists do not merely note the instability and irrationality that they attribute to capitalism. Consistent with their modernist conception of the aims and methods of economic theory, they have also sought to make sense of those dimensions by looking for the hidden logic, the underlying stability and rationality that serve to explain those dimensions. And this is precisely how volume III of *Capital* is often interpreted: as the set of concepts and conceptual strategies that Marx used to discover the basic structures and patterns that account for and serve to generate the seeming anarchy of capitalism. Here, then, the political choice for socialism is matched by the conceptual goals of Marxian value theory: just as the instability and irrationality of capitalist 'reality' can be superseded by opting for socialism, they can be discursively ordered and analyzed, and thereby theoretically domesticated and contained, through modern scientific analysis.

Marx's theory of competition plays a key role in this theoretical project. According to modern Marxist economists, the existence of instability and irrationality in capitalism (and thus of their negative consequences) can largely be traced to the activities of individual capitalists and capitalist enterprises. To choose but one example, the 'law' of the tendency of the rate of profit to fall, a prime cause of economic crises in many Marxist analyses, is attributed to a rising 'organic composition of capital' (the ratio of 'dead' to 'living' labour, expressed in terms of hours of abstract labour), which in turn is explained by the concerted attempts on the part of capitalist enterprises within an industry to innovate in order to capture the largest possible share of surplus value. Other causes of economic crisis, such as 'realization' problems (when enterprises are unable, because of unforeseen or unpredictable changes in market conditions, to sell all of their output at expected prices) and 'profit squeezes' (for example the wage rate or the price of labour power rises when, because of increases in the demand for labour power, the 'reserve army of labour' is depleted) are also tied to the decisions and actions of capitalist enterprises.[4]

Here a key theoretical problem arises. The issue for Marxist economists in developing these explanations is that, while the *differentia specifica* of Marxist economics is often understood to be its theory of value and surplus value, the behaviour of capitalist enterprises is said to occur at the level of prices and profits. The reason that volume III of *Capital* is so important for Marxist economists (and, not coincidentally, so contentious for them as for others) is that it serves both as a theory of what occurs on the 'surface' of capitalism – prices, profits and individual capitalist enterprises – and as a conceptual bridge to the 'underlying' realm of capitalist production – of value, surplus value and 'capital as whole'.



We do not want to enter here into the debate concerning the so-called transformation problem – which, at least according to some views, is a non-problem.[5] The relevant issue here is a different one: how to make sense of what is considered to be the unruly, anarchic, even chaotic realm in which prices are formed, profits calculated and capitalist enterprises operate. For modernist economists, mainstream and radical alike, the validity of their science (and of their resulting stories about capitalism and its consequences) is predicated on finding the order that can be said to emerge from or to explain the apparent disorder. For neoclassicists, who begin with a conception of individual economic agents, each pursuing his or her own self-interest, that order is 'found' in market equilibrium: at the level both of individual markets (where excess demands are equal to zero) and of the economy as a whole (based on the idea of Pareto efficiency, where are all agents are able to realize their plans).[6] Not surprisingly, modern Marxist economists reject this particular story of partial and general equilibrium, of an 'invisible hand' that is capable of creating order out of apparent disorder. They turn, instead, to a different approach, one that locates the motivating force and underlying structure of capitalism in the activities of 'capital'. In their view, the formation of prices and profits – and the resulting instabilities and irrationalities associated with capitalism – can be tied to the orderly laws and drives associated with the decisions and behaviours of capitalists (or of their institutional embodiment, capitalist enterprises).[7]

It is this attempt to find the order 'hidden within' the apparent disorder that seems to motivate modernist Marxist economists' theories of capitalist enterprises and capitalist competition. Consider, for example, the usual treatment of the formation of a general rate of profit. Capitalist enterprises, in search of the highest rate of profit, are said to distribute and redistribute their capital investments (they choose to enter and exit different 'industries') according to whether the actual or potential rate of profit is high or low, until 'prices of production' are established that allow for the emergence of a single, equal rate of profit across all industries. The actions of firms also account for the 'tendencies' of movement of the general rate of profit. In cases where capitalists innovate by increasing the organic composition of capital – in order, for example, to obtain 'super-profits' (excesses of realized profits over the amounts of surplus value obtained from workers within those firms) – the rate of profit will have a tendency to fall. A similar outcome obtains when, together, capitalists increase their demand for labour power, thereby outstripping the available supply, and bid up the price of labour power. In other cases – for instance, when enterprises increase the rate of exploitation, depress wages (either directly or through increases in population) or cheapen the elements of constant capital – the rate of profit will exhibit the opposite tendency.

These stories, and others (for example concerning the concentration and centralization of capital and the expansion of capital on a global scale), are too well known to require extensive discussion here. What is important for our purposes is the manner in which these results are obtained. Throughout the analysis, a particular notion of competition is invoked to explain the emergence of prices, profits and their tendencies and countertendencies. Individual capitalist enterprises compete against other enterprises – in their own industry and in other industries – thereby compelling both themselves and the others to make particular decisions and take specific actions: to shift capital from one industry to another, to increase the ratio of 'dead labour' to 'living labour' and so on. Once the 'system' is set in motion, then each firm is forced to make the appropriate calculations and to engage in activities that will ensure its own survival and growth over time.

The actual starting point for setting the competitive process into motion varies according to the particular theoretical strategy. In some approaches, firms are seen to be but individual manifestations of 'capital as a whole' – and since the central characteristic of capital is the self-expansion of value, they exhibit an essential drive to accumulate. All enterprises therefore devote the largest possible share of their profits (realized surplus value) to the accumulation of productive capital – capital that produces more surplus value. This 'inner' drive in turn forces each enterprise into a competitive battle with all other enterprises. A second set of approaches begins with individual capitalist enterprises themselves. These firms are guided not by the general drive to accumulate (although they *do* accumulate as part of their own competitive strategies), but rather by a form of rational decision making with the aim of maximizing profits (and/or minimizing costs). Here, because all enterprises are conceived to be governed by the same form of capitalist rationality, and because the success of some can and often does come at the expense of others, they are compelled by 'outside' pressures to compete with one another. Notwithstanding the large differences between these two approaches,[8] then, the result is that the competitive process in which capitalist enterprises are engaged serves as the basic element in explaining developments on the 'surface' of capitalist economies.



What stands out in both sets of stories is the idea that capitalist competition is a fundamentally predictable, unified and orderly process. All enterprises are characterized by a single, stable, 'centred' identity: they allocate their profits to the accumulation of capital in order to maximize the amount of surplus value they can realize by outcompeting other enterprises in producing and selling capitalist commodities. And they know, with certainty, what their profits are and how best to maximize them (and, equally, their costs and how best to minimize them). It is precisely this ordering that allows modernist Marxist economists to demonstrate what are considered to be some of the fundamental propositions of Marxian value theory: that a general rate of profit can be established on the basis of prices of production (and therefore that prices and profits can be linked to values and surplus value); that the rate of profit exhibits regular 'tendencies' (both downward and upward); and that instability and irrationality are part of the 'normal' workings of the capitalist economy.

Regardless of whether the above propositions are ultimately accepted or rejected, the same basic logic is at work. Capitalism is modelled as an economic system that, under its chaotic surface, exhibits its regular laws and tendencies that ultimately can be modelled and explained by the process of competition to which the activities of capitalist enterprises give rise, and to which they are in turn subject.

## POSTMODERNISM AND DISORDERLY COMPETITION

If modernist Marxist economists have succeeded in extracting from volume III of *Capital* an orderly conception of capitalist competition, we think that there is ample evidence in the text to warrant their doing so. In various places, Marx did indeed refer to laws and tendencies, driving forces and determinate results, in order both to counter the claims of the classicals and to construct his own view of capitalism. However we also detect in Marx's text other aspects of a theory of competition that have been ignored or downplayed by modernist Marxists. These other dimensions run counter to the modernist interpretations that have become the shared terms of debate and lead to a more decentred, unpredictable and disorderly conception of competition. They also pave the way for a different – what we consider a more postmodern – approach to Marxian economics more generally.

To begin with, we are struck by the large number of references Marx made to 'averages' in his discussions in volume III. In grappling with the tension between order and disorder – the problem of whether to order the apparent disorderliness of capitalism or to avoid altogether privileging one over the other, whether order or disorder – Marx often invoked the idea of averaging and emphasized movement, random fluctuations and even chance. The general rate of profit, for example, is taken to be an *average* rate of profit, 'the average of all these different rates' (Marx, 1981, p. 257), 'an average of perpetual fluctuations which can never be firmly fixed' (ibid., p. 261). Similarly, in discussing the movement of the general rate of profit, Marx emphasized 'the uninterrupted and all-round character of this movement' (ibid., p. 269). We take these and other such references as a warning against too deterministic, ordered or unified an interpretation of the notions of profit, price and so on of volume III.

It is this concern with multiplicity and randomness that, we think, shows up in Marx's discussions of capitalist competition and is largely absent from modernist conceptions of the competitive activities of capitalist enterprises.[9] According to modernist Marxists, as we have seen, firms distribute profits (or realized surplus value) to the accumulation of capital in order to compete with other enterprises. In our view this conception recognizes only some of the forms of competition that Marx discussed in volume III. We would like to expand the discussion by focusing on some of the other forms of competition, both outside and inside the enterprise.

As we see it, capitalist enterprises *do* compete with other enterprises, both within and between industries. In the context of individual industries, enterprises compete over the conditions in which they can realize, in the form of profit, the surplus value that they and other firms within the same industry have appropriated from their productive labourers. This process of competition leads to the formation of average market values, which represent the extent to which any one enterprise will be able to realize its particular share of surplus value. Similarly, firms compete across industries, leading to capital flows and reconfiguration of the structures of capital within and between those industries. This means that firms within one industry can, on the basis of an average rate of profit and corresponding prices of production, realize the surplus value that is appropriated from labourers not only by their own firms and industries but also by firms in other industries. What emerges, as Roberts (1988) has pointed out, is a complex pattern of distribution and redistribution of surplus value among capitalist enterprises within and between industries.



Equally important, however, are other forms of competition over shares of realized surplus value. Marx went to great lengths in volume III to point out that industrial capitalist enterprises compete with many other entities – enterprises, institutions and individuals – that exist separately from those enterprises. Examples include financial capital, merchant capital, owners of equity shares, landowners and the state. In each case, industrial (or functioning) capitalists are subject to competitive pressures to distribute a portion of the surplus value appropriated from productive labourers ('theirs' as well as those of other capitalists) to the occupants of 'subsumed class' positions located outside industrial capitalist enterprises.[10] And in each case, not unlike the more traditional types of competition over surplus value focused on by others (involving market values, prices of production and enterprise profits), the distribution leads to the formation of a particular 'price' and 'rate of profit': interest rates, commercial discounts, stock dividends, rents and taxes.

We consider that these distributions of surplus value are types of competition because they represent, no less than the struggles among industrial capitalist enterprises within and between industries, different patterns of rivalry over the quantities and forms of realization of the surplus value appropriated from productive labourers. The existence of banks, merchants, stock owners, landowners and the state depends (at least in part) on their ability to compete with one another and with industrial capitalist enterprises over shares of surplus value. Similarly, in order for industrial capitalist enterprises to compete successfully among themselves, they often find it necessary to 'give up' portions of surplus value to entities other than commodity-producing capitalist firms.

In addition to these 'external' forms of competition and related transfers of surplus value, Marx referred to other struggles over distributions of surplus value that take place inside industrial capitalist enterprises. These represent what we consider to be 'internal' forms of competition. The accumulation of capital is one example: a specific portion of the surplus value realized by firms is earmarked for purchases of additional means of production and labour power. But as Norton (1986, 1988) warns us, the accumulation of capital is only one of many distributions of surplus value that take place within the firm. Typical industrial capitalist enterprises also contain other units, departments and individuals – such as management, supervision, training and education, public relations, advertising, research and development, bookkeeping and so on – that compete with the accumulators of capital (as well as with each other) over shares of surplus value. While the accounting conventions may differ (salaries and departmental budgets instead of prices and interest rates), these, no less than distributions of surplus value outside the firm, represent ways in which surplus value is competed away from and realized by entities other than industrial capitalists.

In addition to pointing out the multiple forms of competition that can exist both inside the enterprise and externally, between it and other entities, we should add that there is no fixed boundary between the inside and the outside. Thus, for example, activities (and their corresponding flows of surplus value) that are located outside the enterprise can be and often are, under certain conditions, brought inside the firm. Through a variety of mechanisms (such as mergers, acquisitions and the setting up of new departments and units), enterprises can engage in financing their own purchases, selling their own commodities, stock ownership, security, legal adjudication and so on. An equivalent movement can and often does take place in the opposite direction: enterprises lose or give over to other entities such diverse activities as management consulting, personnel (through temporary employee agencies), bookkeeping and accounting, ownership of some or all of the means of production, and so on. Each of these moves leads to a new pattern of flows of, and thus competitive battles over, surplus value both inside and outside the enterprise.

In our view the existence of these various and changing forms of competition calls into question the idea that there is such a thing that modernist Marxists often refer to as the 'capitalist enterprise', with a given, stable, singular identity and corresponding competitive strategy – what is often taken to be the basis of an orderly process of competition. Indeed we think that Marx extensively grappled with the problem of the enterprise throughout volume III of *Capital*. And in the course of his discussion he provided some of the elements of a quite different conception of capitalist enterprises, whose identities are multiple and shifting, and therefore of competition itself, which we can now begin to conceive of as a disjoined, unpredictable, disorderly process.

Industrial capitalist enterprises will exhibit a wide variety of competitive strategies, themselves the products of the competitive pressures exercised both inside and outside those enterprises. The particular strategy that any individual enterprise 'chooses' will depend on the results of the array of both internal competitive battles (for example among various units such as accounting, purchasing and management) and external forms of competition (not only with other industrial capitalist enterprises but also with banks, the state and other such entities throughout the economy and society). The actual strategy, in other words, is the product of the way in which the specific identity of the enterprise is constructed, negotiated and produced out of the complex interaction of these various forms of competition.[11] And since we can expect the identities of capitalist enterprises to vary across space (within and between industries) and time (as activities move inside and outside any one firm, and new competitive pressures are felt), we will observe a wide variety of specific, changing competitive strategies on their part.



One of the implications of this approach is that competition loses its status as a lawlike, deterministic process in favour of a much more random, fluctuating set of activities carried out by capitalist enterprises, and to which they are in turn subject. Connected to this disorderly conception of competition is the idea that a certain ambiguity – and concreteness – is introduced into the value categories associated with the identity of enterprises. Profit, for example, can no longer refer to a single magnitude or thing, but instead is a composite notion, a changing category that is constructed out of the competitive pressures to which each enterprise is subject and to which it responds. What profits are – the particular inclusions and exclusions that result in an excess of revenues over costs – is produced discursively in and through the accounting schemes that result from the complex struggles and negotiations that take place both inside and outside enterprises. Profits are thus rendered ambiguous because there is no necessary set of value flows that, when added together, make up enterprise profits. The meaning of profits for a particular enterprise will depend on where the boundaries – legal, financial, government-regulated and so on – between the inside and the outside are drawn. Hence profits also become more concrete, to the extent that they are tied to the particular goals and procedures – and hence multiple identities – that are fought over and conjuncturally resolved in and around each enterprise.

The result is that the capitalist enterprise – understood as the site of certain necessary functions (such as the accumulation of capital), with a given identity (and therefore competitive strategy) – begins to fall apart and ultimately disappear. In its place we will find a variety of different capitalist enterprises,[12] each the specific (and changing) site of appropriations and/or distributions of surplus value. None of these processes can be considered the centre or origin, the motive or goal that defines the identity of the enterprise. Instead each enterprise will act out one or more of its many possible identities as the competitive battles that take place both inside and outside erupt, become resolved and emerge once again – thereby leading to the formation of new identities.

Focusing on the 'decentring' of the enterprise, the 'uncertainty' about profits and the 'disorder' of competition leads to an interpretation of volume III of *Capital* that is quite different from modernist Marxist interpretations. Instead of (or perhaps alongside the promise of) determining an equilibrium rate of profit and corresponding laws of motion, what Marx did was to call into question the integrity of the capitalist enterprise, the unity, singularity and knowability of profits, and the orderliness of competition as presumed by bourgeois economists. Such a postmodern Marxian critique of political economy shifts attention away from a general 'logic of capital' towards more local, negotiated and articulated actions of specific capitalist enterprises. It makes it possible to analyze, and thus to struggle over, the particular composition, strategies and effects of capitalist enterprises as they are constituted in and through the competitive rivalries over the distribution of surplus value.

Finally, a postmodern approach to Marxian economic theory contributes to a rethinking of the contrasts and distinctions that can be drawn between capitalism and socialism. It refuses the idea both that the two systems can be distinguished by the degree of order or disorder and that the elements of orderliness or disorderliness in either system can be deduced from the presence or absence of what modernist Marxists have taken to be the orderly process of capitalist competition. Instead it focuses attention on the contingent, local outcomes of competition over the surplus in both systems – and therefore on the possibilities of various agents struggling over and intervening in to shape the identities and consequences of the activities of enterprises within capitalism no less than those of the planning agencies within socialism.

## Notes

1. This paper was presented at the conference on 'Karl Marx's Third Volume of *Capital*: 1894–1994', University of Bergamo, Italy, 15–17 December 1994. The authors would like to thank the conference organizer, Riccardo Bellofiore, for his encouragement; Andrew Kliman and another, anonymous reviewer for their comments on an earlier draft; and the Institute for Scholarship in the Liberal Arts, University of Notre Dame, for making it possible for one of the authors to travel to the conference.
2. Resnick and Wolff (1993) discuss the role of class and non-class conceptions of socialism and communism. See also Cullenberg (1992), and Ruccio, (1992).
3. For additional discussions of economic modernism, see Amariglio (1990) and Ruccio (1991).
4. There are myriad formulations of these arguments, including Meek (1960), Mandel (1970), Yaffe (1973), Rosdolsky (1977), Shaikh (1978), Fine and Harris (1979), Weeks (1982), and Moseley (1991).
5. See, for example, Wolff, Roberts and Callari (1982).
6. This is the orderly conception of markets and competition associated with the tradition of neoclassical theory that runs in a line from Léon Walras through Alfred Marshall to Paul Samuelson. Austrian versions of neoclassical theory focus less on market orderliness and more on the orderly plans of individuals.
7. One way of contrasting these two economic theories, then, is the following: while both construct their conceptions around the modernist opposition between order and disorder, neoclassicists tend to focus on the emergence of order from disorder while Marxists move in the opposite direction, emphasizing the disorder that is created by the underlying order.
8. Which, as Cullenberg (1994) has extensively discussed, are based on quite opposite – Hegelian and Cartesian – notions of 'totality'.
9. With one notable exception: Farjoun and Machover's (1983) use of notions of randomness to depict the movements of capital and the consequent differences and fluctuations in the rate of profit.
10. Resnick and Wolff (1987, especially chap. 3) have interpreted Marx's discussions of initial distributions of surplus labour (for both capitalist and noncapitalist class processes) in terms of subsumed classes.
11. See also the discussion in Thompson (1982), and Cullenberg (1994), especially chap. 4.
12. And, we should add, noncapitalist enterprises, sites where production or other economic activities take place but in conjunction with noncapitalist – ancient, communal and other – class processes.



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# 7 Towards a General Theory of Capitalism: Suggestions from Chapters 23 and 27

Ernesto Screpanti

## INTRODUCTION

In this chapter two theories of capitalism are confronted. The first claims that *private ownership* of the means of production is the basic institution of capitalism and that the two opposing classes – capitalists and workers – must be defined on the ground of the distinction between ownership and propertylessness. This theory will be called the 'S-theory' since, although it predominates in Marx's and orthodox Marxist thought, it originated with Adam Smith.

The second theory focuses on the *contract of employment* as the fundamental institution of capitalism. The working class is made up of the people who sell labour power, whereas the capitalist class is made up of those who exert command in the labour process in view of the accumulation of capital. The latter need not be the owners of the means of production, nor need the former be 'free' of any wealth. This second theory will be called the 'M-theory' since it is the product of an original, though incomplete, elaboration by Marx.

The M-theory is particularly modern and can be used by contemporary economists to settle various questions concerning the analysis of modern capitalism as an economic form that is substantially different from that which prevailed in the industrial revolution. Debates on this subject are long-standing. They produced some remarkable first insights with the early criticisms of the Soviet system put forward by the anarchists Rocker, Arsinov and Lehning. Then various families of heterodox Marxists struggled with the 'S-theory' to grasp the capitalist nature of the Soviet economy. Fire was opened by the *links-Kommunisten* Gorter, Rühle and Pannekoek, and was then continued by Troskist, internationalist and other brands of anti-Stalinist Marxists such as Ciliga, Rizzi, Shachtman, Perrone, Bordiga, Cliff and Dunayevskaya. More recent contributions, by Poulantzas, Carchedi, Cutler, Hindess, Hirst, Hussain and Pitelis, to mention just a few, have tended to pass over the debates on the nature of the Soviet Union and to tackle the general problem of the existence of forms of capitalism and capitalist social structures in which private ownership of the means of production does not play a fundamental role.

The literature produced in this field is now boundless, but the present chapter has no ambition to survey it. What will instead be attempted is to dig into Marx's thought in search of the bare bones of a theory that is useful to understand modern capitalism. This is also why the reader will find no bibliographical references apart from Marx's work.

## SMITH IN MARX

The notion of capitalism that prevailed in the Marxist theory from the first to the fourth International and after, originated not from Marx but from Smith.

Marx espoused the notion very early in his studies on political economy and was never to abandon it. It was already clearly formulated in the *Economic and Philosophical Manuscripts* of 1844, where capital was defined as 'the private property in the product of other men's labour' (Marx, 1975, p. 246) and the capitalist as an individual having 'power of *command* over labour and its products ... because he is the owner of capital' (ibid.) The idea that capital is the ownership of capital, in other words that the means of production are capital in that they are owned by the capitalist, was never to be abandoned by Marx.

It is important to understand the institutional implications of this idea. The definition of capitalism is based on a juridical concept and, in that context, the nature of capital is acknowledged as being a *private right*, a *right to dispose of wealth.* The juridical prevails so strongly over the economic aspect that the specific characteristics of the property in which wealth is embodied are irrelevant compared with the right that is claimed over it. Whether money wealth, commodity capital or productive capital, what matters is that it is privately owned wealth.

Such a conception plays a fundamental role in the Marxian definition of social classes and its analysis of class structure in the capitalist mode of production. The two basic classes are identifiable precisely by their respective relationship to capital ownership:

> On the one hand, the owners of money, means of production, means of subsistence, who are eager to increase the sum of values they possess, by buying other people's labour-power; on the other hand, free labourers, the sellers of their own labour-power, and therefore the sellers of labour. Free labourers, in the double sense that neither they themselves form part and parcel of the means of production, as in the case of slaves, bondsmen &c., nor do the means of production belong to them (Marx, 1977, vol. I, p. 668).



Workers and capitalists *superficially appear* to contrast as classes in that the commodities in their possession contrast. Actually, from the market point of view it is possible to distinguish them on the ground of the different goods they possess – means of production and labour power. Thus as far as the sphere of exchange is concerned, the relationship between workers and capitalists would appear to be one of symmetry and complementarity. In the production and accumulation processes, however, all traces of symmetry vanish: capitalists are owners of wealth, not so the workers.

Social classes are properly defined by ownership of capital: capitalists have it, workers do not. True, capitalists own the means of production and workers own the labour-power. But there is a substantial difference between the two commodities since in the capitalist mode of production a dialectical relationship is established between them which allows the first to annex the second. Labour power is the only good with which workers are endowed, but, as wealth, it does not exist outside the capital relationship. It can only be considered wealth when, in exchange for a wage, it becomes ownership of capital. Workers are therefore considered non-owners rather than owners of a productive resource. Labour power is a productive resource only insofar as it becomes capital. But as such it is no longer the workers' property. Labour power is not wealth, it is not capital for the workers.[1]

As previously stated, this theory of capitalism and the class structure of the capitalist mode of production originates from Smith. Marx embraced it, developed it further and went deeper into its social and political implications, but he left it substantially unchanged.

## THE LIMITS OF THE TRADITIONAL THEORY OF CAPITALISM

The S-theory has more than one drawback. Two in particular are worthy of note, one with historical connotations, the other of a more logical nature.

The traditional theory was probably adequate for the study of the form of capitalism that prevailed in Europe during Smith's time. That form was based on the small private firm, an organizational structure in which the entrepreneur was indistinguishable from the owner of capital and the worker was compelled to offer labour power on the market because he was 'free' of all wealth. It is certainly no longer adequate to describe modern capitalism. Today we live in a socio-economic setting in which the 'separation between ownership and control' has been stretched to the point of creating monsters such as public companies; in which state intervention in the economy has spread to the point of establishing state ownership and control of large economic sectors; in which theoretical and practical experiments of profit sharing and *Mitbestimmung* have already commenced. Many social scientists doubt whether it is still legitimate to call 'capitalist' the economic formations exhibiting these characteristics – a perplexity that seems fully justified by the S-theory. It was not by chance that the myth of 'real socialism' was supported by ideologists who professed to be Marxists. On the other hand it is clear that overcoming the S-theory is an essential condition for being able to continue to define contemporary capitalism as 'capitalism'.

The second limit posed by the traditional theory is of a logical nature and is no less important than the first. In a conception of capitalism in which the capitalist class is defined by the private ownership of the means of production, an essential condition for defining the working class as a class of non-owners is that the workers are precluded the possibility of saving. In fact, if they save they will accumulate wealth and, in a capitalist economy, in the S-theory sense, any kind of property, be it money, securities, commodities or means of production, is capital. Workers who save will consequently own a capital and earn a surplus value. How then is it possible to distinguish them as a class from the capitalist class? Consider also the fact that the owner of a firm or a shareholder may well perform managerial and organizational functions that are remunerated with a wage. So what difference will there be between a manager and a worker, apart from one of degree, that is, not a qualitative one? Should we therefore cease to think of workers and capital in terms of the magnificent servant–master dialectics? And should we indeed cease to think of the two classes as two socially distinct and opposed entities? Must we fall back on a theory of social stratification based on differences in income brackets?

It should be noted that neither Marx nor Smith was faced with this problem, given the living conditions of the working classes of their



times. In fact in their theory of social classes, and particularly in the definition of the working class as a 'class *in se*', a crucial role is played by the notion of 'value of labour power' (in Marx) or the nearly equivalent one of the 'natural wage' (in Smith). Both the notions convey the idea that workers' income reduces to the value of the means of *subsistence*. This wage theory was fairly realistic for those times and, more importantly, was crucial for defending the S-theory from the theoretical risk of being unable to distinguish the social classes.

Marx was very clear in defining the subsistence nature of wages:

> The lowest and the only necessary wage rate is that providing for the subsistence of the worker for the duration of his work and as much more as is necessary for him to support a family and for the race of labourers not to die out. The ordinary wage, according to Smith, is the lowest compatible with common humanity, that is, with cattle-like existence (Marx, 1975, p. 235).

Yet again it was Smith who had put forward this theory. Marx assimilated it in his early studies on political economy, then he reformulated it in the *Manuscripts* and maintained it through all subsequent works. In *Capital*, for example, we read:

> The value of labour-power is determined, as in the case of every other commodity, by the labour-time necessary for the production, and consequently also the reproduction, of this special article . . . the value of labour-power is the value of the means of subsistence necessary for the maintenance of the labourer (Marx, 1977, vol. I, p. 167).

The basic characteristic of a subsistence wage is that it coincides with consumption. The propensity to consume is, by definition, equal to one. And again Marx was quite explicit on this point: 'The labourer's consumption on the average is only equal to his cost of production' (Marx, 1969, vol. I, p. 282). Wage workers in a capitalist economy (in the S-theory sense) receive an income from which they are unable to make any savings. Therefore they are unable to accumulate wealth and cannot become capitalists.

So, apart from the issue raised in note 1 of this chapter, the S-theory presents no problems for Marx, either as regards realism or logical consistency. But this was only the result of a historical incident: Smith and Marx elaborated the S-theory of capitalism in the context of a very particular socio-institutional set-up in which the correct hypothesis is inevitably made. However this hypothesis is no longer acceptable when that very special set-up no longer holds.

What we need today is a non-incidental theory of capitalism; a theory that embraces each particular historical form of capitalism, from that of the *fermiers* down to that of the state managers; a theory whose validity does not have to depend on any restrictive assumption about the distribution of income and property or the workers' propensity to consume.

## 'CAPITAL AS A PROCESS' AND THE 'ACTIVE CAPITALIST'

It is possible to find, in Marx, a theory of capitalism that disregards property regimes; and as far as I know this is an original theory, hence 'M-theory'. But it could also be called the 'modern theory' or, better, the 'general theory' of capitalism, as opposed to the traditional and special theory.

The M-theory is elaborated mainly in the *Addenda* of volume III of the *Theories of Surplus Value*, entitled 'Revenue and its Sources'; and in chapters 23 and 27 of the volume III of *Capital*, entitled respectively 'Interest and Profit of Enterprise' and 'The Role of Credit in Capitalist- Production'.[2]

Marx made a clear distinction between 'capital as property' and 'capital as a process' (Marx, 1969, vol. III, p. 490). The first is a juridical relationship, the second a production relationship (ibid., Marx, 1977, vol. pp. 461, 473–5, 490, 508; III, pp. 374–6, 380). Neither the money capitalist nor the owner as such operates in the productive process. It is 'working capital' that enters the productive process and the 'industrial capitalist' that operates in it. Sometimes 'working capital' is also called 'operating capital' and 'capital in process'; while the 'industrial capitalist' is often defined as the 'active capitalist', the 'functioning capitalist' and the 'user of capital'. This personage in fact coincides with the entrepreneur, the agent who manages the productive process and takes real investment decisions (Marx, 1977, vol. III, pp. 356–7).

Although the entrepreneur's role can be played by the person who also owns capital, in which case a splitting of that person's functions takes place (Marx, 1969, vol. III, p. 474), Marx maintained that generally the entrepreneur is not necessarily the capital owner.



Juridically speaking, the entrepreneur could be the capitalist's agent. Nevertheless he or she can not be a wage worker, because the latter produces a surplus value whereas the entrepreneur directs the process of extracting surplus value. The entrepreneur is therefore a true capitalist, even when he or she is remunerated with a salary (Marx, 1977, vol. III, pp. 380, 382, 388).

The nature of capitalists is identified, not in juridical terms, but rather in strictly economic ones. Entrepreneurs are capitalists not because they are agents of capital owners, but because they direct the process of production (ibid., p. 380). They are 'functioning capitalists' because they perform 'the function of a capitalist', which consists in 'creating surplus-value, i.e. unpaid labour, and creating it in the most economical conditions' (ibid.) They are capitalists in that they are 'the personification of the means of production vis-à-vis the labourer' (ibid.), because they exercise the 'function of making the labourers work for [them], or employing means of production as capital' (ibid.) This role can be played by a manager:

> The mere manager who has no title whatever to the capital, whether through borrowing it or otherwise, performs all the real functions pertaining to the functioning capitalist as such (ibid., p. 388).

They are capitalists because they are 'functionaries of capital'. Some ambiguity arises, though, over the meaning of this expression. On the one hand, Marx used the notion of 'functionary of capital' in its accepted sense of 'agent to whom a function has been attributed by the principal'. On the other hand, he also referred to a deeper meaning. Entrepreneurs, in that they are functioning capitalists, are functionaries of total capital. Capital was often hypostatized by Marx, who frequently referred to it not so much as a concrete object, but rather as an abstract subject. Marx's idea is that there are objective laws of competition that constrain individual capitalists to act by pursuing an overindividual end: that of accumulation, the end of total capital. Individual ends are in actual fact the means of pursuing this general end, and although the individual capitalists have full autonomy in these entrepreneurial decisions, being economic agents vested with decisional powers in the productive process, the laws of competition drive them to work for accumulation anyway. It is in fact in competition that capital works 'as *essentially the common capital of a class*' (ibid., p. 368).

Whatever their individual ends – power, wealth, profit and so on – capitalists are able to remain such only if they succeed in making the firm grow. And since through competition the processes of 'concentration' and 'centralization' unfold, in which the big fish devours the smaller fish, and in which only the firm that grows manages to survive, then the law of survival is 'accumulate, accumulate!' The true 'objective function' of the capitalist is pointed out by Marx very clearly: 'the capitalist... must accumulate capital' (Marx, 1977, vol. II, p. 123). So capitalists are functionaries of capital in that they perform a function which, through competition, has been objectively assigned to them by total capital.

Capital, as an abstract and superpersonal entity, is the subject; the individual, concrete capitalist is its instrument or 'personification' (Marx, 1977, vol. III, p. 373), in a word, its 'functionary'. And this is so – let it be stressed – not because capitalists are the owners of the means of production, but because they are active, operating, functioning capitalists. Only they who manage the productive process and therefore take the real investment decisions, can be instruments for the accumulation of capital.

Marx went so far in distinguishing between entrepreneur and owner as to succeed in conceiving a historical process of 'abolition of capital as private property within the framework of capitalist production itself' (ibid., p. 436). This does not however mean suppression of private ownership. It only means the exclusion of ownership from entrepreneurial decisions, 'private production without the control of private property' (ibid., p. 438).

An important role in this transformation is played by the process of concentration, by virtue of which the means of production

> turn into social production capacities, even if initially they are the private property of capitalists. [In this way] the capitalist mode of production abolishes private property and private labour, even though in contradictory forms (ibid., p. 266).

Evidently, not only a quantitative change is involved here, but also an institutional transformation. There is an explicit reference to joint stock companies, in which the capital 'function is divorced from capital ownership' (ibid., p. 437). This divorce of the working capitalist from the ownership of capital is the result of a historical process that has been made inevitable by the very

> capitalist mode of production [which] has brought matters to a point were the work of supervision, entirely divorced from the ownership of capital, is always readily obtainable. It has, therefore, come to be useless for the capitalist to perform it himself. An orchestra conductor need not own the instruments of his orchestra (ibid., p. 386)



And here Marx seems to have jumped a century ahead, beyond the capitalism of his times, as though, by gazing into a crystal ball, he were able to take a look at the present-day public companies, or even at direct state intervention in the production sphere. He in fact also seems to have realized that the same capitalist development that leads to the diffusion of joint stock companies, 'establishes a monopoly in certain spheres and thereby requires state interference' (ibid., p. 438).

## WAGE LABOUR AND THE CONTRACT OF EMPLOYMENT

Having clarified the nature of the capitalist, there remains the question of what the M-theory has to say about the nature of wage labour. Marx, right from his early reflections on the notion of 'labour commanded',[3] always had clearly in mind the fact that capitalist exploitation and the class relationship in which it takes place are not understandable if abstracted from their 'political' dimension, that is, from the fact that, in the factory, 'capital formulates, like a private legislator, and at his own good will, his autocracy over his workpeople' (Marx, 1977, vol. I, p. 400).

The basic issue is that the extraction of surplus value presupposes capitalist control of the labour process, of that process of physical manipulation in which workers transform the use values of commodities. One of the necessary conditions of exploitation is that the workers produce commodities of a quality and in a quantity decided by the capitalist. Marx was very explicit with regard to the political nature of capitalist control of the labour process:

> By the co-operation of numerous wage-labourers, the sway of capital develops into a requisite for carrying on the labour- process, into a real requisite of production. That a capitalist should command on the field of production, is now as indispensable as that a general should command on the field of battle.... Hence the connection existing between their various labours appears to [the labourers], ideally, in the shape of a preconceived plan of the capitalist, and practically in the shape of the authority of the same capitalist, in the shape of the powerful will of another, who subjects their activity to

> his aims. If then, the control of the capitalist is in substance twofold by reason of the twofold nature of the process of production itself..., in form that control is despotic (ibid., pp. 313–14).

For a better understanding of the theoretical implications of this fundamental issue, it may be useful to resort to a contrafactual reasoning. If performance of the work activity were to be assured by the market, the exchange between labour and capital would have to be regulated exclusively by 'contracts for services'. In these contracts the parties define specific working activities to be undertaken by the worker and specific remuneration for each activity. But a labour relation regulated by a contract for services would create two kinds of problem.

First of all, there is a technological problem: it would be impossible continually to adapt working activity to changes in production conditions brought about by changes in demand and techniques, unless contractual conditions were continually reviewed, which would make the exchange process extremely costly and inefficient. This problem, though, which has been brought to light by contemporary neo-institutionalist thought, is not so fundamental in a Marxist perspective.

Secondly, in a contract for services the price of the service must correspond to the value of its product, at least in a competitive equilibrium. In fact, in the contract for services a specific labour service is exchanged. The exchange value paid to the worker is none other than the value of the service he or she produces. Consequently the possibility of producing a surplus value with which to remunerate the capitalist is out of question.

Quite a different situation arises with the 'contract of employment'.[4] With this type of contract it is the use value of labour power that is exchanged, not its product. After the exchange has been concluded, that use value belongs to the buyer, who has paid its exchange value. This means it is the buyer's prerogative to use labour in the productive process to suit his or her own will and ends. If labour is used to increase the value of capital, the capitalist, as its buyer, is in a position to take autonomously any decision dealing with the execution of the labour process.

The control and management of labour in the labour process is of fundamental importance, because only if goods are produced to the quality and in the quantity decided by the entrepreneur will it be possible to place workers in a position to produce value that is higher than the value of labour power. Hence the necessity for capitalist power.



This power is instituted by the contract of employment and the exchange of labour, on which, not without reason, Marx asserted that 'it is the essential condition for the real transformation of value advanced in the form of money into capital, into a value producing a surplus-value' (Marx, 1977, vol. II, p. 29). In fact the workers' obligation, as laid down in their contracts of employment, is to carrying out their working activities under the command of the buyer.

The contract of employment is the typical institution of the capitalist mode of production. It is this that creates the capitalist and the wage labourer; who are now respectively defined as the party who acquires the use of labour power and the party who receives its exchange value. It is through the contract of employment that the class of the capitalists and the class of workers are created, the class of those who legally exercise command in the labour process and of those who legally endure it:

> Only because labour pre-exists in the form of *wage labour*, and the means of production in the form of capital – i.e., solely because of this specific social form of these essential production factors – does a part of the value (product) appear as surplus-value and this surplus-value as profit (Marx, 1977, vol. III, p. 881).

Here the emphasis added to the expression 'wage labour' is designed to stress the fact that labour is given as a social presupposition of the process of exploitation only insofar as workers have signed a contract of employment. In fact, only by means of a contract of this type can labour take the form of wage labour.

No role is played by the ownership and wealth of the parties in this theory of the class relationship. Workers are wage labourers, and as such are productive requisites for exploitation by capitalists, only insofar as they have 'signed' a contract of employment. And they remain wage labourers even if they own personal wealth.[5]

For this reason, the basic institution of the capitalist mode of production is not the private ownership of the means of production but the contract of employment.

## CONCLUSIONS: TOWARDS A GENERAL THEORY OF CAPITALISM

Today it is no longer possible to study capitalism with the conceptual instruments elaborated by Smith in the eighteenth century. In contemporary capitalism there are many cases where workers are exploited in the absence of private ownership of the means of production and exclusion from the ownership of wealth. The experience of state capitalism does not stand alone. There have been numerous attempts, both theoretical and political, to realize a 'property owners' democracy' in which the workers, by various means and to various extents, directly or indirectly, are 'privately' empowered with the property of capital. And yet these experiments have nothing to do with socialism.

So it is time to free ourselves of the S-theory and to begin to build, on the basis of the M-theory, a complete and coherent theory of capitalism that is suitable for the study of the contemporary world.

Here is an outline of this theory. The basic institution of capitalism is not the private ownership of the means of production, but the contract of employment, an institution that creates wage labour and, as a consequence, the working class. At the same time it vests entrepreneurs with the power of command over the workers in the labour process, thus giving rise to a first condition for the existence of the capitalist class. The employment contract does not require workers to be propertyless, nor entrepreneurs to be the owners of the firm.

This institution, however, although necessary, is still not sufficient to define 'capitalist' the relationship it establishes. A sufficient condition is the one that defines the objective end towards which the productive process is oriented. In a capitalist system this end is the accumulation of capital.

Many institutions and specific organizational structures are able to guarantee the realization of this condition: private ownership, state ownership, finance markets, competition, oligopoly, central planning, macroeconomic management and so on. And individual entrepreneurs may be prompted by different aims: profit, power, prestige and so on. What matters is the existence of a 'disciplinary mechanism', by virtue of which individual actions are forced to contribute, even if unwittingly, to the accumulation of total capital. When this condition occurs, it can be said that the entrepreneur is a capitalist, a 'functioning capitalist'. It is he or she who takes decisions on production and accumulation.

It is important here to recall the Marxian analysis of the competitive process in the commodity markets. This analysis investigates the functioning of the market in terms of an institutional setting regulated by a general law of the evolutionary type. Competition is none other than the struggle for survival or subjugation, and as such it governs



the interrelationship of individual capitals. Competition prompts processes of centralization and concentration that result in successful capitalists flourishing and losers falling by the way side. Competition sorts out those capitalists who better serve the process of accumulation. It goes without saying that this analysis can be enhanced with a study of the workings of financal markets, which today, as a disciplinary set-up, tend to complement and often act as an effective substitute for commodity markets.

To sum up, in the general theory of capitalism envisaged here the capitalist class can be defined as a class of economic agents who, by virtue of their command over the labour process, are able to take decisions about production and accumulation and, through some disciplinary mechanism, contribute to the accumulation of total capital.

The above propositions outline the basic structure of a general theory of capitalism. It is then possible to single out the specific characteristics of the economic agents who act as capitalists and the specific institutions that regulate them. We shall thus have different forms of capitalism depending on the special mix of institutions and behaviour. But they will nonetheless all be specific manifestations of a general form.

It is now easy to see that the S-theory and the M-theory do not conflict with each other. The M-theory leads to a general definition of capitalism in which only three conditions have to be observed: (1) the employment relation is regulated by the contract of employment, (2) the productive process is subordinated to the accumulation of capital, and (3) disciplinary mechanisms exist that force individual capitalists to act as functionaries of total capital, regardless of their individual aims. The S-theory, on the other hand, applies to a particular form of capitalism in which, besides conditions 1–3, a further three exist: (4) the means of production are privately owned by economic agents other than the workers, (5) capital is controlled by the owners, and (6) workers have a zero propensity to save.

Both in the study of the general conditions that guarantee the capitalist nature of entrepreneurial activity and, to a greater extent, in that of the institutional and behavioural conditions that characterize the specific forms of capitalism that have occurred to date, the Marx's theory is obviously incomplete. This is an area where much research has to be done, and it is privileged ground for institutional analysis. What has been endeavoured here is to bring to light suggestions that can be drawn from Marx for the guiding principles of this research.

## Notes

1. Marx, however, cited several cases in which this view runs into difficulties. An interesting one is that of the workers' advance of labour power, on which he observed: 'In every country in which the capitalist mode of production reigns, it is the custom not to pay for labour-power before it has been exercised for the period fixed by the contract, as for example, the end of each week. In all cases, therefore, the use-value of the labour-power is advanced to the capitalist: the labourer allows the buyer to consume it before he receives payment for the price; he everywhere gives credit to the capitalist' (Marx, 1977, vol. I, p. 170). But if the worker advances labour power, why should he not be paid interest on it? And why should this commodity not be considered as a form of wealth, of human capital, owned by the worker? In this case, however, the distinction between capitalists and workers as classes of owners and non-owners of capital would be severely weakened. Thus it is understandable that Marx immediately followed up the above observation by an apparently simplifying assumption: 'It will, therefore, be useful, for a clear comprehension of the relation of the parties, to assume provisionally, that the possessor of labour-power, on the occasion of each sale, immediately receives the price stipulated to be paid for it' (ibid., p. 171). On the other hand he harshly criticized the theories of human capital put forward during his time. See for example Marx, 1977, vol. III, pp. 465–6.
2. In these chapters and this *Addenda* Marx posed the problem of the nature of some forms of capital income. In particular he endeavoured to explain the origin of the entrepreneur's income and the money interest from the productive process. On the one hand, although the entrepreneur's profit may take the form of a 'wage of management or supervision', it cannot be equated to the workers' wages, since it derives from surplus value (Marx, 1977, vol. III, pp. 380, 382–7). On the other hand interest, which remunerates 'money capital', is not *produced* by 'interest-bearing capital', but rather by labour, and as such is a form of surplus value. Furthermore Marx did not find any substantial difference between the income earned on money capital and that earned on 'capital as property', that is, from shares and 'fictitious' capital in general (ibid., p. 388 Marx, 1969, vol. III, p. 508). The capitalist who receives this kind of income is defined as a 'pure owner of capital' or 'owner of capital as such'. His assimilation as a 'money capitalist' derives from the identity of the conditions underlying the remuneration of money capital and that of capital as property (Marx, 1977, vol. III, pp. 374–5), which are conditions arising within the process of circulation. Interest is the price of money and only as such does it constitute remuneration of the pure ownership of capital.
3. Already in the *Manuscripts*, Marx had set forth the principle by which 'the plans ... of the employers of capital regulate and direct all the most important operations of labour' (Marx, 1975, p. 250).
4. Marx used the economic notion of 'exchange of labour' rather than the juridical one of 'contract of employment'. The two concepts, however, refer to the same object.



5. They remain producers of surplus value even if they formally own part of the firm in which they work. So much so that it is even possible to conceive cases where workers are turned 'into their own capitalists' (Marx, 1977, vol. III, p. 440). Marx devised this daring concept after meditating on the phenomenon of workers' cooperatives. Although the idea is only sketched, it could form the basis of a valuation of certain historical experiments on 'real socialism' as particular forms of capitalism. For example it could be argued that the abolition of private ownership of the means of production, as may occur in a public property system, is not sufficient for this to be called socialism. Control over the labour process must be exercised by the workers, or at least the economic agents who exercise that control must in turn be effectively controlled by the workers. All of which implies, among other things, that real democracy is a necessary condition of socialism.

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# Part II
# Money

# 8 The Relation between the Rate of Profit and the Rate of Interest: A Reassessment after the Publication of Marx's Manuscript of the Third Volume of *Das Kapital*

Bertram Schefold

## I. THE MANUSCRIPT AND ENGELS' PUBLICATION OF VOLUME III

Almost one hundred years after the appearance of volume III of *Das Kapital*, edited by Engels, Marx's own manuscript has been published at last (Marx, 1992). Engels' labours to edit it as a coherent book have often been admired, especially in view of the fact that he finalised a task that Marx had failed to accomplish. But in view of the manuscript one experiences something of the sensation one feels when the original of a Greek sculpture is discovered, albeit damaged, of which a more polished Roman copy had been known. The translation might be compared to a photograph which lacks the original colours.

A description of the manuscript is provided in the companion volume, *Apparat* (Marx, 1992, pp. 913–29). Marx himself had taken over a considerable amount of material from earlier manuscripts, in particular from the one that included 'Theories of Surplus Value'. The complicated history of the genesis of the different chapters has largely been reconstructed, and in some instances the erroneous ordering of pages by Engels has been rectified. It would require a special study to document all these alterations.

Here I shall concentrate on the fifth chapter, and it should be noted that Marx largely used his notes of the *Londoner Hefte* (1850–3), as is shown in *Apparat* (ibid., p. 922); this concerns the role of credit in particular. The chapter also contains a collection of materials with critical comments, entitled '*die Confusion*'. These are mainly based on parliamentary reports of 1848 and the reports from the select committee on bank acts (1857 and 1858). Marx inserted these collections of material in different places in his manuscript so that Engels treated most of them as part of the text although Marx may have intended only to destill short illustrations out of them.

Originally the analysis of interest-bearing capital was only to contain a few decisive aspects which are part of an organic representation of the theory of surplus value (*Apparat*, p. 922), later, Marx wished to include an analysis of the institutions of credit. This led to the inclusion of empirical material in parts which had already been written. Moreover, the subject was extended by treating special problems of credit, fictitious capital, the connection between the accumulation of money capital and real capital and the function of money capital in the cycle. In the case of these extensions, the substantial text seems to have been written after the collection of the material. In the end, the collection of the material was simply inserted into the brochure in which the text was contained (*Apparat*, p. 923) so that the question arises whether the material now is redundant.

Engels therefore had to edit manuscript pieces of heterogeneous origin that in some instances were not even unambiguously ordered. Although the other sections of what was to become volume III were in part more coherent, they too had their problems. Since Engels was the most competent person to edit the work of his friend, it may be a matter of taste whether one prefers the version that has been available for one hundred years or that which has now become available. I feel very much attracted to the latter for the following reasons.

The first is a matter of language – or rather languages. Engels not only tried to fill in gaps in the argument, but also to eliminate colloquialisms. He finished sentences, he connected paragraphs, he often added material of his own, without always indicating that the addition was his, and he translated Marx where he had expressed himself partly in other languages, in particular English and French, and sometimes Greek, Italian and Latin. Hence the sparkling formulations that Marx improvised were often turned into comparatively dull prose.

The edition of the *Marx-Engels-Werke* (MEW) prepared in Moscow and Berlin added to this effect by rendering Marx's quotations in translation. Engels himself had left the quotations in the fourth edition of volume I in the original. Their colourful effects on the reader



are especially striking in the case of the first edition of volume I, for example, pp. 94–5 (Marx, 1863–67). Marx was justly proud of the artistic qualities of his *chef d'oeuvre*. Some of the quotations from the oldest texts must have been extremely difficult to find. The texts of the pre-Socratic philosophers, for example, were not available in convenient anthologies as they are today, but had to be traced as quotations in the works of secondary ancient philosophers.

The translation presents a further disadvantage in that subtle changes of the Marxian terminology are more difficult to observe, such as the change from *Arbeitsvermögen* to the later term *Arbeitskraft* (labour power). Who notices that sometimes even precise philosophical terms are not recognised as such? The usual English translation of *Erscheinungsform* is 'phenomenal form', but the translation occasionally takes recourse to circumlocutions such as the 'form in which profit presents itself' (Marx, 1977, p. 48) where the original has *Erscheinungsform* [Marx 1992, p. 64; Marx 1973, p. 58].

The new edition of the manuscript has the further advantage of being accompanied by greatly expanded notes on variations in the text and comments. In addition the index is more detailed, not only with regard to the terms of economic theory but also to those pertaining to economic history, and in particular it contains the philosophical terms relating to the Marxian analysis of the forms of value. The quality of the *Marx–Engels Werke* and the *Marx–Engels Gesamtausgabe* (*MEGA*) perhaps has more to do with German traditions in philology than with the teaching of economics in the former German Democratic Republic. The *MEGA* is unique in that it was and is not intended for translation; one of its primary aims remains precisely to render the texts of Marx and Engels accessible in their different original languages.

A comparison of the published manuscript with Engels' edition quickly reveals a number of obvious differences, such as changes in the arrangement of chapters (e.g. absolute ground rent precedes differential rent, but Marx notes that differential rent should come first so that, in this case, Engels followed an unambiguous prescription of Marx as to the ordering of the text). Very conspicuous are the large number of mathematical formulas and algebraic expressions used in the manuscript version, especially in the chapter on the relation between the rate of surplus value and the rate of profit. The manuscript of 1875 on this relation, mentioned by Engels in his preface to the volume, has not been reproduced since it belongs to a different period. (This chapter is also mentioned in Alcouffe, 1985.) Engels stated that he had used this manuscript and chosen those equations, which he regarded as most helpful, after consultation with the mathematician Moore. As Alcouffe – who has seen the manuscript – pointed out to me, it contains calculations in which there are different rates of surplus value in different industries, running side by side, and not only resulting from a temporal succession. It remains to be seen what a full publication will add to the discussion. Since these equations do not explicitly establish a link between variable capital and the value of labour power in terms of a fixed bundle of subsistence goods, they might lend some support to attempts to transform values into prices by equating variable capital with the money wage, after choosing a numéraire that makes aggregate income equal in value and in price terms, and consequently makes total profit equal to total surplus value. I have briefly discussed such a transformation elsewhere (Schefold, 1973) and ascribed its origin to Joan Robinson, but I later gave it up.

The significance of Marx's research on the foundations of mathematics, more precisely on the foundations of the calculus of infinitesimals, both in themselves and in relation to his economics, have not been fully clarified. The book by Alcouffe (1985) provides very interesting reflections on this matter, together with a French translation of Marx's mathematical manuscripts (they were published in German in Marx, 1974). The works of most of the early mathematical economists seem to have escaped Marx's notice. He did read von Thünen and treated him with some respect, on account of the affinity of Thünen's theory with that of Ricardo, but he failed to take notice of Gossen, Jevons, Mangoldt and others.

His attitude towards mathematics was ambivalent. We know that he was not particularly successful in his final mathematics examinations as part of the *Abitur* which he had to pass in the gymnasium in Trier in 1835. Of four questions, one he failed to answer and one he answered incorrectly. In contrast the third was answered in an original way. There are indications that he copied the answer to the fourth question from Edgar von Westphalen, the youngest brother of his future wife, Jenny von Westphalen (not to be confused with her oldest brother – or rather half-brother – Ferdinand von Westphalen, the later Prussian minister of the interior) (Mehring, 1920). It so happens that the fourth question which Marx apparently answered by means of illegal assistance concerned a simple system of linear equations (Raussen, 1990).



Not too much weight should be attached to the story of the examination, but it adds to the impression one gains from his later work: he was interested in the philosophical aspects of mathematics but not very adept at applying it. In the same way as he knew a great deal about money and banking and yet always remained in monetary difficulties, he had a substantial knowledge about the conceptual foundations of calculus but it did not occur to him to apply it to his economics. It would seem that even the education he had received at school, without higher mathematical studies, should have helped him to treat problems such as the relationship between the rate of surplus value and the rate of profit in a more elegant manner than in the manuscript but he did not achieve that, let alone a satisfactory treatment of the more complicated problem of the transformation of values into prices using the elementary methods of linear equations which he had been taught. It is all the more puzzling as contemporary mathematical science was highly advanced: in 1844 Hermann Graszmann published his *Ausdehnungslehre* (Klein, 1968, p. 175), which contained an analysis of *n*-dimensional linear spaces by means of linear algebra. All these judgements must remain provisional, however, since more material is coming to light.

I now want to turn more specifically to the transformation of profit into interest and profit of enterprise. The analysis of this appears to be more stringent in the manuscript than in Engels' version because the material that Marx had added only for purposes of illustration is separated from his main manuscript text. The two parts that make up the chapter '*die Confusion*' do not belong to the main text. Engels tried to transform that material into a systematic exposition of the institutions of a monetary economy, leading up to the international exchanges, the exchange rate and the balance of trade. In the manuscript it is easier to distinguish between the unfolding of Marx's theoretical categories and his critical and sometimes sarcastic representation of how economic relations are perceived by economists and representatives of economic interests. Engels stated in his introduction that he had been anxious to include all the material presented in Marx's manuscript. Since he did so by adding new subsections where Marx had added footnotes or later inserted new material, Engels often interrupted the flow of Marx's exposition. Whatever preference one may have, therefore, the manuscript provides a different reading.[1]

## THE FORMS OF VALUE

The distinguishing feature of Marx's exposition in the chapters which developed the division of profit into various forms of revenue, such as the profit of the merchant, interest, the profit of enterprise and rent, is his use of the metaphor of substances that change their form, i.e. his theory of the forms of value. The origin of this metaphor is obvious: he had encountered such a dialectic in Hegel, in the first part of the *Encyclopaedia* (Logic, second section, *Die Lehre vom Wesen* Hegel, 1959), where there is a summary philosophical treatment of matter and form, appearance, and content and form. Much earlier Aristotle had analysed these concepts in book VIII of his *Metaphysics*, which is dedicated to matter and form, and Aristotle had in turn referred to his predecessors. Although it is interesting to compare the conceptual framework used by Marx with that of Hegel, Aristotle or other philosophers, there is a specificity in the use Marx made of his terms in accordance with his idea that the dialectical method is not an abstract tool established prior to the science to be developed, but something that evolves with the theory itself.

Let us trace the evolution of Marx's theory of the forms of value. On the one hand Marx was opposed to the politics and method of the historical school, which he accused of a justification of the successive orders of society, independently of their rationality. Its apologetic attitude was mitigated by its scholarly erudition. Classical theory, in contrast, knew the direction in which society moved because it knew which laws were enforced by competition. 'Thus it can justly be said that the economists – Ricardo and others – know more about society as it will be, than about society as it is. They know more about the future than about the present' (*speech by Marx on 'Protection, Free Trade, and The Working Classes'*, 1847, cited in Morf, 1970, p. 159).

The critical impetus which Marx now gave to his theory was in an essential way based on the use of the concepts of substance and form. The historical relativism of his theory had much in common with the historical school and its analytical basis with Ricardo, and he was able to turn a merger of both against vulgar economy by representing the logical forms in which the economic categories appeared to bourgeois observers as phenomenal forms of an underlying substance. Wage, interest and rent appear as revenues derived from the supply of labour, capital and land, justified by work and abstinence, but they are revealed to derive all from labour and its exploitation through a chain of transformations in which the substance of a deeper layer takes forms closer to the surface: the value of labour power takes the form of the wage, surplus value takes the form profit, and so on. These forms are historically specific in that exploitation took different forms under slavery and feudalism.



The hardest part, in Marx's view, was to lay the foundation of his theoretical structure. When he wrote *Grundrisse*, the 'sketch' of the 'foundation', interest was only touched upon because its analysis presupposes that of competition (Rosdolsky, 1972, p. 450). The first form to be considered was the form of value itself. Rubin (1973, p. 71) provided a relatively early explanation of the theory of forms. He argued that this theory was directed against Bailey who had interpreted value as a merely relative concept. Conversely, Rubin argued that value was defined not as labour but labour was defined as the substance of value. The form of value was to be developed so as to show that it necessarily was not only relative. The value form was the social form of the commodity in its ability to be exchanged. The general equivalent form is then made into money. Money can be a means of deferred payment, hence the relationship of credit.

Interest arises because it is the use value of capital that it allows to exploit labour, to extract surplus value which appears in the form of profit, and this is then divided between the entrepreneur and the lender, i.e. the monied capitalist. How this spoil is divided depends on who prevails, and since money is needed not only as capital but also in order to anticipate future revenues (e.g. the state, which anticipates future tax payments in order to spend them in advance), the rate of interest is not determined by the opposition of industrial capital and the monied capitalists alone. Nevertheless the quantitative difference between interest and enterprise profits develops into a qualitative opposition between industrial capital and monied capital. An analysis of the implications of this opposition for the future of capitalism is the culminating point of the text: there is subsequently a break in the manuscript.

In fact the detailed analysis of banking capital was not part of Marx's main theme. Volume III of *Das Kapital* does contain a substantial amount of material on the monetary system of Britain and its politics, and about the contending schools of monetary theory, but this is mainly due to Marx's lifelong and intense interest in the connection between politics and monetary affairs (see in particular Bologna, 1974). Moreover Marx wished to demonstrate how an ideology such as that of the banker Overstone, who was, in Marx's eyes, like the old usurers in trying to push up the rate of interest, arose with necessity.

Last but not least, he wanted to analyse the role of money and credit in the cycle. Associated with this is the subject of accumulation, which in Marx takes the form of questioning whether monetary accumulation is indicative of accumulation in production – if one likes, the relationship between saving and investment, which has also given rise to criticisms of classical and vulgar economic theory (Boffito, 1973). But setting aside a somewhat hypothetical implicit analytical argument, to be considered in the last section of this chapter, the analysis of credit could have been omitted without endangering the unity of volume III.

As already indicated, Engels' presentation of this added material created an impression of a broad coverage of financial institutions, and this may have helped Hilferding when he expanded these ideas into the concept of finance capital, which formally is capital invested by banks in industry, but which substantially concerns the question of the relative power of industry and finance (Hilferding, 1968, p. 309).

The question is whether this multilayered critique can be sustained. One does not have to refer to the problem of transformation in order to ask whether the representation of interest as a mystified form is still pertinent, whether Marx's critique of the monetary system is justified and whether his critique of the bourgeois economists really meets their arguments. In particular one may ask, at a theoretical level, whether the Marxian framework situates the determination of interest in the correct context (division of profits, not liquidity preference) and whether it leads to an oversimplification of other relevant aspects of the problem: 'Marx va si loin dans cette réduction de l'intérêt à un simple détournement d'une partie du profit qu'il ne prend même pas en considération le risque, les calculs et les anticipations des prêteurs et des emprunteurs, toutes choses qui pourraient donner à l'intérêt une signification particulière,' (Brunhoff, 1973, p. 131).

In order to try to answer these questions, we now turn to the fifth chapter of the manuscript, which corresponds to part V, volume III, *Das Kapital.*

## FROM INTEREST-BEARING CAPITAL TO BANKING CAPITAL

Part V of volume III, on the division of profit into interest and profit of enterprise, is preceded by one of the least-read sections, that on merchant capital. The Marxian framework is badly suited to explaining the functions of trade and of services in general. Marx spoke of the



'Aeusserlichkeit und Begriffslosigkeit des Umschlags des Kaufmanns-capitals' (Marx, 1992, p. 378) i.e. of the 'superficiality and lack of conceptualisation of the turnover of merchant capital' because very little could be said about how its movement is structured. It intervenes with the movement 'money–commodity–money' to mediate between the acts of production 'commodity–money–commodity' in industrial capital, and drains away part of profits. For lack of a period of production, there seems to be no limit to its turnover. Hence, according to Marx, it turns out to be a matter of experience, how often it can be turned over and, in consequence, there can be no law regulating commercial profit. Its independence shows in the cycle where retail trade is not, or only in the late phase of the cycle, affected by a disturbance of production.

The theory of interest-bearing capital is much more sophisticated, but we also find a conceptualisation such that the quantity determination remains in the air, and a justification for the consequent indeterminacy is sought in the relative independence of the system of credit from that of production, an independence which shows in the cycle. As is well known, Marx started from the observation that, in the act of selling a commodity, it is not its value which is being sold – this only changes its form insofar as the value, which had previously been embodied in the commodity, is held as money after the exchange. What is being sold is its use value. Lending money capital means selling its use value, and that consists in the ability of capital to generate a profit according to the prevailing rate.

To regard interest as payment for the use of capital was not novel in Marx's time – on the contrary, Marx adhered to the old theory of interest which essentially continued to be held up to Böhm-Bawerk. The biblical division of the offspring of a herd of cattle, with part of it accruing to the lender because of *lucrum cessans*, and part of it accruing to the borrower as recompense for tending the herd, represents the same idea. So does the theory of interest in Locke and even in Walras, where interest is paid for the 'service' rendered by capital. A different perspective emerged forcefully (I say 'forcefully' in order to be able to abstract from certain predecessors) only with Böhm-Bawerk (Schefold, 1994), who reinterpreted the act of lending as an intertemporal exchange because he disputed that the same capital could ever be returned. The price of capital goods or the purchasing power of a monetary sum lent may have changed and in general will have changed when capital is 'returned'. If the quality of the capital goods changes, it is impossible to calculate what we now call the own rate of interest, but a (nominal) monetary rate may be agreed upon by the contracting parties.

Marx, who was certain about his theory of value, did not worry in the least about the equivalence of capital advanced and capital returned. It is precisely because he regarded them as identical that he could interpret interest as the price of capital. He then called this price an 'irrational form', sometimes even a '*verrückte* Form' ('*verrückt*' was deliberately chosen for its double meaning of 'crazy' and 'displaced').

The irrationality is twofold. On the one hand capital in its monetary form can not have a price, because money itself is the measure of value. Marx did not make too much of this argument, which could be circumvented by distinguishing between capital and the service rendered by it, as Walras did (there is no such problem of dimensionality in Böhm-Bawerk's intertemporal theory.) On the other hand, interest is mystifying because it conceals its origin in profit, which in turn derives from surplus value. This criticism hinges on the theory of surplus value, as opposed to the theory of supply and demand for capital.

Insofar as this interpretation of interest hinges on the form of value and presents not only a critique of doctrines but also of reality, it may be compared to the Aristotelian denunciation of usurers. Aristotle, as is well known, defined money as a means of exchange and a measure of value (Eth.Nic. V, v. 14). Accordingly it is contrary to the 'good life' to pursue the accumulation of money for its own sake (chrematistics), thus using it for a purpose for which it was not invented. The primary form of this unnatural activity is usury, which Aristotle considered as 'most reasonably hated', εὐλογώτατα μισεῖται ἡ ὀβολοστατική (Pol. 1258 b 3). On the part of Aristotle, this was a philosophical reformulation of an old, commonly held view (Schefold, 1992). It was not meant as a utopian programme to eliminate credit and interest (as in Plato's *State*) but as a piece of advice: good citizens should not engage in that sort of business. Aristotle criticised those who do not use money in its proper *function*. For Marx, the entire system of private property is at stake, since the irrationality of interest ultimately derives from commodity production through the logic of the emergence of *forms*.

The manuscript suggests a reversal of the order of the material that in Engels' hands became chapter 22 on 'The division of profit, rate of interest, natural rate of interest', and chapter 23 on 'Interest and profit of enterprise', for Marx says:



> Nota bene. Aus dem Gang dieses 2) ergiebt sich, da es doch besser ist, bevor die Gesetze der Vertheilung des Profits untersucht werden, zunächst zu entwickeln, wie die *quantitative* Theilung eine *qualitative* wird. Es ist, um den Uebergang...dazu zu machen, nichts nöthig – da nach dem früher Entwickelten die Durchschnittsprofitrate und der Durchschnittsprofit gegeben ist, als zunächst den Zins irgend einem nicht näher bestimmten Theil dieses Profits gleichzusetzen, gleich zu unterstellen. (Marx, 1992, p. 433).

Paraphrasing this text in English, we may say that when writing the chapter on the division of profits, where he argued that there is no natural rate of interest, Marx became aware that he might reinforce his point by first assuming an arbitrary division of profit between interest and the profits of enterprise in order to develop the qualitative opposition between the money interest and the industrial interest. He clearly wanted to demonstrate that there is nothing in this antagonism that will allow direct determination of the level of interest or its rate, so that it could be shown subsequently that there is no 'natural' rate of interest. He therefore envisaged unfolding his problematic under three headings: (1) arbitrary quantitative division, (2) the qualitative nature of the division and (3) the laws (although there are not really any) of the quantitative division. Volume III starts by combining numbers 1 and 3; 2 comes afterwards. In fact, when reading the passages on the 'natural' rate of interest, one feels that the chapter is based on considerations that are yet to follow.

As with the indeterminacy of the turnover of mercantile capital, the indeterminacy of the division is treated as a critical aspect of reality. Money capital is now called 'capital κατ' ἐξοχήν', as Engels translated it, 'capital *par excellence*'. The antagonism is between the entrepreneur and the money lender, and this hides the antagonism between capitalists and workers. The entrepreneur interprets his share as a wage for the 'superintendence' of labour, but this, Marx believed, is 'no great thing'. Once again he takes recourse to Aristotle, who calmly says that the estate owners, as soon as they can afford it, leave the task of supervision of their slaves to an ἐπίτροπος, an overseer, and the masters themselves retire 'to engage in political activity for themselves' (πολιτεύονται) or in order to philosophise (Marx, 1992, p. 456, referring – in Greek – to Aristotle, Pol. 1255 b 38). Other authors in antiquity (e.g. Xenophon and Columella, although this was not mentioned by Marx) noted the risks inherent in leaving essential responsibilities to an overseer. At any rate, the various forms of overseeing are historically specific: Marx also mentioned the *régisseur* (steward) of feudal France (Marx, 1992, p. 458) and of course the modern manager, in order to stress this point.

For us the question arises as to whether this critique is an adequate representation or only a denunciation of reality (the entrepreneur is able to mask his share of surplus value as a labour of supervision, but it is really a matter of exploitation). Is it due to an incomplete – or possibly even erroneous – theory that is dangerously blind to the tasks of direction and administration? We also note that Marx sneered at attempts to determine the optimal degree of self-finance and borrowing of an enterprise. In the same way as it might be argued that Marx simply did not have the proper framework to analyse services, it could now be asked whether the sharing of profit between the money capitalist and the industrialist takes into account the relevant facts. One is tempted to joke by speaking of a Marx–Modigliani–Miller theorem because there seems to be indifference in his theory as to the share of borrowed capital used. What about agency costs, asymmetric information and uncertainty? Aspects of these modern problems were, it seems to me, present in classical times, as can be seen in the literature, notably in Babbage (Schefold, 1992b), but they were totally ignored by Marx. Why?

I think that Marx could have defended himself against such an allegation by arguing that he proceeded, after his *definition* of interest, to an analysis of the *determination* of interest as a macroeconomic phenomenon in the cycle. He believed himself to have shown at the highest level of abstraction that a 'rational' theory of the rate of interest can not exist, because of the irrationality of the form. He might have claimed to have shown subsequently at a more concrete level that the rate of interest is not governed by the rate of profit (except in that it can not exceed the rate of profit for extended periods) – indeed the movement of the rate of interest turns out to be counter to that of the rate of profit during the cycle. Hence, since there is no 'rational' macroeconomic law of the rate of interest, there is *a fortiori* no rational microeconomic law either.

Marx therefore set himself the paradoxical task of showing that the movement of the rate of interest does not follow a 'rational' law (indeterminacy – no 'natural' rate of interest) by observing its real movement in the cycle where it is *de facto* determined, and hence by unfolding the system of credit and its operation. This, I suggest, is the reason why the discussion of credit in volume III is not only analytically and politically interesting, but also logically necessary. It implies,



of course, that Marx's criticism of the doctrine of natural interest had to be added to that of reality – not in the form of a primarily logical criticism as in modern debates, in particular in those about capital, but by confronting the ideological statements of exponents of class interests with a better theory and a mass of facts. The huge amount of material in section V of volume III ultimately is there more in order to establish this critical purpose than to provide a positive theory of banking, finance, the debts of the state, international trade, the intercontinental movements of the precious metals and the exchange rate, however much Marx may have been interested in these matters, both in themselves and in relation to economic policy and the political perspectives of the working class.

Hence the central role of controversies which concern the determination of the rate of interest. Marx underestimated his opponents – or rather he underestimated the potential of the ideas they stood for. Norman, the then director of the Bank of England – in Marx's manuscript he is called an 'ass' right at the start – introduced something like an own-rate of interest for, speaking of a commodity, he said: 'the difference between the ready-money price and the credit price at the time at which he [a manufacturer] is to pay for it is the *measure of the interest*'. Therefore 'interest would exist if there was no money at all' (Marx, 1992, p. 483). Marx called this a *selbstgefällige Seichbeutelei* (cautiously translated as 'self-complacent rubbish' in the Moscow edition) that was 'fitting for this pillar of the Currency Principle' (Marx 1977, p. 418). According to Marx it is conversely the rate of interest that regulates the difference in price. He continued a little later in mixed language: 'If there was no money at all, *gäbe es jedenfalls keine general rate of interest*' (there would at any rate not be a general rate of interest).

Today, as we are familiar with the modern developments of intertemporal theory, we would probably not dare treat Norman's suggestion with such contempt, even if we did not agree with it. Nevertheless it is remarkable that Marx acknowledged the possibility of different own-rates of interest in a non-monetary economy. It is less surprising that he did not anticipate the possibility of a convergence of those own-rates to one general rate, as in the turnpike theorems of general equilibrium proved after 1980. One is reminded of the Hayek–Sraffa debate, which, in a modern perspective, pointed towards the problem of whether a unique natural rate of interest could be defined as resulting from a convergence of own rates in intertemporal equilibrium (Kurz, 1995; Schefold, 1995).

The main point, however, is that Marx criticised the identification between the rate of interest and the rate of profit. In his interpretation, money capitalists try to raise the rate of interest – Peel's bank act is considered as having been contrived to achieve this end. They defend themselves by making the public believe that the rate of interest represents the real remuneration of capital, that is, the rate of profit, and this even in the face of rapid, temporary fluctuations of monetary interest rates and relatively more stable conditions in production. Marx wanted to use this material 'zu actual denunciation des Schwindels und der commercial moral' (Marx to Engels, 14 November 1868, quoted in Marx, 1992, p. 18).

Marx then unfolded his theory of credit (Lapavitsas, 1994). The credit system is said to equalise the rates of profit and reduce the costs of circulation. A main cost of circulation is money, which is partly unnecessary and partly replaced by paper through credit. Credit accelerates the metamorphoses of commodities and of capital and culminates in joint-stock companies, which, surprisingly, are said to take over tasks that earlier had to be undertaken by governments. But Marx did not pursue this idea of privatisation (Marx, 1992, p. 502). On the contrary, he developed the idea of socialisation, the division of functions between capital and manager and (the continuity of the exposition is interrupted several times by Engels' additions) the 'Aufhebung' of capitalist 'Privatindustrie' on the basis of the capitalist system itself. Joint-stock companies are then compared to workers cooperatives since both represent a form of socialisation; the contradiction is negatively *aufgehoben* in the one case and positively in the other (Marx, 1992, p. 504).

I cannot help but observe how curious it is that Marx enumerated a number of problems that are associated with the form of socialisation achieved in joint-stock companies, for example that managers do not risk their own capital, while it did not occur to him that these problems might get worse with an even higher degree of socialisation. He was clearly aware of the difficulties of workers cooperatives, which he discussed at greater length elsewhere, but he never acknowledged that religious communities last much longer than socialist communities. Owen bought the village of 'New Harmony' from a religious sect, the Rappites, in 1825. Having gone through seven constitutions, Owen's community there finally collapsed in 1827, while the Rappites, who had travelled elsewhere, survived until 1903 (Holloway, 1966).

A subsequent theme is the distinction between revenue and capital on the one hand, and between means of circulation and means of payment on the other. Tooke (Rieter, 1971) identified the circulation of revenue with 'circulation' and money-capital, used as a means of payment, with 'capital', but, on the one hand, means of circulation can also take the form of capital, on the other hand, revenue may also be used as a means of payment. This helpful clarification, based on Marx's theory of the forms of value, is then amended by introducing fictitious capital (capitalised securities). Everything seems to be there – post-Keynesian ideas of the two price levels, and, of course, endogenous money. But the forms of credit are bewildering and Marx exclaimed that 'Das zinstragende Kapital überhaupt die Mutter aller verrückten Formen' (interest bearing capital in general is the mother of all crazy/displaced forms) (Marx, 1992, p. 522). Because of credit, capital seems to double and in some cases treble (ibid., p. 526), and the question arises as to whether the accumulation of these forms of money capital is indicative of real accumulation (Sismondi with his *capital imaginaire* is quoted as a precursor in the analysis of the problem).



Here we come to the well-known fact that the movement of money capital and of real capital are not simultaneous. An upswing is characterised by a low rate of interest; a crisis may be accentuated by a panic over high rates of interest. Investment is financed through the savings of others, and if workers attempt to save, their banks seem destined to fail (Marx, 1992, p. 587):

> Die letzte Illusion des capitalistischen Systems, as to capital being the offspring of saving and labour, geht damit flöten. Nicht nur besteht der Profit in Appropriation fremder Arbeit, sondern das Capital, womit diese fremde Arbeit exploitiert wird, besteht aus 'fremdem' Eigentum, das der monied capitalist dem productiven Capitalisten zur Verfügung stellt, wofür er den letztern seinerseits exploitiert.[2]

The monetary crisis leads to international repercussions and a drain of bullion. In order to stop it, the rate of interest has to be raised, and real wealth must be sacrificed in order to save the structure of credit. The credit system is there in order to reduce the use of money, primarily in the form of precious metals, but as soon as a monetary crisis arises, creditors demand payment in terms of world money – a '*verrückte Forderung*' (crazy/displaced requirement) (Marx, 1992, p. 626), since the central bank reserve consists only of a few million pounds in gold and silver.

Marx thus made it a criterion of communism that money would be abolished – something that has never been achieved in industrial societies – and he believed that the credit system could never emancipate itself from a monetary base in terms of commodity money (here I refer to his remark on the 'Protestant' system of credit, which can not emancipate itself from the 'Catholic' base of the monetary system (Marx, 1992, p. 646)). This – or so it seems – *has* been achieved.

No theory is perfect. Marx's theory in general and his theory of the forms of value in particular are no exception. Because of its radically critical impetus – the denunciation of reality, and not just doctrines – one takes particular risks in studying and applying it. But it is also one of the most fascinating and I dare say most beautiful theories we have, and the publication of the original manuscript of volume III provides an opportunity to reconsider the entire construction.

## Notes

1. A minor confusion is sometimes created by the division of volume III of *Capital* into two parts between chapters 28 and 29. This division is technical and has no theoretical significance whatsoever.
2. The last illusion of the capitalist system, as to capital being the offspring of saving and labour, collapses. Not only consists profit in the appropriation of the labour of others, but the capital used to exploit this labour of others consists of the property of others. The moneyed capitalist puts it at the disposal of the productive capitalist, for which the former exploits the latter. (My translation – BS)

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# 9 The Emergence of Credit Money

Heiner Ganssmann

Marx's argument on money, credit and fictitious capital in volume III of *Capital* relies on a logic of 'emergence', which deserves attention not just for methodological reasons. What is meant by logic of emergence?

Bortkiewicz (1907, p. 38), in his famous work on the so-called transformation problem, criticized Marx for his 'successivism', that is, his failure to apply the idea of simultaneous mutual determination to the problem of pricing. Of course Bortkiewicz was right with respect to the transformation problem. Nonetheless, for the theory of money Marx's successivism seems to be an essential characteristic of his explanatory effort. It is aimed at understanding the development of socioeconomic structures not in terms of a historical account but in terms of a process of social learning: men – as Marx put it – make their own history, but they do not make it under circumstances chosen by themselves, but under circumstances directly encountered, given and transmitted from the past. In other words human agents act in frameworks of social institutions that are both reproduced and modified as they act and are thus *irreversibly* transformed. Institutions can be described in terms of action patterns. We explain these patterns by reconstructing the decisions underlying the actions. By implication, the 'emergence' of new institutions rests on non- accidental changes in the recurring decisions underlying actions.

This sounds partly trivial and partly too abstract. What implications does it have for theory construction? First, it means that theory has to trace patterns of development and is thus bound to be 'successivist'. Second, theory will consist of the attempt to 'derive' complex new properties from simpler antecedent conditions without proposing that the new properties can be reduced to the antecedent conditions.

Money has been a major theoretical concern where this type of theory has developed. If money has to do with reducing transaction costs (for which there is just as much incentive as for reducing other costs), various forms of money may be ordered according to the degree of success in that respect: 'one way of looking at monetary evolution is to regard it as the development of ever more sophisticated ways of reducing transaction costs' (Hicks, 1967, p. 7). The process is irreversible since one cannot assume a general willingness to return to less cost-efficient ways of doing things. Once a way of reducing costs has been found, it is not likely to be discarded.

As we shall see, Marx was ambivalent with regard to one major implication of such a successivist argument: he tended to regard the derived elaborate and differentiated institutional arrangements as parts of a condition of alienation. As such, sooner or later they are likely to be reduced to their primitive origins or to a simple form, either by crises or by revolution. In contrast, it could be argued that these differentiated, complex forms are results of irreversible processes. In this chapter I will use Marx's argument on the nature of the credit system as a sort of test for the feasibility of the two options: reduction or irreversibility.

## THE CREDIT SYSTEM AND ITS CRISES

When considering the credit system, Marx argued repeatedly that (1) it is a necessary component of capitalist expansion, because the latter could not take place within the constraints of metallic currencies; (2) it is subject to crises, which periodically repair the speculation-driven overexpansion made possible by it; (3) these crises involve a temporary return to the 'monetary system', meaning that only certain types of money are accepted as means of payment; and (4) because of widespread emergency sales and bankruptcies, each crisis involves sacrificing real wealth to restore and preserve the special role of money as the only valid and general social form of wealth confronting the world of commodities.[1]

Marx tended to treat this reversion (*Umschlag*) of the credit system into the monetary system as a vindication of his commodity money theory, as presented in the opening chapters of volume I of *Capital*: the capitalist system cannot emancipate itself from its barbarian, fetishist roots, where the social properties of an object (gold serving as the universal equivalent) are mistaken for natural properties. While credit money and credit relations are clearly social artefacts, their collapse brings out underlying characteristics of the capitalist economy, namely that it is based on inversions of the natural and the social worlds, of things and persons, where of course the restitution of



persons as the subjects of their own social process presupposes the abolition of the capitalist system. So for Marx, crises, including the breakdown of credit relations, are the system's *memento mori.*

This argument raises several questions. The most important one in terms of understanding money concerns the proposition that the credit system is inevitably bound periodically to relapse into its monetary origins, where only 'real' money counts as a means of payment. I do not want to question that the development of the credit system was and is characterized by recurrent breakdowns, bubble-bursting and so on. But the other part of the proposition is both questionable and interesting: what happens to money in its various functions when credit relations first take the place of older forms of money and then break down? Is Marx's view still valid that credit crunches involve a spontaneous return to more or less archaic forms of money and that this is significant both for our understanding of money in general and for our understanding of capitalism?

Before going into detail, let me indicate the broadness of the issues involved. According to Polanyi, himself not a great sympathizer of Marx's views, the international gold-standard formed one of the four main institutional pillars of nineteenth-century Western civilization (the others were the balance-of-power system, the self-regulating market and the liberal state). 'Of these institutions the gold standard proved crucial; its fall was the proximate cause of the catastrophe. By the time it failed most of the other institutions had been sacrificed in a vain effort to save it' (Polanyi, 1957, p. 3). So Polanyi is suggesting a pattern similar to the Marxian one: not only were the 'greatest sacrifices of real wealth necessary to maintain the *metallic basis* (Marx, 1992, p. 625), but the most important nineteenth-century social institutions to secure peace, economic well-being and political participation were sacrificed to restore the gold standard in the first half of the twentieth century. One major issue when discussing the nature of the credit system is whether such sacrifices were necessary to maintain the capitalist economy or whether they were the outcome of misguided beliefs or wrong theories and could have been avoided. Today, the remaining ties of the international currency system to the *metallic basis* having been cut off in 1973 with the official renunciation of the US dollar's convertibility into gold, an even more relevant question concerns functional equivalents: given that 'the gold brake on the credit system' (Schumpeter) has been removed, what has taken its place? Has enlightened decision-making in central bankers' committees[2] overcome the barbarian mechanism of sacrificing real wealth for gold? Or are sacrifices demanded nowadays for even less than *auri sacra fames*?

To return to the narrower issues nested in those bigger ones, let us examine Marx's argument about the necessity of relapses of the credit system into the monetary system. The first thing to note is that Marx was ambiguous on this point: He said that credit crunches are unavoidable and that, in the crunch, real money is required. And he specified the conditions under which they would be avoidable:

> As long as the *social* character of labour appears as the *money-existence* of commodities, and thus as a *thing* external to actual production, money crises... are inevitable. On the other hand, it is clear that as long as the credit of a bank is not shaken, it will alleviate the panic in such cases by increasing credit-money and intensify it by contracting the latter. The entire history of modern industry shows that metal would indeed be required only for the balancing of international commerce, whenever its equilibrium is [momentarily][3] disturbed, if only domestic production were organised. That the domestic market does not need any metal [even now] is shown by the suspension of the cash payments [of the so-called national banks, which resort to this expedient] in [all] extreme cases [as the sole relief] (Marx, 1976, p. 515f.)

Thus, for Marx, the collapse of the credit system and the return to gold inevitably expressed the disorganized nature of production that is characteristic of capitalism. At the same time he conceded that this collapse does not necessarily involve a return to gold money, at least not on the domestic scene. On the one hand, he relied on a fundamental proposition about money. On the other hand he acknowledged that capitalism develops in ways not captured by that fundamental proposition.

Apparently this ambiguity stems from a tension between Marx's original concept of money and empirical observations about the functioning of the credit system. According to the original concept, money is the most visible and tangible expression of an economic system that is characterized by a social division of labour and private, independent production. The need for money, as a value form, results from the need to express and validate the products of private labour as products of social labour: the values of commodities can be expressed in a



socially valid way only in relating them to the commodity that serves as the 'universal equivalent'. Successful exchange against money (selling for the expected price) amounts to the 'realization' of value (the recognition of private labour as part of society's total work effort).

Marx thus had a 'strong' argument for the 'necessity' of money, in the sense of it being the answer to a number of fundamental problems of commodity production and circulation. This 'strong' argument implies certain properties of money: as the 'measure of value' of all $(n-1)$ other commodities, it has to share their value property while being unique in playing the monopolistic role of the universal equivalent. This role would not be required if social production were organized: the complicated *post festum* recognition of the products of private labour via their sale on the market for a monetary equivalent is necessary only if there is no *ex ante* consensus on who produces what.

Having put forward this argument, Marx immediately withdrew parts of it. Money functioning as a means of accounting or as the 'universal commodity of contracts' does not have to be physically present. Money objects that function as means of circulation do not have to have the value they signify. The state, too, has a hand in this, being able to install intrinsically worthless objects as money. But the 'strong' argument appears to be reinstated when Marx went on to deal with those functions of money in which it, as he claimed cannot (or only to some extent) be replaced by substitutes: as means of hoarding, means of payment and as universal money. However, once again Marx was cautious. It turns out that there can be substitutes for a full-value money commodity in two of the three functions mentioned. The one exception is 'universal money': '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. Its real mode of existence in this sphere adequately corresponds to its ideal concept' (Marx, 1976, vol. 1, p. 142). This implies that the congruence between the concept of and the object serving as money does not hold for the means of hoarding and the means of payment functions. The empirical evidence in Marx's time supports this proposition. Nonetheless, Marx wrote (referring to volume I in the manuscript of volume III): 'The reversion [*Umschlag*] of the credit system into the monetary system is *necessary*, as I have earlier shown with regard to the '*means of payment*' (Marx, 1992, p. 625).

## THE MONETARY SYSTEM

What did Marx mean by the 'monetary system'? Let us examine the relevant text (volume I, ch. 3, section 3: 'Money'). Marx started with a definition of money: 'The commodity that functions as a measure of value, and, either in its own person or by a representative, as the medium of circulation, is money' (Marx, vol. I, p. 130). Thus, an object is money only if it unites these two functions. But since Marx also referred to a 'representative', it is not clear whether this object has to be a commodity. Marx went on: 'Gold... functions as money... when it has to be present in its own golden person. It is then the money-commodity, neither merely ideal, as in its function of a measure of value, nor capable of being represented, as in its function of circulating medium' (ibid.) In other words: as a measure of value, the association between money and commodities is performed in the minds of agents, so the money commodity does not have to be there; as a circulating medium, coins and paper will do. But this does not positively indicate in which instances the physical presence of the 'money-commodity' is required. Is it whenever the measures-of-value and the means-of-circulation functions are to be performed simultaneously?

Marx went on: gold 'also functions as money, when by virtue of its function, whether that function be performed in person or by representative, it congeals into the sole form of value, the only adequate form of existence of exchange-value, in opposition to use-value, represented by all other commodities' (ibid., p. 130) What is this second way in which 'gold functions as money'. Disregarding the ornaments, according to Marx something (either gold or a 'representative') 'functions as money... when.. .it congeals into the sole form of value'.[4] Apparently Marx was referring to the means-of-payment function in a crisis situation. But note that he did not claim that gold as the money commodity cannot be replaced by a 'representative' even in such an extreme situation. Rather he argued that, 'In a crisis, the antithesis between commodities and their value-form, money, becomes heightened into an absolute contradiction. *Hence, in such events, the form in which money appears is of no importance*. The money famine continues, whether such payments have to be made in gold or in credit money such as bank-notes' (ibid., p. 138, emphasis added) The reference to a crisis situation was thus *not* used to argue that this is the moment of truth, revealing the 'essence' of money. Instead Marx argued that the nature of the situation makes distinctions such as



those between gold or bank notes secondary. The situation is characterized by an extreme role distribution between money and commodities and this is why Marx referred to it repeatedly as the 'sudden reversion from a system of credit to a system of hard cash' (ibid). (Almost) everybody needs to pay and needs to pay cash: commodities lose their value, their role as elements of social wealth, while money, whether in the form of gold or banknotes, becomes its sole incarnation.[5]

## A RETURN TO 'REAL' MONEY?

However, if bank notes can serve as the very incarnation of social wealth, what distinguishes them as promises to pay that are underwritten by banks from private, ordinary promises to pay, which no longer seem to count at all? The distinction appears to be difficult to make in Marx's framework. He described the conditions of crisis: 'Such a crisis occurs only where the ever-lengthening chain of payments, and an artificial system of settling them, has been fully developed'. Long chains of obligations to pay mean increased interdependence. The system that is described as 'artificial' is that of clearing, of settling payments not by actual payments, but by cancelling mutually balancing promises to pay. 'Whenever there is a general and extensive disturbance of this mechanism... money becomes suddenly and immediately transformed, from its mere ideal shape as money of account, into hard-cash' (ibid.) Clearly, a disturbance of the clearing mechanism necessitates different ways of settling claims. But why did Marx describe this shift as a 'transformation' of money from an 'ideal' means of accounting into hard cash?

On closer examination, the ideal means of accounting remains what it was: the debtor's obligation to pay is specified in numbers of units of money. The obligation to pay remains the same too. The shift results from the fact that, at some point, expected sales did not take place, so accounts did not balance and payment obligations could not be fulfilled in the expected 'cashless' manner. If lenders insist on payment because they themselves have to pay, the pressure to sell whatever assets are available leads to falling prices and so on. Where does 'hard-cash' come in? It doesn't, at least not in an amount sufficient to settle payments at the level originally agreed upon. The gist of Marx's argument is really that hard cash remains as 'ideal', as the money of account: everybody wants to have it, but there is nowhere near enough to satisfy demand.

Marx repeatedly pointed out that the metallic reserves of banks are much too small to be serious candidates for resolving the need for 'hard cash' in a crisis. Thus resorting to those reserves does not help. The only possible way to dampen the panic is to ease credit. What does this accomplish in terms of the 'artificial' character of the system, or the 'ideal' (*vs* the 'material') character of money? Not much. Private credit relations among traders have broken down, but substitute relations of credit emerge[6] with the note-issuing banks. Does this support Marx's suggestion of a polarization between commodities losing their value property and money being transformed from an ideal means of account into 'hard cash'?

It seems rather as though Marx lost the patience further to trace the intricacies of the credit system and shifted to denouncing the artificiality of the thing. He wanted to demonstrate that the 'idealistic' credit system cannot 'emancipate' itself from its 'material' metallic basis,[7] which in his theoretical perspective stands for value, while value stands for labour and labour stands for the legitimate mode of appropriating wealth. But whenever he looked more closely at those events that are to support the proposition that the credit system is firmly anchored in some down-to-earth commodity-money relation, he had to acknowledge that the ties between the credit system and the metallic basis have a tendency to vanish.

This is true even for the function of money as 'money of the world', which for Marx constitutes a kind of proof for the proposition that money as the universal equivalent has to be a commodity. 'In the trade between the markets of the world, the value of commodities is expressed so as to be universally recognized' (ibid., p. 142) Gold and silver, serving as such universally recognized means of expressing value, do not need to be present physically for this function, however. That is necessary only when international transactions do not balance and payment is required, or when a transfer of social wealth from one country to another is to take place and cannot be settled by means of commodities. For these cases, Marx said, every country needs a reserve, and for this 'the genuine money commodity, actual gold and silver, is necessary' (ibid., p. 144). Reserves, 'limit [ed]... to the minimum required for the proper performance of their peculiar functions' (ibid., p. 145), appear as the last anchor of an otherwise free-floating credit system. Singling out these reserves of commodity money forms the capstone of Marx's whole effort to present money as a form of value, a form of 'congealed' abstract labour.



## VALUE THEORY AND ITS LIMITS

In retrospect we can see why Marx lost his bearings at this point. Instead of attempting to extrapolate to the international scene his observations concerning the emergence of new forms of money in domestic circulation, he insisted on his 'strong' argument, backwardly connecting credit to money and money to value and value to labour. Marx's manuscripts (among which we can now count volume III) show that he was thinking about alternative explanations.[8] Credit can take the place of 'real' money, because there is general 'trust in the social character of production, which lets the money form of products appear as something merely vanishing (as mere imagination) and ideal' (Marx, 1992, p. 626). Crisis coincides with distrust, which can only be answered by the return to real money. But why would the loss of trust in a set of debtors' ability to pay automatically translate – as the return to metal signals – into a complete loss of trust in the whole system? If we distinguish between trust in the system and trust in the soundness of a concrete set of credit relations, we can understand why even in Marx's crises a central bank's promise to pay can serve as the ultimate form of money. The bank stands for the system.

This argument can be extrapolated to understand the development of the international monetary system. Marx's assertion that the system 'again and again bumps its head into the (metal) barrier' (ibid.) is no longer convincing once there is sufficient trust in the overall system of international trade and credit, in its stability and the capacity to answer crisis situations by renegotiating credit arrangements. For the growth of such trust, it is not necessary that crises are effectively prevented. It is sufficient to induce the perception that the last crisis has led to some learning, to new rules and institutions.

If that happens, Marx's reasons for the reversion of the credit system into the monetary system no longer hold. Does this affect the foundations of the Marxian 'strong' argument about commodity money and its value properties? It is indeed strong, not least because it starts with the sensible proposition that an object (money) used to measure a property of another object (the value of a commodity) has to share that property, and that the means of measurement should be standardized and serve as a common reference object (universal equivalent) in the system of measurement. This Marxian starting point of the theory of money and credit has to be left behind, as do all starting points. But it equips us with important questions concerning inconvertible, value-less credit money, questions that are normally not answered:[9] if price formation involves a social process of measurement, how can it take place ubiquitously with the reference object neither having the property to be measured nor being in its properties indirectly related to the value property of commodities? In other words, how are economic equivalence relations constructed socially in a manner sufficient to regulate the economic system, if the means of classification, whatever we 'associate' with goods when forming their prices, has symbolic significance only?

To conclude, I can only indicate directions in which one can look for answers: First, what do we mean when we say money is a symbol? Can we rely on the traditional notion of a symbol as an object *representing* something else (like the mysterious value property)? Or is money a symbol in the sense of signalling that a certain type of game is being played, owing its significance wholly to a system of rules that proscribe its use. It seems to me today that traditional Marxian monetary thinking insisted too strongly on the first alternative and ran into a *cul-de-sac*. What would the second alternative mean? If the object serving as money simply stands for a system of rules of a game, we can understand it, not by looking at what it is, but by understanding the ways in which it is used.

To preserve some of the spirit of Marx, we can start by distinguishing two such ways, marking two different roles in the game played. For the first type of player, money symbolizes the obligation to work. 'Money should be looked upon not merely as one type of reward among others, but as a symbol of the fact that goods (means of subsistence) can be had only by work' (Mannheim, 1951, p. 267). For the second type of player, any money is potential capital and symbolizes its own self-expansion. Money is the 'automatic subject', as epitomized by fictitious capital.[10] These second-type players are part of a sub-game whose ties to the other sub-game, the realm of social labour, become increasingly loose. Therefore, as Marx seemed to acknowledge on occasion, his explanatory strategy of retracing all economic forms to labour loses its plausibility here: 'Winning and losing as well as the concentration of these property claims turn, as a matter of course, more and more into the result of a *game* (which appears, instead of *labour*, as the original mode of appropriating capital property and also replaces direct coercion)' (Marx, 1992, p. 531). In juxtaposing coercion, labour and the 'game' of speculation as the principal modes of appropriation, Marx himself indicated that it is necessary to step away from his value theory in order to analyse the realm of money as a symbol of self-expanding wealth.



How this symbolic meaning of money fits in with the first one, whether the two meanings are integrated, what they mean for price formation – these and other questions will have to be pursued elsewhere. Here, my purpose has been to show how credit money, as a complex economic form that evolved out of commodity money, can be understood by retracing its emergence, but not by reducing it to the simpler form.

## Notes

1. 'In times of pressure, where credit stops or is contracted, *money* as a means of payment and as the true existence of *value* comes to stand absolutely opposite to commodities. Hence their general depreciation to transform them into money, that is, into their purely phantastic form. Secondly, however, credit money itself only is *money* to the extent that, as to its value, it absolutely represents real money. With the drain of bullion its convertibility into money becomes problematic, that is, its identity with gold. Hence coercive measures, raising the rate of interest and so on, to secure this convertibility.... A depreciation of credit-money... would unsettle all existing relations. Thus, the value of the commodity is sacrificed to secure the phantastic and autonomous existence of this value in money.... This is inevitable in bourgeois production and forms one of its beauties' (Marx, 1992, p. 594, cf. 625f., my translation; the corresponding text in the Engels edition (1976, p. 516, cf. 573f.) conveys a different meaning at some points.
2. Some of that committee work seems to be difficult. At least one of the participants found 'something unedifying... about some central banks taking full advantage of the flexibility afforded by present arrangements to place their funds where and when they choose, while complaining at the same time about instability in the system' (Volcker, 1978).
3. The words in parentheses were added by Engels, cf. Marx, 1992, p. 595.
4. For a clarification of Marx's concept of 'form', cf. Lange, 1978, p. 4.
5. Keynes described the same situation by proposing that money is unique in having 'an elasticity of substitution equal, or nearly equal, to zero... money is a bottomless sink for purchasing power, when the demand for it increases' (Keynes, 1967, p. 231).
6. Keynes (1967, p. 235) found suitable analogies: 'people want the moon... when the object of desire (i.e. money) is something which cannot be produced and the demand for which cannot be readily choked off. There is no remedy but to persuade the public that green cheese is practically the same thing and to have a green cheese factory (i.e. a central bank) under public control'.
7. 'It must never be forgotten that... money (in the form of the precious metals) remains the foundation from which the realm of credit, given its nature, can never separate itself' (Marx, 1992, p. 661).

8. 'The Economist argues against inconvertible paper: We always need a *standard*, a metallic one. That is, the standard must be in a commodity valuable as such... *Wrong*. The standard can be gold without one ounce of gold circulating and without the notes being convertible.... If the notes fall below the price of gold, the exchange rate falls, so that notes will enter to be exchanged against bullion and the latter will be sent off. In this way, the correct proportion in the notes is restored' (Marx, 1986, p. 68).
9. Cf. Ganssmann, 1988, for a discussion of sociological theories of money in terms of such oversights.
10. To the extent that fictitious capital is part of a real game with real rewards, it is not fictitious. It is fictitious for Marx because (1) the capital involved cannot be seen as 'congealed' labour, (2) any regularly recurring income is seen as the fruit of *le capital imaginaire*, as Sismondi labelled the public debt and (3) its monetary value is regulated differently from that of productive or commercial capital (Marx, 1992, pp. 525, 530).

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# 10 Money, Form and Determination of Value[1]

Carlo Benetti and Jean Cartelier

The concept of form of value is certainly one of Marx's outstanding contributions. A short discussion of the difficulties of the contemporary monetary theory in its most developed version (the neoclassical one) will show that this concept is the necessary starting point (or the rational basis) for monetary theory, hence for price theory, whatever the choice of a particular value theory.

## MARX IN THE LIGHT OF MODERN MONETARY THEORY

First let us consider the first part of Marx's critique of the classical school: 'One of its major drawbacks' is that it is unable to 'deduce the exchange-value form from its analysis of commodity economy and specially from its theory of value'. The reason is that only 'the quantity of value is the main concern of the best classical economists'.[2]

The theorems concerning the existence of general equilibrium prices, or prices of production in the classical system are the main results of contemporary value theories. These variables are determined in a world where individuals are defined in reference to goods only (endowments, preferences and techniques). Exchange relations between individuals are not to be found. Only aggregate excess-demand functions matter. As a consequence, in modern price theory, as in the old one, the form of value, namely the money form, is entirely neglected.

The theory of exchange has definitely demonstrated that, even at prices that equalize aggregated supply and demand over all markets, the equilibrium of exchange cannot be obtained in a decentralized way. The double function of goods, used as media of exchange and consumption goods, prevents agents from having the right means of payment in order to finance their demands in bilateral exchanges. In these conditions, transactions cannot be completed unless they are organized in a totally centralised way: excess demands are decomposed in elementary exchange chains, individuals are assigned to these chains and the only transactions permitted are those between members of the same chain (see J. M. Ostroy and R. M. Starr, 1974).

Decentralization of equilibrium transactions requires a commonly accepted means of payment. Money must therefore be added to the system of price determination. If one admits the existence of equilibrium prices in a world without money, then the monetary problem is set as 'the integration of money in the theory of value'. In this view, money has to be considered as a store of value subject to individual choice. By saying that 'in general equilibrium theory money has one function. It is store of value' Gale (1982, p. 231) reaffirms, nearly 50 years afterwards, the 'suggestion' made by Hicks in his famous 1935 paper in which he presents himself as 'more Keynesian than Keynes' (Hicks, 1935, p. 16).

The $(n+1)$th good added to the *a priori* given list of goods is a particular good in the sense that its utility is not independent of its exchange value. When its price is zero.[3] the demand for this good is zero, and this zero price is an equilibrium price. Therefore the monetary problem is that, given a positive price for money, one must find the conditions for it not to become zero. The explanation of the value of money is nothing more than the explanation of a positive demand for money at a positive price.

The central difficulty is obvious: in every model with a finite horizon, money is never chosen as a store of value. Whatever the interest individuals grant to money (in particular in order to minimize transaction costs) the demand for money (therefore its price) is necessarily zero. If an economy without money is assumed as a starting point, it is logically impossible to get a monetary economy as an outcome.

The existence theorems have been elaborated in finite horizon models. They can be used only if some *ad hoc* hypotheses are introduced. In particular, the agents either have to have the same stock of money at the final and the initial date, or they have to pay a monetary tax (rightly calculated) at the final date, or to bequeath some money. This is evidently artificial. These hypotheses can be fruitfully replaced by the clear statement that there exists an exogenous constraint: agents are constrained to have a determined monetary balance in the final period and they can use this as they want but are not allowed to spend it. It is necessary to keep this in mind in order to understand why the overlapping generation model with infinite horizon was received with extreme relief, or even triumphalism, even if the existence of an equilibrium was to prove more complicated.



At last we can judge the conception of money as store of value! In this new framework, there exists an equilibrium with a positive price for money. Let us note immediately that the existence of a monetary equilibrium does not have the same meaning as the existence of equilibrium in the theory of value. According to the initial data, endowments, techniques and utility functions, there exists a stationary equilibrium with or without a positive price for money. Monetary equilibria are 'tenuous'. This is a direct consequence of the idea according to which the very existence of money depends on a comparison, in terms of efficiency or welfare, between two types of equilibria, with or without money.

The central weakness of this theory of money is that, except in special and meaningless cases, the so-called non- monetary equilibrium does not exist. The last defense is Hahn's famous proposition, according to which in every model of monetary economy there exists an equilibrium with a zero-price for money. We have tried to show that this statement is incorrect. Hahn does not demonstrate what he affirms and which the profession has unfortunately accepted. He shows a very different and well-known thing: money cannot have a positive equilibrium price in an economy (such as the Arrow–Debreu economy) where, by assumption, there exists a central mechanism by which all transactions can be realized without cost and without money (see Benetti, 1994).

The conception of money as a store of value therefore depends on a meaningless comparison: a market economy is compared to a non-market economy. According to initial data, individuals choose whether or not to transfer their purchasing power over time by means of money. Is it not absurd to conclude that in this latter case, they choose a centralised organization of the exchanges? This surprising conclusion is nevertheless unavoidable if one persists in building monetary theory on the basis of the conception of money as a store of value and forgetting that being a store of value is just one possible function of money.

A zero-demand for money implies that individuals do not consider money as a store of value. The only way to avoid the above contradiction is to admit that, by doing so, they have not eliminated money. In other words, money has an attribute that is different from the store of value, which exists even when this last function does not. In this case, and only in this case, the transactions are those that are commonly attributed to a market economy. During the 1980s the authors of overlapping generation models repeated *ad nauseam* the following statement: 'money cannot act as a medium of exchange if it does not also act as a store of value' (Hahn, 1971, p. 101). As we have shown, such a position leads to a dead end.

In order to choose the best form in which the purchasing power should be transfered over time, individuals do not compare the so-called non-monetary equilibrium with a monetary one. They compare two equilibria, with money as a medium of exchange, where the purchasing power is transferred by means of money in one case and by means of something else in the other.

Starting from Marx's teaching, we can now consider a possible solution to the monetary problem. His general position is that by means of analysis of the form of value 'the mystery of money will immediately disappear' (Marx, 1976, p. 139). He provides the necessary indications on two central points, which we will examine in turn.

The 'deep' reason for the weakness of the classical school is the 'error' of considering the market economy as 'the eternal natural form of production in every society'.[4] The naturalist error of the old classical school is nothing but the postulate of nomenclature that is the starting point of contemporary price theory, as well as of the general equilibrium and of the prices of production. Money is then conceived as an outcome of a theory starting from an *a priori* given list of goods without money. In addition to their use value, one attributes to goods a sort of indirect utility, which is the utility of the goods they can buy. This is clearly expressed in the traditional calculation, where the goods appear in the utility function as well as in the budget constraint; that is, as useful objects and purchasing power. Therefore the hypothetical purchasing power of goods (obtained by multiplying the quantities owned by parametric prices) has been assimilated to the power that these goods have on the market when they are exchanged with other goods. The theory of exchange clearly demonstrates that, except in centralised transactions systems, a necessary and sufficient condition of this assimilation is the existence of money (see Ostroy and Starr, 1974). In this case only, individual wealth calculated at parametric prices is a market wealth that can be used on markets. Having accepted these assumptions, one can deal with the problem of the effective realisation of this wealth on the markets. Hence the 'indirect utility' of money and the 'indirect utility' of all other goods are two aspects of the same thing. A zero price for money eliminates at the same time the indirect utility of money and goods. Even at 'equilibrium' prices the budget constraint is meaningless.



The origin of the mistake of the traditional method lies in its naturalism, rightly criticized by Marx. The economic agent is seen as a Robinson Crusoe. Without money the 'indirect utility' of goods only makes sense in Crusoe's budget constraint. The positive conclusion is that, being the condition of economic calculation, money has to be taken into account at the very beginning of economic reasoning. How? The second indication provided by Marx allows us to reply to this question.

According to Marx, money as a medium of exchange is the means by which value has the right form as exchange value. Without the monetary form of value, commodities 'definitely do not confront each other as commodities, but as products or use-values only' (Marx, 1976, p. 180). This has a direct and important consequence on the status of the concept of choice in the theory of value. This concept is necessarily present in the customary concept of store of value, and is equally necessarily excluded from the concept of medium of exchange, where, at best, its meaning is entirely different.

According to neoclassical theory, social reality results from individuals' choices. If the problem of the medium of exchange is set in terms of individual choices, the alternative is as follows: either monetary exchange, or a centralised transaction system. The choice will only make sense if it is possible for individuals to refuse the medium of exchange without losing the decentralized economic system associated with the commodity division of labour. But these two decisions are mutually incompatible. Generally speaking, when accepting the division of labour, individuals accept the medium of exchange, without which their acceptance of the division of labour would not make sense.

The medium of exchange is not an object of choice. Its 'utility' is nothing else than the gain (very important according to Smith and all subsequent economists) individuals make from exchanges. Money is useful because it satisfies the propensity to exchange, which is as important, if not more so, as any other need in a society based on the division of labour.

The fact that there is no choice between the existence and the absence of a medium of exchange does not mean that any choice is excluded. Individuals can choose between different media of exchange. The zero price of money does not mean that an economy becomes a non-monetary economy. The economy remains a monetary one, but another money will be used. This is surely important: theoretically, because one must explain why an object is chosen as money (this is the problem set by Marx in his study of form IV of value); empirically, because one must interpret major monetary crises.

Money itself may disappear without being replaced by another medium of exchange. In this case, what is at stake is not the so-called non-monetary equilibrium, but the future of the market system itself.

Until now we have simply applied to the orthodox theory Marx's arguments against the classical theory. These arguments are strong and still valid. But the solution Marx proposed is incorrect. The monetary form of value cannot be obtained by inversion of form II of value. In an economy composed of $n$ commodities, form II does not contain $(n-1)$ expressions of relative values (or particular equivalents) as Marx states. It contains $n(n-1)$ expressions. It follows that the result of inversion of form II is nothing but form II itself (see Benetti, 1985, pp. 96–7; and Cartelier, 1991).

Let us recall the two main results:

1. Money is the condition for an exchange economy to exist, or to put it another way, monetary prices are the only acceptable form of value.
2. A satisfactory theory of monetary prices cannot be obtained by integrating money in a theory of value for a world without money. (It would be worth examining carefully the interpretation recently provided by Rebeyrol, 1994, of the theory elaborated by Léon Walras.)

Elimination of Marx's mistake and critical analysis of the orthodox theory lead to the conclusion that the pure medium of exchange (conceived as a unit of account and as a sufficient availability of means of payment) must be included in the basic assumptions of value theory. On this basis an alternative theory can be proposed.

## VALUE DETERMINATION: THE UNITY OF PRODUCTION AND CIRCULATION

Unity between production and circulation is the principle of the alternative prices theory suggested below. Marx's money form of value is taken seriously, which means that only money prices are dealt with (but we will show that traditional labour-value determination is a special interpretation of the theory proposed). But, as stated above, giving full meaning to Marx's money form of value implies a



rebuttal of Marx's theory of circulation based on the *C–M–C* formula.

In the long chain of circulation – (*M–C–M–C*. . .) it seems arbitary to distinguish between *C–M–C* and *M–C–M*. But when circulation is considered as a whole, *C–M–C* and *M–C–M* have very opposite implications:

1. If individuals engage in the circulation of commodities with a view to exchanging use values, then $C - M - C$ is the right expression.
2. If individuals enter the market in order both to buy commodities (as means of production and as consumers) and to sell other commodities (as products), they enter only as money bearers; so $M - C - M$ is the only appropriate description of circulation.

It is not difficult to choose between the two. Only the latter is suitable for a commodity society (as distinct from barter). Let us underline this fact by recalling Marx's definition of the commodity society's specific division of labour: 'Objects of utility become commodities only because they are the products of the labour of private individuals who work independently of each other' (Marx, 1976, p. 165). Clearly, if individuals are private producers, they need to buy means of production and consumer goods on the market (which are products for others) as well as to sell their own products (which are means of production and consumer goods for others). Production does not precede circulation. Production is not logically prior to sale. Production and consumption are one process.

$M - C - M$ does not imply a zero net value. It only makes clear that the value of means of production and net value are both expended as amounts of money. In what follows, the existence of wage earners is not contemplated. Our conclusions do not depend on this simplification.

Unity of production and circulation is nothing other than the most immediate consequence of commodity division of labour, and $M - C - M$ is its appropriate analytical expression. Circulation theory has to take into account this specific interdependence between individuals. Formally, a *matrix of monetary payments* is an appropriate description for circulation:

1. Every figure in it has a twofold meaning: it is an outlay for an individual (row) and a receipt for another (column).
2. Knowing the structure of outlays among individuals is sufficient to determine that of individual receipts.

3. Availability of means of payment is the precondition for circulation: money does not spring from commodity exchange; rather the reverse is true.

The next step is to show how the payment matrix is related to value determination. Let us suppose $L$ different commodities, $\ell = 1, \ldots, L$, and $H$ individuals, $h = 1, \ldots, H$. Technical conditions of production are given by a matrix $A$ of fixed coefficients $a_{k\ell}$, where $a_{k\ell}$ is the quantity of commodity $k$ necessary to produce one unit of commodity $\ell$. Vector $a_\ell$ is the input vector for one unit of output $\ell$. If $q_l$ is the quantity produced of commodity $\ell$, the input vector is $q_\ell a_\ell$. Thereafter we will assume a positive net product, that is $(I - A)q > 0$.

Usually, in the algebraic Marxist tradition, this description is made complete by adding the vector $t$ (toil and trouble) of (socially homogeneous) labour spent for $q = 1$. Labour values are then determined by:

$$v = vA + t \tag{10.1}$$

which amounts, if $(I - A)^{-1}$ exists, to:

$$v = t(I - A)^{-1} \tag{10.2}$$

In this traditional view, values do not depend on the structure of production nor on the way net value is spent.[5] This interpretation of Marxian theory confirms the neo-Ricardian view that demand has no influence on natural prices (in contrast with its important role for market-price determination). Production appears to be more fundamental than circulation (market prices are supposed to gravitate around natural prices), which is a more or less elegant way to repudiate the unity between production and circulation, as advocated by Marx.

This view is not acceptable as soon as unity between production and circulation is taken as granted. Equation (10.2) becomes meaningless. The vector $t$ is not known *a priori*, independently of what happens on the market. Net values are value quantities and must be defined in value terms. If $y$ is the vector of net values (whether created by labour or not) its *definition* is:

$$v(I - A) \equiv y \tag{10.3}$$

As a consequence, if $(I - A)^{-1}$ exists, the following relation holds:



$$v = y(I - A)^{-1} \tag{10.4}$$

Relation 10.4 shows nothing but the necessary relation between vectors of net and gross value. No explanation is implied by 10.4: $y$ and $v$ are simultaneously determined in the market. Assuming, as some Marxists do, that net values $t$ are known beforehand not only contradicts the unity of production and circulation but also leads to values being thought of as purely technological or physical quantities.

In order to continue to follow Marx's definition of commodity division of labour, we must consider the money form of value and the matrix of payment, and therefore we must try to determine monetary values. To keep things simple, let us suppose that there is a one-to-one correspondence between individuals and commodities: each individual produces just one commodity, and each commodity is produced by one individual.

Marx reminded us that 'Money only circulates commodities which have already been *ideally* transformed into money, not only in the head of the individual but in the conception held by the participants in the process of buying and selling' (Marx, 1973, p. 187).

This means that individuals are defined as money users (and not as commodity bearers or points in $R^L$) and also that they enter the market with a precise view about what quantities of money the quantities of commodities they want to buy or sell are worth. Let us denote as $v_{h\ell}$ the expected (ideal) value of commodity $\ell$ by individual $h$. Individuals have to have means of payment in order to participate in the circulation. We shall suppose that a monetary system exists whereby all individuals have sufficient means of payment to finance their desired transactions, either for production or consumption.[6]

Ideal values being given, as well as the amount of means of payment, individuals are able to calculate expected input purchases, expected net incomes, $q_h y_h$, and consumption expenses from $A$ and $q$. The expected income of individual $h$ who produces one unit of commodity $\ell = h$ is $y_h = v_{hh} - \sum_l v_{h\ell} a_{h\ell}$. The total expected income for $h$ is $q_h y_h$. Let us assume that the expected income is entirely spent and that the expenditure coefficient, that is the fraction of total income of $h$ spent in market $\ell$, $c_{h\ell}$, is given and constant: $\sum_\ell c_{h\ell} = 1, \ \forall h$.

In order to complete this description we have to specify a market price mechanism. Let us adopt what may be called the Cantillon–Smith rule. This rule states that the market price is the ratio of the amount of money spent to the quantity of commodity produced and brought to the market. In order to determine (money) market prices we must

1. Determine individuals' money expenses on the different markets.
2. Determine the quantities produced and brought to the market.
3. Select among all market prices those that accurately reflect both quantities of socially necessary labour and the 'stomach of the market', as Marx put it (Marx, 1976, p. 202).

Let us deal briefly with these different points. Individual $h$'s expenditure in market $\ell$ is:

$$q_h y_h c_{h\ell} + v_{h\ell} a q_h = d_{h\ell} \tag{10.5}$$

The first term on the left-hand side of 10.5, $q_h\, y_h\, C_{hl}$, denotes the part of the expected income spent on and consumed by $h$ of commodity $\ell$. The second term of the left-hand side of 10.5 is the expected value of the purchases of commodity $\ell$ used as input when $h$ produces commodity.

Expenditure $d_{h\ell}$ because of the one-to-one correspondence between individuals and commodities, is also the total payment made by individual $h$ to the producer of $\ell$, who is individual $\ell$. Knowing $d_{h\ell}$ allows us to write down a table of payments corresponding to the actions taken by individuals:

| *Individuals* | *1* | *2* | ... | *H* | *Expenditures* |
|---|---|---|---|---|---|
| 1 | $d_{11}$ | $d_{12}$ | ... | $d_{1H}$ | $d_1$ |
| 2 | $d_{21}$ | $d_{22}$ | ... | $d_{2H}$ | $d_2$ |
| ... | ... | ... | ... | ... | ... |
| $H$ | $d_{H1}$ | $d_{H2}$ | ... | $d_{HH}$ | $d_H$ |
| *Receipts* | $r_1$ | $r_2$ | ... | $r_H$ | $x$ |

The total expenditure of individual $h$, $d_h$ is $\sum_l d_{hl}$

$$q_h y_h + q_h \sum_l v_{h\ell} a_{h\ell} = d_h \tag{10.6}$$

and the total receipts of individual $h$ are:

$$r_h = \sum_l d_{hl} \tag{10.7}$$



The total expenditure over all individuals is identical to total receipts. This is not necessarily the case at the individual level. The individual monetary balance is:

$$s_h = r_h - d_h \tag{10.8}$$

Of course $\sum_h s_h = 0$. In market $\ell$, total expenditure $d_\ell = r_\ell$ is:

$$d_\ell = q_1 y_1 c_{1\ell} + v_{\ell 1} a_{\ell 1} q_1 + q_2 y_2 c_{2\ell} + v_{2\ell} a_{\ell 2} q_2 + \cdots + q_H y_H c_{H\ell} + v_{H\ell} a_{H\ell} \tag{10.9}$$

Note that the expected prices of commodity $\ell$ normally differs according to individuals: $v_{1\ell} \neq v_{2\ell} \neq \cdots v_{H\ell}$. The quantities of commodities produced and brought to the market are arbitrarily chosen (however $q$ is subject to $(I - A)q > 0$. As a matter of fact, $q$ is taken as a parameter.

Through the use of the Cantillon–Smith rule we can easily determine the market prices. Solving the following system of equations:

$$\bar{v}_\ell = \sum_h d_{h\ell}/q_\ell = d_\ell/q_\ell \tag{10.10}$$

$$\ell = 1, \cdots, L$$

For the sake of simplicity, let us assume that the expected prices are identical for all individuals (equal for instance to the market prices of the preceding period $\hat{v}_\ell = v_{h\ell} \quad \forall h$). Vector $d$ of individual expenditures is then:

$$d = \hat{v}\,(I - A)QC + \hat{v}M = \hat{v}[(I - A)QC + M] \tag{10.11}$$

where $Q$ is the diagonal matrix of quantities produced and vector $\hat{v}(I - A)Q$ denotes expected incomes (or net value produced), and $C$ is the matrix of the coefficients $c_{h\ell}$. Vector $\hat{v}Q(I - A)QC$ therefore denotes expenditure out of expected income in the different markets. $M$ is the diagonal matrix built from vector $Aq$ quantities of commodities purchased as means of production, so $\hat{v}M$ denotes the vector of productive consumption in money terms.

In matrix notation, the Cantillon–Smith rule is $\bar{v} = (\bar{v})\hat{v}$:

$$\bar{v} = dQ^{-1} = \hat{v}[(I - A)QC + M]Q^{-1} \tag{12}$$

For arbitrary vectors $q$, $(I - A)q > 0$, system 10.12 determines clearing market prices. Obviously these prices depend on quantities. Different vectors $q$ give different vectors $\bar{v}$. Since $\bar{v}$ are market prices, such a conclusion is hardly surprising.

The fact that markets do clear does not guarantee that prices $\bar{v}$ equal expected prices $\hat{v}$, nor that individual monetary balances equal zero. Moreover it should be noted that reproduction is not ensured. At prices $\bar{v}$ it is quite possible that some individuals $h$ are unable to get sufficient quantities of inputs to produce $q_h$ again. If some market prices could ensure both reproduction and zero monetary balances, they could be considered particularly meaningful. On the one hand they would remain constant over time, everything being equal, so that they could be considered as giving 'socially significant values for commodities'. On the other hand they would prevent any monetary disturbances from interfering with the working of the market. Such prices may be called natural prices or equilibrium prices.

Even if a market economy usually works in disequilibrium as a result of decentralisation of decisions, the mere fact that a mutual compatibility of individual actions is possible is an important point. It means that a market economy (or at least its model) is consistent.[7]

A situation where expected and realised prices are equal exists in system 10.12. This will be the case if the structure of vector $\hat{v}$ appears to be given by the solution of the following system:

$$\hat{v} = (\bar{v})(\hat{v}) = \hat{v}[(I - A)QC + M]Q^{-1} \qquad (10.13)$$

Matrix $[(I - A)QC + M]Q^{-1}$ is a stochastic matrix (the sum of every row is equal to 1). The maximum eigenvalue of this matrix is 1. This ensures that 10.13 has a solution. It is unique up to a positive scalar if matrix $[(I - A)QC + M]Q^{-1}$ is indecomposable. Let us denote $v^*$ the vector $\hat{v}$ satisfying 10.13.

Some remarks are in order. Firstly, system 10.13 is nothing but a special case of system 10.12: the idea of two disconnected price theories, one for market prices the other for natural prices, has to be rejected.

Secondly, real values or real prices cannot be a solution of systems 10.12 and 10.13: prices are always monetary prices, determined as the quotient of a money expenditure to a physical quantity of commodity (the Cantillon–Smith rule). Real prices are nothing but ratios between monetary prices.

Thirdly, prices $v^*$ are such that monetary balances are all equal to zero. In such a situation, all individuals respect the monetary constraint,



which is the form taken by equivalence in exchange in a monetary economy. Prices $v^*$ ensure that simple reproduction is possible. Whenever $\bar{v} \neq v^*$, some individuals have positive and negative balances. An adjustment is necessary concerning prices and individuals' possession of means of payment. The study of such situations belongs to the dynamic theory of market processes, which is beyond the scope of this chapter.[8]

Fourthly, prices (or values) $v$ and $v^*$ depend on the quantities produced and brought to the market. This does not mean that prices are determined by 'supply and demand'. But this excludes the neo-Ricardian interpretation of Marx's theory of value. The non-substitution theorem is not relevant here.

'Let us remember that commodities possess an objective character as values only in so far as they are all expressions of an identical social substance, human labour.... From this, it follows self-evidently that it can only appear in the social relation between commodity and commodity' (Marx, 1976, p. 139). This relation is described by a matrix of payment: the value of commodities exist, only as a monetary magnitude resulting from the entire circulation network. For instance the way expected incomes are spent is as important for price determination as production techniques. Such a property is not shared by neo-Ricardian prices of production, which do not depend on the use of surplus product.[9]

In any case, it is easy to recast the determination of $v^*$ in traditional terms using 10.4. We only have to be aware of the fact that $y^*$ is not known beforehand and independently of the market: $y^*$ and $v$ are both the outcomes of a process in which production and circulation cannot be considered apart.

Assuming $t$ as exogeneously given, as is common among Marxists, amounts to assuming that $t$ is independent of $q$. The Marxist theory of value thus becomes a special version of the Ricardian theory of prices (as Samuelson noted some decades ago). A vector of net values can only be found in the market. But not just any $y$ will do the job. We need a 'socially necessary' vector of net values $y^*$, corresponding to $y^* \equiv v^*\ (I - A)Q$. What we are looking for is a vector $y^*$ corresponds both to the average technique $A$ and to 'the stomach of the market'. Equation 10.13 captures these features.

Finally, it is not necessary to assume that of $A$ and $C$ are exogenously given. $A$ and $C$ may be functions of the vector of quantities. System 10.12 would be:

$$\bar{v} = \hat{v}[(I - A(q))QC(q) + M(q)]Q^{-}1 \qquad (10.14)$$

A multiplicity of solutions for 10.13 is the price to be paid for this generalisation.

In contrast with $C - M - C$, $M - C - M$ allows one to give full meaning to the critical positions Marx adopted against Ricardian economics. Taking seriously the question of the value form today leads to a critical analysis of modern general equilibrium theory, and also of some of the propositions made by Marx. Money cannot be derived from an exchange between commodities. Money does not have to be 'integrated' in a value theory built independently. Value theory without money cannot determine relevant values for a market economy. This is true for modern Marxian models and for general equilibrium models as well. The starting point is money and not value. Money is another expression of the commodity division of labour. Marx reminds us that the commodity division of labour is not a technical assumption. Introducing money, on the same footing as the commodity division of labour is the relevant approach. It is also the only way to be true to Marx's principle of unity between production and circulation and to determine values accordingly.

## Notes

1. We would like to thank Sylvain Sorin and Augusto Graziani for their helpful comments. Expressed views, errors included, are our responsiability.
2. This quotation is specific to the French edition of *Capital* and cannot be found in the German one. It reads in French 'un de ses vices principaux' is that it is unable to 'déduire de son analyse de la marchandise, et spécialement de la valeur de cette marchandise, la forme sous laquelle elle devient valeur d'échange'. The reason is that 'la valeur comme quantité absorbe toute l'attention des meilleurs représentants' of this school (Marx, 1967, pp. 603–4, note (a)).
3. All prices, including that of money, are expressed in an abstract unit of account.
4. 'la forme naturelle éternelle de toute production dans toute société' (Marx, 1967, p. 603, note (a))
5. For $q \neq 1$, value is determined by $vQ = vAQ + vQ$ where $Q$ is the diagonal matrix of $q$. This system is equivalent to Equation 10.2.
6. Studying the inflence of different systems of payments on the working of the market should be part of every theory of prices. A lot of work remains to be done in this field.
7. Is such a mutual compatibility the outcome of a dynamical market process? Very little can be said on this point as the study of global stability of equilibrium has not yet produced important positive results.



8. The fact that 10.12 may be interpreted as a dynamic market system converging towards $v^*$ is obviously not a convincing theory of gravitation of market values. Even if $\bar{v} \neq v^*$ it is possible that $S_h = 0$ for all $h$.
9. Torrens is a most interesting exception to this Ricardian tradition. He suggested a reproduction model in which prices depend on the way net global value is spent. In the 'classical case' (profits are entirely devoted to the accumulation of capital) prices of production only exist in homothetic production systems.

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# Comment on 'Money, Form of Value and Value Determination' by Carl. Benetti and Jean. Cartelier

Augusto Graziani

Benetti and Cartelier's basic point is that no separation is possible between real exchanges and monetary exchanges. From the very outset, any market economy is necessarily a monetary economy. An old tale has it that market economies were born as the barter economies and gradually evolved into monetary economies by means of the selection, through spontaneous market forces, of one particular commodity as the most convenient means of exchange. But this is no more than a tale.

In order to support their argument, Benetti and Cartelier present a theoretical argument. If a market economy works without money, exchanges have to go through the intermediation of some sort of central agent (the authors think, I imagine, of an auctioneer). In this case, however, the economy will be working under the guidance of a centralised organization. In order to work as a really decentralised system, the authors conclude, a market economy must work by means of monetary exchanges. Money as a means of exchange is an inescapable element of any market economy.

By way of a digression, it may be observed that a similar remark does not apply to Walras himself, who never spoke of an auctioneer and tried instead to emphasize the ability of a competitive market to reach an equilibrium position thanks to the simple reactions of single agents aided only by the technical support of written *bons* testifying the quantities demanded and supplied by each agent at each price. The authors' criticism does of course apply to the subsequent readings of the Walrasian model, most of which (Schumpeter's one being a remarkable exception) are built around the central figure of the auctioneer.

To go back to the main argument, the authors conclude that the function of money cannot be reduced to a store of value, all the more





since the existence of money cannot be demonstrated when the economy has reached a position of general equilibrium. This is a most relevant and heterodox point of view. Most of mainstream monetary theory insists on defining money as a mere store of value and rejects any considerations of money as a means of payment. It is refreshing to read a text in which the opposite starting point is assumed.

When the authors come to the utility of money, a first doubt emerges. In the authors' opinion, the utility of money lies exactly in its being what turns a simple economy, based on direct production and self-consumption, into an exchange economy based on the division of labour. Benetti and Cartelier correctly observe that it would be wrong (as the neoclassical school suggests) to think of money as endowed with an indirect utility, measured by the utility of the commodities that money can buy. Less persuasively, the authors maintain that the utility of money depends on the level of money prices, and that if the price of money falls to zero, the demand for money also falls to zero.

Similar statements raise some delicate problems. While it is true that the theory of indirect utility was for many years a pillar of the neoclassical theory of money, it is also true that the concept of indirect utility has been abandoned since the pioneering works of J. R. Hicks. It was Hicks (possibly preceded by the less-known Hungarian economist Schlesinger) who first made two points: (1) that money only yields utility insofar as it is kept as a store of value (if money is spent on commodities the agent is revealing a demand for goods, not for money, and there is no utility of money to speak of); and (2) that the specific utility of a stock of money is to protect against risk. To sum up, the utility of money as purchasing power is undefined, and the utility of money as a stock is a direct utility. Since no modern neoclassical theorist would speak of an indirect utility of money, it is not fully clear at whom the authors' criticism is aimed.

I now come to the alleged dependence of the utility of money on its price. I assume that Benetti and Cartelier define the price of money as the inverse of the general price level. The price of money is therefore the quantity of goods in general an agent has to yield in order to get one unit of money in return (the price of money is measured in terms of commodities, since the price of money in terms of money is obviously equal to one).

The usual interpretation is that the utility of a stock of money depends (just as with any other good) on the available quantity of real money, not on the quantity of nominal money, the quantity of real money being measured by the ratio of nominal money to the general price level (such a ratio corresponds to the amount of goods in general that the available nominal stock can buy). Therefore it is the quantity of money, not its utility, that depends on the price level.

It is of course true, as Benetti and Cartelier contend, that the demand for money goes to zero whenever the price of money is zero, and the price of commodities is infinite; one might add that the demand for money also goes to zero whenever the price of money is infinite and the price of goods is zero. In other words, no one needs a stock of money when goods are free or when money does not buy goods. But the fact that a zero price of money goes with a zero demand for money should not induce one to think of a direct relation between the price of money and the demand for money. In fact the reverse is true: any decrease in the price of money, corresponding to an increase in the price of goods, produces an increase in the demand for money. The demand for money therefore tends towards infinity as the price of money tends towards zero (the price of goods tends towards infinity). It would only become zero if the price of goods actually reached infinity.

Benetti and Cartelier believe that money should not be considered as a tool added to an already existing market in order to make the circulation of goods easier. Production and circulation are one and the same phenomenon. Production would only precede the circulation of goods in a hypothetical economy in which individuals enter the market with a view to exchanging use values. In a real exchange economy, individuals have to enter the market as money bearers, which means that the presence of money is a prerequisite for the realization of exchanges.

All this is unquestionable, but one wonders why the authors do not make recourse to the time-honoured and traditional distinction between a simple economy, in which no separation exists between labour and the means of production, and a capitalist economy in which the reverse is true. In a capitalist economy, production cannot precede exchange simply because labour and the means of production are separated, and for production to take place they must first be brought together again. This requires an act of exchange, namely the purchase of the labour force on the part of the capitalist. Such purchase can only take place if the capitalist is in possession of liquid means of payment. Money, as Neisser once said, has to be 'previously in existence'.

On this basis, the authors correctly reject the neo-Ricardian model, a model that tries to determine relative prices in a context in which money is totally absent. One might be tempted to add that the price neo-Ricardians pay for neglecting the existence of money is that, paradoxically, they end up with a model which, while being ideally connected to Ricardo's model, leaves unresolved Ricardo's question number one, namely the problem of income distribution.



What may seem slightly disappointing is that, after having fully convinced the reader of the necessity of considering the role of money as a vital element of a capitalist economy, the authors, when proceeding to construct their own model, simply assume that a monetary system exists, and that all individuals have sufficient means of payment to finance their desired transactions, either for production or for consumption. This means that all individuals, as soon as they enter the market, can proceed directly to buy all the commodities they need without having previously sold their own commodities or services and realized a money income. It is not quite clear to me, in the model presented by the authors, whether individuals have to face a cash constraint, an income constraint, or neither.

The authors consider as a special case a situation in which expected and realized prices are equal. In this case, which might be viewed as a sort of equilibrium position, the authors tell us that 'monetary balances are all equal to zero'. This poses some problems. If, when market negotiations start, each individual is endowed with a positive money balance and once negotiations are over all money balances are equal to zero, one wonders whether money has evaporated during the negotiations. However, immediately after the authors add a less severe specification, namely that 'in such a situation, all individuals respect the monetary constraint'. If by this the authors mean that for each individual the value of sales equals the value of purchases, this also means that, once the exchanges are over, the initial money balances are reconstituted in identical amounts in the hands of each single agent. If this is true, one might be tempted to think that the role of money is simply one of making exchanges possible. Since one would expect that the authors intend to construct a model in which money is something more than a mere intermediary of exchanges, one would also expect that, after the exchanges are completed, the individual money balances are no longer what they used to be, which means that not all money balances are equal to the initial value and not all individuals respect the monetary constraint. This, according to the authors, should only happen when expected and realized prices are not equal. But this case, the authors tell us, is beyond the scope of their chapter.

# 11 Money, Interest and Finance in Marx's Capital[1]

Suzanne de Brunhoff

According to Marx, money capital, lent by its capitalist owner to an industrial capitalist, is 'potential capital'. Interest payments made by borrowers to lenders are part of the global surplus value produced by labourers and appropriated by capitalists. There is no law of division of surplus value between profit and interest, no natural interest. Interest-bearing capital becomes a commodity *sui generis*. Its market price, the interest rate, is an irrational form of price. As a market price, the interest rate seems to arise from money capital as its own independent source.

Two opposite processes are now intertwining. On the one hand interest-bearing capital has its own laws of motion. It conceals the capitalist relation of production, and becomes a fetish form of capital. Capitalization of revenues gives rise to fictitious capital. On the other hand money capital is a homogeneous form of value, and it is a common element among individual capitalists. Financial institutions are a means of centralizing private capitals.

Both of these processes should be taken into account when the relationship between industrial and financial capitalists, or between production and finance, is analyzed. Two contradictory aspects are involved: interdependence, or even integration, versus separation, or even conflict. When these two aspects are kept apart by different analyses, a leading role is attributed to production or to finance, and their relation within capitalist reproduction is misinterpreted.

One problem is to show how features of money as an asset (*Capital*, volume III), are related to features of money as a general equivalent (*Capital*, volume I). A second problem is to examine the relation between financial and industrial capital.[2]





## MONEY WITHOUT PRICE AND CREDIT WITHOUT INTEREST

In volume III of *Capital*, money as such is analyzed within the circulation of commodities. Gold is assumed to be the money commodity. According to Marx, commodities with prices and gold with value enter the process of circulation. Money here has no price. Credit is presented as a new form of circulation that arises with money as a means of payment.

### Division of Labour, Exchange and Value Form

Social division of labour is 'the foundation of all production of commodities' (Marx, 1867, pp. 350–1). 'Individual exchange presupposes division of labour' (Marx, 1859, p. 60). There is no direct coordination between private producers, which is different from the process of labour in capitalist production ('cooperation' of labourers under the control of capitalists). Individual producers are connected only by the exchange of commodities.

This exchange cannot be direct barter. 'The division of labour converts the product of labour into a commodity, and thereby makes necessary its further conversion intomoney' (Marx, 1867, p. 108). Exchange values of commodities reflect 'homogeneous social labour', which is different from the concrete labour provided by individual producers. 'The act of exchange gives to the commodity expressed into money, not its value, but its specific value form' (ibid., p. 90).[3] For to be saleable, a commodity must be 'normal', that is, exchangeable and exchanged for money (ibid., p. 103).

### Some Features of Money as the General Equivalent

While money as a commodity enters circulation with a value, it has peculiar features as a social relation between private producers. Private exchanges of commodities are direct, free and voluntary. 'Sales and purchases are negotiated solely between particular individuals' (ibid., p. 586). And contracts express 'mutual consent between private owners' exchanging their commodities (ibid., p. 84). But at the same time, social conditions of exchangeability shape exchangers into subjects to the process of exchange. 'In the social production of their existence, men inevitably enter into definite relations, which are independent of their will'. Both products exchanged as commodities, and exchangers of commodities depend on markets and on money.

So there is no transparency of commodity exchanges. And money is not a transparent institution. No 'labour money' *à la* John Gray is feasible, for the exchange value of commodities cannot be directly expressed as a quantity of social labour. 'Polarity' of commodities and money as the general equivalent is inescapable. 'Fetishism' of commodities and money arises on this ground. Individual exchanges are socialized outside individual consciousness.[4]

Money is not added afterwards to a non-monetary economy. It is included in the exchange of commodities. It necessarily confronts commodities, so permitting them to express their exchange values, that is, to have prices. There is 'at the same rate, conversion of products into commodities, and conversion of one special commodity into money' (ibid., p. 87). But the general equivalent is not 'endogeneous', either as a commodity (gold) or as an asset.

Money cannot be a commodity that is produced and exchanged like others,[5] so its price of production was not taken in account by Marx. But there is a market price and a state price of gold (the mint price fixed by the state). How did Marx consider them?

'Gold has no price at all, when it is a factor in the determination of prices and therefore functions as money of account' (Marx, 1859, p. 75). However, when money functions as currency, gold coins circulate in the national market, in a form that is different from that of gold bullion. How is coin supply regulated for currency use? Against the quantity theory of money, Marx showed that the sum of commodity prices determines the quantity of money in circulation. He did not take into account the peculiar process of gold supply for currency use. According to him, no market mechanism explains the transformation of bullion into coins. '[T]he conversion and reconversion of one form into the other appears as a purely technical operation' (ibid., p. 107). When there is a difference between the market price of gold and its mint price, it only reflects the debasement of currency in circulation, its loss of weight, its wear and tear. 'The only difference... between coin and bullion is one of shape' (Marx, 1867, p. 126).

Marx considered gold bullion to be the universal money in the markets of the world, and here too the gold market is unconnected with the gold money supply. In volume III of *Capital*, the bullion trade is presented as a peculiar business done by merchants, or 'bullion traders' (Marx, 1894, p. 320). Here too, dealing in money is presented as a technical practice that depends on circulation processes. So gold bullion movements are 'alien to money circulation as such' (ibid.) Gold as money is not an asset, even though it can be hoarded: holding money in idle balances does not vary with changes in the interest rates and prices of financial assets. There is no 'speculative motive' *à la* Keynes, no portfolio arbitrage.



**Credit and Money as a Means of Payment**

Credit, in volume I, of *capital*, is considered as deferred payment, within the circulation of commodities. Purchase and payment are no longer simultaneous. Debtors buy before they pay. They are linked to their creditors by a contract, a promise to pay at a fixed date. They have to anticipate an income flow. Here Marx did not speak of the interest rate.

Credit is 'a new social relation' (Marx, 1867, p. 137) that is different from the connection between buyers and sellers that originates in circulation alone. If debtors do not receive the anticipated income flow, they cannot liquidate their debts. According to Marx, monetary crises arise when interdependent credit relations are developed into a system, and cannot be settled if industrial and commercial crises occur (ibid., p. 138). Hence there is a 'sudden reversion from a system of credit to a system of hard cash' (ibid., p. 138), because of 'money famine'. In crises 'the antithesis between commodities and their value form, money, becomes heightened into an absolute contradiction'. The monetary constraint has a new form: private debtors simultaneously need cash to meet their debt obligations. And the function of money as the means of payment prevails, whether payments have to be made in gold or in credit money such as bank notes.

Monetary crises are also examined in volume III, where the circulation of money capital and finance are described. However, in all cases the possibility of crisis is rooted in the circulation of commodities (Marx, 1894, p. 114). The contradiction between private labour and social labour is resolved by monetary exchange, but it is not abolished. Credit is submitted to the monetary constraint that it delays. Debts must be repaid with cash. These aspects of credit within the circulation of commodities recur throughout *Capital*, while the rate of interest figures only in volume III.

## MONEY CAPITAL AND THE RATE OF INTEREST

Money, as presented in the first section, has a relation of 'polarity' with commodities: commodities do not buy commodities, money buys commodities, commodities do not buy money. In volume III Marx examined money capital, as lent and borrowed between capitalists. It is a 'derivative form', 'incompatible with the nature of money' (Marx, 1867, pp. 163–5), for money does not buy money, which has no price as such. In volume III, on the basis of the division of surplus value between two groups of capitalists, money capital becomes an object of supply and demand, whose market price is the rate of interest.

### The Transfer of Money capital Between Capitalists

Here money is no longer expended by its owner in the circulation of commodities (volume I), and it is not advanced as money capital within the circulation of industrial capital, as in volume II. It is lent by a moneyed person to an industrial capitalist as a private claim to a share of further surplus value.

Value produced by industrial wage workers is appropriated by industrial capitalists. According to Marx, that process of exploitation is obscured when money capital is 'an object of manipulation' by a special kind of capitalist, without creating any product or commodity (Marx, 1893, p. 421). It is concealed by the money form of capital, which is lent, when interest resembles the product of self-expanding money capital, disconnected from surplus value and profit. Of course the fundamental relationship between capital and labour is veiled.

Before capitalism, the rate of interest appeared when money was lent. Marx presented 'pre-capitalist relationships'[6] in Chapter 36, volume III of *Capital*.[7] There, lending is conducted through 'usurer's capital, which belongs, together with its twin brother, merchant's capital, to the antediluvian forms of capital'. Both merely require trade in commodities and money in its various functions (Marx, 1894, p. 593). When access to means of subsistence depends on money, some producers are driven into debt. Here there is some kind of exploitation of labour by the usurer, without capitalist production. This kind of relationship can survive in capitalism, but it becomes secondary.

That reference to history helps to understand what Marx called 'interest-bearing capital', which is lent to producing capitalists. 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 (ibid., p. 600). The basis of the lending relationship is the production of surplus value.

In the capitalist mode of production, interest-bearing capital is subordinate to industrial capital, and paves the way to 'the modern banking system'. 'It signifies no more and no less than the subordination of interest bearing capital to the conditions and requirements of the capitalist mode of production' (ibid.) But as it will be shown below, this structural subordination to the system does not remove the complex relationship – interdependence/separation – between finance and industry.

### Some Features of the Interest Rate

Before capitalism, the entire surplus over and above means of subsistence could be appropriated by usury. '[H]ence it is highly absurd to compare the level of this interest... with the level of the modern interest rate, where interest constitutes at least normally only a part of the surplus value' (ibid., p. 595). The division of surplus value into profit and interest is done within the same capitalist class. Interest is based on industrial exploitation. Important commentaries have been made on Marx's conception of interest[8] compared with Ricardo's, and with those of Keynes and Sraffa. I would rather focus on other points here.

In the money market, money capital appears as a commodity. The price for its use is determined by the supply of and demand for loanable funds. This is the rate of interest, which Marx called an 'irrational price' because money, whatever its form, is not an asset. When 'money as capital becomes a commodity', its price has particular features. 'How can a sum of value have price... besides the price expressed in its own money form?' (ibid., p. 354). The price of 100 francs is 100 francs (in this sense money is a numeraire, the price of which is 100/100 = 1). Money, however, appears as a commodity, inasmuch as it is offered in a market. Its price (the rate of interest) is regulated by supply and demand; there is no 'natural' rate of interest.

According to Smith and Ricardo, the rate of interest is ultimately governed by the rate of profit. But it is difficult to state the average rate of profit, which can then be represented by the rate of interest. Marx developed and transformed this idea when he set out some features of the rate of interest as the price of loanable money. 'The market rate of interest, while fluctuating continually, appears ... at any given moment just as constantly fixed and uniform, as the market price of a commodity prevailing in each individual case' (ibid., pp. 366–7). '[I]t appears as a uniform, definite and tangible magnitude in a quite different way from the general rate of profit' (ibid., p. 365). So this 'irrational price' is also a factor in the rationalization of individual capitalist practices. 'It serves industrial and mercantile capitalists ... as a prerequisite and a factor in the calculation of their operation' (ibid., p. 368).

Marx related these features to particular aspects of money capital. First, 'in the money market, the commodity, money, exists in the undifferentiated homogeneous form of independent value. It is a common element among the various spheres of production and circulation, indifferent to its specific employment'. This feature is referred to the money form presented above, in the framework of the social division of labour, which requires a coordination of private producers.

Now it is the division of capitalists into different spheres and different roles that is at stake. And the 'money constraint', as seen in volume I, takes the form of an 'interest rate constraint' upon all capitals. So the second point is that all capitals, whether borrowed or not, must yield the same rate of interest. Now the capitalist profit is split in two: interest, and the enterprise profit that rewards the industrial capitalist. An individual owner of money capital can choose whether to make use of his or her capital by lending it, or to use it as productive capital (ibid., p. 377). But in both cases he or she takes into account the rate of interest, which appears as the normal result of the ownership of capital for the whole capitalist class.

Next, that special kind of socialization of private capitals is supported by financial institutions.' [M]oney-capital, so far as it appears on the market, ... assumes the nature of a concentrated, organized mass, which ... is subject to the control of the bankers, i.e. the representatives of social capital' (ibid., p. 348). Here social capital is not an aggregate of magnitudes (real and financial assets), but a form of centralization of capital, as presented by Marx in volume I. Once more, this form is referred to coordination by money of private capitalists without social organization of production and exchanges.

As in the case of commodities and money, fetishism arises from the circulation of money capital. While interest is only a portion of surplus value it appears now as 'the primary matter, and profit, in the shape of profit of enterprise, [as] a mere accessory and by-product of the process of reproduction' (ibid., p. 392). Interest-bearing capital



is represented as a self-expanding value, 'money generating money'. The social relationship of the exploitation of labour in the process of production is concealed, and so is the division of surplus value between two groups of capitalists. So the process of rationalization of individual capitalist practices by the calculation of the rate of interest includes the mystification and fetishism of capital, which appears to be an independent source of value. The rate of interest is an ambiguous social fact.

**Externalization of the Interest Rate and Fictitious Capital**

According to Marx, interest comes from profit, but it becomes the general form of capitalist income. The capitalist social relationship takes the form of money producing interest, which is extended beyond capitalists. 'It becomes the general endowment of every sum of money of 100 to yield 2, 3, 4, 5' (ibid., p. 368).

We have seen that the decisive element for understanding interest in the capitalist mode of production is the character of the borrower, who receives credit as a 'potential' productive capitalist. Marx did not study the access of households to credit. He only made brief remarks about borrowing as a result of 'individual needs' (ibid., p. 600); about 'the lending of houses for individual uses, etc.' (ibid., p. 609). 'That the working-class is also swindled in this form, and to an enormous extent, is self-evident; but this is also done by the retail dealer, who sells means of subsistence to the worker. This is secondary exploitation, which runs parallel to the primary exploitation taking place in the production process itself' (ibid., p. 609). How far this process is from the contemporary consumer credit that arose at the same time as 'mass' production is a matter for discussion, but Marx criticized some socialist illusions about 'the miraculous power of credit', the *credit gratuit* proposed by Proudhon, and the idea of emancipating workers by giving them free access to credit. Credit defers the money constraint, but not capitalist exploitation.

The notion of fictitious capital derives from that of the externalization of the interest rate. It suggests a principle of evaluation that is opposed to that based on labour value. 'The formation of fictitious capital is called capitalization. Capitalization takes place by calculating the sum of capital which, at the average rate of interest, would regularly yield given receipts of all kinds' (ibid., p. 440). According to Marx, financial revenues regulate the evaluation of all other receipts, including wages. It is 'totally absurd' to capitalize wages as if they were a return on 'human capital', and an 'illusion' to do so with interest on the public debt, for which there is no corresponding productive investment.

Nevertheless the issue of bonds provides a right to part of the surplus that will be created by future labour. Although fetishized, fictitious capital has some real roots. Credit and finance are necessary for the accumulation and centralization of capital. The interest rate has an ambiguous influence on capitalist practices, as we have seen above. We must now return to the division between different groups of capitalists.

## PRODUCTION AND FINANCE WITHIN CAPITALISM

Some problems that are common to different Marxist authors will be introduced here. According to Marx, two groups of capitalists who share the same profits belong to the same class, but they have different activities – production or finance. They are interdependent, but they also have conflicting relations.[9] Is one group subordinate to the other? Marx asserted that, on the one hand, finance[10] in modern capitalism is subordinate to industrial capital. But on the other hand, he attributed to credit institutions some 'power' over industry. Does a problem with the balance of power between industrial and financial capital arise? I don't think so, whatever ambiguities can be found in volume III.

### The System of Credit in Volume III of Capital

Some features of credit have been presented above, so credit money, issued by the banking system, will not be examined here. The discussion of the balance sheet of banks (assets and liabilities) is rather confusing in volume III of *Capital*, but it is clear that the credit system defers limits of money circulation, but does not suppress them. During monetary crises the credit system, whatever its financing function of capitalist production may be, is put of service by the need for ready cash (liquidity). It does not emancipate itself from the basis of the monetary system it (ibid., p. 592). Now, it is its capitalist nature which is in question.

The credit system is presented as an institution peculiar to the capitalist mode of production. Marx referred to what he called the historical battle against usury, for the subordination of interest-bearing capital to industrial capital, for 'a compulsory reduction of the rate of interest', including legislation (ibid., pp. 602–3). When the banking system came into existence its core was the central bank (Bank of England). Banks concentrate all the idle reserves of industrialists and merchants; they also collect deposits from all kinds of revenues. By their loans, 'the distribution of capital as a special business, a social function, is taken out of the hands of the private capitalists and private usurers' (ibid., p. 606).



The credit system is also the principal basis for the gradual transformation of private enterprises into stock companies (ibid., p. 460), which should be considered as an 'implicit latent abolition of capitalist property mainly with reference to industrial capital' (ibid.) This kind of 'socialization' of capital by the credit system has contradictory features, according to Marx. It includes 'the immense power of an institution such as the Bank of England over commerce and industry, although it is passive toward their actual movement' (ibid., p. 606). The banking system has 'the form of universal book-keeping and distribution of means of production on a social scale, but solely the form' (ibid.) At the same time, under capitalism, banking and credit become 'one of the most effective vehicles of crises and swindle'. They reproduce 'a new financial aristocracy, a new variety of parasites in the shape of promoters, speculators and simply nominal directors ... It is private property without the control of private property'. This is reminiscent of Keynes' reference in his *The General Theory of Employment Interest and Money*, 1936,[11] to the 'activities of a casino' of financial speculators – a remark that is often quoted by critics of finance capital's domination.

So the nature of the credit system is ambiguous, like that described earlier for the rate of interest but now connected to the activity of financial agents, because private property's limits on industrial capitalists are exceeded for the benefit of unproductive financiers. We shall return to this point in the next subsection but first let us briefly comment on the 'socialization' of private capital within capitalism, carried out by the system of credit. According to Marx, it constitutes 'the form of transition to a new mode of production', 'the associated one' (ibid., pp. 440–1). Centralization of capital by means of credit leads to the expropriation of small and medium sized capitalists by a few owners of capital. This paves the way to the expropriation of means of production from all private owners, and to the social control of production by associated producers, without which the credit system is merely a form of the capitalist mode of production, sensitive to speculation and monetary crises. The ambiguous nature of credit is well presented by Marx. But some statements made by him have given rise to illusions about the social control of production by credit, as if, once nationalized, the banking system could be a lever for socialism. The 'social' form of the credit system is thus disconnected from its capitalist framework, and from its monetary basis.

## From Structural Subordination to the Present Hegemony of Financial Capital

Besides the 'transition debate(s)' (transition from precapitalism to capitalism, and from capitalism to socialism), the problem arises of capitalism evolution during two centuries. Different forms of accumulation appear one after the other: 'free competition' capital being succeeded by 'monopoly capital' and so on. The brief outline that follows focuses on the changing relationship between productive capital and finance capital.

According to Marx, the division of profit into interest and profit of enterprise (see above), is not only a matter of the distribution relationship between two groups of capitalists, but also a structural determination of the process of capitalist production. So in spite of different statements about the dominance of one or the other, capitalist production and capitalist finance intertwine. Different stages of accumulation, changing phases of the business cycle, have some effect upon the relationship between production and finance and the two groups of capitalists; but the entire capitalist class is jointly reproduced by the common appropriation of surplus value. The question of balance of power between industrial and financial capitalists is not really at stake in Marx's *Capital.*

Are things different at the present time? According to Sweezy, recent changes, mostly since the Second World War, have modified the role of financial capital. The accumulation process is no longer focused on industrial capital. '[T]he inverted relation between the financial and the real is the key to understanding the new trends in the world' (Sweezy, 1994). The stagnation of the real economy and of the profits arising from production since the 1970s, contrasts with the rise of a 'relatively independent' financial structure that has spread throughout the world and is now dominant. 'That structure is made up by banks... and a host of dealers in a bewildering variety of financial assets and services, all interconnected by a network of markets' (ibid.) Sweezy argues that The 'locus of economic and political power has shifted along with ascendency of financial capital' (ibid.)



Multinational corporations are increasely controlled by the global network of financial markets, even if they are players in those markets. Governments too are subject to the constraint of financial markets. Even moderate reforms 'must pass the test of acceptability to the financial markets' (ibid.) The balance of power has shifted from industrialists to financiers.

From this point of view, the present financial system is no longer a form of 'socialization' of capital. It is a growing superstucture that is disconnected from real production, which is assumed to be stagnant in the long term. Some writers argue that the owners of large amounts money capital (rentiers) and professional players in financial markets are parasites, and quite different from active economic agents, entrepreneurs and workers. Credit money, instead of being invested in production, is wasted in speculation, which does not create new value – a speculative economy, including 'deindustrialization', as opposed to a productive economy.

This gives rise to numerous questions, but what is at issue here is how these writers' statements differ from Marx's conception of finance, as presented above. First, Marx argued that capital 'produces essentially capital, and does so only to the extent that it produces surplus value' (Marx, 1894, p. 880). Money capital, interest-bearing capital and credit cannot be self-reproducing and self-expanding without production value. Second, according to Marx, finance has a contradictory nature. It is 'an immanent form of the capitalist mode of production', but 'it evolves out of it'. It has a developmental path of its own, but cannot be totally disconnected either from profits due to exploitation or from monetary constraints. However dominant financial capital may be today, it cannot cut loose from contradictions that affect its ascendency.

### Notes

1. I would like to thank those who participated in the discussion of this chapter during the conference, and the anonymous referee for helpful comments on an earlier draft.
2. I have left aside the chapters of *Capital*, volume III, part V, which were mainly rearranged, or made up, by Engels, according to Engels' Preface (Marx, 1894, pp. 4–6). These chapters are numbered 25, 26, 28, 30 and 33–5. I have focused on chapters 21–4, 27, 29 and 32.
3. For the nature and the role of money as a social relation in Marx's *Capital*, see Saad-Filho, 1993.

4. For a comment on fetishism and the mode of socialization of individuals, see Balibar, 1993, pp. 55–76 (to be translated into English).
5. This point is developed in Brunhoff and Ewenczyck, 1979, pp. 44–52.
6. Following Schefold, the title in Marx's own manuscript is 'Prebourgeois relationships'.
7. For this 'transition debate', see Wood, 1994.
8. The rate of interest is set as a monetary phenomenon by Pivetti (1990, pp. 432–63), who discusses Marx's statement from a Sraffian point of view.
9. These contradictory features are presented in Guttmann, 1994.
10. The term 'finance capital' was not employed by Marx, but by later Marxists authors, chiefly Hilferding (1910). Subsequently, 'finance' or 'financial' capital were used interchangably. For a comment on Hilferding's statements, see Brunhoff and Ewenczyck, 1979, pp. 41–4.
11. 'When the capital development of a country becomes a by-product of the activities of a casino, the job is likely to be ill done (Keynes, 1936 chapter 12).

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# 12 Fictitious Capital and Crises[1]

Ferdinando Meacci[2]

'Commerce separated the shadow from the body, and introduced the possibility of owning them separately' (Sismondi, quoted in Marx, 1939, p. 217).

## INTRODUCTION

This chapter is concerned with just a section of part V ('The Division of Profit into Interest and Profit of Enterprise') of volume III of *Capital*.[3] This section consists of the chapters 25 to 35. Although these should properly be grouped as a separate part, their unity escaped Engels' attention and is accordingly missing in the current arrangement of volume III. This 'ideal' part (which could possibly be titled 'Credit and Crises' or 'Money Capital and Fictitious Capital', and will be referred to henceforth as 'the unidentified part') is not unrelated to what remains of part V (chapters 21–4 and 36) but should be considered more strictly as a follow-up of part IV, 'The Transformation of Commodity Capital and Money Capital into Commodity-Dealing Capital and Money-Dealing Capital' (*Merchant's Capital*).[4] It should also be noted that the unidentified part is less related to the nature of interest and to the difference between interest and profit (an issue fairly similar to that of rent and of the difference between rent and profit in part VII) than to that section of part IV where money-dealing capital is presented as a subspecies of merchant's capital.

The relationship between the unidentified part and part IV on the one hand, and the unidentified part and what remains of part V on the other, is as follows. While the analysis of interest-bearing capital (the subject of the five initial chapters of part V) is introductory to the analysis of merchant's capital in the sense that the former is an analysis of capital as *property* rather than capital as *function* and the latter is an analysis of capital within the phase of circulation as a particular moment of this function, part IV is introductory to the unidentified part in the sense that while the former deals with the role played by merchant's capital – and particularly by money-dealing capital – in the phase of circulation as a particular moment of the overall process of reproduction, the latter deals with the obstruction or perversion inflicted on this role by money capital being turned into *fictitious* capital through the improper use of *credit*.[5] Thus while part IV and what remains of part V deal with the principles of what appears to be the tailend of Marx's theory of capital (the head being firmly located in volume I and in its central notion of surplus value) the unidentified part deals with the complications created by credit and credit institutions in Marx's theory of capital when this theory is assessed in the light of what happens, or may happen, in the real world.[6]

This chapter is divided into two sections. The aim of the first section (which contains three subsections) is to clear out the debris from the unidentified part and to reconstruct Marx's own thinking about the nature of credit and the notion of fictitious capital in relation to the concept of merchant's capital, on the one hand, and the phenomenon of crises on the other. Its conclusion is that the role of merchant's capital is irrelevant to the determination of values, while it is either harmful or beneficial to the reproduction of wealth depending on whether it does or does not give rise to (an excessive amount of) fictitious capital.

The second section deals mostly with different *forms* versus different *sets* of crises, and highlights some contradictions in Marx's unsystematic treatment of the relation between financial crises and real crises. The conclusion is that crises (which are relevant only insofar as they are 'real', that is, insofar as they affect the process of reproduction of wealth) may be viewed as a result of the process of circulation outgrowing the process of production (rather than of a disproportion between sectors).

The concluding remarks highlight the similarity between Marx and Keynes on the matter of 'money as money' and of financial crises. They imply that this similarity, however strong it may be with regard to the role of money as a store of value, is bound to collapse if Marx's law of the falling rate of profit is taken as true. For in this case the fictitious-capital theory of crisis developed in the unidentified part acquires a secondary importance, while financial crises come to be viewed as a typical effect, rather than the cause, of real crises.



## COMMERCIAL AND BANK CREDIT

At the root of the notion of fictitious capital is Marx's distinction between *commercial* credit and *bank* credit. The former is the credit that 'capitalists involved in the reproduction process' extend to one another through bills of exchange. The latter arises from the lending of money capital. The conditions for the existence of the two forms of credit are the division of labour plus the division of property between productive capitalists in the case of commercial credit; and between money capitalists and productive capitalists in the case of bank credit.[7]

The function of banks (and therefore of money dealers or money-dealing capital) is not the same, however, in the two cases. For although the advances made by banks are in the form of money in the case of both *discounting* and *lending*, these advances consist of money but not of money capital in the first case; and of money capital but not of money in the second case. Indeed the very term 'advance' is misleading when its object is money. For what essentially occurs when bills are discounted is a simple change of one form of money (money as means of payment) into another (bills of exchange). In carrying out this exchange, however, banks perform a social function: they *prevalidate* (Brunhof, 1976, p. 46), from the standpoint of reproduction, what individuals do in their particular spheres of production and circulation.[8]

### The Beneficial Role of Credit and of Merchants' Capital in the Reproduction of wealth

The process of reproduction of wealth, in the context of which Marx deals with commercial and bank credit, is extensively discussed in volume II of *Capital*.[9] The circulation of commodities (between capitalists and capitalists, and between capitalists and consumers) and their production (by workers under the supervision of capitalists) are considered as two distinct phases of this process, the most crucial difference being that surplus value is created in the phase of production but is realized in the phase of circulation. Hence Marx's distinction between *productive capital* (variable and constant capital) and *capital of circulation* (commodity and money capital), plus his subsequent treatment of *merchant's capital* (commodity-dealing and money-dealing capital) as a further evolution of the capital of circulation: productive capital is to the process of production what merchant's capital is to the process of circulation, these two processes being two distinct phases of the process of reproduction.

Hence the beneficial role that is normally played in this process by the two forms of credit (and by merchant's capital itself). For the role of commercial credit is to reduce the amount of actual money needed to carry out a given set of transactions (with the result that, insofar as money consists of precious metals, it saves the capital that would be necessary to produce these coins), while the role of bank credit is to help create additional capital by concentrating in the hands of money dealers the reserve funds of all capitalists and the money savings of all social classes. Furthermore, since merchant's capital promotes the metamorphosis (required for the overall process of reproduction to be completed and repeated) of commodities 'waiting to pass over into money' and of money 'waiting to pass over into commodities', its indirect function is to extend the benefits of the social division of labour to the last (and first) phase of the process of reproduction of wealth.[10]

## The Irrelevant Role of Credit and Merchant's Capital in the Determination of Values

In part IV of volume III, the arguments that highlight the positive role of credit and merchants' capital in the creation of wealth are intertwined with arguments devoted to stressing the irrelevancy of the same kind of capital in the determination of values. In this new context merchants (money dealers and commodity dealers) are considered by Marx in the same way that artificers were considered by the Physiocrats: they do not add anything to the value (Marx) or the matter (Physiocrats) that they receive from industrial capitalists (Marx) or *fermiers* (Physiocrats):

> Merchant's capital [*Kaufmannskapital*] is nothing more than capital functioning within the circulation sphere. The circulation process is one phase in the reproduction process as a whole. But in the process of circulation, no value is produced, and thus also no surplus-value. The same value simply undergoes changes of form. Nothing at all happens except the [formal] metamorphosis of commodities, which by its very nature has nothing to do with the creation or alteration of value. If a surplus-value is realized on the sale of the commodity produced, this is because it already existed in the commodity (Marx, 1894, 3, p. 392).[11]



The fact that the profit yielded by merchant's capital in the phase of circulation is not created within this phase signifies that a transfer of profit from the phase of production to the phase of circulation is required. This transfer is viewed by Marx as carried out by merchants purchasing commodities *below* their value or price of production (as determined during the phase of production) rather than selling these commodities *above* this value or price (as it may appear to themselves through the practice of the mark-up): The profit of industrial capital is accordingly reduced, although its reduction is less than it would have been if industrial capitalists had had to advance the merchant's capital themselves.

## The Harmful Role of Credit and of Money Capital in the Reproduction of Wealth: the Formation of Fictitious Capital and the Eruption of Crises

However beneficial the two forms of credit discussed above may be for the reproduction of wealth, they may nonetheless swerve from their path and disrupt this very process. When such disruption occurs the two forms of credit give rise to *fictitious capital*. The following is a reconstruction of the two meanings assigned by Marx to this concept and of the role played by fictitious capital in his theory of crises.

To begin with, *fictitious* capital should not be confused with *money* capital. The distinction between the two is not only different from, but also more advanced than, the distinction between *money* and *money capital*: while the latter distinction is instrumental to the concept of circulation, as distinct from the concept of production; the former serves to emphasise that the true object of crisis is reproduction itself. For fictitious capital arises any time that money capital is *not* employed in production or in circulation as two distinct phases of the reproduction of wealth. Since, however, money capital must always earn interest, although it does not earn (create) a profit (surplus value) when it is not employed in reproduction (that is, when it becomes a fictitious capital), it follows that merchant's capital is *not* a form of fictitious capital. Indeed it is true that the profit earned by merchant's capital is, as much as the interest paid on interest-bearing capital, a deduction from the profit earned by productive capital. But it should be noted that this deduction is necessary in the case of merchant's capital while it is unnecessary in the case of interest-bearing capital and fictitious capital; and that while merchants' capital belongs to the category of capital as *function*, fictitious capital belongs, along with interest-bearing capital, to the category of capital as *property*. From the point of view of reproduction, therefore, fictitious capital is not only, along with interest-bearing capital, *useless*. It is also, unlike interest-bearing capital, *dangerous*. This can best be seen in the degeneration of the two forms of credit.

Secondly, the expansion of commercial credit is limited by the seale of the process of reproduction, which is in turn determined by the amount of productive capital (and merchant's capital) existing in an economy at a given time. These limits are stretched when bills of exchange are issued, in Marx's words (Marx, 1894, p. 555), 'not to make a profit' (that is, not in order to take the metamorphosis of commodities one step further in the process of reproduction) but 'to get one's hands on other people's capital', that is, in order to interrupt the metamorphosis of commodities carried out by other people's capital. These 'accommodation bills' are *fictitious*. Their existence signifies that 'the capitalist barriers to the production process' are being, or have been, violated. While the immediate appearance of this phenomenon is 'a violent scramble for means of payment', or a 'reversion' of the credit system into the monetary system (*Umschlag*), its root cause is that the expansion of the reproduction process has been forced beyond the limits set by productive capital: when this occurs the scene is set for the eruption of a crisis.

The same applies to bank credit. Money capital, the typical object of this form of credit, may indeed be used either to underwrite government bonds or to multiply bank deposits. Now while the money capital lent to the state is 'illusory and fictitious' from the outset (on Smith's principle, unmentioned by Marx, that governments are spendthrifts who pervert the capital they borrow), the money capital lent to (deposited at) a bank is in turn turned into nothing but a *claim* on the bank, and therefore again into fictitious capital. On the other hand, the money capital subsequently lent by the bank is not fictitious if it is employed to the purchase of means of production and labour power, that is, used for the reproduction of wealth.

Given the difference between money and money capital, it is however understood that the amount of money capital 'is still different from, and independent of, the quantity of money in circulation'.[12] For, according to Marx, the same amount of money, whatever its forms, may safely play the role of many money capitals provided these capitals do not become fictitious, that is, provided they are not employed outside the process of reproduction; or to put it in Smith's terms, provided 'the goods purchased by the different debtors' are 'so employed, as, in due time, to bring back, with a profit, an equal value either of coin or of paper' (Smith, 1776, p. 352).[13]



Thirdly, however unsuited for Engels' part V of Volume III of *Capital*, Marx's treatment of fictitious capital fits into the structure of this volume as properly as other topics, such as the transformation of values into prices, or profit, interest and rent as three distinct forms of surplus value. For the general purpose of volume III is to study one capital in relation to another (or the property of someone in relation to the property of someone else) and not capital in general (or capital in relation to labour). This context makes it easier to grasp Marx's second definition of fictitious capital. This definition is derived from his arguments concerning (1) the similarity between fictitious capital and the *value of land*; and (2) the relation between fictitious capital and *capitalization*.

The link between these two topics is made explicit in the passage of volume III where Marx, speaking of the price of a waterfall as 'an irrational expression', concludes that this price 'is nothing more than capitalized rent',[14] and in the other passage where he flatly states that 'the formation of fictitious capital is known as capitalization' (Marx, 1894, p. 597).

The similarity between these two statements is to be traced to the fact that what is at stake in both cases is the value of a *title of ownership* (or, to put it in more current terms, the value of an *asset*) rather than the value of a *commodity*; and that – the value of the title being determined by different principles (discounting) than the value of the commodity (labour embodied) – the movement of the former is determined by different rules than the movement of the latter.[15]

In this new perspective fictitious capital may be redefined as the value of ownership titles: this value is a 'pure illusion' if only because its connection with the world of commodities (and particularly with the labour embodied in them) is lost even when it does not consist of government bonds. According to this new definition, capital is fictitious not because it is created *beyond* the constraints set by the actual process of reproduction (as implied by the first definition), but because its value is formed *in contrast with* the principles of the labour theory of value. However conflictual, these two definitions are nonetheless useful in understanding, when taken together, that it is the *excessive* growth of fictitious capital, and not fictitious capital as such, that constitutes a condition of crisis; and, when taken apart, that *money capital* and *capital value* are two distinct concepts: while the former is a transitional form of capital when the process of reproduction is considered in the context of the division of *property*, the latter is a fiction by which accountants and businessmen make circulation possible also between ownership titles and money.

## TWO DIFFERENT FORMS VERSUS TWO DIFFERENT SETS OF CRISES

Marx's talent for distinguishing between 'essence' and 'appearance' is particularly evident in chapter 17 of *Theories of Surplus-Value* (Marx, 1905) where it gives rise to the distinction between the *possibility* (or *conditions*) and the *actuality* (or *causes*) of crisis.[16] Neither in that chapter, however, nor in volume III of *Capital* was Marx able to present a systematic theory of this phenomenon. For instance, while chapter 17 is silent about the role of fictitious capital, the unidentified part of volume III of *Capital* is not as explicit on the different *forms* of crisis: it is as if this part deals with just one of these forms, that is, with the form originated by fictitious capital. In *Theories of Surplus-Value*, however, Marx started from the phenomenon of overproduction as an interruption in the reproduction process and regarded this phenomenon as the 'general condition' of crises (that is, the factor that turns their possibility into actuality). Crises, on the other hand, are here presented as *monetary* crises, of which there are essentially two forms: one originates by money functioning as means of circulation (and therefore by the separation of purchase and sale); the other by money functioning as means of payment (and therefore by the separation *in time* between purchase and sale):

> The form mentioned first is possible without the latter – that is to say, crises are possible without credit, without money functioning as a means of payment. But the second form is not possible *without the first* – that is to say, without the separation between purchase and sale. But in the latter case, the crisis occurs not only because the commodity is unsaleable, but because it is not saleable within a *particular period of time*, and the crisis arises and derives its character not only from the unsaleability of the commodity, but from the non-fulfilment of a whole series of payments which depend on the sale of this particular commodity within this particular period of time. This is the characteristic form of money crises (Marx, 1905, vol. II, p. 514).



Although fictitious capital is not mentioned in *Theories of Surplus-Value*, the arguments in Volume III of *Capital* make it clear that this form of capital corresponds exclusively to the second function of money. From the standpoint of the relation between production and circulation it seems, however, that fictitious capital is the result of, according to the arguments in Volume III, the process of circulation outgrowing the process of production (through what Marx called 'excess credit'), and, according to the arguments in *Theories of Surplus-Value*, by the process of production outgrowing the process of circulation (through what Marx called 'over- production').[17] Far from contradicting each other, these two sets of arguments may be used to stress the unity of Marx's theory, at least in the sense that in both cases a crisis presents itself as a *disturbance* in the process of reproduction as well as the *solution* of a contradiction between production and circulation: its function is either to bring the process of circulation back into line with a given process of production, or to bring the process of production back into line with a given process of circulation.

The idea of the crisis as the outcome of a disproportion between processes (rather than between sectors) paves the way to a settlement of the question of the relation between *money* crises and *real* crises, that is between two different *sets* of crises rather than between two different *forms* within one of these sets.[18] It also paves the way to the further question of the much broader relation between what may be called the fictitious-capital theory of crisis (FCTC), as developed in the unidentified part, and the most crucial (in Marx's system of thought) falling-rate-of profit theory of crisis (FRPTC), not to mention the falling-rate-of-profit theory of the breakdown (FRPTB). An attempt to provide a solution to the first question was made by Engels in a note added to the third German edition of volume I of *Capital*:[19]

> The monetary crisis, defined in the text as a particular phase of every general industrial and commercial crisis, must be clearly distinguished from the special sort of crisis, also called a monetary crisis, which may appear independently of the rest, and only affects industry and commerce by its backwash. The pivot of these crises is to be found in money capital, and their immediate sphere of impact is therefore banking, the stock exchange and finance (Marx, 1867, p. 236, n. 50).

Engels' insight may be reformulated in the sense that financial crises are sometimes the *cause* and sometimes the *effect* of real crises. In view of what was argued above, however, it should be noted that when financial crises are the *cause* of real crises their pivot is not to be found, contrary to Engels' claim, in *money* capital as such, but in its degenerate form of *fictitious* capital; and not just in fictitious capital as such, but in its excessive growth.

## CONCLUDING REMARKS

In the light of Shackle's dictum concerning the essence of Keynes' thought, namely that 'the fox knows many things the hedgehog knows one big thing' (Shackle, 1967, 135), one may wonder at this point whether the 'one big thing' that Keynes knew – that is, that money is a *store of value* and therefore a *vehicle of uncertainty* – was known to Marx himself.[20] From the arguments set out so far it follows (1) that this is indeed the case,[21] and (2) that Marx dealt with this issue within the sophisticated framework (derived from the Physiocrats and the classics and rather neglected by Keynes) of the *process of reproduction of wealth*. This conception of money is indeed at the root not only of Keynes' and Marx's common negation of Say's law (Keynes, 1936, p. 26; Marx, 1905, vol. II, pp. 492–535), but also of their view of a *monetary economy* as distinct from a *real-exchange economy* (Keynes, 1933a), or, again in Keynes' words, of an *entrepreneur economy* as distinct from a *co- operative economy* (Keynes, 1933b).[22] In this sense not only did Marx deal with money as a store of value, but he did it in the context of what Schumpeter (1954, pp. 291–2) considers a condition for 'any satisfactory theory of money', that is, in the context of 'a theory of the economic process in its entirety'.[23]

It should be noted, however, that Marx's work can be regarded as a precursor of the *monetary* (Keynesian) *theory of production*, and of the modern theory of crisis that goes with it, only inso far as he is exclusively regarded as the author of the unidentified part, as singled out in the introduction above and as distinct not only from part V but also from other parts of volume III. For not only is the FCTC (the implicit object of the unidentified part) essentially unrelated (as argued above) to the theory of the division of profit into interest and profit of enterprise (the explicit object of part V); it also runs counter the FRPTC (the object of part III), let alone, via Marx's arguments on the necessity of real crises, the FRPTB. Indeed, while the FCTC deals with financial crises as the *cause* of real crises, the FRPTC and FRPTB do the opposite: they tend to deal with financial crises as the *effect* of real crises while focusing on real crises as the *essential outcome* of a continuous process of accumulation. In this sense the FRPTC and the FRTB pose a dilemma for those who still believe (as Marx and Engels may have thought in order to make these theories consistent with the FCTC) that financial crises are the typical *effect* of real crises: they either accept the FRPTC and FRPTB – and therefore reject the modern theory of crises; or they accept this theory – and therefore reject the FRPTC and FRPTB.



**Notes**

1. Paper presented at the Conference on 'Marxian Economics: A Centennary Appraisal. International Conference on Karl Marx's Third Volume of *Capital*: 1894–1994, University of Bergamo, 15–17 December 1994, plenary session: 'Money (II)'.
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3. 'It was Part V', said Engels in his first preface to volume III, that presented the major difficulty, and this was also the most important subject in the entire book' (Marx, 1894, p. 94).
4. The term 'commodity-dealing capital' is used in this chapter in lieu of the term 'commercial capital' which was adopted in the English translation used here (see references), as it better conveys Marx's meaning and is more faithful to Marx's own terms of *Warenhandlungskapital* and *Geldhandlungskapital*, as distinct from *Warenkapital* (commodity capital) and *Geldkapital* (money capital).
5. The *nature* of credit is first explained by Marx in *Capital*, volume I, chapter 3, in connection with the transformation of money as a means of *circulation* (between buyers and sellers) into money as a means of *payment* (between creditors and debtors). On the other hand, the *role* of credit is examined in part V of Volume III in the context of the overall process of reproduction, that is, *after* this process was thoroughly investigated in volume II. Even though the role of credit is thus distinguished from its nature in Marx's work, this chapter maintains that it is one thing to explain this role in the context of the *division* of profit into interest and profit of enterprise (the explicit object of part V); but it is another to explain it in the context of the *eruption* of crises (the implicit object of the unidentified part).
6. This chapter assumes that the reader is familiar with the distinction between *value* and *wealth* (Ricardo, 1821, ch. 20), and in particular with the Marxian notions of money and money capital, money as means of purchase and money as means of payment, surplus value and profit, variable and constant capital (productive capital), commodity and money capital (capital of circulation), commodity-dealing and money-dealing capital (merchant's capital), and circulating and fixed

capital, as well as process of *circulation*, process of *production* and process of *reproduction*. On the relationship between some of these notions and the corresponding notions of the classics in the context of the distinction between value and wealth, see Meacci (1989a, 1991).

7. The division of property is, together with the process of circulation in the context of the broader process of reproduction, a natural consequence of the *social* division of labour. On this important point see Marx, 1867, particularly chapters 4 and 14; Marx 1885, Part III; and Marx, 1939, particularly pp. 401–58 and 516–49, where the laws of circulation, the gist of the chapter on Money, are brought into confrontation with the laws of capitalist production, the gist of the chapter on Capital).

8. It is understood that banks' prevalidation must be 'socially validated', that is, confirmed by events in the course of actual reproduction. If this validation fails and the central bank comes to the rescue as lender of last resort, one may speak of a 'pseudo-social validation', or, using the language of this chapter, of a 'fictitious validation'.

9. It should be noted that what Marx actually presented in this volume is a treatment, in his own words, of 'the reproduction and circulation of the total social capital'. The reason why the term 'circulation' is added to, rather than included in, the notion of 'reproduction' can be ascribed to the fact that Marx's 'total social capital' means the grand total of all individual capitals whatever the form (money, commodity or productive) in which they are employed. Thus what Marx regarded as 'reproduced' is, sometimes, something that just circulates (money) and, sometimes, something that is partly 'liquid' and partly 'inchoate' wealth. As argued elsewhere (Meacci, 1991), Marx's ambiguity arises from the fact that the starting point of his system of thought is the *money capital* of the individual capitalist rather than, as was the case with his predecessors, the *free capital* of the whole society. This ambiguity reappears *sic et simpliciter* in a number of modern reformulations of the Marxian system.

10. These benefits are (1) that the amount of merchants' capital is eventually smaller than it would be if industrial capitalists had to conduct the entire commercial part of their business themselves; (2) that the two species of the capital of circulation (commodity and money capital) go through their metamorphoses more quickly than they would in the hands of industrial capitalists; (3) that a single turnover of merchants' capital can correspond to the turnovers not only of several capitals in the same sphere of production, but also of a number of capitals in different spheres; and (4) that the scale of the process of reproduction in the whole economy is, consequently, increased (Marx, 1894, Volume 3, chapters 16, 19).

11. It should be noted that, according to the English edition used here, this extract begins with the term 'commercial capital' (for the German term *Kaufmannskapital*). But the German term *Kaufmannskapital* reappears – in the very title of part IV of the same edition – as 'merchant's capital' (for the German *kaufmannisches kapital*), while the term 'commercial capital' reappears in this very title for the German term *Warenhandlungskapital* (which is just a component of 'merchant's capital' and which is translated in this paper as 'commodity-dealing capital', as argued in note 4 above). The inaccuracy of the English translation is worth noticing for it leads to the concept of merchant's capital (*Kaufmannskapital*) being confused with one of its two subspecies.



12. See Marx's example of £20 lent five times in a day (Marx, 1894, p. 194), and consider it in the light of Smith's example (quoted by Marx himself in chapter 29) of money as a 'deed of assignment' that successively serves many different *loans* as well as many different *purchases* (Smith, 1776, pp. 351–2). The common upshot of these discussions seems to be that while a given amount of money can play the function of money capital many times, a given money capital can become *real* capital only once because it can be sunk only once in the purchase of (living or dead) labour. Marx's observations on the role of money in the expenditure of revenue and the transfer of capital (Marx, 1894, chapter 28) should be considered in this connection.

13. 'If A had lent money to B, and B to C, without any purchases intervening, the same money would not represent three capitals but only one, just *one* capital value. How many capitals it actually does represent depends on how often it functions as the value form of various different commodity capitals' (Marx, 1894, p. 603). It is clear that this passage is directly derived from Smith's example. Most of the unidentified part seems indeed to be an extension of chapters 2 and 4 of book II of the *Wealth of Nations*. Consider, for example, the expression 'with a profit' in Smith's passage above in the light of Smith's most advanced definition of *productive* labour (which implies that the goods purchased by debtors are employed in the process of reproduction of wealth). But also consider Smith's notions of 'real bills', 'real creditors' and 'real debtors' in the context of his treatment of over-trading based on the 'well-known shift of drawing and redrawing', which leads to 'fictitious' payments and which, 'without increasing in the smallest degree the capital of the country', would only transfer 'a great part of it from prudent and profitable to imprudent and unprofitable undertakings' (Smith, 1776, Book II, chapter 2). For a survey of the uses of the term 'fictitious' prior to Marx (including Thornton's distinction between 'real notes' and 'fictitious notes'), see Perelman, 1987, chapter 6.

14. 'The fact that the waterfall does not itself have value but that its price is simply the reflection of the surplus profit extracted, in a capitalist reckoning, is immediately evident in the way that the price of £200 simply expresses the product of the surplus profit of £10 multiplied by twenty years, whereas, if circumstances remain otherwise the same, the same waterfall actually enables its owner to extract this annual £10 for an indefinite time' (Marx, 1894, p. 787).

15. A theory of capital as the value of ownership titles (capital value) was to be fully developed by Irving Fisher (1906). Fisher, however, conceived of his theory in contrast with, rather than in continuation of, the theory of the classics (Meacci, 1989b). From this perspective Marx's brief treatment of capitalization can be viewed, along with a neglected

passage of Smith's *Wealth of Nation*, as a sort of a bridge between the two theories.

16. The difference between 'possibility theory' and 'actuality theory' (along with its connection with Sismondi's interesting example of the Leipzig book trade) is discussed in Kenway 1980.
17. It is interesting to note what Marx pointed out in this connection, namely that 'Adam Smith did not yet know the phenomenon of over-production, and crises resulting from over- production. What he knew were only credit and money crises, which automatically appear, along with the credit and money system' (Marx, 1905, vol. II, p. 525). See also note 13 above.
18. It should be noted that the second form of money crises mentioned by Marx in the passage quoted above corresponds to what are called today *financial crises*.
19. This idea returns elsewhere in Marx's work. See for instance Marx, 1885, chapter 16.
20. Shackle (1967) admirably shows not only the ultimate consequences that can be traced to money as a store of value in an economy plagued by uncertainty, but also the role assigned to this aspect of money in the whole structure of Keynes' theory. On the 'nice congruence' between Keynes' treatment of money as 'a bottomless sink of purchasing power' and Marx's statement that 'the desire after hoarding is in its very nature insatiable', see Dillard, 1984. On Marx's treatment of 'money as money' and of the hoard as 'constantly in tension with circulation', see Arnon, 1984. On Keynes' theory of effective demand in a monetary economy as an 'actuality' theory, see Kenway, 1980.
21. Further evidence can be found in *Grundrisse* (see Marx's arguments about the 'third function of money', or about money as the *aim* rather than the *medium* of circulation) and in the *Theories of Surplus-Value* (see Marx's arguments about the 'subterfuge' by which the 'exchange of products' is misunderstood by economists for the 'circulation of commodities', although 'the motive to turn the commodity into money' often prevails over 'the motive to transform the commodity again into use-value').
22. In this study, which was probably intended for the first chapter of the *General Theory*, Keynes' 'entrepreneur economy' is explicitly refersed to Marx's formula for capitalist production, as distinct from simple production . It should be noted, however, that while the movement $M - C - M'$ is regarded by Keynes as typical of an 'entrepreneur economy', Marx's very distinction between the movement $M - C - M'$ and the abbreviated movement $M - M^1$ may be equally regarded as an introduction to Keynes' further distinctions between *industry* and *finance* (Keynes, 1930, ch. 15) and between *enterprise* and *speculation* (Keynes, 1936, ch. 12). Accordingly, what Shackle (1972, pp. 164, 224) says of chapter 12 of the *General Theory* (namely that this is the place where Keynes 'glimpsed the message he ultimately had to convey') and of chapter 17 of the same book (namely that 'it continues and deepens the theme of chapter 12') serves to strengthen the similarity between Marx and Keynes *from the standpoint of the theory of 'money as money'*.
23. It is curious that, in spite of this insight, Schumpeter fails to see beyond Marx's own theory 'a theory of the economic process in its entirety', and limits himself to dealing with him as a 'theoretical metallist' (Schumpeter, 1954, p. 699).



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# Marx's Theory of Money and Credit Revisited: A Comment on the Chapters by Suzanne de Brunhoff and Ferdinando Meacci

Riccardo Bellofiore[1]

## INTRODUCTION

Both Suzanne de Brunhoff and Ferdinando Meacci present extremely rich and precise reconstructions of the texts in which Marx presents his argumentation on the theory of money and credit. I recall de Brunhoff's pioneering work on Marx's monetary theory, produced at a time when the close interdependence and, in some respects, inextricability of the abstract labour theory of value and Marx's monetary theory was entirely ignored. Both authors also refer, implicity but clearly, to the subsequent developments in economic theory and, each of them, but especially de Brunhoff, offers a wide range of references to capitalism past and present.

My aim in this comment is to draw attention to one contested but central aspect of Marx's monetary theory, that is, bank finance to production as an essential feature of the capitalist economy, as the only genuine monetary economy. De Brunhoff and Meacci each stress money's role as a general equivalent, as means of purchase and as means of payment. But money as initial finance is underplayed in both their accounts, where it is considered as an instance of credit as deferred payment.

Thus *one* of the aspects of Marx's thoughts an money and credit is accurately reflected. I acknowledge that this is the aspect that *Capital* discusses most deeply and most fully. Yet Marx's suggestions that point in the opposite direction, towards a theory of token money (or, if you prefer, towards money as a symbol) are left unexplored.[2]

In what follows I shall not try to offer an alternative textual reading. Rather I shall first sketch the outlines of a monetary theory of production that is consistent with Marx's abstract labour theory of value.[3] Then I shall consider more directly some of the points raised by de Brunhoff and Meacci. In conclusion I shall enquire into Marx's reasons for insisting that 'true' money is only a commodity, that bank credit is the upshot of a process of multiplication of primary deposits and that the regression of the 'credit' economy into the 'monetary' economy is the hallmark of crisis.[4]

## A MONETARY THEORY OF PRODUCTION

In volume I of *Capital*, Marx started from the idea that money, as the 'general equivalent' of commodities, must itself be a commodity, albeit a very special one. What money has in common with other commodities is that it is the product of labour. What distinguishes it is that, while the value of other commodities is the product of abstract labour, that is, of labour that is in the first instance private and only subsequently social, the labour that produces money is, by definition, *immediately* social.

The reasoning is as follows. Labour time embodied in commodities cannot itself be directly money: it has to take on a separate existence. Therefore money is the essential and necessary form of the existence of commodities: it is nothing but exchange value 'separated from commodities and existing alongside them as itself a commodity' (Marx, 1973, p. 144). It does not come on the scene *after* production, but is itself the end result of production considered as production for the market. Though it is not immediately social, the labour of private individuals *becomes* social inasmuch as it produces money. As noted above, the theory of value and the theory of money are literally inseparable: as de Brunhoff says in Chapter 11, 'Money is not added afterwards to a non-monetary economy. It is included in the exchange of commodities'. On these grounds money cannot but be the product of labour, and therefore it must be a commodity though a very special one.[5] The labour-producing commodity is, through the value form, a share of the (only immediate) social labour that produces money as a commodity.

This sort of conclusion poses no problems when we are dealing with a hypothetical, simple commodity society, in which the producers are the owners of the means of production and they exchange the products of their labour on the market. In that case, production does not need to be financed: the producers are in control both of the subjective condition of production, their labour capacity, and of its objective condition, the tools of labour. Money intervenes only *ex post* as means of circulation, or medium of exchange. The situation alters, however, if we remember that, for Marx, exchange becomes general only as a consequence of the capitalist mode of production.[6] Commodity production is general, and hence money becomes the systematic result of labour only when labour and the means of production are separated, that is, when labour power is bought and sold on the labour market. Therefore 'congealed' abstract labour is nothing but the objectification of the wage workers' living labour.

For the capitalist system of production to get under way, firms have to buy labour power. But since production has not yet taken place, there are no goods whatever with which to pay the workers. As Marx never tired of telling us, the advance on wages that the industrial capitalist pays is only an advance in *monetary* terms. *Real* wages are therefore paid only after production is over. Capitalist production, then, needs monetary financing. What sort of money is this?

The money in question cannot be liabilities issued by firms – for example promises of payment such as bills of exchange. If wage workers were to accept these as final payment, the equality among economic agents on the market would be broken. We would, in effect, have shifted into a precapitalist social situation, like feudalism, in which privileges of seigneurage are possible. If, on the other hand, the bills of exchange were only accepted as a promise to make final payment at a later date, then we would be in a *credit* economy and not in a true monetary one. By releasing mere paper titles, firms would still be in debt to the workers. Either they would settle this debt in the future with commodities, as in a barter economy, or with true money, as distinct from mere promises to pay.

If we bear in mind that a general commodity-exchange society only occurs in the capitalist mode of production, it is easy to see that money cannot be a commodity. Capitalist commodity production requires anticipated monetary financing. If money were a commodity its production would have to be financed with money. If this too were understood as a commodity, we would be launched on an infinite regression. Hence we should go back until we find at least one initial financing with token money. Marx could escape this conclusion only because he presupposed an initial stock of money as a commodity, of which he gave no theoretical account. Indeed he did no more than refer to a process of originary accumulation of 'hoards of gold and silver... piled up at all the points of commercial intercourse' (Marx, 1976, p. 229). Moreover, unless we admit that capitalism's money is token money, we have to see the initial exchange on the labour market as the alienation by the industrial capitalist of one commodity (gold) in return for another commodity (labour power) from the worker. This would depict the most fundamental capitalist relation as one of barter.

To get out of this double blind alley, we must appeal to the *triangular* structure of agents in the Marxian model of the cycle of money capital. For simplicity's sake, let's suppose that we have a closed economy: given that the purchase of intermediate goods is internal to the firm's sector, the wage bill is the sole external expenditure that they have to meet. Industrial capitalists, who own fixed capital goods, obtain from monetary capitalists an advance that enables them to purchase the labour power they need. We can replace Marx's monetary capitalist with the banking system, which is able to grant a loan without previously collecting deposits. This paves the way to the recognition that a 'true monetary economy *must therefore be using a token money*, which is nowadays a paper currency', and that 'payments [must be] made by means of *promises of a third agent*, the typical third agent being nowadays a bank' (Graziani, 1989, pp. 2, 4).[7] Thus money in capitalism is neither a commodity nor simple credit endogenously produced by firms themselves.

The monetary economy and the capitalist economy are here seen as one and the same thing. In addition to being a general equivalent, before being a means of payment, and hence a financial asset, money is first and foremost the necessary instrument to get capitalist production going. According to this view, by granting the initial finance banks create money *ex nihilo*. While in volume III of *Capital* a monetary theory of credit is proposed and the banks are able to create credit only within the limits of the deposit multiplier, this latter being constrained by a given amount of commodity-money, here we rather have a credit theory of money, where bank loans make deposits.

Bank money created *ex novo* is an example of symbolic money. Finance is the means to set up the social relationship between capital and labour in production aimed at the acquisition of abstract wealth. One form of abstract wealth is Marx's notion of money as *Geld*: that is, every commodity considered as exchange value, or the social form of capitalist products. This notion must be distinguished from money



as finance and means of circulation. Money capital is the power to command labour power, and its purchasing power is given by the number of workers it can buy. Marx insisted that labour power is the *sole* commodity with which, at the beginning of the circuit, capital is exchanged. The use value of labour power is neither commodity nor capital, it is the living labour that brings into being all new value and hence surplus value. Therefore, at the beginning of the circuit, the value of money depends on the value of labour power, that is, on the value of real wages.

After buying labour power, capital becomes productive capital, extracting labour and surplus labour, while money is spent in the income circuit. With the further transformation of productive capital into commodity capital, we have the emergence of potential value. Commodity capital is made up of one part that has to be retransformed into money capital so as to be given back to the banks, and of another that remains in the form of productive capital as means of production, capital goods, within the firms taken as a whole. For the firms considered as a unit, fixed capital is thus acquired free out of the wage workers' surplus labour. Once again the 'presupposition' from which we began – the ownership of fixed capital by industrial capitalists – shows itself to be a posit of the analysis. At the end of the circuit, the capitalist class, that is, the banks and the firms, finds itself owning a larger quantity of abstract wealth. In this respect capital is a process of creating surplus value, because it is the enlarged reproduction of exchange value.

The capitalist process cannot, however, be depicted as creating surplus money – as one is tempted to infer from the Marxian formula $M$–$C$–$M'$. At the end of the period, money capital, which returns first to the firms and then to the banks, at most can only be equal to the initial amount advanced by the firms to the workers. In this sense, then, the monetary circuit is rather $M$–$C$–$M$. Within the firms' sector, new capital goods are bought and sold thanks to a second round of bank financing. The banks are confident of recovering this finance: indeed there is no chance of losses from the circuit as a result of an increase in liquid balances because firms immediately spend the new money on the goods market. Hence real (gross) profits do not correspond to an accumulation of surplus money. As Rosa Luxemburg noted and Kalecki clarified, the firms taken as a whole can only make a *net* money profit either out of a surplus of exports relative to imports or out of a surplus of public spending relative to taxes.

## ON DE BRUNHOFF AND MEACCI

In Chapter 11 Suzanne de Brunhoff notes that in simple commodity circulation money functions only as means of exchange. In this case, if desired, token money could be replaced by money as commodity. In this limited sense, there is a phase of the capitalist process in which identifying money as a commodity is not a source of error. But as Marx himself asserted in the clearest possible terms, the replacement is in fact the other way round. There is no way that the notion of money as a commodity is essential to the analysis of the capitalist process. Simple circulation reappears in the capitalist circuit as part of capitalist circulation when exchange occurs between wages and wage goods on the commodity market. Reaffirming a longstanding claim of hers, de Brunhoff uses, however, simple commodity circulation as the starting point for stating that, in the Marxian approach, a *general* theory of money must be constructed with reference to the case of general commodity exchange *without capital*. What we then have is: (1) abstract labour as the labour of the private owner–producer, and not as the wage workers' living labour; (2) value deduced from exchange as such, and not from capitalist exchange; and (3) bank credit money as the subject matter of a *special* branch of monetary theory. The opposite is true. Even if (3) can be supported by Marx's texts, it seems to me that (1) and (2) are at odds with his abstract labour theory of value. Value is a specifically capitalist category, and it derives only from wage workers' living labour. Hence value presupposes an advance of money capital, which, as we have said above, can only be bank capital. The theory of money as a commodity must be abandoned in favour of a theory of money as a symbol.

When analysed only in respect to circulation, that is, when it is the *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 goods exchanged on the market, as the inverse of the price level. A person who comes into possession of it gains permanent title to it. When, on the other hand, money is analysed as *finance* advanced to an industrial capitalist to buy labour power, it is *lent* and *borrowed*. Its price is the interest rate, which is a claim to a share of surplus value. A person who comes into possession of it only has a temporary title to it (de Brunhoff, this volume). Once an interest rate arises within the economic system, as de Brunhoff rightly points out, a new principle of evaluation of money capital arises that is different from the one based on the labour theory of value (that is, in my terms, different from the labour power 'commanded' by bank finance). This new principle of evaluation is the capitalisation of any sum of money, which gives way to fictitious capital.



In Meacci's chapter (Chapter 12) an important role is given to a clear distinction between banking credit and commercial credit, which 'capitalists involved in the reproduction process' give one another through bills of exchange. Indeed banks can also intervene in commercial credit through discounting. In this case, however, we do not really have an *advance* of money, since 'what essentially occurs when bills are discounted is a simple change of hands (exchange) of one form of money (money as means of payment) into another (bills of exchange)' (Meacci, this volume). In my opinion, we must distinguish more sharply between the money market, in which banks provide firms with short-term liquidity made up of initial financing, and the financial market, where a wide range of agents, including banks, are in competition for household savings. These savings may come from the working class and be invested in the purchase of bonds issued by firms and representing ownership of real capital. Yet that formal ownership does not correspond to any chance to control the use or the products of the capital goods. Moreover, workers releasing their monetary savings to purchase more consumer goods give rise only to an increase in the price level, not in real consumption, unless the firms taken as a whole autonomously decide to expand the amount of commodities available to wage workers on the market.

Following Marx, de Brunhoff and Meacci both depict banks as intermediaries between monetary savings and productive lending: 'the role of bank credit is to contribute to the creation of additional capital by concentrating in the hands of money dealers the reserve funds of all capitalists and the money savings of all social classes' (Meacci, this volume); '[M]oney-capital, so far as it appears on the market, ... assumes the nature of a concentrated, organized mass, which ... is subject to the control of the bankers, i.e. the representatives of social capital' (*Capital*, vol. III, as quoted by de Brunhoff, this volume). In the approach I have been suggesting, on the contrary, bank credit is the essential presupposition of *every* advance of money capital to production, and is created *ex nihilo* by the banks. This type of theory of money and credit clearly distances itself from the theory of loanable funds and comes closer to the monetary circuit theories set out by Wicksell, Schumpeter and Keynes in his *Treatise on Money*. As de Brunhoff properly observes in a passage that would have pleased

Schumpeter, '[w]hat 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, this volume, emphasis added). In other words, in this case too the presupposition that monetary capitalists (the banks) finance production is a posit of capitalistic production itself.[8]

The sharp distinction between the role the banks have in the money market at the beginning of the circuit and the role that financial intermediaries (including the banks) have in the financial markets at its end, must prevent us from lumping them together under the single heading of 'financial institutions', as perhaps de Brunhoff is doing. Moreover, if we make a distinction of this sort, some nuancing is needed in the periodisation of capitalism that she offers at the end of her chapter. For example an intermediate phase might be introduced between the 'subordination' and the 'hegemony' of financial capital. This intermediate phase, which we may call the 'Schumpeterian era', running from the end of the nineteenth century to the 1920s, was ruled by bank capital. Moreover, every time capital undergoes swift restructuring and radical innovation, the centrality of the problem of initial financing reemerges; hence there is a recurrent Schumpeterian 'moment' in the transition from one phase of capitalism to another. Again, everyone can see the coexistence of a plurality of capitalisms in which one or other of these factions of capital is to the fore: it is enough to think of Japan and Germany, compared with the Anglo-Saxon model of capitalism. Finally, state action and financial innovations can radically alter the way that the financial market operates, increasing or decreasing the risks of financial instability: here we might think of the welfare state and Keynesian interventionism since the Second World War, or, in the more immediate present, of the internationalisation of capital movements.

From this Marxian perspective, it might be worth trying to reformulate the 'stages of Marxian capitalist financial development' identified by Hyman Minsky (1992). According to Minsky, it is possible to distinguish between (1) commercial capitalism (up to the 1820s), (2) finance capitalism (the subsequent century), (3) managerial capitalism (influenced by Keynesian policies), and (4) managed money capitalism (with which we are at present living). 'Managed money capitalism', Minsky writes,

> is part of the trend towards an increase in the proportion of financing that takes place through markets rather than through intermediaries. ... The capitalism of managed money emphasizes cash flows in the near-term to support stock prices and heavily indebted liability structures. Whereas the diminished role of institutions may have decreased the likelihood of debt-deflation [relative to finance capitalism], the growth of heavy indebtedness [relative to managerial capitalism] may well restrain the overall propensity to innovate or to take chances (Minsky, 1992, pp. 70–1).



One might venture that while Pacific Asian, and partly US capitalism is now living a Schumpeterian moment, most of the capitalist world is still trapped in managerial money capitalism with no 'international division of responsibility [necessary] for maintaining global aggregate gross profits [and avoiding stagnation]' (ibid., p. 71).

## ON MARX

The foregoing line of thought seems to have reached wholly negative conclusions about the theory of money and credit that Marx proposed in volume III of *Capital*. Though Marx hinted at a theory of money as social symbol and at a theory of banks as creators of money, the substance of his argumentation is that true money must eventually be a commodity. As de Brunhoff reminds us, for Marx, 'during monetary crises, the credit system shows that it does not emancipate itself from the basis of the monetary system' (*Capital*, vol III, as quoted by de Brunhoff, this volume). Or again:

> In times of pressure, where credit stops or is contracted, money as means of payment and as the true existence of value comes to stand as opposite to commodities. Hence their general depreciation to transform them into money, i.e. into their purely phantastic form. Secondly, however, credit money itself only is money to the extent that, as to its value, it absolutely represents real money. With the drain of bullion its inconvertibility into money becomes problematic, i.e. its identity with gold. Hence coercive measures, raising the rate of interest, etc. to secure this convertibility (Marx's manuscripts for vol. III, as quoted in Ganssmann, this volume).

As Ganssmann puts it: 'Marx tended to treat this reversion (*Umschlag*) of the credit system into the monetary system as a vindication of his money as a commodity theory,[9] as presented in the opening chapter of volume I of *Capital*'. Marx concluded that 'money in the form of precious metal remains the foundation from which the credit system can *never* break free, by the very nature of the case' (Marx, 1981, p. 741, emphasis in original).

We cannot agree with Marx's opinions here. But before finally evaluating Marx's theory of money and credit, we should bear two things in mind. The first is the hint that, the ties between the credit system and the metallic basis are vanishing. The second concerns the specific character of the examples Marx offered to support what he saw as the 'reversion' of the credit system into the monetary system.

Let us look at this more closely. When he analysed crises, Marx often supposed the presence of state money or studied the relationship among national economies on the world market. That is, he never restricted himself to a pure credit economy with only private agents (banks, firms, wage workers) as we do. If there is a legal tender imposed by law as the legal bank reserve, it is in fact quite right to set the money supply as a multiple of high-powered money. There is a *hierarchy* of forms of monies within the system: it is then no surprise that in a crisis the agents should abandon deposits in favour of hard cash. Again, it is in connection with the world market that Marx wrote that, when international transactions do not balance, money as a commodity must be present to clear the payments. Indeed that is how things work if, at the international level, the payment structure is not triangular: that is, as long as there is no hegemonic power, as the United States was in the Bretton Woods era, or there is no world bank acting as the central bank for the national banks and able to create world money, in the way that Keynes' plan envisaged. In the latter case, the world market reverts in part to a barter economy. In this situation, Marx's conclusions should be regarded as absolutely correct.

## Notes

1. I would like to thank Richard Davies for his help in translating the Italian original.
2. On this issue see Ganssmann's chapter in this volume (Chapter 9), to which we shall return below.
3. Although I shall be employing rather different theoretical tools, I have the same aims as those of Randall Wray, Chapter 17 in this volume.



4. The forthcoming discussion could not have been written without work done on Marx's monetary theory in collaboration with Riccardo Realfonzo.
5. On the contrary, for Ricardo money was a commodity like any other. In the wake of de Brunhoff, 1967, the contributions of Benetti, Cartelier and de Vroey have been of great importance in clarifying the distinction between Ricardian commodity money and Marxian money as a special commodity. In the following, I'll refer to the latter as 'money as a commodity' simfliciter.
6. I hope I will be pardoned for referring to Bellofiore–Finelli's paper at this conference, as well as to Arthur's.
7. On Marx's theory of money, an important contribution is available in Italian (Graziani, 1986) that follows a similar line of thought to that proposed here. For related thoughts, see Messori, 1984. For an account of predecessors of the theory of the monetary cycle, (apart from Marx), see Bellofiore, 1992.
8. See Bellofiore and Finelli, Chapter 4 of this volume.
9. I have here substituted the term 'money as a commodity' for the term 'commodity money' used by Ganssmann to stress the distinction between Ricardo and Marx; see note 5 above.

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# 13 Finance Capital Revisited

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This chapter deals with the concept of finance capital – a high topic in early-twentieth-century Marxist literature – emphasizing its usefulness as an instrument with which to analyses modern capitalist economies. Drawing mainly on Marx's observations on chapter 27 Volume III of *Capital*, 'The Role of Credit in Capitalist Production', on Hilferding's *Finance Capital* and on the more general Marxian framework (capital as a social relation) it seems possible to replace this pseudo divorce (also known as the 'corporate revolution') with a new phase of capitalism in which capitalists are as dominant as before, although operating through a different institutional apparatus. In this sense the chapter resurrects the more general meaning of finance capital so as to include not only capital at the disposition of banks but also capital at the command of non- banking entities and/or individuals. Both forms of private wealth – bank deposits and tradable securities – are seen as enjoying the same essential properties of liquidity (readily convertible into its money equivalent) and increasing value (appreciation, interest, dividends) and should therefore qualify as finance capital. Breaking away from the notion that the dominance of finance capital evolves through the dominance of financial institutions it seems possible to speak of a financial phase as a stage in which an ever-increasing proportion of the capital used in industry is finance capital without resorting to the unlikely task of demonstrating the preeminence of the banking sector over non-banking activities.

It is generally accepted that the rise and expansion of big business, and more specifically of its corporate form, marked a turning point in the development of modern capitalism. The economic and social transformations that took place during that process are often described as ushering in the age of managerial-monopoly capitalism as opposed to the entrepreneurial-competitive phase of the preceding period.

For those concerned with the institutional implications of the corporate revolution in the United States the so-called divorce between property owners and business managers depicted in the well-known study by Berle and Means – *The Modern Corporation and Private Property*, 1932 – became a major reference. This was the case not





only for mainstream economists but also for social scientists in general. The 'Corporation' entry by Edward Mason in the 1968 edition of the *International Encyclopedia of the Social Sciences* states that 'An increasing separation of ownership from control of the large corporation was clearly portrayed in the classic study of Berle and Means .... Nothing has appeared since then to deny this thesis, and much to confirm it.'[2] Even more radical was Robert Dahl when he declared that 'Every literate person now rightly takes for granted what Berle and Means established four decades ago in their famous study.'[3]

Following the publication of that book a large number of mainstream economists further developed this concept and often – implicitly or explicitly – came to the intriguing conclusion that modern capitalism had evolved into a system in which capitalists had very little to say about production or resource allocation.[4] Taken to the extreme, as Berle himself did in his *The Twentieth Century Capitalist Revolution*, this meant that 'The capital is there, and so is capitalism, the waning factor is the capitalist.'[5]

This would certainly sound very odd to anyone going through the pages of *Business Week*, *Fortune* or *The Wall Street Journal*. Contrary to Galbraith's assertion that decision-making power in modern industrial society is exercised not by capital and capitalists but by the organization and its bureaucrats,[6] he or she would find a business world where shareholders and capitalists are very active and have a decisive impact on corporate decisions. Not a week goes by without reports about wealthy individuals (or groups of individuals) buying and selling huge blocks of stocks/securities – through what is commonly known as investment vehicles – thus drastically influencing or even determining the fate of Galbraith's 'stable' and 'independent' bureaucracies. He or she would also realise that poor financial results or a decline in stock quotations can trigger what was once described as a 'board revolt',[7] whereby top management and/or their strategies are completely revamped. In this sense it is interesting to note that shareholder's unrest was responsible for the change of management in at least four of the largest American corporations during 1992–93: General Motors, IBM, Digital and American Express.[8]

Even if we stay away from the heated debate on how effectively shareholders are represented by a board of directors one would not be able to avoid the ups and downs of billionaires such as the Bass brothers, Kirk Kerkorian and Warren Buffet – to mention just a few of the most conspicuous American capitalists – in their highly publicized financial operations.[9] It would be difficult to argue that their dealings have had no direct impact on the allocation of productive resources or on corporate management decisions. Yet these capitalists rarely assume management positions in the companies whose shares and securities they negotiate. Neither do they act in their own names when acquiring or selling these securities. Therefore an inattentive observer might conclude that control over capital (here understood as machinery, industrial facilities and so on) is exclusively and freely exercised by salaried managers who do not own that capital. This, of course, raises the more fundamental question of what is really meant by a capitalist economy, private ownership and capital itself. The neoclassical notion of factors of production – labour, land and capital – reinforces the belief that capital is a material thing – productive resources – instead of a social relation. Therefore the absence of direct control over productive resources is immediately translated into the loss of control over capital. Hence Berle's 'capitalism without capitalists'.

The purpose of this chapter is to suggest that a Marxist approach to the corporate revolution might present a more credible interpretation of a society in which wealthholders seem to have retained the upper hand in determining resource allocation. The Marxist economic literature on this subject includes at least one remarkable study – *Das Finanzkapital*, (1910) by Rudolf Hilferding – which rapidly became a mandatory reference during the first decades of this century. In his book Hilferding[10] purported to 'arrive at a scientific understanding of the economic characteristics of the latest phase of capitalist development.'[11] When describing this 'latest phase' the author stated that:

> The most characteristic features of 'modern' capitalism are those processes of concentration which, on the one hand, 'eliminate free competition' through the formation of cartels and trusts, and on the other, bring bank and industrial capital into an ever more intimate relationship. Through this relationship – as will be demonstrated later – capital assumes the form of finance capital, its supreme and most abstract expression.[12]

In its turn finance capital was defined as:

> bank capital, that is, capital in money form which is actually transformed in this way into industrial capital, finance capital. So far as its owners are concerned, it always retains the money form; it is invested by them in the form of money capital, interest-bearing capital, and can always be withdrawn by them as money capital. But in reality the greater part of the capital so invested with the banks is transformed into industrial, productive capital (means of production and labour power) and is invested in the productive process. An ever-increasing proportion of the capital used in industry is finance capital, capital at the disposition of the banks which is used by the industrialists.[13]



The transformation of bank deposits into productive capital, according to Hilferding, leads to the concentration of loanable funds and securities (stocks and bonds) in the hands of financial institutions to the point where large banks become the dominant interests in non-financial businesses. Instead of Berle's 'capitalism without capitalists', the author pointed to a 'banker's capitalism', or to be faithful to his words, 'financial capitalism'.

Much has been written about this concept and even today it retains some influence in the Marxist economic literature. Lenin and Bukharin[14] were among its best-known proponents and the fact remains that Hilferding's analysis became inseparable from the idea of bank control over industrial corporations.

At the same time the idea of financial capitalism was often criticized as an attempt to generalize what was a peculiar German development at the turn of the century. Sweezy was explicit in his critical appraisal of Hilferding's work when he stated that:

> Financiers played the dominant role in promotion and in this way achieved a highly significant, and even for a time dominant, position in the corporate structure. It was on the basis of this phenomenon that Hilferding entitled his book Finance Capital. We shall see below, however, that Hilferding erred in the direction of overestimating the importance of financial dominance in the latest stage of capitalist development.[15]

In another passage Sweezy pointed to the transient feature of this banking preeminence, suggesting that Lenin's emphasis on the monopolistic character of finance capital was better suited to describe modern capitalism:

> Lenin's theory is thus certainly not open to the criticisms which have been directed at Hilferding's. Nevertheless it is doubtful whether the term 'finance capital' can be divested of the connota-

tion of banker dominance which Hilferding gave it. This being the case, it seems preferable to drop it altogether and substitute the term 'monopoly capital', which clearly indicates what is essential to Lenin's concept of 'finance capital' and yet is not so likely as the latter to mislead the unwary reader.[16]

Unlike Sweezy, I am convinced that it is possible to extend Hilferding's notion of finance capital well beyond the concept of a banker-dominated economy, even acknowledging the transitory character of the author's most obvious historical reference.

It should be pointed out that bank capital is basically – and correctly – defined as a form of capital, that is, 'capital in money form ... that can always be withdrawn... as money capital'. In other words, capital is turned into finance capital when it combines the attributes of money capital and industrial capital, that is, when it becomes liquid (readily convertible in its money equivalent) and productive: *money and machine* at the same time. In this sense, regularly traded industrial shares are as much finance capital as bank deposits. Hilferding pointed explicitly to this alternative development when describing the English banking system:

> In fact, this is to some extent the case in England, where the deposit banks only furnish credit for commerce, and consequently the rate of interest on deposit is minimal. Hence deposits are continually withdrawn for investment in industry by the purchase of shares, and in this case the public does directly what is done by the bank where industrial and deposit banks are closely linked.[17]

If this is translated into an industrial sector that is less dependent on bank capital (here understood as an *economic sector* and not as a *form of capital*), this should not be seen as having prevented the development of financial capitalism in its more general sense. The institutional framework is certainly different but the essential features are there: centralization of productive resources combined with the transformation of private wealth into finance capital. I am suggesting that by pointing to the German institutional arrangement as the sole progressive path towards financial capitalism, Hilferding became vulnerable to a criticism that has obscured the appropriateness of his broader view.

It is true that even in Germany, as Sweezy has convincingly argued, it would be difficult to find empirical evidence to substantiate the notion



of bankers dominated capitalism after the initial decades of this century. But on the other hand it is also true that a growing proportion of the means of production in industrialized countries has been organized under the corporate form while private wealth has gradually been transformed into tradable securities. There is no such a thing as a corporation without shareholders, just as there is no expansion in stock ownership without the development of a regular stock trade. For no other reason the stock market assumed a crucial place in the late-nineteenth-century economic debate. When analyzing the increasingly financial character of capitalism non-orthodox authors such as Hobson and Veblen[18] voiced the same criticism as Marx and Hilferding with regard to the security business. Manipulation, fraud and irresponsible management seemed like an unavoidable feature of this latest stage of capitalist development. On the mainstream side there was similar concern, and Berle's articles during the 1920s as well as his major book with Means advanced a number of policy recommendations for 'protecting private wealth' from unscrupulous businessmen. And in fact many of these proposals were adopted in Roosevelt's 'New Deal' in the form of a governmental agency – the Security Exchange Commission – and its subsequent regulations.

What matters for the present reasoning is evidence of the growing importance of this new form of capitalist wealth even where – or when – banks are not the dominant institutions. Private wealth – understood here as individual command over productive resources – is materialized in

> paper [that] actually represents nothing more than accumulated claims, or legal titles, to future production whose money or capital value represents either no capital at all, as in the case of state debts, or is regulated independently of the value of real capital which it represents.
>
> In all countries based on capitalist production, there exists in this form an enormous quantity of so-called interest-bearing capital, or moneyed capital. And by accumulation of money-capital nothing more, in the main, is connoted than an accumulation of these claims on production, an accumulation of the market-price, the illusory capital-value of these claims.[19]

In this sense private wealth (as reflected by its market price) becomes increasingly dissociated from real capital as its value determination follows an independent path. From the point of view of capitalists it means that a growing proportion of their assets become associated with the vagaries of the stock exchange.[20]

On the industrial side, the development of finance capital translates into a growing centralization of productive resources under the control of large corporate entities. This is a difficult point in Marxist literature, probably because Marx himself was sometimes unclear on the subject. Although he recognized the joint-stock company as an instrument of centralization, he also pointed to the destructive character of capitalist competition by which successful businesses eliminate smaller or less competitive ones. The emphasis on the predatory aspect of this struggle led some of his followers to merge what should be understood as two different processes: the centralization of control over productive resources and the centralization of capitalist property. This might be made clearer by the following quotations from volume I of *Capital*:

> The world would still be without railways if it had had to wait until accumulation had got a few individual capitals far enough to be adequate for the construction of a railway. Centralization, on the contrary, accomplished this in the twinkling of an eye, by means of joint-stock companies.[21]
>
> This splitting-up of the total social capital into many individual capitals or the repulsion of its fractions one from another, is counteracted by their attraction. This last does not mean that simple concentration of the means of production and of the command over labour, which is identical with accumulation. It is concentration of capitals already formed, destruction of their individual independence, expropriation of capitalist by capitalist, transformation of many small into few large capitals. This process differs from the former in this, that it only pre-supposes a change in the distribution of capital already to hand, and functioning; its field of action is therefore not limited by the absolute growth of social wealth, by the absolute limits of accumulation. Capital grows in one place to a huge mass in a single hand, because it has in another place been lost by many. This is centralization proper, as distinct from accumulation and concentration.[22]

Although the difference between concentration and centralization seems quite evident, one should be cautious about the 'expropriation of capitalist by capitalist' and the 'growth of capital in a single hand because of the loss by many'. What is at stake here is the expropriation or loss of control over productive resources since centralization



can be and was often is achieved – through capitalist associations, voluntary mergers, acquisitions and so on – without concentrating capitalist property.[23]

Hilferding's more careful wording presents a sharper distinction between these two independent processes:

> The growth of the corporate form of enterprise has made the course of economic development independent of contingent events in the movement of property, the latter being now reflected in the fate of shares on the market, not in the fate of the corporation itself. Consequently the concentration of enterprises can take place more rapidly than the centralization of property. Each of these processes follows its own laws, although the tendency towards concentration is common to both; it seems, however, to be more fortuitous and less powerful in the movement of property, and in practice is frequently interrupted by accidental factors. It is this surface appearance which leads some people to speak of a democratization of property through shareholding. The separation of the tendency towards industrial concentration from the movement of property is important because it allows enterprises to be guided only by technological and economic laws, regardless of the limits set by individual property. This type of concentration, which is not simultaneously a concentration of property, must be distinguished from the concentration and centralization which ensue from, and accompany, the movement of property.[24]

In this sense the lack of empirical evidence to support a possible tendency towards the centralization of capitalist property, especially after the 1930s in the United State does not seem to affect Hilferding's more general argument. Under this approach the centralized control over productive resources, brought about by the joint-stock company, does not necessarily imply the concentration of private wealth. Hilferding seemed in fact quite prudent when he qualified the property movement as 'more fortuitous' and 'less powerful'.

The attention dedicated to this specific issue – the distinction between productive resources and capitalist property – reflects the complications usually raised by the different representations of capital under financial capitalism. It would be easy to argue that capital should be seen, in the best Marxian tradition, as a social relation. Any of the several places in which Marx discussed this subject would suffice, for example in chapter 48, 'The Trinity Formula', of volume III:

> Capital, land, labour! However, capital is not a thing, but rather a definite, social production relation, belonging to a definite historical formation of society, which is manifested in a thing and lends this thing a specific social character. Capital is not the sum of the material and produced means of production. Capital is rather the means of production transformed into capital, which in themselves are no more capital than gold or silver in itself is money. It is the means of production monopolized by a certain section of society, confronting living labour-power as products and working conditions rendered independent of this very labour-power, which are personified through this antithesis in capital.[25]

The difficulty arises when in financial capitalism private wealth is increasingly invested in corporate shares (or securities in general) as opposed to productive assets. Does that mean – as Berle and his followers imply – that *capital* escapes capitalist control? Not at all, for capital is *not* another name for productive resources. The same social relation that lends this specific character to the means of production is manifested in corporate shares. Just as a machine – in a capitalist system – is valued for its profit-generating capacity, company stock comes into being when the institutional setting assures its income-generating potential. The mere existence of a negotiable title implies a specific social relation in which private wealth – as distinct from managerial talent, social prestige, religious influence and so on – commands productive resources. In these circumstances, for individual capitalists securities are as much capital as their equivalent in industrial equipment. They can sell their shares at any time and apply the proceeds to some productive activity. They can pledge them as collateral or bequeath them to their heirs. They can even vote in a shareholders' meeting or take part in a creditor's agreement. There is no loss of control over their capital.

The transformation of a family-owned business into a corporation does not break the monopoly of a certain section of society over the means of production. Labour is kept as alienated as before and private accumulation remains the basic *raison d'être* for productive activity. Certainly the mechanism subordinating productive capital to private interests becomes more complex and less visible when compared with the personal control exercised by the owner-manager. But unless we are convinced that corporate management is engaged in a succesful and generalized hoax in their pledge to maximize shareholders' benefits there is no reason to assume



that their behaviour conflicts with that of their owner-manager predecessors.[26]

Stating that a corporate share is as much capital as a piece of equipment does not mean, of course, that society becomes wealthier by printing stock certificates. As Marx clearly pointed out, the issuance of stock – fictitious capital – does not affect the means of production (or real capital):

> The stocks of railways, mines, navigation companies, and the like, represent actual capital, namely, the capital invested and functioning in such enterprises, or the amount of money advanced by the stockholders for the purpose of being used as capital in such enterprises. This does not preclude the possibility that these may represent pure swindle. But this capital does not exist twice, once as the capital-value of titles of ownership (stocks) on the one hand and on the other hand as the actual capital invested, or to be invested, in those enterprises. It exists only in the latter form, and a share of stock is merely a title of ownership to a corresponding portion of the surplus-value to be realized by it.[27]

But although it does not preclude the possibility of a swindle, the organization of a joint-stock company cannot be taken as a fraud within the institutional setting of a capitalist system. A stock certificate effectively replaces the ownership of a productive asset. No shareholder can claim title to both the real (industrial equipment) and the fictitious capital (stock certificate). Nor is the fictitious capital some excess value over the productive investment, for this would falsely duplicate its 'non excessive' portion.[28]

From an outsider's point of view – as a critic of the capitalist system – the ordering of a new machine can be qualified as a superior or real contribution to material wealth whereas the acquisition of a corporate share represents the mere transfer of a right over a future income. But for the individual capitalist the criteria used to appraise the value of these alternative assets are precisely the same. In this sense, when illustrating the creation of a fictitious capital Marx was also describing the process by which productive assets were – and are – appraised:

> The formation of a fictitious capital is called capitalization. Every periodic income is capitalized by calculating it on the basis of the average rate of interest, as an income which would be realized by a capital loaned at this rate of interest. For example, if the annual

> income is £100 and the rate of interest 5 per cent, then the £100 would represent the annual interest on £2,000, and the £2,000 is regarded as the capital value of the legal title of ownership on the £100 annually. For the person who buys this title of ownership, the annual income of £100 represents indeed the interest on his capital invested at 5 per cent. All connection with the actual expansion process of capital is thus completely lost, and the conception of capital as something with automatic self expansion properties is thereby strengthened.[29]

The demand price of a piece of equipment and therefore the investment decision dealing with a productive asset follows a similar pattern. What is changed in financial capitalism is not the criteria for pricing an investment asset but its 'connection to the actual expansion process of capital'. The interposition of a new element between the capitalist and the means of production (be it a bank deposit or a stock certificate) expands the fictitious/finance capital[30] to the point where it becomes the dominant vehicle for private capital accumulation. Productive assets are gradually excluded from private portfolios without changing its capitalist character, that is, its subordination to a social relation in which 'the means of production [are] monopolized by a certain section of society'.

Hilferding seemed attentive to these institutional developments, although his analysis is unclear as to what should be taken as the basic purpose of the capitalist's action. When describing the functions of the stock exchange he apparently saw the new capitalist (the shareholder as opposed to the owner-manager) as being deprived from some of his or her essential privileges (or property rights):

> The stock exchange first made possible the mobilization of capital. From a legal standpoint this mobilization involves a transformation, and at the same time a duplication, of property rights. Ownership of the actual means of production is transferred from individuals to a legal entity, which consists, to be sure, of the totality of these individuals, but in which the individual as such no longer has ownership rights in the property. The individual has only a claim upon the yield; his property, which once meant real, unrestricted control over the means of production, and hence over the management of production itself, has been transformed into a mere claim to income and has been deprived of control over production.[31]



Why the loss of control over production should be considered as a deprivation for the capitalist is never made clear, although Hilferding's overall reasoning can be understood as a further development of the sketchy suggestions presented by Marx in chapter 28 (The Role of Credit in Capitalist Production) of volume III of *Capital.* When analyzing credit-creation mechanisms Marx pointed to the expansion of the joint-stock company, stating that in such an organizational form:

> The capital, which in itself rests on a social mode of production and presupposes a social concentration of means of production and labour-power, is here directly endowed with the form of social capital (capital of directly associated individuals) as distinct from private capital, and its undertakings assume the form of social undertakings as distinct from private undertakings. It is the abolition[32] of capital as private property within the framework of capitalist production itself.[33]

If the abolition of capital as a private property in the context of a corporate economy might appear confusing – superficially similar to Berle's 'capital without capitalists' – it is certainly because the meaning of Marx's *Aufheben* was misrepresented as a simple abrogation. In fact *Aufheben* should be associated with the Hegelian concept of transcendence, that is, with the idea of a capitalism that overcomes a dialectic contradiction, that goes beyond its limits by shedding some of its features while preserving its essential character. It is true that in this same chapter the corporate system is characterized as a transitional phase to the 'reconversion of capital into the property of producers'[34] but until that happens the expansion of the joint-stock company should be seen as an acceleration of the capital accumulation process *within the framework of capitalist production.* In this sense, what is instrumental to the understanding of this new phase – the dominance of finance capital – is the notion that when means of production are organized under the corporate form, individual control over productive resources becomes superfluous.[35] Growing out of the conflict between the private appropriation and social undertaking character of capitalist production the modern joint-stock company carries in itself the alienation of labour without requiring the direct command of the nineteenth-century 'captain of industry'.

This notion of finance capital, as developed from Marx and Hilferding's suggestions, seems better fitted to capture what is essential to the contemporary corporate world: the transformation of capitalist property from productive assets into negotiable securities, and the centralization of control over productive resources, whereas the small business is replaced by the large corporation, *within the framework of capitalist production*. This means that a stock certificate should not be seen as a simple claim on a future income but must be acknowledged as an expression of a specific social relation that subordinates production to private capital accumulation. To get into an argument about whether managers are responsive to shareholders' interests one has to assume that there is nothing specifically capitalist to the modern joint-stock company. This is only possible when the corporation is taken as an ahistorical institution that can alternatively serve consumers, workers, taxpayers or even its own managers at the expense of its shareholders. That is Berle and Means' (or the neoclassical) corporation, although nothing could be more at odds with a society in which capital is a dominant social relation.

Furthermore it should be noted that contrary to some Marxist interpretations, the concept of finance capital should not be associated with bank control over industry but with the subordination of private wealth to financial markets. This is, once transformed into tradable securities private wealth is subject to a permanent valuation process determined by whoever has capital in money form. Capitalists and industrial corporations are as active in these markets as any financial institution. In fact financial markets should be seen as the mechanism by which value that arises from the productive activity – and is appropriated by individual capitalists – is redistributed according to a complex network of credit relationships. In that process a change in the current or expected revenues will immediately trigger a reappraisal of the capital value of private wealth (command over productive resources).

This means that a capitalist (the modern shareholder as opposed to the previous industrialist) does not become richer or poorer when the company in which he or has some interest announces a profit or a loss. It is the stock market's reaction to this information – that is, the financial market's perception – that will determine whether his or her holdings have appreciated or not. And that is precisely what will guide his or her subsequent actions in buying, selling or voting.

This trend towards a more general 'stock exchange economy' – as opposed to a 'bankers dominated capitalism' – is clearly pointed out by Hilferding:



> If the inherent tendency of capitalism, its need to place all the available social wealth at the disposal of the capitalist class, in the form of capital, and to ensure the same yield for each unit of capital, obliges it to mobilize capital, and thus to make a valuation of it as mere interest-bearing capital, then it is the function of the stock exchange to facilitate this mobilization, by providing the machinery for the transfer of capital.[36]

On a longer-term basis no corporation – be it financial or industrial – is independent from financial market movements, for that is where private capital is accumulated. In this sense one of the most common misrepresentations of the corporate world is the one that takes the number of shares held by a single individual (or coordinated group of individuals) as a benchmark to determine whether a company is under private or managerial control.[37] Left out of this kind of analysis is the basic fact that financial capitalism is distinguished from industrial capitalism precisely by the liquidity and mobility of private wealth, that is, by the ability of capitalists quickly to move in or out of their current investment positions. In other words, as most American managers would be ready to confirm, contemporary business is run with an eye to Main Street and another to Wall Street.

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7. The Board Revolt in *Business Week International* (New York: McGraw-Hill, Inc. 20 April, 1992), p. 20.
8. See 2 August 1993, p. 49 for American Express; 8 March 1992, *Business Week International* pp. 46–8 for Digital; 2 August 1993, pp. 24–6, 4 May 1993, p. 28; and 10 April 1993, p. 44 for IBM.
9. Among dozens of reports that can be found in any business periodical I recall that in 1988 Robert Bass became the owner of the largest Californian savings and loan company (S&L), after a long and delicate negotiation with the Federal Home Loan Bank, a governmental institution involved in the effort to rescue the S&L system during its recent crisis. An interesting article, on this operation and on Bass' *modus operandi* can be found in *Business Week International* of 3 October, 1988, pp. 50–5.

   K. Kerkorian was an admirer of L. Iaccoca's managerial talent and hold an steadily to his 9.8 per cent stake of Chrysler Corporation's voting stock during the late 1980s and early 1990s. They recently teamed up to announce a US 20.5 billion takeover bid for Chrysler (*Business Week International*), 6 April, 1992, p. 41, 24 April, 1995, p. 30. W. Buffet 'rescued' Gillette's management in a defensive move against a hostile bid in 1989, according to *Business Week International*, 7 August, 1989, pp. 42.
10. Although Hilferding's book develops an integrated analysis dealing with money, credit and the political aspects of financial capitalism, this chapter is only concerned with the author's basic concept of finance capital. For a critical appraisal of some of Hilferding's main arguments see G. Pietranera, 'Il pensiero economico di Hilferding e il dramma della socialdemocrazia tedesca' in R. Hilferding, *Il capitale Finanziario* (Milano: Feltrinelli Editore, 1961), pp. IX–LXXIII; A. Hussain, 'Hilferding's Finance Capital', in *Bulletin of the Conference of Socialists Economists*, (London, March 1976), vol. V, 1 (13), pp. 1–18; J. Tomlison 'Finance Capital' in *The New Palgrave: A Dictionary of Economics*, edited by J. Eatwell, M. Millgate and P. Newman (London: Macmillan, 1987), pp. 337–9.
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16. Ibid. p. 269. In light of contemporary economic developments Sweezy seems to have changed his mind, as illustrated in a recent article entitled 'The Triumph of Financial Capitalism', *Monthly Review*, June 1994, pp. 1–11.



17. Hilferding, *Das Finanzkapital*, pp. 224–5.
18. John A. Hobson, *The Evolution of Modern Capitalism: A Study of Machine Production* (1894), (London: Walter Scott, 1916) especially Ch. 10 op. cit., Ch. 10, 'The Financier', Thorstein Veblen, *The Theory of the Business Enterprise* (New York. Scribner's, 1904).
19. Karl Marx, *Das Kapital–Kritik des politischen Ökonomie* (Dritter Band, 1894); English translation; *Capital, A Critique of Political Economy*, Vol. III, (Moscow: Progress Publishers, 1978, first published 1959), ch. 24, p. 468.
20. Figures for the growth of financial assets in the US can be found in Raymond Goldsmith, *Financial Intermediaries in the American Economy Since 1900* (Princeton: Princeton University Press, 1958). For the composition of private wealth see James D. Smith, and Stephen D. Franklin, 'New Dimensions of Economic Inequality: The Concentration of Personal Wealth 1922–1969', in *American Economic Review*, vol. 64, no. 2 (May 1974), pp. 162–7.
21. Karl Marx, *Das Kapital–Kritik des politischen Ökonomie* (Erster Band, 1867), English translation, *Capital, A Critique of Political Economy*, Vol. I (Moscow: Progress Publishers, 1977, first published ch. 25, 1954), p. 588.
22. Marx, *Capital*, vol. I, op. cit., ch. 25, p. 586.
23. An example of the notion that associates the centralization of capitalist property to the concentration of productive resources can be found in the entry for 'Centralization and Concentration of Capital' by Anwar Shaikh in *A Dictionary of Marxist Thought*, edited by Tom Bottomore; (Oxford: Basil Blackwell 1983).
24. Hilferding, *Das Finanzkapital*, op cit., pp. 126–7.
25. Marx, *Capital*, op. cit., vol. III, ch. 47, pp. 814–15.
26. I am not neglecting the literature on the principal-agent question nor ignoring the motivational issues surrounding corporate management behaviour, but I am rejecting the notion that these problems can radically subvert the dynamics of a capitalist economy. For an interesting review on the inconclusive character of this literature, see F.M. Scherer, 'Corporate Ownership and Control', in John R. Meyer and James M. Gustafson (eds), *The US Business Corporation* (Cambridge, Mass.: Ballinger 1988), pp. 43–66.
27. Marx, *Capital*, op. cit., vol. III, ch. 29, p. 466.
28. This interpretation is offered by D. Foley in the entry for 'Credit and Fictitious Capital' in *A Dictionary of Marxist Thought*, edited by Tom Bottomore; (Oxford: Basil Blackwell Publisher, 1983). The high profits and often fraudulent character of the stock trade during the second half of the nineteenth century received much attention from contemporary authors such as Marx, Hobson, Veblen and Hilferding (a full section in his *Finance Capital* is exclusively dedicated to the promoter's profit).
29. Marx, *Capital*, op. cit., vol. III, ch. 29, p. 466.
30. It is important to note that the fictitious capital only becomes Hilferding's finance capital when it develops a market where it can be readily

converted into money (Hilferding, *Das Finanzkapital*, op. cit., p. 128). In that sense, a non-negotiable debt certificate or corporate share does not qualify as finance capital.

31. Hilferding, *Das Finanzkapital*, op. cit., p. 140.
32. From *Aufheben* in German.
33. Marx, *Capital*, op. cit., vol. III, ch. 27, p. 36.
34. Ibid., p. 437.
35. Marx pointed to the superfluity of capitalists in a context where their privileges had no more connection with the productive activity than those of the former feudal lords in a growing bourgeois society. Karl Marx, *Theorien über den Mehrwert* (1905–10), Italian translation 'Teorie sul Plusvalore', III in F. Engels (ed.), *Opere Complete di Marx*, vol. XXXVI (Roma: Editori Riuniti, 1979), p. 335.
36. Hilferding, *Das Finanzkapital*, op. cit., p. 141.
37. Since Berle and Means this has become a generalized standard for the debate on corporate control. An update of their initial conclusions in the early 1960s can be found on Robert J. Larner, *Management Control and the Large Corporation* (New York: Dunellen, 1970).

# 14 Marx on the Natural Rate of Interest: Did Marx Hold a Monetary Theory of Income Distribution?

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This chapter bears upon the question of whether the monetary theory of income distribution – as by suggested Sraffa in *Productions of Commodities by Means of Commodities* – must be considered equally alien to Marx's system as it was to classical political economy. Sraffa, who was clearly inspired by the works of the classical economists and Marx, remarked that his own system leaves open the possibility that the money rate of interest determines the rate of profit:

> The rate of profit, as a ratio, has a significance which is independent of any prices, and can well be 'given' before the prices are fixed. It is accordingly susceptible of being determined from outside the system of production, in particular by the level of the money rates of interest (Sraffa, 1960, p. 33).

It is well known that this idea, upon which Sraffa did not elaborate, implies a radical reversal of the causality in the theory of income distribution that is found in the works of Ricardo and Thornton. In the old classical system the mechanism of forced saving in conjunction with species flow brings the money rate of interest to the level of the natural rate. In Ricardo's system the natural rate of interest is equal to the uniform rate of profits, and these profits are considered a residual income after rent and wage payments. Sraffa's remark implies that wages may be residual.

The answer to the question at the start of this chapter is no. Marx is said to have been very close to such a monetary theory of income distribution. In the volume III of *Capital* Marx stated that the classical concept of a natural rate of interest is irrelevant. According to him no 'economic law' determines the equilibrium level of the rate of interest. This level is something 'inherently lawless and arbitrary'. As usual, an interpretation of what he meant by this is not without difficulties. His works seem to allow different interpretations. Any interpretation, however, should take into account the fact that Marx discussed monetary matters in the context of a business cycle theory. A reconstruction of one of these interpretations shows that the interaction of a cycle in real variables and a cycle in monetary variables, which Marx discussed separately in volumes I and III, respectively, can have the result that in the long run wages are residual incomes.

Saying that Marx may have been close, is of course completely different from attributing to him a monetary theory of income distribution. Marx repeatedly brought up the matter of interacting cycles, but he never discussed it systematically. There is no evidence in volume III of *Capital*, or anywhere else, to justify the conjecture that it ever occurred to him that in the long run relations of distribution may determine total income. Moreover I cannot see the use of attributing to Marx the solution to a problem that arose so many years after his death. All the same the reconstruction of Marx's criticism of classical monetary theory in volume III of *Capital* suggests that it implicitly contains a much more radical breakaway from classical economics than has so far been suggested.

Section 1 below discusses two interpretations of Marx's remarks on the natural rate of interest. The second section below argues that Marx used propositions put forward by the Banking School in order to integrate the classical monetary mechanism of the Currency School into his theory of business cycles. The final section shows how close Marx came to a monetary theory of income distribution.

## THE NATURAL RATE OF INTEREST

In classical theory the natural rate of interest is the rate at which money and commodity markets are in equilibrium. It was believed that in the long run this rate is brought about by supply and demand. In the equilibrating mechanism the banking system plays a crucial role, for it sets the market – or bank – rate of interest in response to changes in excess supply and demand. In Volume III of *Capital* Marx denies the relevance of the classical concept of the natural rate:



> It is different, though, with interest on money capital. Here competition does not determine divergences from the law, for there is no law of distribution other than that dictated by competition: as we shall go on to see, there is no 'natural' rate of interest. What is called the natural rate of interest simply means the rate established by free competition. There are no 'natural' limits to the interest rate. Where competition does not just determine divergences and fluctuations, so that in a situation where its reciprocally acting forces balance, all determination ceases, what is to be determined is something inherently lawless and arbitrary.[2]

The essential part of Marx's criticism seems to be that an equilibrium rate of interest that clears the market for money capital is determined by random circumstances. It is not determined by an 'economic law'. It is not quite clear, however, how far this criticism extends to the classical views about the functioning of the money market. It certainly suggests that Marx was not thinking of a classical or Wicksellian 'bidding up' process, in which the market rate of interest adapts itself to a given equilibrium rate of profit. But whether this is the case depends on what Marx meant by 'lawlessness' and 'random' circumstances. Two quite different interpretations seem possible.

A first interpretation is that, in Marx's works, an equilibrium rate of interest is not regulated by the law of value. This law expresses the idea that an equilibrium price of a commodity depends on the real social costs of producing it. In this interpretation 'lawlessness' means there are no real social (reproduction) costs of money capital. The rate of interest is completely different from the wage rate, which is, according to Marx, determined by the value of labour power (Lianos, 1987, p. 40).

If this interpretation had been the whole story, Marx's criticism would not *a priori* have resulted in any far-reaching consequences for the classical monetary mechanism. The core of this mechanism is that net profits and interest payments vary inversely, for both are claims on a real surplus product, which is produced by productive labours. With a given equilibrium real wage rate (from population theory or reproduction costs), this inverse relation prevents the economy from becoming stuck in an underemployment equilibrium. Let $\lambda y$ be the total value of the net product, $l_p$ the time spent on productive labour, $V$ the wage sum, $S$ total surplus value, $\Pi_n$ net profits, $I$ interest payments and $R$ ground rent. Marx's accounting identity is:[3]

$$\lambda y \equiv L_p \equiv V + S \equiv V + \Pi_n + I + R$$

We have straightforwardly $\delta(\Pi_p/L_p)/\delta(I/L_p) = \delta(\Pi_n/L_p)/\delta(V/L_p) = 1$ In other words, a declining market rate of interest and declining real wages always improve net profits per productive labourer. This is precisely what happens in for example, the downswing of a real business cycle, as is discussed in Volume I of *Capital*. It guarantees that there is always a phase in the downswing in which profitability is restored.[4] When money markets either adapt instantaneously (Say's identity) or converge as in the Thornton–Ricardo tradition (Say's equality), there is no way that – after this downswing – the economy can come to a rest.

This first interpretation of why Marx called the natural rate of interest 'arbitrary' amounts to saying that in Marx's theory interest is a transfer income and not an original one, such as wages and surplus value. It is not easy to see whether such a criticism of classical theory can have any implications for the classical monetary mechanism.

According to a second interpretation, Marx's equilibrium rate of interest is a conventional entity. It is founded on Marx's statement that interest is a claim on the net results of real commodity production and as such depends on distributional conflict. The rate of interest is more or less arbitrary, because the proportion in which total profits are divided between money capitalists and industrial capitalists depends on relative strengths (see Harris, 1983, pp. 172–8). Of the conflict between these capitalists Marx remarked:

> it is the capitalist actually functioning in the reproduction process whom the lending capitalist directly confronts, and not the wage labourer who is expropriated from the means of production precisely on the basis of capitalist production. Interest-bearing capital is capital *as property* as against capital *as function* (Marx, 1894b, p. 503).

Marx's own explanation (in chapter 22, volume III of *Capital*) of why he called the natural rate of interest arbitrary, certainly depends partly on the view that the rate of interest is a conventional entity. Illustrative are his ideas about its development in the long run. On the one hand Marx seems to have agreed with a proposition that can be found in classical literature, namely that the natural rate of interest may show a tendency to decline. Marx introduced the notion of an average



rate, which is an average of the market rate over a period. Quite significantly Marx did not – as did Adam Smith – relate the long-run decline of the average rate of interest to the tendency of the rate of profit to decline, which he discussed in the chapters 13, 14 and 15 of the same volume. The tendency in the average rate is, according to Marx, a result of institutional changes on the supply side of the money market. In the first place, when referring to Ramsay's *On the Distribution of Wealth* he mentioned the increase in the number of rentiers (Marx, 1894a, p. 374). Secondly, he related this decline in the interest rate to the development of a banking system, which leads to a more centralized disposal of savings.

On the other hand Marx focused on institutional changes, which he believed resulted in an upward tendency in the rate of interest. Next to changes on the demand side of the money market, he mentioned a modern development in property relations, that is, the limited liability company. This blurs, according to him, the distinction between industrial capitalists and money capitalists. Property owners of industrial capital do not view dividend payments as revenue on productive capital, but as interest on money capital:

> Even if the dividends that they [the 'mere owners'] draw include both interest and profit of enterprise, i.e. the total profit... is still drawn only in the form of interest, i.e. as a mere reward for capital ownership, which is now as completely separated from its function in the actual production process as this function, in the person of the manager, is from capital ownership (Marx, 1894b, pp. 567–8).

Marx suggested that this institutional change counteracts the long-run tendency of the rate of interest to decline. We may surmise that he was insecure about the overall effect, for he chose not to comment on that. More importantly, however, he did not jump to the conclusion that the evaporation of the distinction between money and industrial capitalists (and between dividends and interest) necessarily implies that the average rate of profits must be equal to the average rate of interest.[5]

Marx's criticism of the classical concept of the natural rate of interest is not a straightforward criticism of the classical monetary mechanism. The notion of an underemployment equilibrium must have been as foreign to Marx as it was to the classical economists. Marx worked with the notion of an average rate of interest. His criticism of the classicals was that this average is not determined by market forces alone, but also by institutional ones. Because of this criticism we should ask how, according to Marx, the money market functions.

## THE NATURAL RATE AND THE MARKET RATE

The prevailing interpretation of the Thornton–Ricardo tradition in monetary theory is that the convergence of the market rate of interest with the natural rate is brought about by bankers' reactions to species flow, which is induced by international differences in price levels. As is well known, Marx emphatically denied that the market rate converges. It moves cyclically. Our problem of interpretation is whether Marx described a monetary cycle that is determined by non-monetary developments or a cycle that is also determined by the reactions of the participants in the money market.

Marx seems to have agreed with the classical economists that changes in the market rate of interest show the reactions of the supply side of the money market to changing circumstances. He stressed – as did, among others, Thornton – that the money supply is more or less endogenous because of existing credit facilities. When discussing an endogenous money supply, however, he carefully avoided associating the notion of a conventional rate of interest with the so-called 'law of reflux', which holds among other things that the credit supply is infinitely elastic around the conventional level (see Lapavitsas, 1994).[6] Quite the contrary, Marx could see no other foundation for the idea of an infinitely elastic money supply than 'once again that narrow bankers' conception of circulation'. When reacting to Fullerton in *Capital* he rejected this idea:

> It is in no way, as he [Fullerton] claims, the strong demand for loans that distinguishes the period of stagnation from that of prosperity, but rather the ease with which this demand is satisfied in the time of prosperity and the difficulty of satisfying it once stagnation has set in. It is in fact precisely the tremendous development of the credit system during the period of prosperity, and also therefore the enormous rise in the demand for loan capital and the readiness with which this is made available in such periods, that leads to the credit trap in the period of stagnation (Marx, 1894b, p. 582).



In Marx's view, bankers react to changes in demand in the money market by manipulating the market rate of interest. The fierceness of this reaction depends on the phase of the business cycle. In other words, bankers' reactions are subject to cyclical fluctuations. The importance of this can be seen in Marx's accounting identity. When manipulating the market rate of interest, the banks directly influence the net profit per productive labourer. The interesting question from our point of view is: what determines, in Marx view, the cyclical changes in bankers' reactions? Two answers can be derived from Marx's texts.

A widespread interpretation of what, according to Marx, determines bankers' reactions stresses his discussion of credit panic (see Crotty, 1985; Itoh, 1988; Lipietz, 1982). This is the idea that a squeeze of gross profits, which damages the creditworthiness of borrowers, results in a crisis of confidence. In a vulnerable financial climate lenders tend to overreact to their clients' insolvency.[7] In volume III of *Capital* Marx repeatedly brought up the matter of financial trustworthiness: 'Credit contracts, 1. because this capital is unoccupied, i.e. congealed in one of its phases of reproduction, because it cannot complete its metamorphosis; 2. because confidence in the fluidity of the reproduction process is broken; 3. because the demand for this commercial credit declines' (Marx, 1894b, p. 614).

The crisis of confidence can, according to Marx, be fuelled by many circumstances. He certainly was aware that a change in profit expectations can lead to a decline in effective demand, which either causes or aggravates the downswing and in both cases deepens the crisis. However it should be noted that, if it was Marx's view that bankers' reactions depend on lenders', evaluations of the creditworthiness of the borrowers, this means that in Marx's business cycle the contractions and expansions of money supply follow gross profit expectations. In that case Marx's real business cycle and his 'credit cycle' are largely synchronized, and financial phenomena are 'important and often dominating accelerators and destabilizers of accumulation' (Crotty, 1985, p. 68).

Crotty's assessment of how Marx treated financial phenomena is, I think, fair. It should be pointed out, however, that in the chapters 34 and 35 of volume III Marx argued that the market rate of interest also depends on lenders' subjective evaluations with respect to the value of money. Since Marx was talking about a gold exchange standard, he was primarily concerned with the consequences of changes in the gold value of the currency. He criticized the Banking School for neglecting this influence on the money supply. Marx is known to have come up with a cyclical version of the species-flow mechanism of the Currency School. The crucial implication of Marx's view on this is that a change in the market rate of interest, as a result of a more pessimistic evaluation of the value of money, may start squeezing net profits long before expectations with respect to gross profits start to deteriorate. Let me show in three steps how Marx amended the classical monetary mechanism.

First, with normal development the money supply under the gold exchange standard does not, according to Marx, depend upon the gold reserves of the banking system. The supply is relatively elastic and is determined by high levels of confidence in creditworthiness and the value of money. Marx reproached the Currency School for not noticing that in such a situation the money supply is endogenous and almost wholly determined by demand.

Second, in periods of overaccumulation a lenient money supply produces inflationary pressures. As a first result Marx mentioned forced savings and an increasing distrust with respect to the value of money: 'The incomes of the unproductive classes, and of those who live on fixed incomes remains for the most part stationary during the price inflation that goes hand in hand with overproduction and overspeculation. Their consumption power thus undergoes a relative decline' (Marx, 1894b, p. 622). As a second result Marx mentioned the export of bullion. Again criticizing the Currency School he argued that this export has no direct consequences for the money supply. Bullion export is merely an indication that *monetary* 'relations are maturing into a crisis (ibid., p. 704).

Third, Marx's main criticism of the Banking School can be taken from his objection against Fullerton, namely that national and international money circulations are never strictly separated. A persistent bullion drain will make itself felt in the medium term (Marx, 1894a, p. 582) Bankers are growing increasingly insecure about the general economic development. The prosperous section of the public is growing insecure about the value of money. The end of the period of overaccumulation is, according to Marx, characterized by money panic, that is, a flight into gold. This money panic coincides with, or comes immediately after a credit panic:

> But as soon as credit is shaken – and this is a regular and necessary phase in the cycle of modern industry – all real wealth is supposed to be actually and suddenly into money, into gold and silver, a crazy demand, but one that necessarily grows out of the system itself (Marx, 1894b, p. 708).



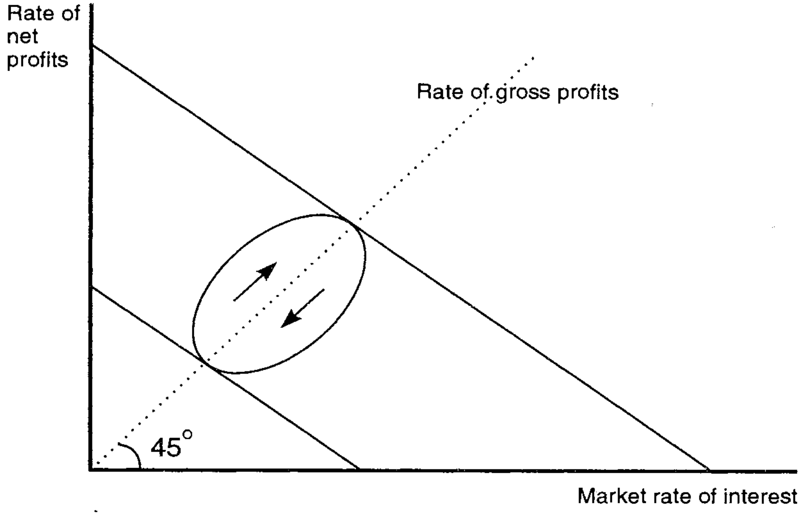
A reasonable interpretation of Marx's views seems to me that he used arguments put forward by the Banking School to argue that the classical monetary mechanism of the Currency School does not lead to convergence of the market rate of interest with the uniform rate of gross profits. He thought that in periods with high profit expectations and a strong currency, inflationary pressures are the result of an 'easy money' policy of the banking system. Marx assumed that the outflow of bullion does not immediately erode the trustworthiness of the currency. The moment it does, bankers tend to overreact with a tight credit policy. In Marx's works, the classical mechanism produces a cycle.

The two answers we found to what, according to Marx, determines the market rate of interest are of course supplementary.[8] The problem I would like to raise with respect to the two answers concerns the nature of the business cycle that Marx described. When money creation does not merely depend on gross profits expectations, but also on the value of money, it is no longer evident that financial phenomena are merely 'accelerators and destabilizers of accumulation'. We may have a case in which expectations with respect to the value of money determine the level of the cycle, that is, they determine the average level of real income and unemployment.

Since there is nothing in Marx's works to enable us to attribute to him the view that monetary phenomena may determine the level of income, my interpretation of Marx's texts stops here. The following is a reconstruction of the ideas discussed thus far.

## THE DISTRIBUTION BETWEEN PROFITS AND INTEREST

In this section I intend to show that a monetary theory of income distribution, which was suggested by Sraffa, was not as alien to Marx as it must have been to the classical economists. For such a theory we need to have, on the one hand, a monetary theory of money supply and, on the other hand, a particular relationship between the uniform rate of gross profits, the rate of net profits and the market rate of interest. In my view there is no point in trying to find such a theory in Marx's texts. A reconstruction of his arguments shows, however, that he certainly had some of its ingredients.




*Source*: Lianos (1987) © Union for Radical Political Economics.
*Figure* 14.1 The distribution of gross profits

In order to see how close Marx came to such a theory, let us start with a figure presented by Lianos (1987, p. 37). This figure provides an extremely useful framework within which to reconstruct the two interpretations of Marx's criticism of the concept of the natural rate and his views about the market rate of interest.

The figure describes the cyclical behaviour of the inversely related rate of net profits and the market rate of interest. As such it shows the distribution of the cyclically changing gross profits. When the net rate of profit is equal to the market rate of interest, they both are evidently equal to the uniform rate of gross profits. This implies that the 45° ray through the origin represents all possible levels of the uniform rate of gross profits. Any movement along this 45° ray represents either a change in the real wage rate of the productive labourers or a change in excess capacity.

It is important to note that the basic idea behind Lianos's figure is nothing but Marx's accounting identity, of which the variables move cyclically. Since the accounting identity defines the relationship between gross and net profits and interest payment per productive labourer, Lianos transformed this identity by taking into account the ratio of loan capital to own funds. For the sake of simplicity this ratio is assumed to be constant. It is represented by the slopes of the



parallel lines between which the cycle is constrained. The transformation leaves the inverse distributional relations of the accounting identity as they are. For example, when the market rate of interest declines faster than the rate of gross profits, the rate of net profits shows – by definition – a tendency to improve. It should also be stressed that Lianos's figure adequately illustrates Marx's ideas about the direction of the cycle of the rate of net profits and the market rate of interest. The cycle moves upward when the uniform rate of gross profits moves upward, and *vice versa*. When the uniform rate of gross profits starts to decline, we have a tight money market, which gradually widens. During the first part of the downswing of the rate of gross profits the market rate of interest squeezes the rate of net profits, but it feeds it during the second half. During the upswing these processes are, of course, reversed.

Our reconstruction of the diverging interpretations of Marx's work on the rate of interest leaves many important aspects aside (demand failures, investment incentives and so on) and concentrates on the cyclical movement of the variables in Marx's accounting identity. We ask three questions. First, what is it in these interpretations of the economic mechanism that lets the economy move cyclically? Secondly, is the cycle of the money market necessarily around the 45° ray through the origin, as Lianos drew it, or must it, according to Marx, lie elsewhere in this plane? Thirdly, are the average levels of income and unemployment in these interpretations determined by real variables, or can they also be determined by monetary variables? As it turns out, the diverging interpretations of Marx's discussion in volume III of *Capital* allow at least three reconstructions.

A first reconstruction, which represents the prevailing interpretation of Marx, is that the cyclical behaviour of the market rate of interest is induced by a cycle in the gross rate of profits (see Lianos, 1987). This is the cycle that Marx discussed in chapter 23, volume I of *Capital*. This cycle depends on the distributional conflict between wage labourers and capitalists. In the upswing of the real cycle unemployment declines and gross profits are squeezed by rising real wages, and in the downswing *vice versa*. The average level of the real wage rate is determined by 'the value of labour power'. In this reconstruction the money supply is seen to depend on gross profit expectations, and financial phenomena are treated as 'important... accelerators and destabilizers of accumulation' (Crotty, 1985, p. 68). Two important points about this reconstruction should be noted.

First, this reconstruction offers a beautiful explanation of why Marx could have considered that the classical concept of the natural rate of interest is irrelevant. Assume for a moment that the cycle of the market rate of interest is around the 45° ray through the origin, as in Lianos's figure. In that case there is only one average rate of interest, as Marx would have it, which is equal to the average of all the rate of gross profits in the cycle. For the classical economists any uniform rate of gross profits was a 'gravitation centre' towards which the market rate of interest converges. It can be seen immediately that Marx's average rate of interest and the classical 'gravitation centre' are quite different concepts.

Second, we may still have a cyclical version of the classical system, which is characterized by a distributional conflict between wage labourers and capitalists. This is the case when we assume a given average real wage rate, which determines the intensity of the conflict and hence the cyclical changes in the real wage and gross profits. Such a given average real wage, call it the 'value of labour power', would have the same function as the classical concept of the 'natural wage'. In classical theory all supply reactions in the labour market are related to this natural wage, which is, according to Sraffa, determined from outside the classical system of production by Malthusian population theory. When supply reactions in the money market are determined by gross profit expectations, the money market may overreact (and not converge), so that the real business cycle reproduces itself in a money market cycle. The crucial and most questionable feature of this reconstruction is thus seen to be the assumption of a given average real wage rate. Was it really Marx's view that the value of labour power is determined outside the system of production?

A second reconstruction stresses that, in Marx's view, the rate of interest is a conventional entity and is determined by a distributional conflict between industrial and money capitalists. The important point here is that the average value of the market rates of interest is not necessarily equal to the average value of the rates of gross profits. Itoh (1988, p. 276) holds the view that in Marx's theory the average rate of interest is always smaller than the average value of the rates of gross profits. Although this seems to be odd from a classical point of view, it certainly is a conceivable interpretation of the following quote from volume III of *Capital*: 'The average rate of profit must in all cases be seen as the final upper limit of the [rate of] interest' (Marx, 1894b, p. 481). Moreover we have seen that, according to Marx, the interest rate shows a tendency to decline, and that this tendency is independent of any decline in the rate of profit.



This reconstruction can be visualized in Lianos's figure. The cycle of the market rate of interest is not on the 45° ray through the origin, but on some 45° ray that intersects the axis of the net rate of profit at a positive intercept. The idea of an upper limit value for the rate of interest implies that the cycle can at most be tangent to the 45° ray through the origin, which represents the changing values of the gross rate of profit. If the average rate of interest shows a long-run tendency to decline, which is independent of a tendency with respect to the rate of gross profits, the cycle moves upward between the lines that represent the ratio of loan capital to own capital. Again I would like to raise two points.

First, this second reconstruction is independent of an interpretation of what, according to Marx, is the economic mechanism behind the cyclical movement. Indeed Itoh (1988) attributes to Marx the view that the business cycle is determined by the cyclical behaviour of real wages and gross profits, that is, by the distributional conflict between wage labourers and capitalists. The problem I have here is no different from the one I have with respect to the first reconstruction: does the assumption of a given average real wage rate really represent Marx's views?

Second, this reconstruction ascribes to Marx the view that both the average rate of interest and the average value of the rate of gross profits can be determined independently. The first one has its origin in conventions among money capitalists, that is, in institutions on the supply side of the money market. In other words, the market rate of interest is determined by these conventions and the lenders' evaluations of the credit worthiness of the borrowers. The second one may be determined by the distributional conflict between wage labourers and industrial capitalists, as it is in Itoh's reconstruction. Apart from the numerous economic problems, I have a problem of interpretation. For difference, between the average rates of interest and the average rate of gross profits can, of course, only exist when money and industrial capitalists live apart in watertight compartments. Did Marx really believe that?

A third reconstruction of Marx's view on the rate of interest seems possible. It should be stated at the outset that, although this reconstruction takes the different interpretation of Marx's work in volume III of *Capital* into account, the overall picture it presents of cyclical development is probably not Marx's. This reconstruction merely shows how close Marx came to a monetary theory of income distribution as suggested by Sraffa. More specifically it shows that if crucial aspects of Marx's work on the average and market rate of interest are brought together, we may find a case in which supply reactions in the money market determine the long-run development of the uniform rate of profits and hence the long-run development of the real wage rate. The basic aspects of this reconstruction are as follows.

A first aspect is that in Marx's theory a crisis implies a disruptive bankers' reaction. In other words, a rise in the market rate of interest starts to squeeze net profits, and most probably acts as a brake on real capital accumulation. The general point about this idea of crisis can be seen in Marx's accounting identity. Changes in net profitability per productive labourer depend on changes in the real wage rate in proportion to changes in the market rate of interest. They depend on how workers react to changes in unemployment in proportion to how bankers react to changes in creditworthiness and the value of money. This means that when net investments depend on expectations with respect to net profits, Marx's cycle between the rate of net profit and the market rate of interest can take place at any absolute level of the real wage rate. The turning points in the cycle are found when a rise or fall in the real wage rate are sufficiently offset by a fall or rise, respectively, in the market rate of interest.

The second aspect is that, according to Marx, the average level of the market rate is not determined by an economic 'law'. It seems to me that Marx's work on the average rate of interest indicates that he was thinking about institutional developments that influence the expectations of money suppliers. He believed that, as a result of the rise of the joint stock company, property owners of industrial capital do not view dividend payments as revenue on productive capital, but as interest on money capital. Such a statement in fact means that lenders do not adapt their subjective evaluations with respect to the average level of the market rate of interest to objectively determined gross profit possibilities as in classical theory. The important point is that the average level of the market rate plays a crucial role in determining bankers' behaviour when they set the market rate of interest. We have seen that, according to Marx, bankers' reactions depend on subjective evaluations of both the value of money and the creditworthiness of debtors. When in the downswing of Marx's cycle trust in the value of money is restored, the banking system may consider that the prospects of industry are gloomy and switch over to an easy-money policy (and feed net profits) even before the real wage rate has fallen to the lowest level of the previous slump.



The third aspect is a crucial difference between Marx's theory of wage determination and the classical one. In classical theory supply reactions in the labour market ensure that in the long run the real wage always returns to its 'natural' level. In Marx's theory population growth, if any, is exogenous and there is no such concept as a long-run 'natural' level of the real wage rate. It is true that Marx's statements on the long-run development of the real wage rate are hard to interpret. On the one hand he predicted *Verelendung* (impoverishment); on the other hand he believed that every epoch has its own standard of living, which depends on the level of development of the productive forces. For our reconstruction, however, it is important to note that in Marx's theory there are no long-run forces that lead the real wage back to a given 'subsistence' level. For the short run Marx repeatedly stated that the real wage depends on its reproduction costs, the so-called 'value of labour power'. It is pretty clear in Marx's writings that this value of labour power is a real income, not necessarily a very low one, that governs distributional conflict. Workers are willing to engage in such a conflict when a tight labour market offers them an opportunity to improve their income; they are willing to defend their wages in face of increasing unemployment. Although the exact meaning of the concept of the value of labour power is far from clear, we may perhaps interpret this real wage level as the benchmark in a short-run distributional conflict.

These three aspects show how close Marx may have been to a monetary theory of income distribution, as suggested by Sraffa. This can be seen in Lianos's figure, in which the cycle of the rates of net profit and interest is along the 45° ray through the origin. When bankers' reactions are governed by subjective evaluations, it may be the case that the maximum and the minimum rate of gross profits are respectively determined by a switch to a tight or a lenient credit policy, which respectively produces the credit trap or feeds net profits. The credit trap may arise long before full employment is reached and workers have the opportunity to squeeze gross profits with maximum force. A lenient credit policy will remove the credit trap, and can improve net profits even when wages are still rising. When the bankers' subjective evaluations do not change much over time and labour productivity improves, workers will have less difficulty in both defending the value of their labour power and, when unemployment declines, improving their wages. It is reasonable to assume that their expected standard of living, which is their benchmark in distributional conflict, shows an upward long-run tendency.

The three reconstructions of Marx's work on the rate of interest show that it is not easy to attribute to him a particular view of the interaction between a real business cycle and a cycle in the money market. In particular they show that there is no reason why financial phenomena are merely 'accelerators and destabilizers of accumulation' (Crotty, 1985, p. 64). Marx had ammunition enough to argue that reactions in the credit market can not only determine the outbreak or the end of a crisis, but also the level of income and unemployment at which the real business cycle takes place.

## FINAL REMARKS

In this chapter I have discussed how close Marx may have been to a monetary theory of income distribution. The possibility of such a theory was suggested by Sraffa. The idea that the rate of interest may determine the rate of profit implies a radical reversal of the classical theory of income distribution.

Marx may have been close, because (1) he tied the average rate of interest to conventions in the money market, and (2) his business cycle does not depend on the absolute level of real wages, but on changes in real wages in proportion to changes in the market rate of interest. This makes supply reactions in the credit market a central part of his theory of income distribution. Since supply reactions do not merely depend on real profit expectations, but also on evaluations with respect to the value of money, it is the interaction between a real business cycle and a monetary cycle that determines the average levels of distributional variables.

Although I think Marx was very close, I do not wish to attribute to him such a monetary theory of income distribution. Marx's monetary theory can hardly be called self-contained and a modern interpreter needs to rely on reconstructions. I would like to stress, however, that it must be considered important enough that Marx, when criticizing classical monetary theory, came very close to a radical reversal of the causality in the classical theory of income distribution. For this accentuates once again that volume III of *Capital* is one of those rare masterpieces in the history of economic thought, whose potential seems to unfold by asking modern questions.



**Notes**

1. Associate professor, Economic Faculty, State University of Groningen, PO Box 800, 9700 AV Groningen, The Netherlands. This paper is taken from chapter 6 of Plasmeijer, 1990. The author would like to thank all the participants in the debate at the conference in Bergamo. He also thanks Geert Reuten for his help. The comments of two anonymous referees are gratefully acknowledged.
2. The references are to the German *Marx-Engels Werke* (Marx, 1894a, p. 25). I had the opportunity to compare the quotes with the texts in the new *Marx–Engels Gesamtausgabe*. There were some minor differences in the spelling. For the translation I used the translation by D. Fernbach of volume III of *Capital*, published by Penguin books in 1981. On the whole, this edition seems to be reliable. That doesn't alter the fact that in a few cases the English translation may lead to interpretation problems. This necessitated me to introduce some minor changes, which I hope will not lead to confusion. For example the sentence in which Marx mentions 'die ungeheure Entwicklung des Kreditsystems... welche die Kreditklemme während die Zeit der Stockung herbeiführt' (Marx, 1894a, p. 466) is translated as 'The tremendous development of the credit system... that leads to the shortage of credit in the period of stagnation' (Marx, 1894b, p. 582). A shortage of credit? There is no such thing in Marx's text. Banks supply credit and create money at the prevailing market rate of interest. They may decide to curtail credit by raising this rate. My reading of the German text is that when the banks raise the market rate of interest (1) fewer firms can afford to demand new credit, and (2) those firms that are indebted get into trouble because their net profits are squeezed by a rise in interest payments. The literal translation of *Kreditklemme*, that is, 'credit trap', seems much better.
3. The first part of the accounting identity is derived from the theory of productive labour. The last equality contains two (of the three) 'invariance postulates' of Marx's solution to the transformation problem in Volume III of *Capital*. Marx's accounting identity differs slightly from the classical one, which is a by-product of Adam Smith's definition of productive labour. The classical accounting identity is $P_y = f(L_p) = V + S + R \equiv V + TT_p + I + R$. $P_y$ is the price sum of the net product. In the classical view the Ricardian rent $R$ is an original income, and Marx reproached the classicals for confusing surplus value with profits and rent. This makes no difference to the inverse relationship between net profits and interest payments per productive labourer. The wages of unproductive labourers, which should be treated as transfer incomes, are omitted, as are government's tax receipts.
4. This suggests that a 'Keynesian' liquidity trap is hardly reconcilable with Marx's theory of value production. In Marx's theory sufficiently low real wages and a relatively low market rate of interest always imply high net profits per productive labourer. Consequently, in such a situation obsolescence of machinery and the scrapping of overcapacity are always seen to improve the rate of profit. Attributing to Marx the view that expectations with respect to future profits can keep the economy in a slump,

more or less amounts to saying that according to Marx everybody can be wrong. Stepping beyond the limits of an essay in the history of economic thought, I feel obliged to note that the consequence of the accounting identity is not that Keynesian liquidity preference has no role whatsoever in a modern Marxian theory. Quite the contrary, in this Marxian context the Keynesian story hints at an important 'possibility' of crisis. (see Kenway, 1980) But why do modern Marxists need to read all this in Marx? Marx himself was, of course, aware of the disruptive consequences of changing expectations and a demand failure (see Sardoni in this volume), as testified by his discussion of Ricardo in the *Theorien über den Mehrwert*. I have strong doubts whether this may be read as the first step towards a theory of liquidity preference. Attempts to read such a theory in volume I of *Capital* rely on an English translation of a single passage. I quote in German:

> Keiner kan verkaufen, ohne das ein andrer kauft. Aber kein braucht unmittelbar zu kaufen, weil er selbst verkauft hat. Die Zirkulation sprengt die zeitlichen, örtlichen und individuellen Schranken des Produktenaustausches ebendadurch, daßsie die hier vorhandne unmittelbare Identität zwischen dem Austausch des eignen und dem Eintausch des fremden Arbeitsprodukts in den Gegensatz von Verkauf und Kauf spaltet. Daßdie selbständig einander gegenübertretende Prozesse eine innere Einheit bilden, heißt ebensosehr, daßihre innere Einheit sich in äußeren Gegensätzen bewegt. Geht die äußerliche Verselbständigung der innerlich Unselbständigen, weil einander ergänzenden, bis zu einem gewissen Punkt fort, so macht sich die Einheit gewaltsam geltend durch eine – Krise. (Marx, 1861–63, II (5), pp. 73–4).

This quote is in chapter 3, near the end of section 2a. It is in the English translation published by The International Publishers (New York, 1967) on pages 113–14, and in the translation published by Random House in the Vintage book edition (New York, 1977) on page 209. The International Publishers' edition, which is quoted by Foley (1985, 1986) and Lavoi (1983, 1986), introduces in the last sentence 'an interval in time' between sale and purchase, which is neither in the German text nor in the Vintage book edition. Moreover it relates the *Krise* to a widening of this 'interval', and hence to an increasing preference for money. It should be pointed out that in a footnote added to the quote from Volume I of *Capital* Marx refers to his criticism of James Mill's version of Say's Law (which is Say's identity) in *Zur Kritik der Politischen Ökonomie* (Marx, 1861–63, II (2), p. 166) The purport of this criticism is that the split between sale and purchase gives opportunities to *eine Masse Parasiten*, who engage themselves in spurious transactions (*Scheintransaktionen*). This speculative behaviour can cause instability. This is a 'possibility of crisis' that is quite different from the one connected with a liquidity preference theory. Stepping once again beyond my self-imposed limits I would like to remark that my doubts about one of Foley's models (1985) only concerns its quality as an interpretation of Marx. Indeed I consider the model a classic example of how the enrichment of Marx's ideas can lead to powerful insights.



5. Marx assumed that the capital of the property owners precisely equals the value of real productive assets. In volume III this reads as follows: 'Das Geldkapital ist zunächts nichts als eine Geldsumme oder der Wert einer bestimmten Warenmasse als Geldsumme fixiert' (Marx, 1894a, p. 366).
6. The argument that credit supply is completely elastic around the conventional level is an extreme version of the ideas of the Banking School about money supply. This argument was put forward by Fullerton (see Green, 1982, p. 59 ff) against the views of the Currency School, according to which overtrading tends to disappear.
7. This vulnerable climate is seen as the result of financial horrors during the upswing of the business cycle. These horrors subvert the lenders's confidence. Crotty's (1985, p. 72) description is highly expressive: 'In other words, the speculation, stock market euphoria, outright swindling and casino atmosphere of the overheated boom can create a financial structure vulnerable to the exposure of fraud, the disappointment of unfulfillable expectations and the collapse of Ponzi-like financial pyramiding even in the absence of a prior collapse in the industrial and commercial sectors.'
8. This is most easily seen when Marx's arguments are reconstructed in a Marshallian manner. First, consider a situation in which the value of money does not change. The demand for credit is a declining function of the market rate of interest. The demand function shifts outward when the firms' profitability increases and *vice versa*. Bankers manipulate the quantity demanded by manipulating the market rate of interest. The supply function can be conceived of as infinitely elastic for any level of the market rate. The market rate depends on bankers' evaluations of the creditworthiness of borrowers. Marx's treatment of the matter suggests that the supply function shifts downwards when prospects are gloomy and *vice versa*. Second, consider a situation in which the value of money changes. Bankers' willingness to supply credit depends on the rate of inflation. With the rate of inflation on the vertical axis, this willingness function has the shape of a short-run Phillips curve. The willingness function moves outward when the expectations with respect to firms' profitability improve and *vice versa*. Taken together, these two graphs show the core of Marx's argument. During the upswing of the cycle a profit squeeze as a result of real wage increases influences bankers' evaluations of the creditworthiness of borrowers, which leads to an upward shift in the supply function of credit. Next to this is a delayed effect of a lenient credit policy during the earlier phases of the boom. The delay is, according to Marx, determined by the time it takes the species flow mechanism to make its influence felt. Inflation and doubts about the value of money result in a declining willingness to supply credit, which shifts the supply function of credit even more upward. Thus during the last phase of the boom, when the (monetary) relations are maturing into a crisis, the quantity of credit demanded declines sharply because of an inward shift of the demand function and an upward shift of the supply function, which is caused by both diminished expectations with respect to profitability and a declining willingness to supply credit. It is easily seen that the delay in the decline of the willingness to supply credit is the

central part of Marx's argument: indebted firms are in a credit trap and see their net profits being squeezed by rising interest rates.

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# 15 Asset Speculation in Marx's Theory of Money

Duncan K. Foley[1]

## INTRODUCTION

A leading problem for contemporary Marxist economics is to explain the general commodity price level in monetary systems based on state credit when the value of the national currency is not determined by its guaranteed convertibility into gold or some other external asset. The problem arises because the coherent and persuasive theory of money that Marx, following Tooke (see Arnon, 1990), developed in *Capital* (1867) presupposes the existence of an international commodity money system. (For the sake of brevity I will refer to this system as a 'gold standard' system, and abuse precise language by distinguishing between 'gold', that is, the money commodity, on the one hand, and 'commodities', that is, all other produced commodities, on the other.) On the gold standard assumption, Marx was able to outline theoretically transparent and convincing explanations for the level of commodity prices in terms of gold or national currencies defined as a given quantity of gold. But we encounter substantial problems when trying to apply this theory to a monetary system in which the values of national currencies are not fixed in terms in gold since there appears to be no relation at all between the national currency, which is the debt of the state, and commodity production.

In this chapter I will approach this problem through a close reexamination of Marx's own theory of the determination of the money prices of commodities in a gold standard system. I will argue that we need to consider this problem in terms of a succession of models corresponding to different levels of abstraction. The first model, corresponding to Marx's conception in volume I of *Capital*, assumes long-run production equilibrium without technical change and with equal organic compositions of capital in all sectors, including gold production. The second model, corresponding to Marx's analysis in volume III of *Capital*, relaxes the assumption of equal organic compositions of capital, but retains the assumption of long-run produc-





tion equilibrium without technological change. In both models the relative production cost of gold and commodities determines the gold price of commodities.

The third model considers the determination of the gold price of produced commodities in a system where there is a prospect of uncertain future technological change in both gold production and commodity production. Since gold is a durable asset, speculative motives come into play in this situation in determining the relative prices of gold and other commodities. In this case it is not the current production cost of gold and commodities that is decisive in determining the gold price of commodities, but the expected, long-run, relative production costs. Taking account of the speculative element in the pricing of gold emphasizes the parallels between commodity money systems and other monetary systems based on assets that can be held over time – between Marx and Keynes, in fact.

This perspective has immediate relevance to the problem of reconciling key episodes in monetary history, such as the great inflation of the sixteenth century and the deflation of the late nineteenth century, to Marx's theory of money. The discovery of precious metals in the Americas in the sixteenth century, for example, drastically changed the prospects for technological change in gold production relative to other commodities, and by itself this new information forced the price of commodities in terms of gold to rise more rapidly and higher than the immediate change in the production cost of gold relative to commodities. Likewise in the late nineteenth century the effect of gold discoveries in Alaska and Australia had less impact on the long- run evolution of the gold prices of commodities than speculation about the path of relative technological change.

This perspective also sheds some light on the problem of applying the methods of Marx's monetary reasoning to monetary systems based on state credit without a guarantee of convertibility into gold or some foreign currency. The proximate determinants of gold prices in the realistic case in which future technological change is uncertain are speculative, and the relative production costs of gold and commodities have an impact on commodity prices in terms of gold only through speculation. The proximate determinants of the value of the debt of the state in a credit-based state monetary system are also speculative. Even in a system where there is no production cost of the money commodity relative to other commodities to determine relative prices, speculative forces can supply the necessary determining factors.

This asset speculation point of view retains the key elements of Marx's theory of money. The equation of exchange still determines the quantity of money in circulation given money prices of commodities determined by speculative forces, in direct opposition to the quantity of money theory of prices. Commodities come to the market with a price and money with a value, as in Marx's theory.

## THE VOLUME I MODEL

To begin with, let us make the assumptions consistent with volume I of *Capital*. All commodities, including gold, are produced with an equal organic composition of capital, and there is no land rent. In long-run equilibrium without technological change the price of every commodity, including gold, will be proportional to its total labour content, and any prices that are proportional to labour content will equalize the rates of profit on all commodities produced.

Under these strong and simple assumptions, production technology establishes an embodied labour content for a unit of gold as well as a labour content for a unit of each of the other commodities, and the ratio of these embodied labour coefficients establishes the price of commodities relative to gold. If an ounce of gold contains 20 hours of labour (including both direct and indirect labour) and a bushel of wheat contains five hours of direct and indirect labour, the gold price of a bushel of wheat will be one quarter of an ounce of gold.

Suppose now that the state establishes a monetary standard, and legislates a price of gold of $20 to the ounce. Suppose that the state also mints gold at this rate, and that if it issues paper money it maintains strict convertibility between the dollar and gold at this legislated price. Then the dollar is just another name for one twentieth of an ounce of gold. The price of a bushel of wheat will be $5, which is just another way of describing one quarter of an ounce of gold.

At these gold prices of commodities, a certain amount of gold will be necessary to circulate a given level of commodity production at any given velocity of money. The stock of gold will be larger than the quantity of money necessary to circulate commodities, because of the existence of jewelry, plate and industrial gold stocks. Fluctuations in the quantity of coin necessary to circulate commodities will be met by the conversion of these non-monetary gold stocks into coin at the mint, or the melting of coin. The motive that regulates this process is the fact that coinage yields a stream of convenience returns to its



holders depending on the relation of the stock of coin to the volume of commodities it circulates. If coin becomes scarce relative to the circulation of commodities, individual wealth holders find the convenience yield of coin rising above the yield of non-monetary gold stocks and are led to convert the non-monetary gold into monetary gold. (In historical fact, of course, shortages of coin are also met by innovations such as convertible paper money, which raise the effective velocity of gold coin.) The production technology of gold and other commodities and the velocity of gold coin are exogenous in this system, while the gold prices of commodities and the quantity of money are endogenous.

This system can be extended to analyze the issuance of inconvertible paper money by the state, if we assume, as Marx did, that the paper money is held only for circulation. In this case the inconvertible paper displaces gold coin from circulation to the point where gold disappears from circulation altogether. Then the value of the inconvertible paper (which we may think of as equivalent to the price of gold in terms of paper money) fluctuates to satisfy the equation of exchange (see Foley, 1983).

In this world we have not only equilibrium in the production of commodities and gold because of the equalization of profit rates, but also a speculative equilibrium of asset holding. We have seen that non-monetary gold and gold coin yield equal convenience returns to their holders because wealthholders can endogenously adjust their stocks of non-monetary gold and gold coin through minting and melting. The return on gold stocks in general must be equal to the profit rate on capital in order to induce wealthholders to hold both capital and gold. (A systematic development of the relation between asset holding and production equilibrium in a wide range of models can be found in Burgstaller, 1994.)

## PRICE OF PRODUCTION MODEL

It is straightforward to extend the analysis of the last section to the determination of the gold price of commodities in a situation where the organic composition of capital may differ, so that – with competition – commodities and gold exchange at prices of production that are not necessarily proportional to embodied labour coefficients. Since this logic may be somewhat less familiar, and since it is the foundation of the analysis of the problem of uncertain technical change, let me work through it in some detail with the help of an explicit mathematical model.

Time flows in periods, denoted by $t = 0, 1, \ldots,$. Two commodities are produced: gold ($g$) and commodities ($x$). Commodities can be either consumed or accumulated as capital ($k$). Capital and gold depreciate at the same rate ($\delta$). We denote the price of capital and gold in period $t$ in terms of gold in period 0 as numeraire by the vector $p = (p_{kt}, p_{gt})$ (so that $p_{g0} \equiv 1$). An agent who sells a unit of gold in period $t$ at this price system realizes $p_{gt}$ in terms of the numeraire. Since the numeraire price of gold in period $t+1$ is $p_{gt+1}$, she could then buy $p_{gt}/p_{gt+1}$ gold in period $t+1$, which defines the own rate of return to gold in this price system. The gold interest rate between period $t$ and $t + 1$, $i_{t+1}$, is thus defined by:

$$1 + i_t \equiv p_{gt}/p_{gt+1}$$

For example, if the gold interest rate is constant at 5 per cent per period, the numeraire price of a unit of gold in period 0 is 1, in period 1 it is 1/1.05, in period 2, $1/(1.05)^2$ and so on.

The arbitrary choice of a numeraire is of course quite different from the social process Marx described as the emergence of a monetary standard. In Marx's terms the monetary standard, say, gold, although it is a produced commodity, has no price, only a value, since it is the medium through which the other commodities express their prices. On the other hand, if gold is a produced commodity it must share in the logic of profit rate equalization. The mathematical device of choosing a numeraire allows us to focus on the issue of profit rate equalization between gold and commodity production by giving gold (in this case in each period) a fictional price in terms of the numeraire. In any given period we would see commodities expressing their values in terms of gold, but these relative prices would be equal to the ratio of the numeraire price of commodities to the numeraire price of gold in the fictional price system.

The use of a period 0 numeraire in this model simplifies the mathematical expressions considerably, but can lead to misinterpretation unless we are careful to translate the period 0 numeraire accounting back into more conventional current period accounts. For example a wealthholder who receives a zero rate of return in numeraire terms between period $t$ and period $t+1$ increases her or his wealth, measured in current period gold, by a factor of $1 + i_t$. The numeraire rate



of profit, or interest, is zero, but the gold rate of profit, or interest, is positive in this situation.

Labour is supplied elastically at the conventional gold wage $w$, and is paid at the beginning of the period in gold, which workers spend immediately to buy wage goods from the production of the last period. The labour cost of production thus can be modelled as the requirement for entrepreneurs to hire a stock of gold at the beginning of production to pay wages. The production of gold and commodities thus requires the services of stocks of both gold and capital. The matrix of stock requirements for production is:

$$A = \begin{pmatrix} a_{kx} & a_{kg} \\ wa_{nx} & wa_{ng} \end{pmatrix}$$

Here $a_{ij}$ is the stock input requirement of input $i$ to produce one unit of output $j$. Thus $a_{kx}$ is the capital stock input required to produce one unit of commodities, and $a_{nx}$ is the labour input required to produce one unit of commodities, so that $wa_{nx}$ is the stock of gold required to pay the labour power necessary to produce one unit of commodities.

Production takes one time period. There are rentals on capital and gold, $v = (v_{kt}, v_{gt})$, measured in terms of gold deliverable at $t+1$. An entrepreneur returns the stock of capital plus the rental $v_{kt}$ in gold to the capitalist from whom the capital was hired. The principal is returned, to the capitalist from whom the wage fund was borrowed at the beginning of the period, which costs the entrepreneur $p_{gt+1}$, plus the rental $v_{gt}$ in gold. An entrepreneur undertaking production of commodities anticipates a numeraire profit per unit of output equal to:

$$\pi_{xt} \equiv p_{xt+1} - v_{kt}\, a_{kx} - (p_{gt+1} + v_{gt})\, wa_{nx}$$

Similarly an entrepreneur undertaking production of gold anticipates a numeraire profit per unit of output equal to:

$$\pi_{gt} \equiv p_{gt+1} - v_{kt}\, a_{kg} - (p_{gt+1} + v_{gt})\, wa_{ng}$$

We can write the vector of entrepreneurial profits as:

$$\pi_t = p_{t+1}B - v_tA, \quad \text{where}$$

$$B = \begin{pmatrix} 1 & 0 \\ -wa_{nx} & 1 - wa_{ng} \end{pmatrix}$$

If entrepreneurs are to produce both gold and commodities in period $t$, $\pi_t \geq 0$, and given the assumption of constant returns to scale in production $\pi_t \leq 0$, so that on an equilibrium path we must have $\pi_t = 0$, which implies:

$$v_t = p_{t+1} BA^{-1} \tag{15.1}$$

Here we follow Marx's method in volume III of *Capital*, where he considers the analytical abstraction of an economic system in which profit rates in production are exactly equalized and price expectations completely fulfilled. In reality, the equalization of profit rates in different sectors is a tendency that is never completely realized. Foley (1985) has a fuller discussion of the concept of prices of production.

We also make the implicit assumption that capital and gold stocks can be shifted instantly and costlessly between sectors. This assumption may approximate reality for gold, but probably does not hold for many forms of real capital.

A capitalist holding a unit of capital or gold as a portfolio speculation through period $t$ anticipates net profits in numeraire terms of:

$$\tau_{kt} \equiv p_{xt+1}\ (1-\delta) + v_{kt} - p_{xt}$$
$$\tau_{gt} \equiv p_{gt+1}\ (1-\delta) + v_{gt} - p_{gt}$$

In vector notation this becomes

$$\tau_t = ([1-\delta]I + BA - 1) - p_t$$

If both gold and capital are held in period $t$, these anticipated profits must be zero, so that:

$$\begin{aligned} p_{t+1}([1-\delta]I + BA^{-1}) &= p_t \\ p_{t+1} &= p_t([1-\delta]I + BA^{-1})^{-1} \end{aligned} \tag{15.2}$$

Remember that zero anticipated profit in numeraire terms corresponds to an anticipated gold rate of return equal to the interest rate.

As worked out in detail in the appendix to this chapter, the solutions to this system of arbitrage pricing equations in general are a mixture of two eigenvectors, one of which has a positive gold price of commodities and the other a negative gold price of commodities. The first eigenvector is the Marxian system of prices of production. I will abuse language slightly and call the gold price of commodities in the prices of production system the 'commodity price of production'. If the eigenvalue corresponding to the negative eigenvector is larger in magnitude than the eigenvalue corresponding to the prices of production, any solution to equations (15.2) that activates the negative eigenvector will eventually lead to a negative gold price of commodities, which is incompatible with the assumption of informed speculative arbitrage, so that the only possible price paths are always proportional to the prices of production. In the first section of the appendix I characterize those technologies which force the gold price of commodities to be equal to the price of production of commodities from the first period onwards.

For any technology the gold price of commodities on the equilibrium price path must asymptotically approach the commodity price of production.

As an example, suppose that the gold wage, $w$, is 1, the amount of capital required to produce a unit of commodities, $a_{kx} = 0.2$, the amount of capital required to produce a unit of gold, $a_{kg} = 0.5$, the amount of labour required to produce a unit of commodities, $a_{nx} = 2$, the amount of labour required to produce a unit of gold, $a_{ng} = 0.2$, and the depreciation rate, $\delta = 0.05$. Then the $A$ and $B$ matrices are:

$$A = \begin{pmatrix} 0.2 & 0.5 \\ 2.0 & 0.2 \end{pmatrix}$$
$$B = \begin{pmatrix} 1.0 & 0.1 \\ -2.0 & 0.8 \end{pmatrix}$$

In order to maintain equal zero numeraire profits on the holding of both gold and commodities, which correspond to positive gold profits, the numeraire prices must satisfy the equation:

$$p_{t+1} = p_t \begin{pmatrix} 0.20235 & 0.40796 \\ 1.63185 & -0.058094 \end{pmatrix}$$

This system has two eigenvalues, 0.715759 corresponding to the price system (0.794617, 1), which are the Marxian prices of production, and −1.09435 corresponding to the price system (- 0.314617, 1). Since the eigenvalue corresponding to the negative price of commodities is larger in absolute value than the eigenvalue corresponding to the positive price of commodities, only the second can be activated on an equilibrium path, so that arbitrage forces this system instantly to the Marxian prices of production. The eigenvalue 0.715759 implies a gold interest rate of 39.71 per cent per period, which is also the gold rate of profit to capital.

We can sum up this discussion in the following terms. If organic compositions of capital are not equal in gold and commodity production, for any technology the long-run equilibrium gold price of commodities will be equal to the Marxian commodity price of production. Furthermore, for a class of technologies, speculative arbitrage will force the gold price of commodities immediately to the commodity price of production. When we unpack the full economic logic of the volume I model, we see that current pricing of long-lived assets such as capital and gold always has a speculative element.

Once the gold price of commodities is determined by speculation to equal the commodity price of production, the theory of a commodity money can be developed exactly as in the case of equal organic compositions of capital. Commodities still come to the market with a money price, and the theory of circulation of commodities and the velocity of money is unchanged.

## COMMODITY PRICES WITH UNCERTAIN TECHNICAL CHANGE

Marx frequently insisted on the technologically revolutionary character of capitalist production. To develop the theory of money to explain real movements of prices in a gold standard system, we need to consider price determination when there is uncertainty about technical change.

To allow for the simplest type of uncertain technical change, suppose that in period 1 the technological coefficients $a_{ij}$ will take on one of two possible configurations, $(A, B)$ or $(A', B')$, both with the property that arbitrage will force the gold price of commodities immediately to the commodity price of production, with corresponding prices of production $p$ and $p'$, in terms of period 0 gold as numeraire. Then it will be certain that the gold price of commodities in period 1 will be either $p_x$ or $p'x$, where these are the commodity prices of production corresponding to the two alternative technologies, which are expected to rule for the indefinite future. In general these technologies will be different from the technology $(A^0, B^0)$ ruling



in the initial period. Thus the prices ruling in period 1, $p_1$, will be proportional either to $p$ or $p'$.

In this situation the price of commodities in period 0 will not be equal to the price of production corresponding to the technology in period 0. Let $q$ and $(q' = 1 - q)$ be the generally held probabilities that technologies $A$ and $A'$ respectively will rule from period 1 onwards. Let us make the further assumption that the market will not permit expected value arbitrage, that is, that the expected net rates of return to capital and gold must be equal. (This assumption rules out the neoclassical notion that risk aversion plays a role in the pricing of assets.) The expected value arbitrage conditions in period 0 are:

$$\begin{aligned} &E_0(p_1)B^0 = v_0 A^0 \\ &E_0(p_1)([1-\delta]I) + v_0 = p_0 \qquad (15.3) \\ &p_0 E_0(p_1)([1-\delta]I + (B^0A^0)^{-1}) \end{aligned}$$

Here $E_0(p_1)$ is the expected value of $p_1 = qMp + q'M'p'$, where $M$ and $M'$ are constants of proportionality. (The constants $M$ and $M'$ represent the discount factors applicable to the two possible future developments of the economy.) The period 0 price of commodities in terms of gold is determined by speculative considerations, depending on a probability-weighted average of the two possible prices anticipated in period 1 and thereafter, and will in general not be equal to the price of production of commodities for the period 0 technology. (Of course if $A = A' = A^0$, so that no technical change is anticipated, equations 15.3 reduce to equations 15.2, and the period 0 gold price of commodities will be equal to its price of production.)

This general principle could be applied recursively to account for uncertain technical change in all succeeding periods of production as well. In this case the period 0 prices would be a complex average of prices of production over an indefinite future.

The general structural logic of Marx's theory of money is left unaltered when we take account of the role of speculative arbitrage in determining the relative prices of commodities and gold in the context of uncertain technical change. The important point is that commodities come to the market with a price determined by expectations about future technical change. The gold price of commodities reflects expectations about the long- run relative production costs of gold and commodities, not necessarily their current production costs. Changes in gold prices in this perspective arise from the arrival of new information about the relative pace of technical change in gold and commodity production.

In this perspective the great inflation of the sixteenth century, for example, arose not because the arrival of large quantities of American gold and silver in Europe created a glut of gold and silver, but because the news of the American mines and mining technology made clear that gold and silver would become cheaper in relation to European-produced commodities over a long period of time. Similarly the persistent deflation of the late nineteenth century, despite the discoveries of gold in Alaska and Australia, reflected the gradual realization that gold mining technology was not keeping pace with the breathtaking cost reductions in agriculture and manufacturing in that period.

## SPECULATION AND PRICES IN A STATE CREDIT MONETARY SYSTEM

The modern theory of asset pricing clarifies our understanding of a gold standard system. It seems to me that this clarification supports the Marx–Tooke–Banking School side of the monetary theory debate rather than the Ricardo–Torrens–Currency School side, in deemphasizing the role of the existing quantity of gold and highlighting the role of prospective relative costs of production of gold and commodities in the explanation of the gold price of commodities. But the analysis of the gold standard has a musty, historical flavour for an era of monetary systems based on the credit of the state. Is this a case of the owl of Athena taking wing at dusk, or can clarification of our understanding of the gold standard system contribute to our understanding of contemporary monetary phenomena as well?

To begin with, it is clear historically that twentieth-century state credit monetary systems grew organically out of the nineteenth-century gold standard system. The severing of the ties between national monies and gold was a gradual process extending over six decades from 1914 to 1971. The operation of national money and credit markets were disrupted remarkably little by the changes in the relation between national currencies and gold (though the world trading system was drastically destabilized in some periods). It is implausible that the gradual weakening of links between national currencies and gold completely overturned the general principles governing the operation of money and credit markets. If the Marx–Tooke view was correct in the mid-nineteenth century, it must also contain the seeds of a correct view of the operation of twentieth-century monetary systems.



Most of the features of modern monetary systems had developed under the gold standard. States had begun to issue their own paper currency, together with an array of debt instruments of various maturities. These debt instruments of the state had come to play the central role in the financing of commerce and production. Central banks had been established to centralize national monetary reserves, further separating gold from the day-to-day operation of the monetary system. Furthermore, in developed capitalist economies the superstructure of state credit had already outgrown the narrow base of gold reserves. Quantitatively a large part of state credit could not be viewed as backed by gold. (The referee of this paper points out that state credit monetary systems existed before the modern gold standard, that paper issued by states functioned as money for centuries before the emergence of the nineteenth-century gold standard, that the centralization of gold reserves predates even the founding of the Bank of England, and that actual gold movements played a negligible role in the nineteenth-century gold standard system relative to bills of exchange and domestic credit.)

The key to understanding this situation seems to me to lie in the state budget constraint, in particular in the state balance sheet, though state accounting practices tend to obscure these economically important conceptual categories. The assets of the state, in particular, tend to be hidden from view. These assets include gold reserves (and other foreign exchange reserves), of course, but these are dwarfed by the physical assets of the state and by the enormous asset represented by the taxing power of the state. (The asset represented by future taxing power must be offset against the liabilities created by legislative entitlements such as social security.)

The US federal government, for example, came into being with enormous assets in the form of western lands. Before the Civil War federal revenues came largely from tariffs, which were large enough by the 1830s to extinguish the federal debt and create a political crisis over the disposition of the federal surplus. The US federal government still has enormous land reserves with abundant unexploited marketable natural resources, a wealth of physical capital assets, many of which yield productive and marketable services, and a stream of revenue from income and other taxes that have a huge discounted present value. These non-financial assets of the state, even in the period of the gold standard, were of central importance in securing its debts, including its debts in the form of currency issues. It is the existence of these assets that gave credibility to the state's promise of maintenance of convertibility of currency into gold: the state could sell or borrow against these assets to raise gold if need be. The currency crises of the gold standard era were typically linked to the decline of state credit due to political and military difficulties. The civil war in the United States, for example, called into question the ability of the federal government to continue to control the assets that backed its currency issues. It was as a result forced to suspend convertibility of greenbacks into gold. Once the political and military crisis of the war was resolved, the credit of the United States was reestablished, and the dollar easily returned to prewar par against gold.

Contemporary state credit systems, in this perspective, are not very different from those that developed under the gold standard. It is still the case that the real assets and present value of future tax liabilities are the important assets backing state debt, including state currency issues. The currency issued by the state has value because it can be used to pay taxes; by issuing currency the state borrows against its future tax revenue.

This public finance aspect of modern monetary systems is obscured in most countries because legislation gives the state a monopoly over the issue of circulating currency. Thus the currency issued by the state appears to have a different 'forced circulation', and to be qualitatively different from interest-bearing state debt and private debt. A careful look at the history of currency issue clarifies this point. In the period between the issue of 'greenbacks', the inconvertible paper currency issued by the United States to finance the civil war, and the passage of the National Banking Act, which taxed private note issues, banknotes circulated as currency alongside the paper of the United States federal government. If the tax on private banknotes were repealed, private currency would again compete with state-issued currency. It is more logical to view the currency issued by the state as a particular kind of debt than to see it as a purely 'fiat' money.

We have seen in the first part of this paper that even in a gold standard system, speculation on the long-run evolution of relative production costs of gold and commodities established the gold price of commodities. This suggests that the development of the Marx–Tooke theory of money to encompass modern state credit monetary systems requires a better understanding of the speculative forces valuing state debts in relation to state assets.



The general considerations of economic theory tell us that somewhere in a theory determining the real value of national currencies (or equivalently, the national currency price of commodities) there will have to appear parameters linking the nominal value of the national currency (of the dollar, for example) to real variables. In the gold standard analysis this parameter is the legislated equivalence between the national currency and a quantity of gold (the dollar being equated, for example, to one twentieth of an ounce of gold), which Marx called the standard of price. Keynes (1936) argued that the price level would be highly unstable if it were not for the rigidity of the money wage, thus proposing a labour money standard, in which a conventional money wage would provide the link between nominal national currency and real production. In contemporary state credit systems there may be no standard of price: some national currencies are allowed to float against gold and other currencies. At the same time the contemporary state does establish a host of equivalences between the national currency and real variables: minimum wages, price floors and ceilings, administered energy prices, housing and food subsidies, and so on.

These links between the nominal value of the national currency and real economic variables, and their evolution over time, constitute the object of speculation that takes the place of the relative production costs of gold and commodities in establishing the national currency price of commodities. In other words, governments act so as to stabilize the currency price of certain key commodities (labour, oil and housing, for example) within certain limits, even when they have given up the project of stabilizing the currency price of gold. These commitments are not fully believed by asset speculators, in part because they are inconsistent with each other. Given the instability, weakness and fickleness of the political coalitions that control most contemporary legislatures, there is here rich matter for speculation, and it is easy to understand the volatility of the relative values of national currencies.

The speculative determination of the absolute price and wage level explains why money prices and wages do not respond quickly to macroeconomic disturbances in the level of output and employment, and thus provides a possible rationale for the assumption of short-run rigidity in money wages and prices. Short-run fluctuations in output and employment may not influence the economy's estimation of the long-run value of the debt of the state very much, so that the absolute level of prices and wages will not change very rapidly. A speculative theory of absolute money wage and price levels, however, does face the problem of reconciling the complex empirical regularities linking the rate of inflation to the business cycle to a long-run speculative determination of the price level.

These consideration suggest that we regard the Marx–Tooke theory of money as having two key moments. The first is the conception that money (whether a commodity money or a state credit money) comes to the market with a relative value in terms of commodities determined by speculation (on costs of production of the money commodity or the value of the state debt). From this moment follows the rejection of the quantity of money theory of prices, and the idea that fluctuations in speculative reserves adjust the velocity of money to the needs of circulation. The second is the link proposed between money and a particular money commodity such as gold through what Marx calls the standard of price. Through the first moment the continuity between the nineteenth- and twentieth-century monetary systems can be made apparent and the Marx–Tooke theory adapted to explain contemporary monetary phenomena.

## CONCLUSION

Marx and Tooke put forward a powerful and well-reasoned account of the workings of a commodity money (gold standard) system. Their focus on production as the analytical centre of the capitalist economy led them to consider rigorously the forces that must necessarily influence the gold price of commodities, taking account of the fact that gold itself is produced. This analysis led them to deemphasize the role of the quantity of gold or money and to emphasize the relative production costs of gold and commodities in determining the gold price of commodities. The implications of this theory for our understanding of the monetary and financial dynamics of capitalist production are far-reaching.

The introduction of uncertain technical change in this theory leaves the structure of the theory unaltered, but forces a reevaluation of its interpretation in relation to economic reality. It becomes clear that speculation on the future relative production costs of gold and commodities plays a central role in determining the current gold price of commodities in a gold standard system. To be sure, it is ultimately considerations of cost that govern the gold price of commodities, but these considerations influence the price level through forward-looking speculation. This change in perspective,



however, does not alter the basic structure of the theory. Gold and commodities still come to the market with a price already determined, in this case by speculation on their future relative production costs. If anything we are even closer to Keynes' presumptions, in that the given price level is the result of the type of speculation Keynes saw as endemic.

This line of thinking offers us a path to the explanation of state credit monetary systems that have no formal link to gold. The debt of the state must be valued by speculative markets like any other asset. In the case of state debt the speculation must focus on the future legislative policy linking the nominal value of state debt to real variables, such as labour, housing, food and subsidized or taxed products. Since these speculations, though inherently volatile and sensitive to new information, establish a price level, this line of thinking is also consistent with the Keynesian approach, separating the short-run determination of the utilization of economic resources from the long-run evolution of the price level.

## Appendix

If $p$ is an eigenvector of $BA^{-1}$ corresponding to the eigenvalue $\lambda$, $p$ is also an eigenvector of $([1-\delta]I + BA^{-1})^{-1}$ corresponding to the eigenvalue $(\lambda[1-\delta])^{-1}$ If we take $p_g = 1$, an eigenvector of $BA^{-1}$ has

$$p_x = \frac{wa_{nx}}{wa_{ng} - \lambda\, det\,(A)} = \frac{a_{kx} - (1+\lambda)\, det\,(A)}{wa_{ng}}$$

Since the two eigenvalues of $BA^{-1}$ satisfy:

$$\lambda_1 + \lambda_2 = tr(BA^{-1}) = \frac{tr(A)}{det\,(A)} - 1 = \frac{a_{kx} + wa_{ng}}{det\,(A)} - 1$$

we have

$$\left(\frac{wa_{ng}}{det\,(A)} - \lambda_1\right) + \left(\frac{a_{kx}}{det\,(A)} - (1+\lambda_2)\right) = 0$$

Thus one eigenvalue of $BA^{-1}$ (which we will call $\lambda^+$) corresponds to the positive eigenvector $p^+$, and the other eigenvalue of $BA^{-1}, \lambda^-$, corresponds to the eigenvector $p^-$, on which the price of commodities in terms of gold is negative. The Marxian prices of production, which equate the rate of profit in the two sectors, are proportional to the positive eigenvector $p^+$.

If the $tr(A)$ is not too large, arbitrage considerations alone assure us that the actual prices in period 0 in this model must be proportional to the prices of production, $p^+$. The general solutions to the arbitrage pricing equation ($AP$) have the form:

$$p_t = K^+(\lambda^+ + [1-\delta])^{-t}p^+ + K^-(\lambda^- + [1-\delta])^{-t}p^-$$

Here $K^+$ and $K^-$ are constants. Clearly, if $(\lambda^- + [1-\delta])^{-1} > (\lambda^+ + [1-\delta])^{-1}$, or equivalently $(\lambda + [1-\delta]) < (\lambda^+ + [1-\delta])$ $K^-$ must equal 0, since otherwise the price of commodities will eventually become negative on any arbitrage-free path. Production viability requires $\lambda^+ + (1-\delta) > 1$, or . $\lambda^+ > \delta > 0$. If $det\ (A) > 0$, we must have $\lambda^+\lambda^- = \frac{1-wa_{ng}}{det\ (A)} > 0$, so that $\lambda^- > 0$, and $\lambda^- > \frac{wa_{ng}}{det\ (A)}\lambda^+$, so that the inequality can hold only when $det\ (A) < 0$. But if $det\ (A) < 0$, the inequality will hold whenever $tr(A) < -(1-2\delta)det(A)$. With this class of technologies, arbitrage considerations alone require that the gold price of commodities in every period be determined by the price of production.

### Note

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# 16 Marx's Theory of Money and Interest: A Reconsideration in the Light of Robertson and Keynes

Claudio Sardoni

## INTRODUCTION

Marx's analysis of the role of money in a capitalist economy marked a significant advance with respect to classical political economy, and in particular with respect to Ricardo. For Marx, money was no longer just a means of circulation but also a store of value. This has significant macroeconomic implications.

In his analysis Marx raised a number of theoretical issues that were also at the core of the debate between two of the most important monetary economists of this century, J. M. Keynes and D. H. Robertson. This chapter deals with some aspects of Marx's theory that are more directly related to Robertson's and Keynes' contributions. More precisely, attention is focused on three main topics: the factors that determine significant changes in the economy's propensity to hoard, the macroeconomic effects of such changes and the determination of the rate of interest. The chapter does not intend to be merely an exercise in the history of economics. Examining the theories of Marx, Robertson and Keynes can contribute to a fruitful line of development of a monetary theory for the world in which we actually live.

After briefly expounding Marx's, Robertson's and Keynes' positions on the topics mentioned above, a comparison between these positions is made in the final section. There, the chapter argues that an important analytical relationship can be established between Marx and Keynes with respect to the motives for an increase in the economy's propensity to hoard. Both for Marx and Keynes, although not explicitly in *The General Theory*, the basic motive for an increase in 'liquidity preference' is to be found in the essential characteristic of a capitalist economy: the drive for profits. In Robertson, the relationship between the capitalist drive for profits and the demand for money hoard does not play the same central role. This aspect of Marx's and Keynes' monetary analyses represents the basic element for further theoretical developments.

## MARX'S THEORY OF MONEY AND INTEREST

### Critique of Ricardo's Quantity Theory

Marx's theory of money can be usefully expounded by starting from his critique of Ricardo's theory of money prices. In Ricardo's world, money is merely a device to make the exchange of commodities simpler. Exchange through money is not conceptually different from barter (Ricardo, 1951, pp. 291–2). Within this analytical context, there is a direct relationship between the quantity of money in the economy and the level of money prices. If the velocity of circulation of money ($V$) is given, and the outputs of all commodities are given as well, the quantity of money required to exchange the whole national product is

$$M_D = \frac{\sum_i X_i p_{gi}}{V} (i = 1, 2, \ldots) \tag{16.1}$$

where $p_{gi}$ is the price of the $i$-th commodity expressed in terms of the price of gold and $X_i$ is the output of the $i$-th commodity.

If for any reason the supply of money changes, all money prices (and the money wage rate) change as well. As the outputs are given, money prices necessarily rise in proportion to the increase in the quantity of money.[1] Ricardo's theory of money can be denoted as a 'quantity theory of money'.

Marx criticized Ricardo for having considered money only as a means of circulation, and hence for having regarded a capitalist economy as essentially the same as a barter economy. For Marx, in contrast, money is also demanded as a store of value: it may also be hoarded. The demand for money is

$$M_D = M_T + M_H \tag{16.2}$$



where $M_D$ is the total demand for money, $M_T$ is the demand for money as a means of circulation and $M_H$ is the demand for money hoards.

The quantity of money demanded for the circulation of commodities is (Marx, 1954, p. 115):

$$M_T = \frac{\sum_i X_i p_{gi}}{V_T} (i = 1, 2, \ldots) \tag{16.3}$$

where $V_T$ denotes the velocity of circulation of money as a medium of exchange. Equation 16.3 is formally identical to Ricardo's equation above, but it does not imply that changes in the supply of money, $M_S$ bring about corresponding changes in the price level. In Marx's equation, prices are independent of $M_S$; they depend only on the value of commodities and the value of gold, that is to say,

$$p_{gi} = \frac{v_i}{v_g} \tag{16.4}$$

where $v_i$ and $v_g$ denote the value of the $i$-th commodity and gold respectively.[2] The velocity of circulation of money as a medium of exchange being given, the dependent variable is $M_T$ (ibid., pp. 124–5).

In Marx's analysis, the equality between demand for and supply of money is realized through changes in the level of hoarded money.

$$M_H = (M_S - M_T) \tag{16.5}$$

Any change in prices $p_{gi}$ with given outputs, determines a change in $M_T$. If there is a decrease in prices, $M_T$ falls and the amount of hoarded money increases correspondingly. On the other hand, the existence of a reserve of liquidity allows the process of circulation to proceed undisturbed when a rise in prices $p_{gi}$ implies an increase in $M_T$. A smooth process of exchange and circulation of commodities implies a positive demand for 'idle money', that is hoards (ibid., p. 134).

If money can be hoarded, the Ricardian direct relationship between the general price level and the supply of money no longer holds. Given the quantities of goods, their prices and the velocity of circulation of money as a means of circulation, the equality between the supply of and the demand for money is obtained through *changes in the level of hoarded money.* On the whole, Marx developed his analysis coherently. Only in one case did he seem to contradict his criticism of the quantity theory. In volume I of *Capital*, Marx argued that an increase in the supply of *paper* money would bring about a proportional increase in money prices (ibid. p. 128). This latter point of view, however, would be acceptable if it were assumed that paper money is demanded only as a means of circulation and not as a store of value. But there is no acceptable reason for such an assumption. If paper money is generally accepted as a suitable instrument with which to exchange goods, it must also be considered as an instrument that can be kept idle in order to settle future payments. In order for a nominal instrument to play the role of money, it has to have social acceptance, which *per se* ensures that, if hoarded, it can then be transformed into any other good at any future date.

### Changes in the Propensity to Hoard

Ricardo's theory of money prices is strictly connected to his acceptance of Say's Law. Marx argued that, for Ricardo, Say's Law holds because of the assumption that money is never kept idle (Marx, 1968, pp. 532–3).[3] If money is merely a device to make exchange simpler and it is never kept idle, for every sale there is always a corresponding purchase and hence a general overproduction of commodities is impossible.

If money can be hoarded, there is no longer any reason why sales and purchases should always coincide. Suppose that, at a certain time, $M_S > M_T$ so that a certain quantity of money is already hoarded. If the velocity of circulation is constant, it is clear that outputs can exchange at their prices $p_{gi}$ only if the quantity of money used for circulation is $M_T$. If the quantity of money used for circulation is less than $M_T$, commodities cannot exchange at prices $p_{gi}$ and therefore the normal rate of profit cannot be realized.

If the money holders decided to hoard a quantity $M'_H > M_H$, either actual prices will fall or stocks of unsold commodities will pile up, or both. In any case the rate of profit will fall and a general overproduction will occur: aggregate demand will fall short of aggregate supply. In order to prove that Say's Law does not hold, that is, that general overproduction crises are possible, it is then necessary to provide an explanation of why the economy's propensity to hoard can increase.

In Marx's analysis, the explanation of the possibility of crises is to be found in the fundamental characteristics of the capitalist mode of production.[4] For Marx, it is essentially only the capitalist class that



can hoard money, and therefore the possibility of a general overproduction comes from its decision to hold more money idle instead of spending it on goods or labour.[5] The capitalist class as a whole increases its propensity to hoard whenever it expects that spending money on production will not be profitable. Entrepreneurs do not produce commodities in order to satisfy, directly or indirectly, their own needs; they start production and investment processes in order to make profits. It is by taking account of this fundamental characteristic of the capitalist mode of production that we can explain why capitalists' propensity to hoard can increase or trigger a 'general glut'.[6]

Whenever there arise situations in which capitalists' expectations of profit are pessimistic, they do not convert money into commodities or labour but hold it idle, whether it is gold or nominal money: 'surplus value amassed in the form of money (gold or notes) could only be transformed into capital at a loss. It therefore lies idle as a hoard in the banks or in the form of credit money. Purchase and sale get bogged down and unemployed capital appears in the form of money' (ibid. p. 494).

A general overproduction crisis occurs when a significant part of the capitalist class increases its demand for money hoards:

> the supply of all commodities can be greater than the demand for all commodities, since the demand for the general commodity, money, exchange-value, is greater than the demand for all particular commodities, in other words the motive to turn the commodity into money, to realise its exchange-value, prevails over the motive to transform the commodity again into use-value (ibid. p. 505).

### The Rate of Interest

In Marx's analysis of the possibility of crises, changes in the propensity to hoard directly affect prices through changes in the demand for commodities; there is no relation between the propensity to keep money idle and the rate of interest. However consideration of Marx's theory of the rate of interest indicates that such a relationship can be established.

While for Ricardo the rate of interest, in the long period, is regulated by the natural rate of profit in the 'real' sector',[7] for Marx the rate of interest does not depend on the rate of profit either in the short or in the long period. The rate of interest depends on supply and demand for loans (Marx, 1959, p. 366). By distinguishing between a *market rate of interest* and an *average rate of interest*, Marx pointed out that the average rate of interest is not determined by any 'natural' law, but is merely the result of continuous fluctuations of the market rate: 'in this sphere there is no such thing as a natural rate of interest in the sense in which economists speak of a natural rate of profit and a natural rate of wages' (ibid. p. 362).

Marx's analysis of the demand for and the supply of loans is on the one hand unfinished and on the other largely influenced by the specific historical context to which he referred. However, by considering some useful clarifications that Engels interpolated into Marx's manuscripts and abstracting from historical contingencies, it is possible to detect some general analytical elements. As for the demand for loans, Marx considered three different forms: demand for a loan from a bank without security being offered against it; demand for cash from a bank with bills of exchange, bonds or stocks as collateral; discounting bills with a bank.[8] As for the supply of loans, this is in general determined by the amount of deposits with banks, the policy of the central bank and the banks' propensity to lend.[9]

In Marx's terminology, people also take loans from banks when they sell securities and discount bills, but selling securities and discounting bills can be more properly denoted as demand for money, which is different from borrowing from a bank in order to finance expenditure, and in particular investment. Marx himself underlined the difference between these types of loan and pointed out that the demand for money is particularly high during a crisis, when the demand for loans to finance investment and production is stagnant (see, for example, Marx, 1959, pp. 515–17).

Thus, on the demand side, the rate of interest is determined both by the demand for *money* and by the demand for *finance*. On the supply side, the banking system plays a crucial role: the amount of deposits that banks lend essentially depends on their discretionary decisions. A contraction in the supply of loans by banks brings about an increase in the rate of interest, which is particularly significant during a crisis when the demand for money increases (for example, ibid., pp. 516–17).

By considering banks we can establish a relationship between the rate of interest and the propensity to hoard. Banks' decisions about whether or not to lend are similar to decisions to keep money idle or employ it in some other way. In other words, banks may have a high or low 'liquidity preference' which, together with the other factors, affects the rate of interest.



## ROBERTSON AND KEYNES ON HOARDING AND THE RATE OF INTEREST

The debate between Robertson and Keynes on monetary theory spanned a long period. Here it is impossible to cover such a debate and attention is focused only on those aspects of the debate that are relevant to Marx's theory.

### Robertson

In Robertson's analysis, changes in the propensity to hoard essentially affect the general price level. For example if there is an increase in the propensity to hoard, and banks do not take any offsetting action, the price level will fall (Robertson, 1932).[10] On the other hand, if banks make additional loans of an adequate amount, there will be no change in prices. Robertson also dealt with the same problem in a more general framework, and pointed out that 'in all cases . . . [the] fall in the price of total output as occurs is seen to be attributable to hoarding by *someone* – either the public, or the entrepreneurs of consumable goods, or the dealers in securities, or those who handle the proceeds of new issues' (Robertson, 1933, p. 151).[11]

Robertson did not completely overlook the effect that changes in the propensity to keep money idle can have on the rate of interest, but he stressed that concentrating only on such an effect is wrong or misleading. Referring to a case of decreasing propensity to hoard, Robertson observed: 'The entrepreneur who holds an idle balance which he desires to activise need not lend it in the market, but can use it directly for the purchase of commodities or the hire of labour' (Robertson, 1939, p. 171).

Robertson's theory the rate of interest is well known and has been identified as a loanable funds theory. The supply of loanable funds comprises:

1. Current savings.
2. Savings made in the past that are currently released from their embodiment in fixed or working capital.
3. Net dishoardings.
4. Net additional loans from banks.

The demand for loanable funds is made up of:

1. Funds that are designated for building new (fixed or working) capital.

2. Funds destined for maintaining or replacing existing (fixed or working) capital.
3. Funds to be put into store.
4. Funds designated for expenditure on consumer goods (see ibid. p. 152).

Funds to be put into store evidently reflect a demand for money to be kept idle, that is, there is a demand for liquidity. Robertson, however, was careful to stress that the demand for loans to finance expenditure (both on capital and consumer goods) is the dominant element. In criticizing Keynes' theory of the rate of interest, he argued: 'Mr. Keynes was so taken up with the fact that people sometimes acquire money in order to *hold* it that he had apparently all but entirely forgotten the more familiar fact that they often acquire it in order to *use* it' (ibid., p. 161).

**Keynes**

Keynes' theory, as expounded in *The General Theory* and afterwards, is characterized by the existence of a direct relationship between changes in the propensity to hoard and the rate of interest. However, during the preparation of *The General Theory*, Keynes had contemplated situations in which changes in the demand for idle money have an effect on output and employment without the mediation of changes in the rate of interest. In his 1933 draft of some chapters of *The General Theory*, Keynes drew a distinction between a *cooperative economy* and an *entrepreneur* (or *monetary*) *economy*; the latter is the capitalist economy in which we actually live. A cooperative economy is basically equivalent to a barter economy where the factors of production are rewarded by a share of real output; money is only a 'transitory convenience'. Classical economists could hold that Say's Law applies and that full employment is ensured by assuming that capitalist economies behave *as if* they are cooperative economies.[12] But capitalist economies are essentially different. Capitalist entrepreneurs start productive processes in order to earn a monetary profit: 'The choice... in deciding whether or not to offer employment is a choice between using money in this way or in some other way *or not using it at all*' (Keynes, 1971–89, vol. 29, p. 82; emphasis added). The characteristics of money are such that buyers are not pressed to convert money into goods and entrepreneurs find it convenient to keep money instead of producing goods when they expect that demand will not be sufficient to make their production profitable. It is for these reasons that, in a capitalist economy, effective demand is likely to be insufficient to ensure the full-employment level of output (ibid., pp. 86–7).



In the final 1936 version of *The General Theory*, and in later writings, the direct relation between changes in the propensity to hoard and the demand for output disappears. Changes in the liquidity preference – that is, changes in the propensity to hoard[13] – now directly affect the rate of interest. The chain of causation is (1) an increase in the propensity to hoard makes the rate of interest rise, (2) the higher rate of interest has a negative effect on investment and (3) the fall in the level of investment determines a decrease in income, employment and the price level.

The most significant difference between the early drafts of *The General Theory* and its final version is not, in my view, the fact that the direct relation is between the rate of interest and the economy's liquidity preference. The crucial difference is that, in the book, there is no longer a direct relation between the capitalist drive to accumulate wealth for the sake of profit and the propensity to hoard. In *The General Theory* Keynes concentrated on the demand for idle money due to the 'speculative motive', that is, the demand for money explained by uncertainty about the rate of interest. Only after 1936 did Keynes return to deal with the propensity to hoard in a way that is closer to his 1933 approach.

In his 1937 article 'The general theory of employment' (Keynes, 1971–89, vol. 14, pp. 109–23), Keynes stressed again that changes in the public's propensity to hoard cannot affect the quantity of hoarded money, which would influence the price level through its effect on the velocity of money circulation, but they directly affect the rate of interest.[14] The demand for money as a store of value is related to the accumulation of wealth in an uncertain context. Wealth is accumulated in order to produce results at a distant date. The fact that knowledge of the future is 'fluctuating, vague and uncertain' compels those who must make decisions concerning the accumulation of wealth to rely on a variety of techniques that are based on 'flimsy foundations'. Therefore such decisions are subject to 'sudden and violent changes' (see ibid., pp. 113–14). In this context, the demand for money can be see as a way of coping with growing uncertainty about the future results of the accumulation of wealth:

> to hold money as a store of wealth is a barometer of the degree of our distrust of our own calculations and conventions concerning the

> future...[T]his feeling about money...takes charge at the moments when the higher, more precarious conventions have weakened. The possession of actual money lulls our disquietude; and the premium which we require to make us part with money is the measure of the degree of our disquietude (ibid. p. 116).

The fundamental way in which wealth is accumulated in a capitalist economy is through investment decided by entrepreneurs. In this perspective, Keynes' general 1937 observations can be translated into his 1933 terminology: the alternative to the accumulation of wealth through investment is to hold money idle. The demand for idle money increases when investing at the present is not expected to produce 'satisfactory' results (profits) in the future.

Moreover, in 1937 Keynes also abandoned the assumption of exogenous money and considered the role of banks in the determination of the rate of interest (see ibid., pp. 201–15). Like industrial firms, banks are capitalist enterprises and their decisions concerning liquidity are determined by their drive for profits. In this way the decisions and actions of capitalist entrepreneurs in general play a decisive role in the determination of the rate of interest, and hence of investment, output and employment.

## CONCLUSION

At a very general level, Marx's, Robertson's and Keynes' theories of money show some similarities. In particular, for all of them money is demanded not only as a means of circulation but also as a store of value; changes in the propensity to keep money as a store of value have significant effects on the economy as a whole. However, a more indepth consideration of their positions also reveals significant differences.

With regard to the effects of changes in the demand for money as a store of value, both Marx and Robertson emphasized that changes in the propensity to hoard directly affect the general price level through changes in the demand for currently produced goods. Keynes too, in the early drafts of *The General Theory*, analyzed the effects of an increase in the propensity to hoard on the demand for goods, and hence on their prices. However he soon abandoned this line of analysis and emphasized the direct relation between the demand for money and the rate of interest.



The basic reason for the difference between Robertson and Keynes lies in the fact that the former was concerned with the analysis of flows of funds whereas the latter was primarily concerned with the analysis of stocks.[15] Keynes regarded the demand for money as a decision concerning the form in which wealth is kept; the immediate alternative to holding money is to hold wealth in the form of financial assets.[16] When we consider Marx, it might seem that his analysis of the demand for money hoards is closer to Robertson's than to Keynes' as he too stressed the relation between changes in the propensity to hoard and the general price level. However this similarity between Marx and Robertson could be more apparent than real.

Marx's concentration on the relation between the propensity to hoard and the prices of goods does not seem to relate to his being primarily concerned with flow analysis. In fact Marx did not draw any clear-cut distinction between flow and stock analysis. His approach can be explained by the fact that he mostly concentrated on his analysis of the possibility of crises, while his analysis of the actual occurrence of crises was left unfinished. Demonstration of the possibility of crises can be carried out at a very basic level without the 'complication' of the rate of interest. When Marx concerned himself with the explanation of actual crises he took banks and finance into consideration and provided some insights pointing to the fact that changes in liquidity preference affect the rate of interest.

Also the difference between Robertson and Keynes with respect to the rate of interest directly relates to their different approaches to money. Robertson's 'loanable funds theory' is contingent on his analytical concern for flow analysis, whereas Keynes' 'liquidity preference theory' of the rate of interest derives from his concentration on stock analysis. As for Marx's position, it has been argued that it contains elements of both Robertson's and Keynes' theories. In particular, Fan-Hung held that Marx's analysis of the rate of interest during a crisis is similar to that of Keynes as the rate is primarily determined by the supply and demand for money, while it is closer to that of Robertson during the other phases of the cycle when the rate is primarily determined by the supply of and demand for loans (Fan-Hung, 1939, p. 40).

However the fact that Marx held that the rate of interest is also determined by the demand for loans to finance expenditure is not sufficient to characterize his approach as 'more akin' to Robertson's. In fact, although in *The General Theory* Keynes argued that the rate of interest is exclusively determined by the demand for and the supply of money, the debate that took place after the publication of the book convinced him that the rate of interest is also influenced by the demand for funds to finance new investment.[17] If both the demand for money and the demand for finance concur to determine the rate of interest, it is obvious that the former tends to prevail during crises, while the demand for loans to finance expenditure is stronger during the upswing of the cycle.

We finally turn to consider the motives for which the economy's liquidity preference can increase, and it is very evident that, in this respect, there is a strong similarity between Marx's analysis and that of Keynes. In the 1933 draft of *The General Theory*, when describing how an entrepreneur economy functions, Keynes even referred directly to Marx and acknowledged that the latter had come close to a correct treatment of the issues at hand. For Keynes, Marx 'pointed out that the nature of production in the actual world is not, as economists seem often to suppose, a case of C–M–*C'*, i.e., of exchanging commodity (or effort). That may be the standpoint of the private consumer. But it is not the attitude of *business*, which is the case of M–C–*M'*, i.e., of parting with money for commodity (or effort) in order to obtain more money' (Keynes, 1971–89, vol. 29, p. 81).

The rationale of capitalists' behaviour is fundamentally different from that of 'private consumers', who purchase goods in order to enjoy their use value. Capitalist entrepreneurs purchase goods (and labour) in order to make profits, and if their expectations of profitability are pessimistic, the demand for idle money rises while the demand for goods and labour decreases. In Robertson's analysis, this aspect tends to be overlooked and the possibility of a significant rise in the liquidity preference is essentially regarded as an exceptional phenomenon.

In *The General Theory* the relation between entrepreneurs' investment decisions and the demand for money is more complex than in the 1933 draft. The exogenously given money supply and the liquidity preference of the public determine the rate of interest, which in turn affects the level of investment, output and employment. The demand for 'idle money' is no longer directly related to entrepreneurs' expectations concerning profits but to the 'speculative motive'. In this way the crucial role of entrepreneurs' drive for profits tends to lose its central role and Keynes' analysis of money may lend itself to interpretation in terms of individuals' portfolio decisions. The demand for money is considered as the demand for an asset like all the others (though more liquid), rather than a very special type of demand that can be explained by the inherent nature of capitalist economies. However the line of analysis that Keynes adopted in *The General Theory* also has the advantage that it takes account of the existence of organized financial markets when explaining the working of modern economies.



After *The General Theory* Keynes developed his analysis in such a way as to marry the fact that capitalist entrepreneurs' decisions are the crucial determining factor in aggregate outcomes with the fact that money and financial markets are a decisive element of modern economies. While the central role of entrepreneurs' investment decisions is emphasized, at the same time money and financial markets are clearly and explicitly treated as capitalist markets, that is, markets where the main agents are capitalist firms (banks).

It is along these lines that, in my view, modern monetary theory can be fruitfully developed: by emphasizing the inherent relationship between money and the essential characteristics of the capitalist mode of production, without losing sight of the fact that such a relation is more complex and 'complicated' than in an analytical context that does not take into due consideration the fundamental role played by the banking system and finance.

## Notes

1. The same reasoning applies if the role of money is played by a nominal instrument instead of gold – for example paper money.
2. The values of commodities as well as of gold depend, in turn, on the technical conditions of production, that is, they depend on the quantity of embodied labour. Here it is assumed that these prices are such as to ensure a 'normal' rate of profit in all sectors. In other words, for simplicity, the difficulties raised by the fact that the organic composition of capital is different among sectors are ignored as they are not relevant for the topics dealt with here.
3. In this context, the so-called 'Say's Law' should be interpreted as 'Say's Identity': aggregate supply is identical to aggregate demand because there is no demand for money beyond the demand for it as a means of circulation. On the differing notions of Say's Law in classical economics, see Sowell, 1972, pp. 32–8, and Baumol, 1977.
4. Marx carefully distinguished between explaining the possibility of crises and explaining their actual occurrence in a capitalist economy. On this see Sardoni, 1987, pp. 26–52.

5. In principle, the working class could also hoard money, but in Marx's framework it is unlikely to do so because (1) its money income (the subsistence wage) is spent immediately for its reproduction and (2) it does not own an appreciable amount of wealth that could be held in liquid form.
6. 'All the objections which Ricardo and others raise against overproduction etc. rest on the fact that they regard bourgeois production either as a mode of production in which no distinction exists between purchase and sale – direct barter – or as social production, implying that society, as if according to a plan, distributes its means of production and productive forces in the degree and measure which is required for the fulfillment of the various social needs, so that each sphere of production receives the quota of social capital required to satisfy the corresponding need' (Marx, 1968, p. 529).
7. The rate of interest, for Ricardo, is 'ultimately and permanently' regulated by the rate of profit, even though it can temporarily fluctuate for other reasons. See Ricardo, 1951, p. 297.
8. See Engels' notes in Marx, 1959, pp. 427–9, 455–6.
9. See also Fan-Hung, 1939, pp. 38–9.
10. The decrease in the price level would also give rise to an increase in consumption by part of the public if the increase in hoarding is partial, or by the public as a whole if the increase in hoarding is generalized. It is a case of 'automatic splashing'.
11. Investment is assumed to be zero.
12. Notice the similarity with Marx's critique of Ricardo.
13. 'The concept of *Hoarding* may be regarded as a first approximation to the concept of *Liquidity-preference*. Indeed if we were to substitute "propensity to hoard" for "hoarding", it would come to substantially the same thing' (Keynes, 1971–89, vol. 7, p. 174).
14. '[C]hanges in the propensity to hoard . . . primarily affect, not prices, but the rate of interest; any effect on prices being produced by repercussion as an ultimate consequence of a change in the rate of interest' (Keynes, 1971–89, vol. 14, p. 116).
15. Here, it is not possible to deal with the two approaches in a more detailed way. On their differences see, for example, Chick, 1983, pp. 174–231, and Tsiang, 1956, 1987.
16. Following Tobin, we can say that, in considering wealth- owners' decisions, Keynes concentrated on their decisions concerning only monetary assets: the alternatives to cash are financial assets and not physical assets (Tobin, 1958, p. 66).
17. Davidson, however, has pointed out that the demand for finance need not be exclusively related to investment: any component of aggregate demand can imply a demand for finance (see, for example, Davidson, 1994, pp. 122–41).

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# 17 Preliminaries to a Monetary Theory of Production: The Labour Theory of Value, Liquidity Preference and the Two Price Systems

L. Randall Wray[1]

This chapter is intended to provide a preliminary analysis of a component of a larger project whose goal is to develop a 'monetary theory of production'. The focus here will be the appropriate theories of value to be adopted in the larger project. The foundations for a monetary theory of production can be found in the works of Karl Marx and John Maynard Keynes, while Michal Kalecki has also provided some insights that help synthesize the approaches of the former authors. While authors have found it useful to synthesize the works of Marx and Keynes, I believe Dudley Dillard was among the few who fully recognized the importance of the labour theory of value (LTV) for Keynes' own approach to the monetary theory of production (Wray 1993a).

I realize that Dillard's claim that the LTV is essential to Keynesian theory is controversial and cannot be fully supported in this chapter. At best, followers of Keynes believe he relied on an alternative theory of value;[2] at worst, his followers reject altogether the necessity of a theory of value. I will be forced to rely partly on the assertion that Dillard's interpretation was correct, because the primary purpose of this chapter is to argue that *two* theories of value are required for analysis of capitalist *monetary* production. In other words, I will take it more-or-less for granted that the LTV is accepted as necessary but will argue that it is insufficient for analysis of monetary production. Rather, such analysis also requires Keynes' liquidity preference theory, which I interpret as a *theory of value*. Thus my purpose here is to





show that one needs a liquidity preference theory of value (LPTV) in addition to the LTV.

## THE LABOUR THEORY OF VALUE

As Dillard argued, 'theories of value in economics have generally been attempts to probe beneath the surface phenomena of the market to discover essential properties and relations' (Dillard, 1984, p. 430). One of the purposes of a theory of value is to provide an explanation of the determination of price that goes beyond a simple demand and supply analysis. Classical economists wanted to show that 'prices of production' could be explained without reference to 'supply and demand'; that is, that long-run prices would come out of the sphere of production and would not be influenced by the sphere of circulation.[3] If these long-run, or production, prices could be traced to the 'difficulty' of production, then 'political economy' would have an objective, scientific theory of price formation that did not rely on subjective utility, preferences or transitory market forces. At various times and places it was also thought necessary to have one measure of value that could be used in both the production and circulation spheres, and one that could map values to prices in the circulation sphere. There has already been substantial debate about whether the classical economists, in general, and Marx in particular, were able to perform, or should have been concerned with, this 'transformation' of value into price – a topic I do not want to discuss, but I sympathize with those who argue it is not a problem for Marx.

Marx's main advance over the classical economists was his distinction between labour as a unit of value and labour power as a commodity. This is his famous dual nature of labour: first as the basic element of production, and second as a commodity with exchange value. Labour hours as an element of production can serve as an invariant measure of value and could always serve to measure the 'difficulty' of production. However labour as a commodity with a price determined by the specific production and social relations existing at a given time certainly could not serve as a universal measure of value (Kregel, 1973). Labour time, reduced to its socially necessary (or 'simple') amount, could serve as a unique measure of the value of all commodities, including the commodity labour power that is exchanged at the going wage (Marx, 1981, p. 238). Finally, once a certain level of technique has been achieved by society, labour is able to produce value beyond what is necessary to reproduce itself; that is, surplus value can be created. The rate of surplus value is determined by the ratio of unpaid to paid labour time.

In any case, I think a theory of value should do much more than explain price determination. For Marx the labour theory of value is more important for explaining the source of profits, class conflict and historical processes than for simply explaining price determination. Indeed both Marx and Engels emphasized that prices are not formed to equalize labour values, but rather to equalize *profit rates* on invested capital (Engels in Marx, 1981, pp. 1039–44) The argument is well known to most readers: surplus value must be redistributed in the sphere of circulation from the techniques with lower organic composition of capital to those with higher organic composition. The actual prices that redistribute surplus in order to equalize rates of profit are called production prices. Marx went on to argue that if two production processes with the same cost price but different organic compositions produce the same amount of profits and surplus value, then labour can not be the source of value and political economy can have no rational basis (Marx, 1981, p. 248). Clearly there are a number of factors that could prevent equalization of profit rates, including the existence of monopoly power (I shall deal with another factor below).

The discussion thus far should not be overly controversial. Let us move to Keynes' analysis. Like Marx, Keynes wanted to find a rational basis for the determination of prices *in production*. It is common in post-Keynesian approaches to take prices as determined by cost plus a mark-up. It is also rare for post-Keynesians to discuss value or even units of measurement. It is merely assumed that one can properly begin with prices from the sphere of circulation and deal exclusively with nominal values. However this was not Keynes' approach.

Keynes proposed 'to make use of only two fundamental units of quantity, namely, quantities of money-value and quantities of employment' (Keynes, 1964, p. 41). Further, 'We shall call the unit in which the quantity of employment is measured the labour- unit; and the money-wage of a labour-unit we shall call the wage- unit'. (ibid.) The labour unit can be reduced to a homogenous unit by 'taking an hour's employment of ordinary labour as our unit and weighting an hour's employment of special labour in proportion to its remuneration; i.e. an hour of special labour remunerated at double ordinary rates will count as two units' (ibid.) Further, the labour unit provides an unambiguous measure of output: 'the amount of employment associated with a given capital equipment will be a satisfactory index of the amount of resultant output' (ibid.); 'we shall measure changes in current output by reference to the number of hours of labour paid for (whether to satisfy consumers or to produce fresh capital equipment) on the existing capital equipment, hours of skilled labour being weighted in proportion to their remuneration' (ibid., p. 44).



Keynes argued that any other units of measurement lead to 'unnecessary perplexity' due to heterogeneity of inputs and outputs. Moreover he said 'I sympathise, therefore, with the pre-classical (that is, pre-neoclassical) doctrine that everything is produced by labor'; and he rejected the notion that capital is productive (arguing that capital has a yield because of its scarcity, not because of its productivity) (ibid., pp. 213–14). Thus, he says, 'it is preferable to regard labor as the sole factor of production. This partly explains why we have been able to take the unit of labour as the sole physical unit which we require in our economic system, apart from units of money and of time' (ibid.) Further, Keynes' aggregate supply curves (whether for a firm or for an industry) are given as a function of 'the proceeds (net of user cost) the expectation of which will induce a level of employment' (ibid., p. 44). Even Keynes' multiplier theory is stated in terms of the amount of employment that will result from a given increase of employment in the investment sector.

Obviously Keynes' reasons for use of the labour unit were not identical to Marx's reasons. Keynes had a much narrower purpose – to find a consistent unit of measurement to 'predict how entrepreneurs possessing a given equipment will respond to a shift in the aggregate demand function' (ibid.) He was not trying to provide a general theory of history, but rather to explain the determination of the level of output as a whole at a point in time. In order to do so, it was necessary to find a unit of measurement that – given the 'standard of life', technology and relative rates of wages of different types of labour – could be used to 'aggregate the $N_r$'s in a way which we cannot aggregate the $O_r$' (where $O_r$ stands for physical output) (ibid., p. 45).

However, the problem of heterogeneity was not the only reason for choosing a labour unit. As mentioned, Keynes regarded labour as the sole factor of production. He also recognized the *dual nature* of wages – as a cost of production, but also as a source of household income, thus as a source of revenue. But why not then use wages rather than labour hours as the unit of measurement? Because this would not give a satisfactory index of the resulting output – exactly for the same reason that Marx distinguished between labour hours and labour as a commodity.

Marx criticized the classical economists for ignoring constant capital – they determined labour values only by the live variable labour plus surplus labour. He emphasized that the constant portion must also be reproduced in the aggregate – this emphasizes the *social* nature of reproduction, or the necessity of restoring the part of social capital that is merely transferred to social output. It is useful to compare Keynes' criticism of 'classical' analysis's lack of the notion of 'user cost' with Marx's criticism. In an often overlooked appendix to chapter 6 of *The General Theory*, Keynes argued that 'User cost has, I think, an importance for the classical theory of value which has been overlooked' (ibid., p. 66). He went on to criticize this 'classical' theory in which 'it has been a usual practice to equate the short-period supply price to the marginal factor cost alone' (ibid., p. 67). According to Keynes, this practice leads to an erroneous conception of 'supply price' for a firm or industry. He argued that even if one were to include 'marginal cost of purchases from other firms' (that is, 'constant capital' in Marx's terminology), this still 'deprives our analysis of all reality' because 'we still have to allow for the marginal disinvestment in the firm's own equipment involved in producing the marginal output' (ibid.) Further, 'even if all production is carried on by a completely integrated firm, it is still illegitimate to suppose that the marginal user cost is zero' (ibid.)[4]

This seems to be a minor complication and no one would find controversial the argument that depreciation of fixed capital should be included in supply prices. However it is remarkable that Keynes' version of 'reproduction' is frequently ignored. Furthermore, in Keynes' hands, the user cost concept not only 'enables us . . . to give a clearer definition than that usually adopted of the short-period supply price of a unit of a firm's saleable output' (ibid.), but also 'constitutes one of the links between the present and the future' (ibid., p. 69). This is because 'it is the expected sacrifice of future benefit involved in present use which determines the amount of the user cost, and it is the marginal amount of this sacrifice which, together with the marginal factor cost and the expectation of the marginal proceeds, determines his scale of production'; or, 'to-day's user cost is equal to the maximum of the discounted values of the potential yields of all the to-morrow's' (ibid., p. 70).

Expectations of future prices must be included in today's price.



> It must be remembered that future prices, in so far as they are anticipated, are already reflected in current prices, after allowing for the various considerations of carrying costs and of opportunities of production in the meantime which relate the spot and forward prices of a given commodity. Thus we must suppose that the spot and forward price structure has already brought into equilibrium the relative advantages, as estimated by the holder, of holding money and other existing forms of wealth . . . For the entrepreneur is guided, not by the amount of product he will gain, but by the alternative opportunities for using money having regard to the spot and forward price structure taken as a whole (Keynes, 1979, pp. 82–3; see Kregel, 1994, for a detailed analysis).

Thus Keynes' 'reproduction' scheme involves expectations at the beginning of the analysis and is equivalent to neither a depreciation concept nor a Marxian concept of social reproduction, because user cost depends on the expected course of future prices and on the rate of discount used. In this way, expectations of the future enter directly into current supply prices – supply prices cannot be determined merely by marginal factor costs nor by embodied labour. This 'deviation' of labour values from supply prices has nothing to do with differences of organic composition of capital. However, as in the case of differences of organic composition, deviations of supply prices from labour-unit values are systematic and can be treated by a rational political economy – albeit one that includes a role for the impact of expectations of the future on decisions taken today.

That is, supply prices will deviate from labour-unit values according to discount rates and expectations of price movements as these will go into the determination of today's production costs – and today's supply prices. In this way expectations cause supply prices systematically to deviate from labour values – for example, if prices are expected to be higher in the future, then the estimated sacrifice of using means of production to supply commodities today is higher, raising today's supply price above nominally measured labour values. If prices are expected to be considerably lower, then today's marginal user cost could approach zero, as supply prices must fall sufficiently for speculators purchasing in spot markets to earn a normal return by holding inventory.

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Recall that Keynes argued that user cost 'constitutes one of the links between the present and the future': Also recall the famous distinction made by Keynes between a 'real' or 'cooperative' or 'barter' economy and a monetary production or 'entrepreneur' economy: a monetary economy 'is essentially one in which changing views about the future are capable of influencing the quantity of employment and not merely its direction' (Keynes, 1964, p. vii). The rest of this quoted paragraph is less well-known: 'But our method of analysing the economic behaviour of the present under the influence of changing ideas about the future is one which depends on the interaction of supply and demand, and is in this way linked up with *our fundamental theory of value*' (ibid., emphasis added).

Keynes went on to chastise 'classical' economists for their dichotomy between the theory of value (meaning, price determination at the micro level) and the theory of money and prices (dealing with aggregate quantities of money, income velocity and aggregate price levels). He argued that the proper division is between the theory of individual industry or firm on the one hand, and the theory of output and employment '*as a whole*' on the other – or between 'the theory of stationary equilibrium and the theory of shifting equilibrium', in which shifting equilibrium refers to 'the theory of a system in which changing views about the future are capable of influencing the present situation. *For the importance of money essentially flows from its being a link between the present and the future*' (ibid., pp. 292–3, emphasis in original). If we admit the possibility that 'our previous expectations are liable to disappointment' and allow that 'expectations concerning the future affect what we do to-day', then



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As discussed, Keynes had argued that there are only two possible measuring units – labour time and money. Once the topic shifts to the effect of changing expectations on current activity, the unit of measurement must be money. While Keynes does conduct his analysis in chapter 17 of *The General Theory* in terms of 'own rates of interest' (for example the wheat rate of interest), these are converted to money rates. This is not a coincidence or arbitrary; there are reasons why the money own rate of interest sets the standard that must be achieved by all own rates having to do with what Keynes called the special properties of money. Choosing money as the standard of value not only avoids heterogeneity problems, but also singles out for analysis the particular own rate of interest that is more 'intimately bound' with the 'volume of output and employment' (ibid., p. 225).

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to choose in the way of advantage between the alternative' (Keynes, 1964, p. 228).

Producible assets will be supplied up to the point where the supply price equals the demand price. Keynes argues that for a number of reasons, as the quantity of most types of assets is increased, own rates fall, lowering demand prices. When demand prices fall below supply prices, no more will be produced. Due to its special characteristics, this is not true of money, whose return does not fall nearly so rapidly when its quantity increases. Beyond some point, rising liquidity preference will halt production of assets whose return is primarily a function of $q$ – in particular, physical capital. I have argued that liquidity preference can be interpreted as a *theory of value* for assets (Wray, 1992b). Given expected $q - c$, the degree of liquidity preference will determine demand prices for all assets. This in turn will go into the determination of the levels of employment and output through its impact on the levels of production of producible assets. Changing views about the future affect the demand prices of assets through their impact on the $q$'s and on liquidity preference. I choose to call this a *liquidity* preference theory of value (LPTV) rather than a $q$ preference theory of value because of the special role played by money due to the existence of a return to liquidity that is greatest in excess of carrying cost that is, whose $l - c$ is greatest. Furthermore, as Keynes says, 'unemployment develops, that is to say, because people want the moon', that is, liquidity (Keynes, 1964, p. 235).

Minsky (1986) has presented Keynes' approach in terms of the 'two price systems' – one price system concerns current output prices and the other concerns asset prices. Current output prices are determined by cost plus mark-up; at the individual firm level the mark-up represents gross capital income and is at least partly a function of market power; the *aggregate* mark-up of prices of current output depends on the level of aggregate demand. More specifically, in a simple Kaleckian model in which capitalists do not consume and workers do not save, the mark-up of prices of consumption goods will depend on investment spending, the government deficit and net exports. On the other hand the prices of assets are determined by $q - c + l$. The two price systems meet most importantly in the investment goods sector: supply prices of investment output are determined in the price system for current output while demand prices are determined in the asset price system. When demand prices fall below supply prices, investment output falls, lowering employment and aggregate demand. This in turn lowers the *aggregate* mark-up that can be realized by current



output and can make it impossible to achieve desired mark-ups at the level of individual firms.

Minsky's two-price approach can be modified to take account of Keynes' discussion regarding user cost – expectations of the future enter directly into determination of supply prices of current output for any goods that can be carried through time. Further, because investment goods have a dual nature – first as embodied dead labour that can serve as means of further production and second as an asset that can generate $q - c + 1$ – prices of investment goods cannot be expected to reflect embodied labour values. Supply prices of investment goods (and indeed of any goods that last more than a given period) are determined by 'factor costs' (labour hours – dead and live – multiplied by the wage unit) and user costs. Demand prices for such goods are determined to equalize $q - c + 1$ – as the LPTV shows. Production of investment goods proceeds until supply prices rise to equality with (falling) demand prices. Because expectations enter into formation of both demand prices and supply prices, prices of investment output cannot be mapped to labour values. For similar reasons, expectations enter into the determination of demand and supply prices of any commodities that can be carried through time – indeed, as Keynes said, current prices already incorporate expectations about the future course of prices.

Marx made some attempt to explain the 'value' of money as the embodied labour in mined gold.[5] This is clearly wrong (although I think Marx more often than not was on the right track when he talked of money). The 'value' of money is determined not by the LTV but rather by the LPTV. Money is valuable because of its liquidity; abandoning gold and relying solely on money that embodies no labour in no way reduces its value. Keynes' statement that the (exchange) value of money is determined by the labour time represented by a unit of money is right. The exchange value of money is determined by the quantity of labour it can command; the return to holding money is determined solely by its liquidity in conjunction with liquidity preference.

## THEORIES OF VALUE IN A MONETARY THEORY OF PRODUCTION

Even sympathetic readers might argue that most of my exposition could be made without reference to a theory of value. Others might accept the importance of the LTV to Marx's analysis, but argue that Keynes' analysis does not require either a liquidity preference or a labour theory of value. The question might arise: does Keynes' use of the labour unit and the money unit of account merely represent an attempt to find useful 'measuring rods' to aggregate up? Or is the choice of units of fundamental importance? Could Keynes' choices be characterized, as Dillard argued, as an attempt 'to probe beneath the surface phenomena of the market to discover essential properties and relations' (1984, p. 430)?

I believe so. Indeed Keynes' use of the labour unit and liquidity preference serve purposes that are similar to Marx's use of the labour unit. In fact both Marx and Keynes recognized the fundamental importance of aggregate employment and the distribution of employment between 'departments' (in Marx's version) or between consumption – saving or consumption – investment (in Keynes' version) in the determination of market prices – both rejected simple market 'supply and demand' explanations of price determination and instead emphasized aggregate schemes of reproduction (Marx) or effective demand (Keynes). The primary difference between the two approaches involves the way in which expectations enter into supply-price formation (Keynes) or production-price formation (Marx) – once we allow for expectations of the future exerting a direct influence on decisions made today, a single, *labour* theory of value is not sufficient. Furthermore, if capitalist economies can be characterized as 'two-price systems', then Marx's analysis is inadequate.

One of the primary purposes of Marx's analysis was to locate the source of profits in the social relations of production, that is, in the rate of exploitation (the ratio of unpaid to paid labour power). The Keynesian version locates the source of aggregate profits (or gross capital income) in the ratio of the wage bill of investment-sector workers to the wage bill of consumption-sector workers – again, this reflects the social nature of profits that exist only because the wages of workers in the consumption sector are too low to purchase all their output, and simultaneously because there are other workers receiving wages as they produce 'non-available' output. In Marxian analysis, the aggregate of surplus value is redistributed among capitals to equalize profits; in Keynesian analysis the redistribution is *ex ante* and is such that it ensures equalization of $q - c + 1$ on *all* assets, including financial assets. Things are much more complicated in Keynesian analysis for two reasons. First, these returns are *expected* and at least partially subjective. Second, the wages of investment-sector workers are not the only source of gross capital income (for example, rising asset prices generate capital gains that need not be linked to the productive sphere). Thus in the Keynesian approach there is no reason to expect that forces will exist to equalize *measured* (*ex post*) profit rates on capital advanced in the productive sphere.



Some critics of Marxian analysis argue that one could just as well attribute the production of value to the efforts of capitalists, or to the machines, or to the raw materials. But this misunderstands the fundamental role of the wage bill in a capitalist economy – because the majority of worker income will be used to purchase the necessities of life, the wage bill returns as capitalist receipts, while the link between capitalist income and spending is different because the goal of capitalist activity is *money* and not necessities. In Kalecki's terminology, workers spend what they get and capitalists get what they spend. Marx's equivalent expression is 'the part of the variable capital that *A* advances at any one time to his workers constantly flows back to him from the circulation sphere' (Marx, 1978, p. 406); or 'the total purchases of the working class are equal to the sum of their wages, i.e. the sum of the variable capital advanced by the entire capitalist class as a whole' (ibid., p. 422). He goes on to show that capitalist purchases of both necessities and luxury goods also flow back as revenues, as do capitalist purchases of means of production (in simple reproduction and expanded reproduction, successively).

Marx's 'dual nature of labour' (as the source of value and as a commodity) can be supplemented with Keynes' dual nature of wages (as a cost of production and as the source of worker income that will be spent so that capitalists can recover costs). While capitalist production always begins with money, production means committing this to the employment of labour – a specific number of hours of labour. The LTV focuses attention on this special dual role of labour and wages in capitalist economies. And in particular, the notion of embodied labour in commodities – including physical capital – focuses attention on the social labour that is required for production and at the same time on the wage bill that has to be generated. However, in any monetary production economy in which production is undertaken today in the expectation of realizing more money tomorrow, account must also be taken of the money unit.

The LPTV focuses attention on the dual nature of capital – both as a product of labour and as an asset that can generate money returns through time. Since capital can last into unforeseen conditions, its value cannot be simply determined by labour values or cost of production. And even as the LPTV helps explain the quantity of investment that is forthcoming, the LTV helps explain how production of capital goods generates the profit income to be realized.

## CONCLUSIONS

I have argued that Keynes adopted an LTV that serves similar purposes as those of the LTV in Marx's analysis – although I would not want to carry this so far as to claim that the purposes are identical. Each, however, desired to probe beneath the surface of the market to identify those elements that determine supply prices. In addition, each was concerned with forces that equalize profits on invested capital. In Marx, these forces redistribute surplus value to equalize money profits. In Keynes' analysis, however, expectations play a key role, entering into the determination not only of demand prices, but also of supply prices. Given expectation formation under conditions of uncertainty, demand prices for any asset that can be carried through time must depend not only on expected yields but also on the degree of liquidity preference. For this reason Keynes adopted a second theory of value – the LPTV. Further, 'factor costs' alone cannot determine supply prices for any producibles that can be carried through time because current prices must also reflect user costs. This is because money capital can always be held rather than used in production, because capital assets can be mothballed for future use, and because commodities can be held in inventory so that current prices must always include a compensation for the sacrifice involved in using money or capital today, or for selling stocks rather than holding inventory. Thus I have argued that two theories of value are required for the monetary theory of production.

### Notes

1. The author would like to thank John Henry, Jan Kregel and an anonymous referee for comments.
2. See Townshend, 1937, and Wray, 1992b, for developments of what I will claim to be Keynes' liquidity preference theory of value. However I should note that over time I have become less convinced that Townshend's characterization of Keynes' theory really should be identified with what I mean by a theory of value. See Rotheim, 1981, for an



alternative treatment in which the 'theory of value' is used in the older sense of what is now called 'price theory' – which is probably what Townshend had in mind.
3. See Beaud and Dostaler, 1995. Also see Desai, 1990, and Vianello, 1990, for discussions. Marx's own exposition of 'transformation' of value into price may have been confused for it used labour values to measure inputs rather than input prices, however Shaikh was able to show convergence of these labour values to prices; while Bortkiewicz showed long ago that prices are systematic functions of labour values, Steedman showed that in a model with fixed capital and joint production, negative surplus value could exist in the presence of positive profits – Desai argues that the 'transformation problem' is much more than a technical problem and is unlikely to be resolved through mathematical solutions.
4. Furthermore, to *measure* the constant capital (raw materials and fixed capital) used up in production, the only consistent unit that can be used *from society's viewpoint* is labour hours; however from the viewpoint of the individual capitalist, the constant capital used in production must be valued in money terms.
5. Marx's treatment of money is obviously open to alternative treatment. On one view, the quantity of money is determined by the quantity of gold, and its value is determined by embodied labour – one can find sufficient evidence in volume I of *Capital* to support this reading. However a number of passages sound like the post-Keynesian endogenous money approach, in which Marx recognizes that most money is created by bank lending, in which the quantity of money is determined by the needs of circulation, and which imply that the value of money cannot be determined by embodied labour.

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