Karl Marx was born at Trier in 1818 of a German-Jewish family converted to Christianity. As a student in Bonn and Berlin he was influenced by Hegel's dialectic, but he later reacted against idealist philosophy and began to develop his theory of historical materialism. He related the state of society to its economic foundations and mode of production, and recommended armed revolution on the part of the proletariat. In Paris in 1844 Marx met Friedrich Engels, with whom he formed a life-long partnership. Together they prepared the Manifesto of the Communist Party (1848) as a statement of the Communist League's policy. In 1848 Marx returned to Germany and took an active part in the unsuccessful democratic revolution. The following year he arrived in England as a refugee and lived in London until his death in 1883. Helped financially by Engels, Marx and his family nevertheless lived in great poverty. After years of research (mostly carried out in the British Museum), he published in 1867 the first volume of his great work, Capital. From 1864 to 1872 Marx played a leading role in the International Working Men's Association, and his last years saw the development of the first mass workers' parties founded on avowedly Marxist principles. Besides the two posthumous volumes of Capital compiled by Engels, Karl Marx's other writings include The German Ideology, The Poverty of Philosophy, The 18th Brumaire of Louis Bonaparte, The Civil War in France, A Contribution to the Critique of Political Economy, Grundrisse: Foundations of the Critique of Political Economy and Theories of Surplus-Value.

Ernest Mandel was born in 1923. He was educated at the Free University of Brussels, where he was later Professor for many years, and the École Pratique des Hautes Études in Paris. He gained his Ph.D. from the Free University of Berlin. He was a Member of the Economic Studies Commission of FGTB (Belgian TUC) from 1954 to 1963 and was chosen for the annual Alfred Marshall Lectures by Cambridge University in 1978. His many books include The Formation of the Economic Thought of Karl Marx, Late Capitalism, The Long Waves of Capitalist Development, The Second Slump and The Marxist Theory of Bureaucracy. His influential pamphlet, An Introduction to Marxist Economics, sold over half a million copies and was translated into thirty languages. Ernest Mandel died in July 1995. In its obituary the Guardian described him as 'one of the most creative and independent-minded revolutionary Marxist thinkers of the post-war world.'
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Introduction

I. THE PLACE OF VOLUME 2 IN MARX’S GENERAL ANALYSIS OF CAPITALISM

‘The second volume is purely scientific, only dealing with questions from one bourgeois to another,’ wrote Frederick Engels to the Russian populist, Lavrov, on 5 February 1884. Seventeen months later, he told Sorge: ‘The second volume will provoke great disappointment, because it is purely scientific and does not contain much material for agitation.’ Finally, on 13 November 1885, he wrote to Danielson: ‘I had no doubt that the second volume would afford you the same pleasure as it has done to me. The developments it contains are indeed of such superior order that the vulgar reader will not take the trouble to fathom them and to follow them out. This is actually the case in Germany where all historical science, including political economy, has fallen so low that it can scarcely fall any lower. Our Kathedersozialisten have never been much more, theoretically, than slightly philanthropic Vulgärontomen, and now they have sunk to the level of simple apologists of Bismarck’s Staatssozialismus. To them, the second volume will always remain a sealed book . . . Official economic literature observes a cautious silence with regard to it.’

These predictions were to be verified far beyond Engels’s fears. In fact, ten years passed before two young Russian Marxists – Tugan-Baranowski followed by S. Bulgakov – made the first application of the main conceptual innovations of Volume 2. And it took nearly another decade for these concepts finally to penetrate Germany and the Western world, through an international debate in which Tugan-Baranowski – albeit

1. Engels to Lavrov: Marx-Engels Werke, vol. 36, p. 99; Engels to Sorge: ibid., pp. 296 and 324; Engels to Danielson: ibid., pp. 298 and 384 (see also Marx/Engels, Selected Correspondence, Moscow, 1975, pp. 365–6). For Kathedersozialisten, etc., see notes on pp. 88 and 101 below.
for the moment continuing to call himself a Marxist – began to revise some of Marx's key theories. Volume 2 of Capital has indeed been not only a 'sealed book', but also a forgotten one. To a large extent, it remains so to this very day.

Grave misunderstandings arise, however, if the reader attempts to pass straight from Volume 1 to Volume 3, under-estimating the key place of Volume 2 in the monumental theoretical construction. Marx himself quite precisely clarified this place, in a letter sent to Engels on 30 April 1868: 'In Book I. . . we content ourselves with the assumption that if in the self-expansion process £100 becomes £110, the latter will find already in existence in the market the elements into which it will change once more. But now we investigate the conditions under which these elements are found at hand, namely the social intertwining of the different capitals, of the component parts of capital and of revenue (= s). This intertwining, conceived as a movement of commodities and of money, enabled Marx to work out at least the essential elements; if not the definitive form of a coherent theory of the trade cycle, based upon the inevitability of periodic disequilibrium between supply and demand under the capitalist mode of production. To forget this role of Volume 2 and jump to Volume 3 carries the danger of evacuating all problems specific to the inner contradictions of the commodity – problems of the market, of the realization of value and surplus-value, etc. – which, although touched upon in Volume 1, are only fully developed in Volume 2. We may even say that it was only by dealing with the reproduction of capital in its totality that Marx could bring out in their full complexity the inevitable contradictions of the basic cell of capitalist wealth – the individual commodity.

The 'intertwining of the different capitals, of the component parts of capital and of revenue' – that dual movement of both specific use-values and exchange-values, of supply and demand – also enabled Marx to develop an analysis of the reproduction of capitalist economy and bourgeois society in its totality. Of course, in this achievement, which is one of the greatest in the whole of social science, Marx did not have to start out from scratch; he was able to base himself above all on Quesnay's pioneering work, Tableau économique. Nor should it be claimed that Marx solved all problems of reproduction. In particular, he left only an unfinished sketch of the section on expanded reproduction and had no time to work on the vexed question of how it can attain occasional equilibrium while encompassing the famous 'laws of motion' of capital (especially those outlined in Volume 3: rising organic composition of capital; increasing rate of surplus-value; competition leading to concentration and centralization and to renewed competition, in spite of the tendency of equalization of the rate of profit; tendency of the average rate of profit to decline). Nevertheless, Volume 2 may be seen in a very real sense as the predecessor and initiator of modern aggregation techniques, which were sometimes even directly inspired by the book. On the road from Quesnay through Marx, Walras, Leontiev and Keynes, the leap forward made by Marx is immediately apparent. And the movement away from Marx in neo-classical and vulgar 'macro-economics' contains elements of enormous regression, of which contemporary economists are only now slowly beginning to take note.

4. It should be stressed that from 1758 onwards Quesnay's writings demonstrate a clear understanding of a circuit of commodities and income, as well as a grasp that, in the last analysis, all incomes originate in production (see Tableau économique, Extraits des économies réelles de Sully, Explication du tableau économique and Analyse de la forme économique du tableau).


While there seems to be a relation between Leontiev's input-output tables and the labour theory of value (see, for example, B. Cameron, 'The Labour Theory of Value in Leontiev's Models', in Economic Journal, March 1952), these tables reflect only the use-value inter-relationships ('exchanges') between different departments, and abstract from the question of the source of the purchasing power necessary to mediate these 'exchanges'. See also Koshimura's assessment: 'Leontiev, immersed in the minutiae of numerous small departments, fails to abstract or generalize and so ignores both the capital structure as a whole, and the component parts of commodities, i.e. c, v, and m . . . For this reason his table, while useful for the statistical
Volume 2 of Capital carries the subtitle: The Process of Circulation of Capital, while Volume 1 was subtitled: The Process of Production of Capital. At first sight, the distinction is clear. Volume 1 is centred around the factory, the workplace. It explains the character of the production of commodities under capitalism as both a process of material production and one of valorization (i.e. production of surplus-value). Volume 2, by contrast, is centred around the market-place. It explains not how value and surplus-value are produced, but how they are realized. Its dramatis personae are not so much the worker and the industrialist, but rather the money-owner (and money-lender), the wholesale merchant, the trader and the entrepreneur or 'functioning capitalist'. More broadly defined than simple industrialists, entrepreneurs are those capitalists who, having a certain amount of capital at their disposal (whether they own or borrow it is irrelevant here), try to increase that capital through the purchase of means of production and labour-power, the production and then the sale of commodities, the reinvestment of part of realized profit in additional machinery, raw materials and labour-power, and the production of an increased quantity of commodities.

The role of workers in Volume 2 will cause some surprise, both to non-Marxist readers heavily armed with current academic preconceptions of Marx as 'an outdated and typically nineteenth-century economist', and to dogmatic pseudo-Marxists whose understanding of Marx is based more on second-hand vulgarizations than on the genuine article. For if workers appear at all in Volume 2, it is essentially as buyers of consumer goods and, therefore, as sellers of the commodity labour-power, rather than as producers of value and surplus-value (although, of course, this latter quality, established in Volume 1, remains the solid foundation on which the whole of the unfolding analysis is based).

However, in order to grasp the deeper significance of the concept 'process of circulation of capital', as well as the exact place of Volume 2 in Marx's overall analysis of the capitalist mode of production attempted in his three-volume magnum opus, we have to understand the inner connection between the production of value and its realization. Commodity production is the expression of a specific form of social organization, which encompasses a basic contradiction. On the one hand, human production has outgrown the primitive form of subsistence-farming and handicrafts, which prevailed in more or less isolated communities of producer-consumers. The progress of the division of labour and labour productivity, as well as the growth of transport and communications, have steadily increased the range and depth of human interdependence. More and more local, regional, even national and continental communities depend upon one another for the supply and combination of raw materials, instruments of labour and human producers themselves. The labour process has thereby become to an increasing extent objectively socialized. At the same time, however, private ownership of the means of production and circulation combines with the appearance and growth of (money) capital to make private appropriation both the starting-point and the goal of all productive endeavour. Thus, while labour is objectively more and more socialized, it remains to a greater degree than ever before organized on the basis of private production.

Commodity production, value production, the 'value form', as Marx calls it at the beginning of Volume 1, are rooted in this basic contradiction. Production is impossible without social labour – without the co-operation of thousands (in some cases, hundreds of thousands) for the production of a given commodity, under optimum conditions of productivity of labour. But since production is based upon and tuned to private appropriation, social labour is not immediately organized as such – its input into the production process is not decided by society as a whole, and it is expended as private labour. Its social nature can only be recognized a posteriori, through the sale of the commodity, the realization of its value and, under capitalism, the appropriation in the form of profit by its capitalist owner of a given portion of the total surplus-value created by productive workers in their entirety. Value production or commodity production thus expresses the contradictory fact that goods are at one and the same time the product of social labour and private labour; that the social character of the private labour spent in their production cannot be immediately and directly established; and that commodities must circulate, their value must be realized, before we can know the proportion of private labour expended in their production that is recognized as social labour.

There is thus an indissoluble unity between the production of value and surplus-value on the one hand, and the circulation (sale) of commodities, the realization of value, on the other. Under commodity production, and even more so under its capitalist form, the one cannot

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7. ibid., p. 131.
take place without the other. That is why the study of 'capital in general' – provisionally abstracted from competition and 'many capitals' – encompasses both the process of production and the process of circulation of commodities.\(^8\)

However, once we begin to examine the circulation of commodities under capitalism (in the first place, their sale with the purpose of realizing their value) we are considering much more than simple commodity circulation. We are in fact dealing with the circulation of commodities as capital, that is to say, with the circulation of capital. In the course of his progressive analysis of the circulation process, Marx introduces a new and passionately interesting object of study: the reproduction and circulation ('turnover') of the total social capital. While formally this is the title of only the third Part of Volume 2, it could well be argued that it expresses the underlying subject-matter of the whole volume.

Marx himself explains\(^9\) that the circulation and reproduction of each individual capital, analysis of which is begun in the first sections of Volume 2, must be seen as part of a more general movement of circulation and reproduction – that of the sum total of social capital. This is so not only because such a study must methodologically precede examination of the effects of competition on the division of surplus-value among various capitalist firms, but also because a broader question still has to be answered. How can an anarchic social system, based upon private determination of investment, 'factor-combination' and output, assure the presence of the objective, material elements necessary for further production and growth? What are the absolute preconditions of such growth? It was in order to answer these eminently 'modern' questions that Marx developed his famous reproduction schemas and showed that growth could be accommodated within his theory of capitalism.

Since capitalist production is production for profit (value production oriented towards an accretion of value), growth always has the meaning of accumulation of capital. While this is already made clear in Volume 1 of Capital (Chapters 22 and 23), the argument is only fully elaborated in Volume 2. The key concepts are those of capitalization of (part of) surplus-value and expanded reproduction. For economic growth to occur, part of the surplus-value produced by the working class and appropriated by the capitalists must be spent productively and not wasted unproductively on consumer goods (and luxury goods) by the ruling class and its retainers and hangers-on. In other words, it must be transformed into additional constant capital (buildings, equipment, energy, raw materials, auxiliary products, etc.) and additional variable capital (money capital available to hire an increased labour force). The accumulation of capital is nothing other than this (partial) capitalization of surplus-value, i.e. the (partial) transformation of profit into additional capital.\(^10\)

Expanded reproduction denotes a process whereby the turnover of capital (both individual capitals and total social capital, although not necessarily all individual capitals; given competition, we may even say: in the long run, never all capitals) leads, after a certain number of intermediary stages minutely studied in Volume 2, to a larger and larger scale of productive operation. More raw materials are transformed by more workers using more machinery into more finished products, with greater overall value than in the previous turnover cycle. This results in higher total sales and final profits, which in turn allow a higher absolute sum (if not in all cases a higher percentage) of profit to be added to capital. Thus does the spiral of growth continue...

The study of the circulation of commodities, the reproduction (and accumulation) of capital and the rotation of capital in its totality constantly encompasses the dialectical unity-and-contradiction of opposites contained in the commodity form of production, namely, the contradictory unity of use-value and exchange-value, doubled in that of commodities and money. One of the outstanding features of Capital Volume 2, to which insufficient attention has been paid by academic and Marxist commentators alike,\(^11\) is precisely the masterly way in which Marx develops this initial theme of Capital Volume 1 throughout his analysis of the process of circulation. We shall have occasion to come back to this.

8. Marxists have generally attached much less importance to problems of circulation than to those of production, often overlooking their essential unity. A rare example of bending the stick too far in the other direction is the book by the 'right-wing' Austro-Marxist and former president of the Austrian Republic, Dr Karl Renner – Die Wirtschaft als Gesamprozess und die Sozialisierung, Berlin, 1924. Renner focuses his analysis entirely on the circulation of commodities and deliberately seeks to make of the sphere of circulation the springboard for the socialization of economic life.


10. Most significantly, capital accumulation also requires that means of production producing additional means of production be added to means of production producing consumer goods or simply replacing means of production used up in current production.

11. An important exception is Rosdolsky, op. cit.
2. THE THREE FORMS OF CAPITAL

From the outset, Marx makes it clear that capital, in the capitalist mode of production, appears in three forms: money capital, productive capital and commodity capital. Money capital is the original form and final purpose of the whole devilish undertaking. Productive capital is the basic precondition of the constantly enlarging spiral. Without the penetration of capital into the sphere of production, the social product and surplus product can only be re-appropriated and re-appropriated, not increased by capitalist enterprise. Under such conditions, capitalists would act essentially as parasites upon and plunderers of pre-capitalist (or post-capitalist) forms of production, rather than as masters of the production and appropriation of surplus-value (of the social surplus-product). As for commodity capital, it is the basic curse of capitalism that commodities must go through the phase in which they contain — in as yet unrealized form — the surplus-value produced by the working class. In other words, before money capital can return to its original form, swollen by surplus-value, it has to go through the intermediate stage of commodity-value — of value embodied in commodities which still have to pass the acid test by being sold.

Marx used the formula ‘metamorphosis of capital’ to indicate that, like a butterfly passing through the successive stages of larva, chrysalis and moth, capital takes on the forms of money capital, productive capital and commodity capital, before returning to the stage of money capital. While these three forms are to a large extent successive in the process of rotation of capital, they are also co-existent with one another. One of the most important and brilliant sections of Volume 2 is that which stresses again and again the discontinuous nature of reproduction of the three forms of capital, and the organic link of this discontinuity with the very essence of the capitalist mode of production.

Precisely because the capitalist mode of production is generalized production of commodities, money capital cannot and does not merely precede and succeed the widespread appearance of capital; it has to exist side by side with it. Similarly, money capital is not just the result of the sale of commodities; its social existence is a precondition of that sale. Finally, commodity capital is not simply the outcome of the functioning of productive capital; it is also its necessary basis. Indeed, current production is only possible (and this applies especially to commodities with an above-average life span or production period) if all commodities produced during the previous turnover cycle have not already been sold to the final consumers — if, that is, stocks and reserves of raw materials, energy, auxiliary products, intermediary products and consumer goods needed to reproduce labour-power are available on a large scale. Continuity of the production process may be said to depend upon discontinuity or desynchronization of the turnover cycle of money capital, productive capital and commodity capital.

Furthermore, the very nature of capitalist relations of production requires the existence of money capital prior to the initiation of the production process. The separation of ‘free’ workers from their means of production and livelihood implies a constraint upon the owners of the means of production to purchase labour-power before the commencement of productive operations. And they must have at their disposal adequate money capital to effect the transaction: ‘In the relation between capitalist and wage-labourer, the money relation, the relation of buyer and seller, becomes a relation inherent in production itself.’

Thus, to a large extent, Volume 2 examines the constant intertwining of appearance and disappearance of money capital, productive capital and commodity capital — from the sphere of circulation into that of production, and back into the sphere of circulation, until the commodity is finally consumed. Each form passes over into the other, without expelling it entirely from the sphere of circulation, let alone from the overall social arena. Indeed, we can say that the dialectics of money (money capital) and commodities (commodity capital) is the basic contradiction examined in Capital Volume 2. Here again Marx’s ‘modernism’ is particularly striking.

These considerations show the crucial importance of the ‘time factor’ in Marx’s analysis of the capitalist mode of production. Its functioning cannot be understood if complete abstraction is made of time sequences and schedules, the duration of the production and turnover cycles of commodities, and the length of the turnover period of capital. Marx’s important distinction between circulating capital and fixed capital is based exclusively on the amount of time required for each of these two parts of money capital to revert to its original form. Circulating capital (spent on raw materials and wages) is recovered by the capitalist firm after each production cycle and circulation cycle of commodities. Fixed

12. This specification is necessary. Although capital may appear and survive in pre-capitalist and post-capitalist societies (ones in transition from capitalism to socialism), it does so essentially outside the realm of production. In no case can it dominate the main sectors of production. This occurs only with the appearance of productive capital — the form proper to the capitalist mode of production.

13. See below, p. 196.
capital, however, is recovered in its entirety only after $n$ cycles of production and circulation, whose number depends on the longevity of machinery and buildings. As is well known, Marx worked on the hypothesis that the average longevity of machinery (not, of course, buildings) is equivalent to, and indeed determines, the average duration of the trade cycle. It would be a fruitful task for Marxist scholars to deepen our understanding of the role and function of this 'time dimension' in Marx's Capital. For time appears there as the measure of production, value and surplus-value (labour time); as the nexus connecting production, circulation and reproduction of commodities and capital (cycles of turnover and reproduction of capital); as the medium of the laws of motion of capital (trade cycles, cycles of class struggle, long-term historical cycles); and as the very essence of man (leisure time, life span, creative time, time of social intercourse).

The study of the process of circulation of commodities and capital is concerned essentially with metamorphosis – the change from one form to another which we have just mentioned. But this analysis, starting from a high level of abstraction and drawing nearer and nearer to the everyday 'phenomena' of capitalist life, itself represents this process of circulation in successive stages of concreteness. First there is the circulation of (money) capital in its most general form as we encountered it in Volume 1:

$$M - C - M'(M + AM)$$

Money buys commodities so that they may be sold with an accretion of money – a profit – part of which will be added to the initial money capital.

If we translate this formula into the real operations of the capitalist mode of production, we have to replace $C$, the commodities bought, with the specific operation of the industrialist, namely, the purchase of means of production and labour-power in order that the labour-power may produce additional value, surplus-value. This combination of means of production and labour-power gives rise, through the process of production, to new commodities embodying additional value which have to be sold in order to form the formation of accumulated capital. Thus the initial formula becomes:

$$M - C_L^{mp} \Rightarrow \text{production} \ldots C' - M'(M + AM, \text{where } AM = \text{accumulated surplus-value})$$

3. THE DUAL ASPECT OF CAPITAL TURNOVER IN MARX'S ECONOMIC THEORY

Basing himself on the contradiction between use-value and exchange-value inherent in the commodity, Marx considered the problem of turnover of capital, of reproduction, as a dual one:

(a) In order that (at least simple, and normally expanded) reproduction may be achieved, the total value embodied in the produced commodities must be realized, that is to say, they must be sold at their value. Contrary to assumptions made by some of his most astute followers, principally Rudolf Hilferding, Otto Bauer and Nikolai Bukharin, Marx did not regard this process of realization as 'automatic'; nor did he derive it 'from his reproduction schemas', as some have naively suggested.

Indeed, a substantial section of the final Part of Volume 2, and most of the controversies which have been raging ever since Rosa Luxemburg raised the issue, have turned around a more or less detailed examination of how the value embodied in commodities as represented by the famous reproduction schemas could be realized by purchasing power generated in the production process.

(b) At the same time, at least simple – and normally expanded – reproduction require for their success that the use-value of the commodities produced should fulfil the material conditions for restarting production on either the existing or a broader scale. Reproduction could not take place in a situation where, on a technological base lower than total automation and in the absence of food reserves, the commodity package consisted entirely of raw materials and machinery; the workers and capitalists would starve and disappear before the available machinery could be used to restart agricultural production, or the existing stock of raw materials could be transformed into synthetic food. Similarly, reproduction would be impossible where the entire output of current commodity production, carried out with the large-scale use of sophisticated machinery, was composed of consumer goods and raw materials; if there were no stocks of machinery or spare parts, then machinery and...
production would break down before the well-fed workers could build new machines out of simple raw materials.

We should add in passing that expanded reproduction, which is 'the norm' under capitalism, does not demand merely the existence (i.e. previous production) of use-values representing the necessary objective elements of reproduction (means of production to replace used-up equipment and raw materials; further means of production required to enlarge the scale of operation of material production; consumer goods to feed both already employed workers and additional recruits to the work force). Expanded reproduction also demands the presence of a potential source of additional labour. The dual function of the 'industrial reserve army of labour', both as regulator of wages (assuring that the rate of surplus-value remains above a certain level) and as material precondition of expanded reproduction, should not be overlooked. If 'traditional' means of increasing or maintaining that 'reserve army' are drying up (where, for example, independent peasants, handicraftsmen and shop-keepers have declined as a proportion of the total active population, or where substitution of machines for men in industry is slowing down), then new sources can always be tapped through sweeping transformation of housewives into wage-labourers; mass immigration of labour; extensive re-deployment of student youth onto the labour market, and so on.15

Marx's giant step forward in economic analysis may be gauged by the fact that, until this very day, most academic economists have still not fully grasped this basic innovation of his schemas of reproduction. They have broken up the totality of the process of reproduction of capital, based upon this 'unity of opposites', into a disconnected dichotomy. On the one hand, analysis centres on physical coefficients (especially at the level of inter-branch exchanges, as in Leontiev's input-output tables and all their derivations), i.e. it deals with use-values. On the other hand, as in the case of Keynesian and post-Keynesian treatises16, the study focuses on money flows, income flows, that is to say on exchange-values largely dismembered from the commodities in the production of which they originated. Income theories are thereby more and more disconnected from production theories, and if the mediation of the 'production function' is employed at all, it remains largely inoperative, being considered at the micro-economic level rather than the macroeconomic one.

Above all, the constant combination and intertwining of the two - the obvious fact that incomes are generated in the production of commodities with a given use-value, corresponding to the structure of socially recognized needs, and that disequilibrium is unavoidable without a structure of income congruent with that of value produced - this has not even been posed, still less tackled by traditional academic theory (with the marginal exception of certain students of the trade cycle and the theory of crisis). The technique of aggregation introduced by Keynes has, if anything, made matters even more confused by operating with undifferentiated money flows. For it evacuates the problem (not to mention its solution) of whether a given national income has a specific structure of demand (for consumer goods, for producer goods producing producer goods, for producer goods producing consumer goods, for luxury goods, for weapons and other commodities bought only by the state, etc.) which corresponds exactly to the specific structure of the total commodity-value created in the process of production.

In fact, most of the relevant academic theory (and not a little post-Marxian Marxist theory as well) for a long time assumed some kind of Say's law to be operative.17 That is to say, it took for granted that a given value-structure of output is correlated with a congruent incomes structure (structure of purchasing power) through the normal operation of market forces. One of Marx's major purposes in Volume 2 of Capital

sells consumer goods to it. Samuelson does not seem to have noticed that, under capitalism, 'the public' (i.e. the mass of consumers) does not own 'capital goods' (i.e. raw materials and equipment) and that these are sold by certain 'businesses' to others. In his system, 'capital goods' are 'sold' without having been produced. It should be noted that Marx's reproduction schemas are not only of greater analytical and theoretical rigour; at the same time, they are more realistic, that is to say, they conform more closely to the real organization of capitalist economic life than the mystifying constructions of many species of academic economics.

16. Paul Samuelson's Economics (6th edition, New York, 1958, p. 41) attempts to correlate revenue flows and commodity flows by means of an inter-related system of 'supply-demand markets'. But it is the 'public' which buys 'consumer goods', while 'selling' land, labour and capital goods (i.e. factors of production) to 'business'. 'Business' in turn buys land, labour and capital from 'the public' and

17. For example, Oskar Lange, in his lengthy and interesting discussion of the reproduction schemas and derived equilibrium formulae, constantly abstracts from the dual flow of commodities and money, and assumes a relationship of pure barter between the two departments. (See Oskar Lange, Theory of Reproduction and Accumulation, Warsaw, 1969, pp. 24, 28, etc.)
is to show that this is not so: that such congruence depends upon certain exact proportions and structures, both of exchange-values and of use-values; that, for instance, wages never buy machines under capitalism; and that these exact proportions are extremely difficult to realize in the actual practice of capitalism.

It is thus all the more surprising that Joan Robinson reproaches Marx for having ‘failed to realize how much the orthodox theory stands and falls with Say’s Law and set himself the task of discovering a theory of crises which would apply to a world in which Say’s Law was fulfilled, as well as the theory which arises when Say’s Law is exploded’. Would it not be more correct to state that Robinson herself, following Keynes’s concept of ‘effective demand’, fails to realize how much Marx’s theory of the commodity as a unity-and-contradiction of use-value and exchange-value not only underpins his concept of the necessary fluctuation of supply and demand at a macro-economic level, but actually interwines it with his theory of income distribution (demand distribution) in capitalist society? Under capitalism, income distribution has a class structure determined by the very structure of the mode of production, and governed in the medium term by the class interests of the capitalists. Any increase in ‘effective demand’ which, instead of increasing the rate of profit, causes it to decline will never lead to a ‘boom’ under capitalism. That basic truth was well understood by Ricardo as well as Marx — though it is not by many latter-day Keynesians.

We said earlier that one of the basic functions of the reproduction schemas is to demonstrate that growth (i.e. the very existence of capitalism) is at least possible under the capitalist mode of production. Given the extremely anarchic nature of the organization of production (under laissez-faire capitalism on the home market, under monopoly capitalism on the world market), and given the very nature of competition, this is by no means as obvious as it sounds. The reproduction schemas locate the combination of value and use-structures of the total commodity package within which growth can occur. But Marx never sought to prove that these proportions are automatically and constantly guaranteed by the ‘invisible hand’ of market forces. On the contrary, he insisted again and again that these proportions are difficult to realize and impossible permanently to retain, and that they are automatically upset by those same forces that bring them occasionally into being. In other words, the reproduction schemas show that equilibrium, not to speak of equilibrated growth, is the exception and not the rule under capitalism: that disproportions are far more frequent than proportionality, and that growth, being essentially uneven, inevitably produces the breakdown of growth — contracted reproduction or crisis.

When we say that Marx’s reproduction schemas summarize the turnover of capital and commodities as a dual movement, we mean that they are based upon a combined dual flow — a flow of value produced in the process of production, and a flow of money (money revenue and money capital) unleashed in the process of circulation in order to realize the value of the commodities produced. The schemas are evidently not based upon barter: department I does not ‘exchange’ goods with department II simply according to ‘mutual need’. Before the capitalists or employed workers of department I can obtain the goods they need, they must prove themselves to have sufficient purchasing power to buy them from department II at their value. Furthermore, the difficulty cannot be solved by some legerdemain such as the sudden introduction ex nihilo of additional sources of purchasing power. If new sources of money do appear — and we shall see that they play a key role in Marx’s schemas — they must be organically connected with the problem under examination. In other words, it has to be demonstrated that they are necessarily coexistent with the process of production and circulation of commodities under the capitalist mode of production.

The dual nature of the reproduction schemas, reflecting the dual nature of the commodity and commodity production in general, in no way circumvents or contradicts the operation of the law of value — a law which establishes, among other things, that the quantity and quality of value produced, both that of each individual commodity and that of the total sum of commodities, is independent of their use-value. Use-value...
is a necessary precondition of commodity-value. A good which nobody wants to buy because it fulfils no need cannot be sold, and therefore has no exchange-value. Labour expended in its production is socially wasted, not socially necessary labour. Similarly, a certain use-value structure of total output – a given quantity of \( x \) raw materials, \( y \) pieces of equipment and \( z \) types of consumer goods – is a material and social precondition of the successful accomplishment of (simple or expanded) reproduction. But the use-value of these commodities will only be realized if their market prices can be matched, that is, if they can be bought. (Millions can – and do! – starve under capitalism, even though all the food they need is there, because they lack the purchasing power to buy it. Of course they would also starve if the food were really lacking, but, although this does happen occasionally, it is a much rarer occurrence.) Moreover, the system will be in equilibrium (i.e. expanded reproduction will be possible in value terms) only if these commodities are broadly speaking sold at their value, that is, if the surplus-value produced by the working class is realized in the form of profit. And this is by no means assured under capitalism.

A further preliminary condition of equilibrium has to be fulfilled before the dual flow of commodities and purchasing power between the departments can even be examined. The sum total of output of both departments must be equal to, not smaller or larger than, the total demand generated by expanded reproduction. Under simple reproduction this may be expressed as follows:

\[
\begin{align*}
I &= I_c + II_c \\
II &= I_v + I_s + II_v + II_s
\end{align*}
\]

Under expanded reproduction this becomes:

\[
\begin{align*}
I &= I_c + AI_c + II_c + AII_c \\
II &= I_v + I_s + (I_s - AI_c) + II_v + AII_v + (II_s - AII_c - AII_v)
\end{align*}
\]

The value and mass of the means of production produced must be equal to the value and mass of the means of production used up in both departments during the current production period (plus, under conditions of expanded reproduction, the value of the additional means of production needed in both departments). The value and mass of the consumer goods produced must be equal to the demand for consumer goods (wages + profits spent on unproductive consumption) in both departments.

4. **THE SIGNIFICANCE OF MARX’S REPRODUCTION SCHEMAS**

The so-called ‘conditions of proportionality’ in a two-department system (where the total mass of commodities is classified into a department I of means of production and a department II of consumer goods) were formulated by Marx himself. In the case of simple reproduction they are:

\[
I_v + I_s = II_c
\]

Otto Bauer and Bukharin derived from this a similar formula for expanded reproduction, which, although present in Volume 2, was not explicitly formulated by Marx:\(^{21}\)

\[
I_v + I_s + I_{s^v} = II_c + II_{s^v}
\]

In conformity with the dual nature of the reproduction schemas, these conditions of proportionality simultaneously have two meanings:

(a) The exchange-value of the goods sold by department I to department II must be equal to the value of the goods sold by department II to department I (otherwise, there would emerge an unsaleable surplus in at least one of the two departments).

(b) The specific use-value of the commodities produced in both departments must correspond to their mutual needs. For instance, the purchasing power in the hands of the workers producing producer goods must encounter on the market not only ‘commodities’, but actual consumer goods equivalent to that sum of wages. (Under capitalism, workers are not supposed to spend their money on any commodities other than consumer goods.)

The commodity, non-barter nature of the reproduction schemas further implies a dual flow between the two departments. When department I sells raw materials and equipment to department II (to replace the value of \( II_c \) used up in the previous production cycle), commodities flow from department I to department II, while money flows from

\(^{21}\) See below, p. 593

\(^{22}\) Total surplus-value (\( s \)) in both departments is divided into three parts:
- \( \alpha \): unproductively consumed by the capitalists;
- \( \beta \): accumulated in the form of constant capital;
- \( \gamma \): accumulated in the form of variable capital.
department II to department I. It has to be determined where that money initially came from. Conversely, when department II sells consumer goods to the workers of department I, to enable them to reproduce their labour-power, commodities flow from II to I, while money flows from I to II.

From a purely technical point of view, there is nothing extraordinary or magical in this two-department schema. It is just the most elementary conceptual tool – an extreme simplification intended to bring out the underlying assumptions of equilibrium (or equilibrated, proportionate growth) under conditions of commodity production. For exchange to occur, there must exist at least two private capitals independent of each other. With these conceptual tools, it would be easy to draw up a three-department model (e.g. with gold as department III), or a four-department one (with both gold and luxury goods as additional departments – the difference between the two being that, while luxury goods are, like weapons, useless from the point of view of reproduction, gold does not enter into the reproduction process but mediates it, assisting the circulation of commodities for expanded reproduction). We could then move on to a five-department model (dividing department I into means of production producing means of production and means of production producing consumer goods) or a seven-department one (further dividing both sub-departments of department I into raw materials and machinery). Step by step, we would approach an inter-branch model reflecting the actual structure of a modern capitalist industrialized economy.23

A certain number of conditions of physical interdependence would have to be established among all these branches (they are clarified by Leontiev's input–output tables, based on either stable or changing technology). These would then have to be supplemented by a table of value equivalence (value equilibrium), since the only condition for equilibrium is overall realization of value. At this point, there appears an important difference between a two-department schema and a multi-department one. The former necessitates equivalence of exchange-values between the two departments, whereas this is not true of the latter.

23. Department III was first used by Tugan-Baranowski (Studien zur Theorie und Geschichte der Handelskrisen in England, Jena, 1901) and von Bortkiewicz as a means of representing the production of luxury goods or gold. Unknown to Tugan-Baranowski and other participants in that discussion, Marx had himself used a four-department schema in the Grundrisse (op. cit., p. 441), introducing separate departments for raw materials and machinery and, like Tugan-Baranowski, dividing the means of consumption between a department of workers' consumer goods and one of luxury goods ('surplus products') destined for the capitalists.

Department C, for instance (say, raw materials necessary for the production of consumer goods) could have a 'surplus' in its interchange with department E (finished mass consumer goods in a nine-department schema, where F is the luxury goods department and G the gold production one), while it had a 'deficit' in its interchange with department B (equipment for the production of producer goods, including raw materials).24 In such a case, the system would still attain equilibrium provided that all the 'surpluses' and 'deficits' cancelled one another out for each department (i.e. were inter-related in a definitely proportionate and not arbitrary manner), and provided that each department realized the total value of the commodities produced within it and disposed of sufficient purchasing power to acquire the necessary objective elements of expanded reproduction (which would have to be supplied with their specific use-values by the current production of departments A to E).

However, the picture changes once we consider the two-department schema not as a simple conceptual or analytical tool, but as a model corresponding to a social structure. It then becomes clear that the choice of these two departments as basic sub-divisions of the mass of commodities produced is not at all an arbitrary one, but corresponds to the essential character of human production in general – not merely its specific expression under capitalist relations of production. Man cannot survive without establishing a material metabolism with nature. And he cannot realize that metabolism without using tools. His material production will, therefore, always consist of at least tools and means of subsistence. The two departments of Marx's reproduction schemas are nothing other than the specific capitalist form of this general division of human production, in so far as they (1) take the generalized form of commodities, and (2) assume that the workers (direct producers) do not...
and cannot purchase that part of the commodity mountain which consists of tools and raw materials.25

Reverting to the two-department schema presented in Capital Volume 2, we can now outline the dual flow of commodities and money between the two departments, both in the case of simple reproduction and in that of expanded reproduction.

1. Simple reproduction. In department I, the workers buy commodities from department II to the equivalent of their wages, and the capitalists to the equivalent of their profits. Both these flows are continuous (workers and capitalists alike have to eat everyday) regardless of whether department I commodities have already been sold. Therefore, even simple reproduction requires the prior existence of money capital and money reserves (for revenue expenditure) in the hands of the capitalist class over and above the value of productive capital.26 With the money received from the sale of their commodities, the capitalists of department II buy from department I the means of production needed to reconstitute their own constant capital used up during the production process. This money returning to department I, after mediating the purchase-and-sale of means of production within that department, reconstitutes the initial money capital and money-revenue reserve with which the whole turnover process can recommence. Similarly, within department II the capitalists sell consumer goods to their own workers and thereby immediately reconstitute their own variable capital. They sell consumer and luxury goods to all industrialists active within that department, thus realizing the surplus-value contained in the sum total of consumer goods produced.

2. Expanded reproduction. Workers and capitalists of department I buy consumer goods from department II to a total value of \( I_v + I_e \). With this money, capitalists of department II buy means of production from department I in order to reconstitute their own constant capital used up during the production process.27 Now, capitalists of department I have the necessary means (if required, by drawing further on a reserve of money capital) to mediate the circulation of \( c \) within their own department and to hire additional workers, who will buy additional consumer goods (to the equivalent of \( I_v \)) from department II. The capitalists of department II thereby acquire the purchasing power to buy from department I the additional means of production necessary for their own expanded reproduction \( (\Pi_{if} = AI_{Ie}) \), while the sale of consumer goods to workers and capitalists within department II operates as described above. Finally, with the further means obtained by the sale of \( AI_{Ie} \) to department II, the capitalists of department I can complete their own expanded reproduction, mediating the sale of \( AI_e \) within their department (as well as the purchase of the equivalent of \( AI_{Ie} \) from department II, if this has not been fully covered in the first stage of circulation).

5. USE AND MISUSE OF THE REPRODUCTION SCHEMAS

Marx’s reproduction schemas have been used and abused in a number of ways during the past seventy years, ever since their analytical usefulness began to strike the imagination of followers and opponents alike. We have already indicated one of the most paradoxical forms of abuse of the schemas, namely, utilization of them as ‘proof’ that capitalism could grow harmoniously and unrestrictedly ‘if only’ the correct ‘proportions’ between the departments (the ‘conditions of equilibrium’) were maintained. The authors responsible for this aberration overlooked the basic assumption made by Marx: that the very structure of the capitalist mode of production, as well as its laws of motion, imply that the ‘conditions of equilibrium’ are inevitably destroyed; that ‘equilibrium’ and ‘harmonious growth’ are marginal exceptions to (or long-term averages of) normal conditions of disequilibrium (‘overshooting’ between the two departments) and uneven growth. We have dwelt on this problem elsewhere and shall not repeat the argumentation here. Suffice it to say that, under capitalism, both the dynamics of value determination and the non-determination of consumer expenditure make it impossible to maintain exact proportions between the two departments in such a way as to allow harmonious growth.

The very nature of expanded reproduction – capitalist reproduction –

25. Rudolf Hickel (Zur Interpretation der Marx’schen Reproduktionsschemata, p. 116 and p. 7 of footnotes) criticizes our use of a department III, thinking that we justify it by the fact that the state buys weapons or by the notion that weapons are ‘waste’. This critique is altogether unfounded. The objective basis of department III lies in the fact that it includes all commodities not entering into the reproduction process (with the possible exception of monetary gold, in a four-department schema).


27. Following the equilibrium formula: \( \Pi_{Ie} + \Pi_{If} = I_v + I_e + I_e \), it is clear that \( \Pi_{Ie} \) may be equal to, or smaller or greater than \( I_v + I_e \), depending on the relation of \( \Pi_{If} \) to \( I_v \).
under capitalism implies that production takes place not only on a broader scale, but also under changed technological conditions. Constant revolutions in the technique and cost of production are a basic characteristic of the system which Marx underlined much more sharply than any of his contemporaries (including the admirers and sycophants of capitalism). But these constant revolutions entail that the value of commodities as a social datum is subject to periodic change. It follows that values at input level do not automatically determine values at output level. Only after a certain interval will it be shown whether a fraction of the 'inputs' have been socially wasted. Neither the subjective will of 'monopolies' or 'the state', nor the cleverness of neo-Keynesian planners, can prevent the assertion of the law of value where private property and competition hold sway. Nothing can stop these long-term shifts in commodity values from leading to a redistribution of labour inputs among different branches of production (and, ultimately, a redistribution of means of production as well).

Similarly, the avoidance of crises of over-production requires proportionality not only between departments, but also between output and 'final consumption' (i.e. consumption by the mass of wage and salary earners, above all in modern industrialized societies, where they generally form with their families more than 80 per cent of the total number of consumers). But this is impossible for two reasons. In the first place, the one freedom which cannot normally be taken away from the workers is the freedom to spend their wages as they wish – and there is no way in which it can be forecast with complete accuracy how they will do this (even if a prediction is 95 per cent correct, that could still leave a 5 per cent surplus of unsaleable consumer goods, which is enough to start an avalanche). Secondly, the laws of motion of capitalism have the inherent tendency to develop the capacity of production (including the production of consumer goods) beyond the limits within which the mode of production confines the purchasing power of those condemned to sell their labour-power. Thus, disproportion is intrinsic to the system itself. However, it is not enough for a Marxist theory of the trade cycle and of crisis to demonstrate the reality of that inherent disproportion (which is, after all, almost a truism, given the regular recurrence of crises of over-production for more than 150 years!); it must also discover the precise mechanisms which relate that periodic disequilibrium to the basic laws of motion of capitalism.

In the Soviet Union and other countries where capitalism has been overthrown, Marx's reproduction schemas have been widely used as instruments of 'socialist planning'. We do not deny that, by analogy, these schemas may be useful tools for studying specific problems of inter-department structure and dynamics in all kinds of society. But it has first to be clearly understood what is being done in such a case. For, we repeat, the schemas refer to commodity production and to dual flows of commodities and money incomes. To extend their use to societies which have transcended generalized commodity production, where the means of production are, in their essential mass, use-values distributed by the state (the planning authorities) according to a plan, rather than commodities sold on the basis of their 'value' – this leads to an accumulation of paradoxes, of which the authors are generally not even conscious.

A good example is provided by the late Maurice Dobb. In the fifties, he participated in a 'great debate' among Soviet and East European economists revolving around Stalin's so-called 'law of the priority development of the means of production under socialism' and the establishment of an optimum rate of growth for both departments. Forgetting that what was involved in Marx's reproduction schemas was value calculation of commodities, Dobb 'proved' that an increased rate of growth of consumer goods in the future was 'impossible' unless the present rate of growth of department I was higher than that of department II. Now, a policy which sacrifices the consumption of four generations of workers and their families merely to increase the rate of growth of consumption starting with the fifth generation has nothing in common with an 'ideal socialist norm', and cannot be rationally motivated except in terms of purely political contingencies. For Dobb's argumentation is, of course, completely spurious; all that his calculations show is that the value of consumer goods produced cannot grow at an increasing rate after x years unless the value of department I immediately rises at a faster rate than that of department II.

However, neither an individual worker nor the working class itself in

28. See Grundrisse, op. cit., p. 414. Cf. also Capital Volume 3, Chapter 15, 3, where Marx states that under capitalism 'the proportionality of the particular branches of production presents itself as a constant process through disproportionality'.

29. The exceptions are those means of production which are sold to agricultural cooperatives and small handicraftsmen or illegally channelled into the black (parallel) market.

a post-capitalist society (not to speak of a socialist commonwealth) is interested in a constantly rising rate of growth of the value of consumer goods. On the contrary, they are concerned with reducing that ‘value’ as much as possible by raising the productivity of labour, and with the withering away of commodity production and market economy. Their basic interests lie in the most rapid optimum satisfaction of rational consumer needs, i.e. the production at lowest possible cost of an optimum basket of consumer goods (thereby combining maximum economy of the labour of the producers with maximum satisfaction of consumer needs). To believe that this is the same as maximization of capitalist commodity-value (or profit) is to commit not only a grave theoretical error, but also a disastrous political and social miscalculation.

Even worse were the attempts made in the sixties to revive a so-called ‘structural law’ of ‘socialism’, according to which department I must expand at a faster rate than department II. All such endeavours abstract from the value nature of the reproduction schemas, and assume that optimum satisfaction of social needs implies both continuous, unlimited expansion of the output of means of production, and the allocation of an even higher fraction of the total labour potential of society to the creation of material producer goods (as against social services dealing with health, education, artistic creation, ‘pure’ scientific research, child-care, etc., etc.). None of these assumptions can be scientifically proven or justified. Indeed, their apologetic function – as a straightforward rationalization of existing practice in the USSR and the ‘Peoples’ Democracies’ – is obvious to any critical observer.

It should be added that both Oskar Lange and Bronislaw Minc, while not clarifying the difference between capitalist and socialist reproduction schemas, correctly demonstrated that increased productivity of labour and technical progress do not necessarily require department I to grow more quickly than department II; nor do they imply increased current outlay on means of production per unit currently (annually) produced.

Rosa Luxemburg well understood that the form of the reproduction schemas applies only to capitalist commodity and value production, and that the laws of motion corresponding to that form can have no validity in non-capitalist societies. But even she erred by attaching to the ‘equilibrium proportions’ derived from the schemas an a-historical, eternal validity which they do not and cannot possess. 31

If a socially appropriated surplus product is substituted for surplus-value, then the equilibrium formula takes on a new form which expresses the different social goal of reproduction, corresponding to the changed social structure. Surplus-value is not simply a part of the total value of commodities produced under capitalism, nor is it just a fraction of the newly produced value product (the national income). It is also the goal of the capitalist production process. As such, it is much more than a mere symbol in a reproduction schema which is intended to represent reality at a high level of abstraction. For Marx, the schemas refer to the reproduction of quantified use-value and exchange-value in a given proportion. But they also express the reproduction of capitalist relations of production themselves. All that is implied in the formula \( I_v + I_e = I_l \). And all that changes under socialism, once \( s \) disappears.

Furthermore, in a society where commodity production has withered away, and where the concept of surplus labour is essentially reducible to that of social service and economic growth, the meaning of the notion of ‘equilibrium’ derived from the ‘proportionality formula’ is subject to a fundamental transformation. When proportionality is upset in a commodity-producing society, production of both use-values and exchange-values declines, because both are inextricably linked to each other. Under socialism, however, no such inexorable nexus survives – not even as a necessary proportion (in the form of an ‘eternal law’) between labour inputs and use-value inputs. Indeed, in Capital Volume 2, Marx goes so far as to state categorically that, after the abolition of capitalism, there will be ‘constant relative over-production’ of equip-


Earlier, however, she had specifically stated: ‘In every planned system of production it is, above all, the relation between all labour, past and present, and the means of production (between \( v+s + c \), according to our formula), or the relation between the aggregate of necessary consumer goods (again, in the terms of our formula, \( v+s + c \)) and those which are subjected to regulation. Under capitalist conditions, on the other hand, all social labour necessary for the maintenance of the inanimate means of production and also of living labour power is treated as one entity, as capital, in contrast with the surplus labour that has been performed, i.e. with the surplus value. The relation between these two quantities \( c \) and \( v+s \) is a palpably real, objective relationship of capitalist society: it is the average rate of profit’ (ibid., p. 79).

34. See Capital Volume 3, Chapter 51.
ment, raw materials and foodstuffs. ‘Over-production of this kind’, he says, ‘is equivalent to control by the society over the objective means of its own reproduction’.95

It is easy to imagine a society which, having reached a certain level of consumption, consciously decides to give absolute priority to a single goal: reduction of the work load. Its efforts would then be concentrated on assuring the production and distribution of an ‘ideal’ package of use-values with fewer and fewer labour inputs. There would still be ‘simple reproduction’ at the level of use-values, but it would be achieved with, let us say, a reduction in man-days of 4 per cent per annum (if population increased by 1 per cent and labour productivity by 5 per cent). To call this a situation of ‘contracted reproduction’ would be wrong, both because a socialist society would calculate essentially with use-values, and because in Marx’s reproduction schema the concept of ‘contracted reproduction’ is logically connected with the notions of crisis, interrupted economic equilibrium and declining living standards, whereas the conditions just described involve smooth continuity of material production and reproduction, stable living standards and absence of any kind of crisis.

This does not mean that planned socialist production could do without specific proportions in the flow of labour, means of production and consumer goods between the two departments. Such proportional allocation of resources is indeed the very essence of socialist planning. It means only that there is a qualitative as well as a quantitative difference between value calculations and calculations in labour time – between the dynamics of, on the one hand, appropriation and accumulation of surplus-value, and, on the other hand, rising efficiency (labour productivity) achieved in successive phases of production and measured in quantities of use-values produced during a fixed length of time.36

Minc goes much farther than Luxemburg when, summing up the opinion of two generations of Stalinist and post-Stalinist East European and Soviet economists, he clearly asserts: ‘The basic theses of Marx’s theory of expanded reproduction, as expressed in the schemas, are entirely valid under socialism’.37 Contrary to the explicit theory of lack of a better, rather than express them in their natural, adequate and absolute measure, time. Just as little as it would occur to chemical science still to express atomic weights in a roundabout way, relatively, by means of the hydrogen atom, if it were able to express them absolutely, in their adequate measure, namely in actual weights, in billions or quadrillions of a gramme. Hence, on the assumptions we made above, society will not assign values to products. It will not express the simple fact that the hundred square yards of cloth have required for their production, say, a thousand hours of labour in the oblique and meaningless way, stating that they have the value of a thousand hours of labour. It is true that even then it will still be necessary for society to know how much labour each article of consumption requires for its production. It will have to arrange its plan of production in accordance with its means of production, which include, in particular, its labour-power. The useful effects of the various articles of consumption, compared with one another and with the quantities of labour required for their production, will in the end determine the plan.’ Frederick Engels, Anti-Dühring, Moscow, 1969, pp. 366–7. Cf. also Marx’s observation: ‘Let us finally imagine, for a change, an association of free men, working with the means of production held in common, and expending their many different forms of labour-power in full self-awareness as one single social labour force . . . Labour-time would in that case play a double part. Its apportionment in accordance with a definite social plan maintains the correct proportion between the different functions of labour and the various needs of the associations. On the other hand, labour-time also serves as a measure of the part taken by each individual in the common labour, and of his share in the part of the total product destined for individual consumption’ (Capital Volume 1, op. cit., pp. 171–2).

To what theoretical contortions the confusion of capitalist and socialist reproduction schemas necessarily leads is strikingly demonstrated by Reichenberg (op. cit.). First, he calmly includes the material tools of the service sector in a department II of consumer goods (p. 16). Next he speaks of an ‘intensification of expanded reproduction’, as a result of the ‘scientific-technical revolution’ – an intensification which expresses itself in the fact that ‘if the difference between (Iv+Iw) and Iw remains the same, a process of increased accumulation is possible’ (p. 21). But he fails to specify the object of this accumulation. Is it the value of Iw? Obviously that would be nonsense. The difference between two value quantities cannot change if the quantities themselves do not change. Perhaps it is accumulation of use-values? No doubt. But surely an increase in the mass of raw materials and tools (for the output of consumer goods) produced by a given quantity of socially necessary labour is the very definition of an increase in labour productivity. And, at the same time, Reichenberg implies that the value of these goods (and therefore the dynamics of expanded reproduction in value terms) has not changed!

35. See below, pp. 544–5.
36. Cf. the following passage from Engels’s Anti-Dühring: ‘From the moment when society enters into possession of the means of production and uses them in direct association for production, the labour of each individual, however varied its specifically useful character may be, becomes at the start and directly social labour. The quantity of social labour contained in a product need not then be established in a roundabout way; daily experience shows in a direct way how much of it is required on the average. Society can simply calculate how many hours of labour are contained in a steam-engine, a bushel of wheat of the last harvest, or a hundred square yards of cloth of a certain quality. It could therefore never occur to it still to express the quantities of labour put into the products, quantities which it will then know directly and in their absolute amounts, in a third product, in a measure which, besides, is only relative, fluctuating, inadequate, though formerly unavoidable for
Marx and Engels, such 'socialist production' would thus remain generalized commodity production, i.e. generalized production of value. We may well ask what kind of intrinsic 'law' of raising surplus labour would then be incorporated into these 'socialist production relations'. For Marx distinctly states that such a law underlies the schemas of expanded reproduction referring to the production of surplus-value. 38

6. PRODUC TIVE AND UNPRODUCTIVE LABOUR

Marx's theory of reproduction is firmly rooted in his perfected labour theory of value, not only in the sense that his reproduction schemas are based upon a common numéraire, labour-time, but also in the sense that what they measure and express is the distribution (and movement) of the labour force available to society among different departments and branches of material production. Value, in Marx's theory, is abstract social labour.

Michio Morishima, who has devoted much effort and ingenuity to rehabilitating Marx in the eyes of academic economists as one of the principal forerunners of aggregation techniques, nevertheless continues to detect a contradiction between a macro-economic theory of value, based upon aggregation, and a micro-economic labour theory of value. While dismissing the trite 'contradiction' between Volume 1 and Volume 3, around which so much academic criticism of Marx has revolved for almost a century, he constructs quite an imposing straw man out of this 'new' contradiction. 39 In our opinion, however, his subtle distinction between Marx's 'two' labour theories of value is based upon a simple conceptual confusion. For Marx, value and value production are eminently social qualities, referring to relations between men, and not 'physical' attributes adhering to things once and for all. Thus, when Marx writes that the value of a commodity is the embodiment of human labour expended in its production, and when he goes on to say that its value is equal to the socially necessary labour contained within it, he is not making two different statements, but simply repeating the same thesis. For the value of a given commodity is determined only by that portion of labour spent in its production which corresponds to the social average (both the average productivity of labour and the average socially recognized need), that is to say, which is recognized by society as socially necessary labour. Labour expended in the production of a given commodity, but not recognized by society, is not productive of value for the owner of that commodity.

However, precisely because value and the production of value refer ultimately to the distribution and redistribution of the total available labour-power of society engaged in production, that macro-economic aggregate is a basic economic reality, a basic 'fact of life'. If five million workers work 2,000 hours a year in material production, the total value product is ten billion hours, independently of whether the socially recognized value of each individual commodity is equal to, or larger or smaller than, the actual number of labour hours expended in its production. It follows that if the value of a given commodity is less than the labour actually spent on its production, then there must be at least one other commodity whose value is greater than the quantity of labour actually embodied in it. 40 Social recognition of labour expenditure and

38. 'In this way a situation comes about in which the individual capitalists have command of increasingly large armies of workers (no matter how much the variable capital may fall in relation to the constant capital), so that the mass of surplus-value, and hence profit which they appropriate grows, along with and despite the fall in the rate of profit' (Capital Volume 3, Chapter 13, our emphasis). It should be noted that, in the previous sentence, Marx has explicitly referred to accumulation of capital, and thus expanded reproduction. This passage should be contrasted with the no less explicit one concerning economic growth under socialism: 'If however wages are reduced to their general basis, i.e. that portion of the product of his labour that goes into the worker's own individual consumption; if this share is freed from its capitalist limit and expanded to the scale of consumption that is both permitted by the existing social productivity (i.e. the social productivity of his own labour as genuinely social labour) and required for the full development of individuality; if surplus labour and surplus product are also reduced, to the degree needed under the given conditions of production, on the one hand to form an insurance and reserve fund, on the other hand for the steady expansion of reproduction in the degree determined by social need... i.e. if both wages and surplus-value are stripped of their specifically capitalist character, then nothing of these forms remains, but simply those foundations of the forms that are common to all social modes of production' (Volume 3, Chapter 50, our emphases). It is clear from these quotations that, for Marx, the difference in form implies a difference in quantities, especially in those dynamic quantities which are growth trends.


40. Cf. Capital Volume 3, Chapter 10, especially the following passage: 'Strictly speaking, in fact... the market value of the entire mass, as governed by the average values, is equal to the sum of its individual values... Those producing at the worst extreme then have to sell their commodities below their individual value, while those at the best extreme sell theirs above it.' See also below (p. 207): 'If the commodities are not sold at their values, then the sum of converted values remains unaffected; what is a plus for one side is a minus for the other.'
actual labour expenditure can differ only for individual commodities, not for the total mass. In that sense, Morishima is right when he stresses that, in the last analysis, and for the capitalist mode of production (as distinct from petty commodity production), Marx's law of value is fundamentally an aggregate, macro-economic concept.

The nexus between the reproduction schemas (and the problem of the circulation of capital in general) and the theory of value leads us back to one of the most hotly disputed issues of Marxist economic theory: the exact delimitation between productive and unproductive labour. As the schemas are value schemas, they express only value production, and automatically exclude economic activities which are not productive of value. What precisely are these activities?

It has to be admitted that the solution of this problem was made more difficult by Marx himself. There are undeniable differences – if only of nuance – between, on the one hand, the long section of Theories of Surplus-Value dealing with the problem of productive and unproductive labour and, on the other, those key passages of Capital (especially Volume 2) which treat the same subject. One striking illustration of this is the analysis of commercial agents and travellers. They are classified as productive workers in the Theories, and as unproductive workers in Capital Volumes 2 and 3. In recent years, a long and often confused debate among Marxists has further complicated the matter. It is also intertwined with differences in judging the so-called service industries – which, to take one example, are not included in Soviet and East European accounting as contributing to national income, on the basis of a particular interpretation of Marx's theory of productive labour.

How then shall we unravel the problem?

A preliminary distinction which we need to draw goes to the heart of the matter. When Marx classifies certain forms of labour as productive and others as unproductive, he is not passing moral judgement or employing criteria of social (or human) usefulness. Nor does he even present this classification as an objective or a-historical one. The object of his analysis is the capitalist mode of production, and he simply determines what is productive and what is unproductive for the functioning, the rationale of that system, and that system alone. In terms of social usefulness or need, a doctor provides labour which is indispensable for the survival of any human society. His labour is thus eminently useful. Nevertheless, it is unproductive labour from the point of view of the production or expansion of capital. By contrast, the production of dum-dum bullets, hard drugs or pornographic magazines is useless and harmful to the overall interests of human society. But as such commodities find ready customers, the surplus-value embodied in them is realized, and capital is reproduced and expanded. The labour expended on them is thus productive labour.


is exchanged against capital and not against revenue, i.e. all labour which enriches one or several capitalists, enabling them to appropriate a portion of the total mass of surplus-value produced by the total mass of value-producing wage-labour. 46 We could call it 'labour productive from the point of view of the individual capitalist(s)'. All wage-labour engaged by capitalist enterprise - as opposed to labour functioning for private households, for consumption needs - falls into that category. This is the level at which Theories of Surplus-Value stops.

But when he returns to the same problem in Capital Volume 2, from the point of view of the capitalist mode of production in its totality, and especially from that of the growth or accumulation of capital, Marx now distinguishes labour productive for capital as a whole from labour productive for the individual capitalist. For capital as a whole, only that labour is productive which increases the total mass of surplus-value. All wage-labour which enables an individual capitalist to appropriate a fraction of the total mass of surplus-value, without adding to that mass, may be 'productive' for the commercial, financial or service-sector capitalist whom it allows to participate in the general sharing of the cake. But from the point of view of capital as a whole it is unproductive, because it does not augment the total size of the cake.

Only commodity production makes possible the creation of value and surplus-value. Only within the realm of commodity production, then, is productive labour performed. No new surplus-value can be added in the sphere of circulation and exchange, not to speak of the stock exchange or the bank counter; all that happens there is the redistribution or reapportionment of previously created surplus-value. This point is made clear in Capital Volumes 2 and 3. 47 Most of the relevant passages from Volume 2 were drawn by Engels from Manuscripts II and IV. In other words, they were written in 1870 or between 1867 and 1870, some time after the Theories of Surplus-Value of 1861–3 (and even after the rough manuscript of Volume 3), and may therefore be considered to express Marx's definitive views on the question. Contrary to what is said in the Theories, they imply that wage-earning commercial clerks or travellers do not perform productive labour, at least not from the standpoint of capital as a whole. However, even when this basic principle is established, four additional problems remain to be solved.

First, there is the question of so-called 'immaterial goods': concerts, circus acts, prostitution, teaching, etc. In Theories of Surplus-Value, Marx tends to classify these as commodities, in so far as they are produced by wage-earners for capitalist entrepreneurs. Although in Volume 2 he does not explicitly contradict this, he insists strongly and repeatedly on the correlation between use-values embodied in commodities through a labour process which acts upon and transforms nature, and the production of value and surplus-value. 48 Moreover, he provides a general formula which implies the exclusion of wage-labour engaged in 'personal service industries' from the realm of productive labour: 'If we have a function which, although in and for itself unproductive, is nevertheless a necessary moment of reproduction, then when this is transformed, through the division of labour, from the secondary activity of many into the exclusive activity of a few, into their special business, this does not change the character of the function itself.' 49 If this is true of commercial travellers or book-keepers, it obviously applies all the more to teachers or cleaning services.

The definition of productive labour as commodity-producing labour, combining concrete and abstract labour (i.e. combining creation of use-values and production of exchange-values) logically excludes 'non-material goods' from the sphere of value production. Furthermore, this conclusion is intimately bound up with a basic thesis of Capital: production is, for humanity, the necessary mediation between nature and society; there can be no production without (concrete) labour, no concrete labour without appropriation and transformation of material objects. 50

46. See Theories of Surplus-Value, Part I, op. cit., Chapter IV, 3.
47. See below, pp. 209–11; and Capital Volume 3, Chapters 16 and 17.

48. See below, Chapter 6. Of the more systematic analyses of this problem, those of Nagels and Bischoff (see note 44 above) adopt a similar position to our own. Gough supports the opposite view, basing himself especially on a passage of Capital Volume 1 (op. cit., p. 644), in which Marx explicitly includes wage-earners working for private capital (such as teachers) in the realm of productive labour. In our opinion, this passage, like several in Theories of Surplus-Value, only indicates that Marx had not yet completed his articulation of the contradictory determinants of 'productive labour' - on the one hand, exchange against capital rather than revenue, and on the other, participation in the process of commodity production (which involves the unity-and-contradiction of the labour process and the valorization process, use-value and exchange-value, concrete and abstract labour). What is the 'immaterial good' produced by a wage-earning teacher which could be conceptually contrasted with the 'immaterial service' produced by a wage-earning cleaner (working for a capitalist cleaning firm) or by a wage-earning clerk of a department store?

49. See below, p. 209.
50. See Capital Volume 1, op. cit., pp. 283ff. Jacques Gouverneur attempts, mistakenly in our opinion, to transcend this limitation. In order to be able to include the production of 'immaterial goods' by wage-labour in the category of
This becomes evident when Marx sets forth in \textit{Capital} Volume 2 his reasons for classifying the transport industry in the realm of the production of value and surplus-value, rather than in that of circulation. The argument is clearly summarized in the following passage: 'The quantity of products is not increased by their transport. The change in their natural properties that may be effected by transport is also, certain exceptions apart, not an intended useful effect, but rather an unavoidable evil. But the use-value of things is only realized in their consumption, and their consumption may make a change of location necessary, and thus, in addition, the additional production process of the transport industry. The productive capital invested in this industry thus adds value to the products transported.'\footnote{51}

Now it is obvious that none of these arguments is applicable to the carrying of persons. Passenger transport is not an indispensable condition of the realization of use-values and adds no new value to any commodity. It is rather a personal service on which individuals (whether capitalists or workers) spend their own revenue. Thus, whether it is organized on the basis of wage-labour or not, the passenger transport industry can no more be considered as increasing the total mass of social value and surplus-value than can wage-labour employed in the fields of commerce, banking or insurance.

In striking contrast to the above passage is Marx's argument in Chapter 6, 3, of Volume 2. While explicitly stating that transportation of persons by capitalist enterprise does \textit{not} create commodities or use-values of any kind, he notes that it is nevertheless a 'productive branch', even though the 'useful effect' (\textit{Nutzeffekt}) is only consumable during the production process itself.\footnote{52}

Ranging this question under the broader heading of so-called service industries, we may say that, as a general rule, all forms of wage-labour which exteriorize themselves in and thus add value to a product (materials) are creative of surplus-value and hence productive for capitalism as a whole. This applies not only to manufacturing and mining industries, but also to transportation of goods,\footnote{53} 'public service' industries such as the production and transport of water or any form of energy (e.g. gas and electricity), the building and sale of houses and offices as well as provision of the material for constructing them, and of course agriculture. Many sectors which are often included under the heading 'service industries' are, therefore, parts of material production and employ productive labour. By contrast, the \textit{letting} of apartment or hotel rooms, the service of transporting persons in buses, underground systems or trains, the performance of medical, educational or recreational wage-labour which is not objectivized outside the worker (the sale of specific forms of labour rather than of commodities), the work of commercial or banking clerks and of the employees of insurance companies or market research firms – these do not add to the sum total of social value and surplus-value produced, and cannot therefore be categorized as forms of productive labour.

An interesting illustration is provided by television. The production of television sets or films (including copies of such films) is obviously a form of commodity production, and wage-labour engaged in it is productive labour. But the hiring-out of completed films or the renting of a single television set to successive customers does not have the characteristics of productive labour. Similarly, wage-labour employed in making advertising films is productive, whereas the cajoling of potential clients to purchase or order such films is as unproductive as the labour of commercial representatives in general.

The second problem is to draw a precise demarcation between the spheres of production and circulation in capitalist society as a whole. Volume 2 of \textit{Capital} leaves no room for doubt about Marx's view: only that labour which either adds to or is indispensable for the realization and conservation of a commodity's use-value adds to the total amount of abstract social labour embodied in that commodity (is productive of value).\footnote{54} Like the rest of Volume 2, the passages dealing with this question are but successive unfoldings of the basic analysis of the commodity – of its irreducible duality and the contradictions flowing therefrom.

Thirdly, we have to consider the different kinds of labour performed within the production process itself. Here Marx takes a much less simplistic attitude than some of his latter-day disciples. His fundamental doctrine is that of the 'collective labourer', as developed in 'Results of the Immediate Process of Production'.\footnote{55} Productive labour,
as labour expended in the realm of production of commodities, is all wage-labour indispensable for that production process; that is to say, not only manual labour, but also that of engineers, people working in laboratories, overseers, and even managers and stock clerks, in so far as the physical production of a commodity would be impossible without that labour. But wage-labour which is indifferent to the specific use-value of a commodity and which is performed only to extort the maximum surplus-value from the work-force (e.g. the wage-labour of timekeepers) or to assure the defence of private property (security guards in and around a factory); labour linked to the particular social and juridical forms of capitalist production (lawyers employed as salaried staff by manufacturing firms); financial book-keepers; additional stock-checkers made necessary by the tendency to overproduction – none of these is productive labour for capital. It does not add value to the commodities produced (although it may be essential to the overall functioning of the capitalist system, or of bourgeois society as a whole).

The final case to be examined is that of petty commodity producers, independent peasants and handicraftsmen. While producing commodities and thus both use-values and exchange-values, these strata do not directly create surplus-value (except in marginal cases), although they may contribute indirectly to the mass of social surplus-value – for example, by depressing the value of food through their cheap labour. We believe that on this point Marx maintained the position put forward in Theories of Surplus-Value: such strata perform labour which is neither productive nor unproductive from the point of view of the capitalist mode of production, because they operate outside its framework. 56

7. ARE UNPRODUCTIVE LABOURERS PART OF THE PROLETARIAT?

A precise definition of productive labour under capitalism is not only of theoretical importance. It also has major implications for social bookkeeping (calculation in value terms of the national income) 57 and significantly affects our analysis of social classes and the political conclusions we draw from it.

57. It should be added that, for both analytical and practical reasons, it is quite legitimate for Marxists to introduce into calculations of national income a category such as ‘total money incomes of all households and enterprises taken together’, provided that it is clearly differentiated from the value of the annual product and incomes generated by annual production.

The narrowest position, which seeks to reduce the proletariat to the group of manual industrial workers, is in complete contradiction with Marx’s explicit definition of productive labour, and we need not dwell on it here. At the other extreme, it is obviously absurd to extend the concept of the proletariat to all wage and salary earners without limitation (including army generals and managers earning 100,000 dollars a year). The defining structural characteristic of the proletariat in Marx’s analysis of capitalism is the socio-economic compulsion to sell one’s labour-power. Included in the proletariat, then, are not only manual industrial workers, but all unproductive wage-labourers who are subject to the same fundamental constraints: non-ownership of means of production; lack of direct access to the means of livelihood (the land is by no means freely accessible!); insufficient money to purchase the means of livelihood without more or less continuous sale of labour-power. Thus, all those strata whose salary levels permit accumulation of capital in addition to a ‘normal’ standard of living are excluded from the proletariat. Whether such accumulation actually takes place is in itself irrelevant (although monographs and statistics tend to confirm that, to a modest or sizeable degree, this social group does engage in it; this is the case especially of the so-called managers, who – notwithstanding a platitude which continues to circulate in spite of all evidence to the contrary – are part and parcel of the capitalist class, if not necessarily of its top layer of billionaires).

This definition of the proletariat, which includes the mass of unproductive wage-earners (not only commercial clerks and lower government employees, but domestic servants as well), and which considers productive workers in industry as the proletarian vanguard only in the broadest sense of the word, has been challenged recently by several authors. 58 It was, however, undoubtedly the one advanced by Marx and Engels and their most ‘orthodox’ followers: the mature (not the

58. Gillman groups ‘the advertising managers, the directors of public relations, the legal counsel, the tax experts, the “sales engineers”, the legislative lobbyists, their clerical assistants’ together with ‘the rest (!) of the growing host of white-collar workers’ in the general category of ‘third party consumers’. Although he does not explicitly say so, he thereby tends to exclude them from the proletariat (The Falling Rate of Profit, London, 1957, pp. 93 and 131). This view clearly influenced Paul Baran’s analyses in The Political Economy of Growth (New York, 1957) and those of Baran and Paul Sweezy in Monopoly Capital (New York, 1966). Bocca e al. (Le Capitalisme monopoliste d’état, Paris, 1971) explicitly exclude the ‘intermediate salaried layers’ from the proletariat, reducing the latter to the sole group of productive workers (workers producing surplus-value). (See pp. 213 and 236ff.)
senile) Kautsky, Plekhanov, Lenin, Trotsky, Luxemburg et al. But it raises a weighty objection. If only productive labour produces value and thereby reproduces the equivalent of its own wages (besides creating surplus-value), does this not imply that the wages of unproductive labour are paid out of surplus-value produced by productive labour? And in that case, does there not arise a major conflict of interests between productive and unproductive labour, the first seeking to reduce surplus-value to a minimum, the second wishing it to be increased? How can such a basic conflict of interest be reconciled with the inclusion of both sectors in the same social class? Furthermore, should the industrial workers not be opposed to any expansion of state expenditure, even in the realm of ‘social services’, since this is financed in the last analysis through an increase in surplus-value extracted from them?

This objection can be countered at two levels. To begin with, it is not true that all unproductive labour is paid out of currently produced surplus-value. An important part of that labour (e.g. commercial employees, workers in the financial sector and those in unproductive service industries) is paid not out of currently produced surplus-value, but out of that portion of social capital which is invested in these sectors. Only the profits of these capitals form part of currently produced surplus-value. It is true that social capital is the result of past extortion of surplus-value. But this applies also to variable capital, i.e. to wages currently paid out to productive workers. The important point here is that, since wages and salaries in all these sectors are not drawn from currently produced surplus-value, their payment in no way reduces the currently paid wages of productive workers.

Part of the wages bill of unproductive labour, however, is financed out of currently produced surplus-value. This concerns essentially the wages and salaries of state employees in public services and administration (not, of course, the state industries, where autonomous commodity production and therefore value production occur). But in order to conclude from this that a reduction of state expenditure entails a reduction of surplus-value and an increase in real wages (or, which amounts to the same thing, that the rise in state expenditure has occurred through an increase in surplus-value and a reduction in real wages), it would be necessary to undertake a very detailed analysis of the trend of the rate of exploitation and of workers' living standards and needs since the ‘explosion’ of state expenditure. Such an examination is clearly beyond the scope of this introduction, but two crucial points should be made.

First, the concept of ‘gross wages’ (i.e. wages before tax) has no meaning in Marxist economic theory. Wages are means of reconstituting the

59. The sources are too numerous to be listed exhaustively. The following are particularly worthy of note: Capital Volume 1, op. cit., p. 798, where the unemployed sick, disabled, mutilated, widowed, elderly, etc., are designated as the ‘pauperized sections’ of the working class; Capital Volume 2 (see below, p. 516), where Marx defines the class of wage-labourers as those who are under constant (continuous) compulsion to sell their labour-power (on p. 561 servants – die Bedientenklasse – are also characterized as wage-labourers). Rosa Luxemburg (Einführung in die Nationalökonomie, Berlin, 1925, pp. 263–4 and 277–8) similarly includes casually and occasionally employed workers, as well as paupers, the sick and unemployed and so on as members of the working class. Trotsky (1905, London, 1972, p. 43) groups domestic servants under the same heading, and Kautsky (The Class Struggle: Erfurt Program, New York, 1971, pp. 35–43) explicitly includes in the ranks of the proletariat commercial and industrial wage-earners. In his draft programme of the Russian Social Democratic Labour Party, Plekhanov defines the proletariat as those who are forced to sell their labour-power (see Lenin, Collected Works, Vol. 6, p. 19), later extending it to ‘persons who possess no means of production and of circulation . . . All these persons are forced by their economic position to sell their labour-power constantly or periodically’ (pp. 61–3). While Lenin contested the introduction of the words ‘and of circulation’, he raised no essential objection to the formulation.

60. An interesting borderline case is that of the so-called semi-proletariat – i.e. the layer which retains partial ownership of its own means of production. Its income, which is derived from agricultural and handicraft commodities privately produced at a productivity of labour far below the social average, barely exceeds its costs of production, and is therefore insufficient to secure the barest livelihood. The semi-proletariat is thus forced to work part of the time as wage-labour. But precisely because it sells its labour-power only temporarily, its wages can be driven far below the prevailing social minimum. Its social existence is characterized by a striking contradiction: while it is in no way involved in the extraction or consumption of surplus-value, both its immediate and its historic interests stand in a certain limited opposition to those of the proletariat proper. That is why the semi-proletariat, unlike unproductive workers and other straightforward wage-earners, cannot be regarded as a fraction of the proletariat; it represents rather a transitional phenomenon, with one foot in the petty bourgeoisie and another in the proletariat.

61. These wages increase the total mass of social capital among which the given quantity of surplus-value has had to be divided (in other words, they lower the average rate of profit). But as far as the industrialists are concerned, this is a lesser evil. If there were no autonomous commercial capital and commercial wage-earners, their own capital outlays to cover the costs of circulation would be significantly higher, and the rate of profit still lower (see Capital Volume 3, Chapter 17). Since this only concerns the distribution of a given mass of surplus-value between different forms of capital, with no direct bearing on the division of newly created value between wages and surplus-value (i.e. on the rate of exploitation of productive labour), there arises no conflict of interest between productive and commercial wage-earners.
worker's labour-power through the purchase of commodities and services. Thus money deducted from the worker's 'gross wage' to help the state buy aeroplanes has nothing at all to do with wages. It is from the outset part of social surplus-value. (Of course, if fresh taxes actually lower previously attained levels of real wages, they may indeed be said to have increased the rate of surplus-value. But again this will be measured by comparing successive amounts of net – real – wages, and not 'gross wages'.)

Similarly, it would be absurd to construe state medical, educational or transport services which help reconstitute the worker's labour-power (or maintain his family under normal living conditions) as derived from surplus-value; they represent rather a socialized portion of the wage, regardless of whether it passes through the form of 'state revenue', and regardless of whether it 'originated' in 'gross wages' (taxes paid by the worker), 'gross profits' (taxes paid by the capitalis), or the 'gross income' of independent middle classes.

It thus proves meaningful after all to examine the impact of a rise or fall in state expenditure on average working-class living standards, independently of its servicing (mediation) by unproductive state employees. Where these living standards decline, the conclusion is obvious: the total price of labour-power (individual plus 'socialized' wages) has been reduced. Where they rise, however, no sophism can prove that this entails an increase in social surplus-value. (To be sure, it could be accompanied by such an increase, but then so could a rise in real direct wages. 'Accompanied by' is not synonymous with 'caused by', except for people with faulty logic.)

As Marxist economic theory rejects the notion of a rigid 'wages fund',

62. It has been objected that unemployment compensation can by no means be considered as the equivalent of the 'price' or 'value' of a commodity called 'labour-power', for by definition the unemployed do not sell their labour-power. However, this argument is based on a somewhat mechanistic reduction of the category 'socialized wages'. Nobody could assert that, if a worker places 10 per cent of his current wages in a chocolate box or a bank account in order to provide for the portion of his 'active adult life' during which he expects to be unemployed, that amount of money thereby ceases to be part of his wages. There is no fundamental difference between this and the situation where all workers use a collective chocolate box or bank account called the National Institute of Unemployment Insurance or National Institute of Social Security, and where the sums of money do not pass through the workers' pay packets but are transferred directly from the capitalists' accounts to these institutes. Only if this analysis is accepted, by the way, is it legitimate to demand that such funds be exclusively administered by the unions (for neither the employers nor the state should have any say in how the workers spend their own money!).

any analysis of the effects of varying levels of state expenditure upon the rate of exploitation would have to be aggregate and dynamic. Nothing flows automatically from either the expansion or contraction of state expenditure. Thus, for it to be shown that it was rising at the expense of the working class, it would have to be proved that, under the given economic, social and political conditions, a reduction in expenditure would lead to higher real wages rather than higher profits for the capitalist class. Without such detailed proof, the thesis would remain doubtful, to say the least. The analysis would have to take into account the probable dynamic of the political and social class struggle (a function of, among other things, the great historical shifts in the economic correlation of class forces within a given bourgeois society) and its precise impact upon the structure of both state revenue and state expenditure.

We seem to have strayed considerably from the problem of productive and unproductive labour, and its relation to the definition of the proletariat. But in reality, we have only now arrived at the heart of the problem. For the correct Marxist classification of the proletariat—the class which is forced by socio-economic compulsion to sell its labour-power to the capitalist owners of the means of production—implies that both variations in the level of the reserve army of labour, and the variegated relations between the 'purely physiological' and 'moral-historical' components of the value of labour-power, are of decisive importance for the proletarian's immediate destiny.

Once we understand this, we can see the significance of the growth of unproductive wage-labour, which accompanies the absolute and relative increase in the size of the proletariat in contemporary capitalist countries. Far from reflecting increased exploitation of productive labour or a


64. Wage earners (incl. unemployed) as % of total active population

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<tr>
<th></th>
<th>1930s</th>
<th>1974</th>
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<tbody>
<tr>
<td>Belgium</td>
<td>65-2%</td>
<td>83-7%</td>
</tr>
<tr>
<td>Canada</td>
<td>66-7%</td>
<td>89-2%</td>
</tr>
<tr>
<td>France</td>
<td>57-2%</td>
<td>81-3%</td>
</tr>
<tr>
<td>Germany</td>
<td>69-7%</td>
<td>84-5% (West Germany)</td>
</tr>
<tr>
<td>Italy</td>
<td>51-6%</td>
<td>72-6%</td>
</tr>
<tr>
<td>Japan</td>
<td>41-0%</td>
<td>69-1%</td>
</tr>
<tr>
<td>Sweden</td>
<td>70-1%</td>
<td>91-0%</td>
</tr>
<tr>
<td>U.K.</td>
<td>88-1%</td>
<td>92-3%</td>
</tr>
<tr>
<td>U.S.A.</td>
<td>78-2%</td>
<td>91-5%</td>
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sharp rise in the rate of exploitation, it has rather established a ceiling above which the rate of exploitation can hardly climb under 'normal' political circumstances (excluding, that is, fascist or fascist-type régimes). For, despite the rapid replacement of living labour by dead labour (semi-automated machinery), it is this growth of unproductive wage-labour which, in many capitalist countries, has reduced the reserve army of labour for a whole historical period. Moreover, the services provided by a significant sector of unproductive wage-labour have been a major factor in developing the needs and living conditions of the proletariat far beyond the purely physiological bedrock. The new minimum standard which has arisen is, at least in the imperialist countries (and in some of the most developed semi-colonial countries with a powerful labour movement, like Argentina), much higher than the one existing in Marx's time.

This acquisition should obviously not be taken for granted or regarded as unassailable. It is nothing but a conquest made by the working class under favourable conditions on the labour market (long-term decline of structural unemployment) and rendered objectively possible by the long post-war period of accelerated economic growth. Since the early seventies, as was foreseeable, this basic economic situation has been reversed. Massive structural unemployment has reappeared, together with savage attacks in many 'rich' countries on the real wages of the working class, be they aimed at 'direct' or 'socialized' wages or at both. Correctly, the workers have reacted strongly against massive cuts in social state expenditure, thereby showing that their class instinct is clearer than the 'science' of those theoreticians who persist in calling all state expenditure 'surplus-value' (the logical consequence of which would be indifference to, or even approval of the cut-backs).

8. LUXURY PRODUCTION, SURPLUS-VALUE AND ACCUMULATION OF CAPITAL

Also related to the integration of Marx's labour theory of value with his theory of reproduction is the question of the exact nature of the labour which produces luxury goods, as well as its function in reproduction. This problem is important not so much because of the role of luxury consumption as such, but because of the obvious analogy between luxury products and another sector which has played an ominously growing role in capitalist economy ever since Marx wrote Capital. We are referring, of course, to arms production.

Controversy over the exact function of the arms sector under capitalism has been raging since the end of the nineteenth century, when the Russian populist V. Vorontsov raised for the first time the possibility of avoiding crises of over-production through 'absorption' of part of surplus-value by increased arms production. In the thirties and forties, a long debate among Marxists took up the role of rearmament in overcoming the long-term stagnation of the international capitalist economy during the inter-war period. Since the war, the Vance–Cliff–Kidron school has assigned a crucial position to the 'permanent arms economy' in the explanation of the long economic 'boom'; and arms production occupies a central place in the process of 'surplus absorption' presented in Baran and Sweezy's Monopoly Capital. More recently still, a new controversy has arisen between the author of this introduction and various other Marxist economists, centring on the specific relation of arms production to the evolution of the mass and rate of profit under late capitalism.

Marx's theory sees the essence of value in abstract social labour, irrespective of the specific use-value of the commodity it produces. The existence of some kind of use-value is a precondition of the realization of exchange-value only in the immediate and obvious sense that nobody buys a good which has absolutely no use for him. But the social fact of purchase is sufficient proof of the use-value of a commodity, that is, of its usefulness to its buyer. Hence only unsold commodities do not embody socially necessary labour and thus have no value, those which are sold are by definition the product of socially necessary labour and increase through their production the mass of socially produced value. Under capitalism, also by definition, the production of all sold commodities created by wage-labour increases the total mass of surplus-value.  

65. See Chapter 4 of Late Capitalism, op. cit. 
67. Here again, the list of books is too long to be reproduced in full. Leaving aside older works, the following deserve mention: Nathalia Moszkowska, Zur Dynamik des Spätkapitalismus, Zurich/New York, 1943; T. N. Vance, The Permanent War Economy, Berkeley, 1970; Adolf Kozlik, Der Vergewaltigungskapitalismus, Vienna, 1966; Baran and Sweezy, Monopoly Capital, op. cit.; Fritz Vilmar, Rüstung und Abrüstung im Spätkapitalismus, Frankfurt, 1965; Michael Kidron, Western Capitalism since the War, London, 1968. Of less direct relevance is Gillman, The Falling Rate of Profit, op. cit. 
68. See my arguments in Late Capitalism, op. cit., Chapter 9, and those of Cogoy, Werttheorie und Staatsausgaben, op. cit., pp. 165–6. See also Paul Mattick, Kritik der Neomarxisten, Frankfurt, 1974.
value produced and realized (unless they are sold at a price so far below their cost of production that society does not recognize any part of the surplus labour contained in them).

In Volume 2, Marx clearly distinguishes production and realization of surplus-value (and, by implication, profit) from expanded reproduction of capital, i.e., capital accumulation. Not all commodities produced contribute to the process of expanded reproduction. But Marx states quite explicitly that all commodities produced and sold contribute to the increase of total surplus-value appropriated by the capitalists and their retainers. By contrast, under conditions of simple reproduction, there would be no surplus-value and no profit whatsoever, since all surplus-value would be unproductively consumed without entering into the reproduction process.

The production of luxury consumer goods, purchased out of the portion of surplus-value which is not accumulated, remains within the sphere of the production of value and surplus-value, that is to say, it enlarges the mass of profit accruing to the capitalist class. By the same token, the production of arms or space equipment is a form of commodity production; the fact that the sole purchaser is here the state, whereas luxury products are exchanged for revenue of the bourgeoisie, makes no essential difference. In order to determine whether arms production depresses or raises the average rate of profit, the same questions have to be answered as for any other 'sub-department' of capitalist production. Is the organic composition of capital in that particular department equal, superior or inferior to the average organic composition in other departments? And does its rise (or fall) influence the average social rate of surplus-value? 

It is not as easy to define the contribution of armaments production to the accumulation of capital as it is to decide whether it constitutes a form of production of value and surplus-value which influences the oscillations of the rate of profit. Two basic situations have to be distinguished.

69. See below, pp. 146-9, 178, 508-9 etc.
70. This follows automatically from the commodity nature of the arms produced, that is to say, from the fact that capital invested in that sector is engaged in the production of commodities and the corresponding labour employed in the production of surplus-value. Thus, as in the case of the production of luxury goods, differences between the rate of profit within that branch and the rate outside it (due, for instance, to variations in the organic composition of capital) will lower or increase accordingly the social average rate of profit. In Theories of Surplus-Value, Marx explicitly defends this position against Ricardo.

In a situation of 'full employment of capital' (which can be, and often has been, accompanied by structural unemployment of wage-labour), the production of weapons, like the production of luxury goods not entering into the reproduction of labour-power, evidently does not contribute to the accumulation of capital. This is true in a double sense. Weapons, like luxury products, do not provide the objective material elements of expanded (re-)production. They furnish neither additional raw materials, machines or sources of energy, nor consumer goods capable of feeding an expanded work force. Nevertheless, that part of the national income which buys weapons could not have been spent on additional means of production or wages for additional productive workers. Thus, both because of their specific use-value, and because they are exchanged against the non-accumulated part of surplus-value, weapons do not contribute to expanded reproduction, to capital accumulation, under conditions of 'full employment' of social capital.

This does not necessarily imply that weapons production reduces capital accumulation, except in the most general sense that all forms of unproductive expenditure of surplus-value do so. For it to be shown that the appearance or expansion of an arms sector has actually reduced expanded reproduction, it would have to be demonstrated that it has appeared (or expanded) at the expense of the sector of means of production. If it has simply replaced luxury production, then, all other things being equal, neither the scope nor the potential rhythm of capital accumulation will have been changed.

But what if the weapons sector has appeared (or expanded) at the expense of the sector producing consumer goods for the workers, still assuming 'full employment' of capital? There are again two distinct possibilities to be considered. Where this substitution leads to a decline in the physical or moral working capacity of the labour force, the rate of capital accumulation will fall in consequence, perhaps even, after a certain time, to the extent of contracted reproduction. But where this substitution leaves unchanged the capacity or willingness of the workers to accept the current 'norm' of social labour in the process of production, such a shift of resources from department II to department III would imply a rise in the average social rate of surplus-value. The same value product would then be produced with the same labour-power, but at the cost of less variable capital. The working class would simply receive a smaller share of the existing national income. Whether this would leave...
the rate of accumulation unaltered, or whether it would actually lead to a higher level of capital accumulation or expanded reproduction, would then depend on the way in which this rise in the rate and mass of surplus-value influenced the division of surplus-value between the unproductively consumed portion (in which is included the weapons sector) and the accumulated part. 72

At this point, we must abandon the initial supposition of ‘full employment of capital’ and examine the actual function of expanding arms production under conditions of long-term plethora of capital. The situation is by no means artificial or introduced purely for the sake of argument. On the contrary, it was already prevalent during the first massive arms drive in the history of capitalism, which took place during the two decades preceding the First World War. 73 It was even more marked in the thirties, during the second period of massive rearmament, starting with Japan’s ‘Manchurian Incident’ and German policy after Hitler came to power, and becoming generalized after 1936. Such plethora of capital remained more than ever the rule in the phase of permanent arming which has lasted now for more than thirty years and shows no signs of coming to an end – quite the contrary. 74 It is thus entirely appropriate to investigate the effect upon capital accumulation of an armaments sector developing under conditions of large-scale plethora of capital.

Over-production of capital signifies, on the value side, the emergence of large sums of capital which have to be hoarded in savings accounts, or used for purchasing bonds and government securities, where they beget only the average rate of interest rather than the average rate of profit. On the use-value side, it is expressed in sizeable stocks of unused raw materials and productive capacity in plant, as well as in large reserves of unemployed workers. If, as a result of the appearance and expansion of a significant arms sector in the economy, money (or quasi-money) capital is productively reinvested, then the production of value and surplus-value increases. We know already that the manufacture of arms is productive of value and surplus-value. Hence, in the immediate sense, capital grows richer because more workers are exploited in the production of greater surplus-value.

Since department II does not contribute to the creation of the material elements of expanded reproduction, its expansion cannot directly ensure a higher level of capital accumulation, but it can do so indirectly. For as additional workers are employed, the wages bill increases, leading to rising output and sale of consumer goods. Similarly, the consumption of additional raw materials in the weapons industry stimulates the production of mines and other centres of department I which had previously contracted their output. Material production will rise in all sectors of the economy, thereby augmenting the material elements of expanded reproduction, provided that reserves of productive factors are available (which follows from the initial hypothesis of ‘under-employment of capital’) and/or provided that at least part of the additional surplus-value is not absorbed by the armaments sector or other unproductive departments, but remains available for capital accumulation.

These conditions apply with even greater force if the processes described are accompanied by a changed distribution of the national income between wages and surplus-value, that is to say, if rearmament is financed to some extent at the expense of the working class through a rise in the rate of surplus-value. The resultant combination would then be ‘ideal’ for the accumulation of capital: at one and the same time, there would occur an expansion of the mass of workers employed and exploited (i.e. an expansion of the value product, the mass of surplus-value, and market demand); an increase in the rate of surplus-value and (probably) the rate of profit; and a rise in the rate of accumulation (i.e. an increase of investment in the productive sector, over and above the growth in arms spending). 75

72. In *The Accumulation of Capital* (op. cit., pp. 455–7 and 461ff.), Luxemburg correctly stresses the circumstances under which increased military expenditure financed at the expense of the working class (for example, through indirect taxation of consumer goods) may lead to an increase both in the rate of surplus-value and in capital accumulation.

73. It is sufficient to refer here to Chapter 8 of Lenin’s *Imperialism*.

74. On the controversy between those who see a current ‘scarcity’ of capital and those who argue that, on the contrary, there exists a plethora of capital, see *Capital Shortage: Fact and Fancy* by the editors of *Monthly Review*, in Volume 27, No. 11, April 1976. In my own article, ‘Waiting for the Upturn’ (*Imprecor*, Nos. 40/41, December 1975), I put forward the same position as that of *Monthly Review*. It should be stressed that there is no contradiction between the appearance of a plethora of capital and an actual decline in the rate of profit (i.e. relative scarcity of the mass of surplus-value). Indeed, the latter determines the former. This appears paradoxical only to those who, ignoring one of the main lessons of Volume 2, evacuate the ‘time’ factor from the analysis of ‘capital in general’ and mistakenly identify capital with currently produced surplus-value. The problem disappears once capital is understood as the accumulation of quantities of surplus-value produced in a series of past operations.
Needless to say, this provides no ‘long-term solution’ to the problems of capitalist equilibrium, since the very ‘success’ of the operation inevitably reproduces the initial contradictions. Increased capital accumulation leads to a rise in the organic composition of capital, which in turn begins to depress the rate of profit. The higher level of employment (made possible by the absorption of part of the unemployed in the army or the state apparatus – a normal feature of a substantial rise in military spending) reduces the industrial reserve army of labour and thereby, except under a fascist-type dictatorship, tends to make it more difficult to neutralize the effects of the rising organic composition of capital by driving up further the rate of surplus-value. A decline in the rate of profit depresses productive investment and leads to both a crisis of over-production and a fall in the rate of capital accumulation; when that rate actually becomes ‘negative’, a process of devalorization of capital begins, which is the normal function of a crisis of over-production.

To counter this new crisis of capital accumulation through an intensification of armaments production, where a sizeable sector already exists in the economy, would modify the basic proportions both of the division of surplus-value between its accumulated and consumed portions, and of the allocation of productive resources between departments I and II, on the one hand, and department III, on the other. Whatever effect upon the process of expanded reproduction was initially obtained would be increasingly neutralized. Moreover, such a high rate of taxation of profits and wages would be necessary that, except under very special political conditions, the basic social classes (although not that sector of capitalists directly engaged in weapons production and procurement) would revolt against further development of the arms industry. Such an expansion is thus no cure-all for the ills of capitalist over-accumulation and over-production. But it can trigger off shorter or longer periods of economic upturn as long as those preconditions indicated above are satisfied.

9. HOW CAN COMMERCIAL AND FINANCIAL CAPITAL PARTICIPATE IN THE DISTRIBUTION OF SOCIAL SURPLUS-VALUE?

The distinction between productive and unproductive labour partially dovetails with the distinction between two general sectors of capital: capital invested in commodity production (be it in industry, agriculture, transport or productive branches of the so-called service industries) and capital invested elsewhere (i.e. between ‘productive capital’ and ‘unproductive capital’). The latter category involves essentially commercial capital, banking and insurance capital, and capital invested in the ‘unproductive’ branches of service industries. We have seen before that, while wage-labour hired by these capitalists enables them to appropriate a fraction of the sum total of surplus-value accruing to the entire capitalist class, it does not itself add to that total. The question may, therefore, be posed: why do the industrial capitalists, or more precisely all those who invest in the ‘productive’ sectors, accept that a portion of the surplus-value produced by ‘their’ workers should be appropriated by capitalists whose capital does not contribute to the production of surplus-value?

This problem is dealt with at length in Capital Volume 3; but since a section of Volume 2 is devoted to it, we should briefly touch on it here. The answer becomes clear once we realize that, although capital invested outside the sphere of material production does not directly augment the mass of surplus-value, it does contribute indirectly to its increase. In other words, industrial and farming capitalists abandon a share of ‘their’ surplus-value to traders and bankers not out of the goodness of their hearts, but because these gentlemen help them to raise the mass of that surplus-value.

In order to demonstrate that this is so, Marx again introduces into his analysis that ‘time dimension’ which plays such a key role throughout Volume 2, and in which a certain sense structures the whole process of circulation and turnover of capital. Whereas the total turnover time of fixed capital stretches over many years, and is not basically affected by small shifts in the length of the period during which capital takes the form of commodity capital (i.e. during which commodities remain unsold in the sphere of circulation), the situation is entirely different in the case of circulating capital. If it takes three months to produce a given mass of commodities, and three months to sell them, circulating productive capital will turn over only twice a year unless it receives assistance. That part of it which is exchanged for labour-power, and thus makes possible the creation of surplus-value, would then remain sterile for six months of the year. If, however, commercial capital buys up a large proportion of the commodities as soon as they leave the factory, or if banking capital advances the money to pay the raw materials bill immediately after the commodities are produced and before they are sold, then, owing to the assistance of these sectors of the capitalist class, productive circulating capital can be reinvested as soon
as a production cycle is completed. Consequently, variable capital will
never remain idle. It will set workers to produce surplus-value twelve
months, and not six months a year - as a result of which, all other things
being equal, the total annual mass of surplus-value will be twice as great
as it would otherwise have been. It naturally pays industrial capital to
give a discount to wholesale traders, or to pay interest to bankers, if
these rescue operations allow an overall increase in the production of
surplus-value.

What this implies, however, is that only a fraction of total social
capital is continuously engaged in production. An important segment
remains constantly outside the realm of production. We have already
noted why part of social capital necessarily takes the form of money
capital. We now see that another portion has to take the form of trans­
portation and banking capital, in order to shorten the circulation time
of commodities. From the point of view of the capitalist class as a whole
(and this is the one adopted by Marx in Volume 2; only in Volume 3
does he consider these different sectors as competing with one another
for fractions of social surplus-value), this may be regarded as a functional
division of labour within that class. Instead of each industrialist and
capitalist farmer acting as his own treasurer, his own money changer,
his own transporter, his own seller of commodities on the home and
world markets, and his own advance of additional money capital, all
these various functions are socially centralized by sectors of the bour­
geoisie specializing in different fields. This division of labour carries
with it a considerable rationalization: the costs of overall social circula­
tion, transportation and banking are lower than they would have been
if each capitalist firm had had to accomplish these tasks itself. The
overhead costs of production are thereby reduced, and the total mass of
surplus-value is increased through continuous production. It is thus
profitable for the bourgeoisie as a whole to maintain (and even expand,
as the record of the 'service industries' demonstrates!) this functional
division of labour.

What is the source of capital invested outside the realm of material
production? Since all capital derives in the last analysis from surplus-
value, and since, under the capitalist mode of production, all surplus-
value is created by 'productive capital' (that is, by wage-labour engaged
in material production), it may appear that all commercial and banking
capital ultimately derives from industrial and agricultural 'productive'
capital. This is partially true. In Capital Volume 2, Marx points out how
money capital is periodically 'expelled' from the process of value
production, thereby becoming temporarily available for other purposes.
The best example of this is the depreciation fund of fixed capital.
Reinvested only at certain intervals, rather than piecemeal after each
production cycle, it serves for a time as an important source of money
capital employed in credit and other operations.

However, such a view should not be generalized. Capital, after all, is
older than the capitalist mode of production. Before surplus-value was
produced in the process of production, vast wealth was accumulated
through the plunder of peasants, the fleecing of feudal lords (for
example, by over-pricing exotic merchandise), robbery of merchants
(through piracy) and tribal communities (through the capture of slaves).
Merchant, commercial and banking capital existed long before 'pro­
ductive' capital was born in manufactures, not to speak of the industrial
revolution. Thus, industrial capital not only reproduces commercial and
banking capital by paying over fragments of the surplus-value created
by 'its own' workers; it also finds these other forms of capital present at
the moment of its own birth, and indeed as a condition of this. Com­
mercial and banking capital, then, reproduce themselves both by con­
tinuing their former practices (i.e. appropriation of part of the social
product originating outside the realm of capitalist relations of production,
and transformation of it into surplus-value and money capital) and by
appropriating part of the surplus-value created within the capitalist
process of production proper. The interpenetration of pre-capitalist,
semi-capitalist and capitalist relations of production, imposed upon
colonies and semi-colonies by the power of capital on the world market
and the violence of foreign political and military domination, has been
an extremely important factor in the historical development of these
twin sources of money capital accumulation. Through the operations
of merchant, commercial, usury and banking capital, they have con­tinued till this very day to play a key role in world-wide capitalist
expansion, especially within the so-called third-world countries. Thus
primitive accumulation of capital and 'productive' accumulation of
capital (through the creation of surplus-value in commodity production)
are not only successive historical stages, but also simultaneous and
combined phenomena. Nor does primitive accumulation automatically
lead to a commensurate spread of 'productive' capital and industrializa­
tion; it may instead simply condense into a 'one-sided' expansion of the
above-mentioned forms of 'unproductive' capital. This circumstance,
together with the impact of foreign imperialist domination, clarifies one
of the mysteries of underdevelopment under capitalism.
10. LUXEMBURG’S CRITIQUE OF MARX’S REPRODUCTION SCHEMAS

In the history of Marxist thought and the international labour movement, the most important controversy to have arisen in connection with Volume 2 was sparked off by Luxemburg’s critique of Marx’s reproduction schemas in her *The Accumulation of Capital*. Involved in the debate have been truly formidable questions: Marx’s theory of crisis; the historical limits of the capitalist mode of production (the so-called ‘breakdown theory’ or *Zusammenbruchstheorie*); and the origins and functions of imperialism, colonialism, militarism and wars in the imperialist epoch. 

We shall confine ourselves, in this introduction, to that part of Luxemburg’s contribution which is directly related to the subject-matter of *Capital* Volume 2 – the circulation, turnover and reproduction of the total social capital.

Luxemburg’s critique is essentially centred on a single theme: how can that part of the value of commodities which corresponds to the accumulated portion of surplus-value be realized? What purchasing power is available for its realization? Why do capitalists expand production, if not because they are assured of, or expect to have, additional customers? Who are these new customers? She first rejects the idea that they could be workers, since the purchasing power of the latter originates with capital, and expansion of production merely to satisfy the new needs of an enlarged work-force would be inconceivable for the capitalist class in its totality. (Of course, this is not true of capitalists taken individually, for whom all workers except their own are potential customers; but, as Luxemburg flatly states, for the capitalist class as a whole, all workers are ‘their own workers’, and it makes no sense to treat them as a source of increased sales.) She also dismisses the notion that these additional customers could be other capitalists. For how could the capitalist class in its totality enrich itself if the money to buy the surplus product came out of its own pocket? Nor could they be so-called third persons, who are essentially the cronies, hangers-on and servants of the capitalist class (or of landowners appropriating ground-rent). For, in the last analysis, the revenue of all these social layers is derived from surplus-value. If surplus-value were the only source of purchasing power available for buying up the increased mass and value of commodities, it would mean that capitalists become richer by spending their own money.

For Luxemburg, then, the conclusion is inescapable. The additional purchasing power which has to be sucked into the process of capitalist circulation can only come from outside capitalist relations of production properly called, through forcing non-capitalist social classes (essentially peasants and pre-capitalist landowners) ruinously to spend their revenue on capitalist commodities. Only in this way can expanded production and reproduction, capital accumulation and capitalist economic growth in general take place. The end result of the argument is equally obvious. By destroying the non-capitalist milieu on which its expansion is based, capitalism undermines the conditions of its own growth. The disappearance of this non-capitalist (pre-capitalist) environment thus marks the absolute limit of capitalist development.

While the main thrust of Luxemburg’s argument is clear and simple, much of the controversy surrounding *The Accumulation of Capital* has been diverted away from her central thesis, largely because she herself combined it with a series of further criticisms of Marx’s reproduction schemas which are much easier to answer. Thus, when she asserts that Marx confuses the function of money as means of circulation with the role of income (purchasing power) as necessary prerequisite of the realization of commodity-value, she is quite evidently mistaken. And when she implies that the reproduction schemas do not correspond to the reality of the capitalist mode of production, she mixes up levels of abstraction which are clearly differentiated in Marx’s method. She is no less misguided when she surmises that, because Marx’s figures do not incorporate the ‘laws of motion’ of capital (they allow for no increase in the organic composition of capital), they could not incorporate these.

78. ibid., pp. 127–33.

79. The notion that a non-capitalist milieu is necessary for expanded production and accumulation was first advanced by Heinrich Cunow (‘Die Zusammenbruchstheorie’, in *Die Neue Zeit*, No. 1, 1898) and later defended by Karl Kautsky (‘Krisentheorien’, in *Die Neue Zeit*, No. 2, 1902) and Louis B. Boudin (*The Theoretical Systems of Karl Marx*, Chicago, 1907, especially pp. 163–9 and 241–53).

laws. Similarly, it does not follow at all from the evident truth that department I is the primum movens of the accumulation process, that department II is somehow ‘sacrificed to’ or ‘dependent upon’ department I, in contradiction to the laws of private property and competition.\textsuperscript{81} And so on and so forth. On all these secondary issues, controversy has been raging fiercely, generally at Luxemburg’s expense. But although it still erupts from time to time, it has little relevance to the principal question that she raised.

Luxemburg’s main argument has to be answered at three successive levels of abstraction. First, and most abstractly, she committed a methodological error by situating within the framework of ‘capital in its totality’ a problem that can only be considered in relation to the ‘competition of many capitals’.\textsuperscript{82} It is impossible to conduct an analysis simultaneously at these two distinct levels, since capital in its totality abstracts by definition from many capitals, from competition. Thus the argument that the capitalist class cannot enrich itself by purchasing its own surplus product overlooks the fact that, under a system of private property, the surplus product can never be owned by ‘a single total capital’. Capitalist competition implies that capitalists can indeed grow richer by buying one another’s ‘surplus product’. Marx himself explicitly states that ‘the surplus-value created at one point requires the creation of surplus-value at another point, for which it may be exchanged’.\textsuperscript{83} He also indicates that, in the absence of competition, growth would actually disappear.\textsuperscript{84}

In short, for Marx, growth is possible in a ‘purely’ capitalist milieu (i.e. where no part of the social surplus product can find ‘non-capitalist’ customers) provided that the interests and growth rates of all capitalists are assumed to be not identical, but on the contrary rooted in competition. The realization question does not, and cannot, arise within the realm of ‘capital in general’; it appears, together with the theory of crises and the trade cycle, only within the sphere of ‘many capitals’. This Marx repeatedly stated himself.\textsuperscript{85}

It follows that reproduction schemas which imply competition should assume as a rule the existence of different, rather than equal rates of accumulation in the two departments, only occasionally leading to equalization of the rate of profit. This corresponds to the real modus operandi of the capitalist system. It also points the way to a solution of the technical problem seen by Luxemburg in the fact that the ‘unsellable’ portion of commodities of department II embodies part of the surplus-value created in that department. As a matter of fact, Luxemburg dismissed out of hand Marx’s convincing solution, which was later developed at length by Otto Bauer.\textsuperscript{86} Part of the surplus-value produced in department II is periodically transferred to department I, precisely when (and because) department I exhibits, over a considerable length of time, a higher organic composition of capital than that of department II.

At this most abstract level of reasoning, the problem has been posed as one of quasi-static equilibrium. But at a second level which, while still abstract, is a step nearer to the historical reality of the capitalist mode of production, accumulation of capital must be examined as a discontinuous process with a view to understanding its actual dynamics. The first question I posed was the following: can customers be found for those commodities which embody the accumulated part of surplus-value, if we assume that all purchasing power originates as either wages or surplus-value within the capitalist process of production itself? Marx’s simple answer is: yes, so long as we do not take surplus-value to be a single mass, owned by a solitary capitalist (who would then obviously be condemned to ‘buy’ his own goods). The second question may now be re-posed as follows: what is the effect upon the realization of the value of commodities embodying the accumulated part of surplus-value, if and when (1) the organic composition of capital rises in both departments; (2) department I grows at a faster rate than II (which is the unavoidable result of the rising organic composition of capital); and (3) the rate of profit declines (i.e. the growth in the rate of surplus-value is insufficient to compensate for the rising organic composition of capital)? In other words, is full realization of surplus-value possible when the laws of motion of the capitalist mode of production assert themselves?

This second question requires a more complex answer than the previous one. Theoretically, full realization of surplus-value is possible, and several ingenious mathematical models have been constructed – by, among others, O. Benedikt, Shinzaburo Koshimura, Oskar Lange, J. Luxemburg, op. cit., pp. 294–5.
Caridad Mateo and Hosea Jaffe\textsuperscript{87} – in order to show that it is. By contesting this, Luxemburg denied that 'pure' capitalism was possible, thus taking a position exactly opposite to the one which Marx tried to demonstrate with his reproduction schemas. It should be immediately added, however, that the real socio-economic conditions expressed by these algebraic formulas have to be precisely defined.\textsuperscript{88} Furthermore, those of her critics who replied that the schemas 'prove' by themselves the possibility of unlimited, smooth progress of reproduction \textsuperscript{89} forgot one small point: capitalism has been generating periodic crises of over-production for more than 150 years, and continues to do so with the regularity of a 'natural law'. We can reject out of hand the hypothesis that each successive crisis has been due entirely to 'specific' causes, unrelated to the inner logic of the capitalist mode of production, and extraneous to the inter-relation of the growth rates of \( c, v, s/v \), accumulated \( s/\text{total } s \), both within and between the two departments. The very periodicity of these crises is enough to refute the 'harmony theorists' and the view that capital accumulation can go on forever 'on the basis of the schemas'. In this respect, the superiority of Luxemburg over certain of her critics is obvious.\textsuperscript{90}

Nevertheless, did she succeed in proving her case in a technically satisfactory manner? We do not believe so; for she narrowed down the problem to an excessively monicausal one. In order to prove that, under capitalism, equilibrium \textit{must} beget disequilibrium, that expanded reproduction \textit{must} generate over-production, and that accumulation of capital \textit{must} lead to devalorization of capital it is necessary to bring all the inter-related variables of the reproduction schemas into play. And this she does not do. Thus, while \textit{The Accumulation of Capital} raises the correct problems, it does not provide acceptable solutions to them.\textsuperscript{91}

Synthetically, we may say that the equilibrium formula of expanded reproduction: \( I_c + I_v + I_{sp} = II_c + II_{sp} \) implies an identity of the rate of growth of demand for consumer goods generated by department I, and the rate of growth of constant capital in department II. Now, the rise in the organic composition of capital entails that the demand for consumer goods generated in department I will normally grow more slowly than constant capital in that sector (unless the slower rate of growth of variable capital is compensated by a rate of growth of unproductively consumed surplus-value higher than that of constant capital, which is extremely unlikely in the long run). The precondition of equilibrium is consequently a rate of growth of constant capital in department II lower than the one in department I. If the rates in the two departments are equal, the conditions of equilibrium will be upset.

However, a rate of growth of constant capital in department II which is permanently lower than that in department I is incompatible with private property and competition. There is no reason why capitalists engaged in the production of consumer goods should forever abstain from trying to incorporate all existing technology, all means of reducing costs of production, all potentially useable machinery. Therefore, \( II_c + II_{sp} \) will from time to time be greater than \( I_c + I_v + I_{sp} \), just as, periodically, under conditions of rising organic composition of capital (biased development of labour-saving technology), \( A[I_c + I_{sp}] \) will be equal to \( A[I_v + I_{sp}] \), and \( A[I_c + I_{sp}] \) will be greater than \( A[I_c + I_v + I_{sp}] \). It


\textsuperscript{88} Let us take a single example. In order to reconcile equilibrium with a rising organic composition of capital and a falling rate of profit, Koshimura has to modify the initial relations between the three departments and to increase considerably the organic composition of department III (which makes little sense from a historical point of view). Next, he has to lower the total price of production of department II (workers' wages) to the extent of an absolute decline. 'Offsetting' the falling rate of profit by a rising rate of surplus-value (which is plausible), Koshimura arrives at an absolute decrease in workers', and even capitalists' consumption (which is not only implausible but contrary to both Marx's basic assumption in \textit{Capital} Volume 2, and to the existing empirical data). (See Koshimura, op. cit., pp. 122-4 and 124-6.)

\textsuperscript{89} See the above-mentioned critique by Eckstein and the article by Helene Deutsch (in \textit{Der Kampf}, 1913, the theoretical journal of Austrian Social Democracy). This is also partially true of the critiques by Bauer and Emmanuel.

\textsuperscript{90} See especially her 'Anti-Critique', in Luxemburg and Bukharin, \textit{Imperialism and the Accumulation of Capital}, op. cit.

\textsuperscript{91} Nor can it be accepted that Grossmann (op. cit.) provides these solutions. His own standpoint – a denial that at the bottom of the crises are problems of realization of surplus-value and of disproportionality between production and consumption – is fundamentally unsound. By converting the decline of the rate of profit into the sole cause of the final breakdown of capitalism, he overlooks the fact that this tendency is offset by periodical devalorization of capital. Whereas he seeks to establish a mechanical unity between the theory of crises of over-production and that of the breakdown of capitalism, the real, dialectical link between the two embodies the following contradiction: crises of over-production are the precise mechanism which allows the decline in the rate of profit to be periodically \textit{overcome} – both through devalorization of the total mass of social capital and through a rise in the rate of surplus-value.
therefore seems impossible to avoid periodic over-production of consumer goods, as well as a decline in the rate of profit and of the ratio acc. sv/sv, entailing an abrupt halt to the accumulation of capital.

Donald Harris has concluded from Marx's `assumptions' that equilibrium obtains only if (in a value system) there is proportional hiring of labour in the two departments, or if (in a prices of production system) there is an equal ratio of investment—accumulation—of surplus-value. However, all these calculations are based upon a misunderstanding of Marx's method. While Marx does assume an equal rate of exploitation in both departments (an assumption based on the concept of an average national value of labour-power, for which quite strong empirical evidence exists under developed capitalism), he does not 'assume' either that the organic composition of capital will remain equal or that the rate of surplus-value will stay the same. His method of successive approximation to the 'appearances' of day-to-day capitalist economy led him to abstract, at a given stage of the inquiry, from a number of additional variables, in order to clarify certain preliminary problems. This has nothing to with 'assuming' historical trends.

Finally, on the third level, that of the actual historical process of capital accumulation, Luxemburg seems fundamentally correct. Capitalism was born essentially in a non-capitalist milieu; it has immensely enriched itself by plundering that milieu; and the same value-transferring metabolism has continued to this very day. 'Pure' capitalism has never existed in real life and, as Engels rightly predicted, it never will exist, because 'we shall not let it come to that'. The Russian October Revolution, and the subsequent expansion of a post-capitalist sector of world economy, indicates that Engels's instinct was a sure one in that respect. Luxemburg's analysis of the ways and means whereby capitalism sucks wealth and value from pre-capitalist communities and classes was an impressive first contribution to three-quarters of a century of anti-colonialist and anti-imperialist world literature. It has still to be equalled in either theoretical insight or economic lucidity.

The final balance-sheet of Luxemburg's critique, then, must be a nuanced one. We cannot say baldly that she is right or that she is wrong. While many of her partial theses, as well as her final answer, are inadequate, she certainly poses relevant questions and puts her finger on real problems which Volume 2 does not and cannot answer. In particular,

93. See especially The Accumulation of Capital, Chapters 27–30.
94. The 'neo-harmonicist' versions of the Austro-Marxists Hilferding and Bauer were clearly inspired by Tugan-Baranowski's book Studien zur Theorie (op. cit.). Although both polemicized against Tugan-Baranowski, they fell under the spell of his mathematical 'juggling' with the reproduction schemas. Hilferding's statement in his magnum opus of 1909, Finanzkapital, is especially striking: 'A general cartel regulating total social production and thereby overcoming crises is, in principle, economically imaginable, even if such a social and political state of affairs is an impossibility' (op. cit., p. 372). Bukharin was influenced by the same trend of thought, as clearly emerges from the assertion in Imperialism and the Accumulation of Capital (op. cit., p. 226) that under state capitalism, where anarchy of production has been overcome, there could be no crises of over-production. Drawing on these arguments, Tony Cliff and his disciples have attempted to justify their use of the term 'state capitalism' to define the Soviet economy—an economy which has witnessed no crisis of over-production for more than half a century. (See Cliff, Russia: A Marxist Analysis, London, 1964, pp. 167–75). For a thorough critique of the neo-harmonicist interpretation of Capital Volume 2, see Rosdolsky, op. cit., pp. 569–80 and pp. 586–94.
rather avert the crisis. It thus appears that capitalist production involves conditions, independent of people's good or bad intentions, which permit the relative prosperity of the working class only temporarily, and moreover always as a harbinger of crisis.'99 Is there a certain tautology to say that crises are provoked by a lack of effective demand or effective consumption. The capitalist system does not recognize any forms of consumer other than those who can pay, if we exclude the consumption of paupers and swindlers. The fact that commodities are unsaleable means no more than that no effective buyers have been found for them, i.e. no consumers (no matter whether the commodities are ultimately sold to meet the needs of productive or individual consumption). If the attempt is made to give this tautology the semblance of a pure tautology, by the statement that the working class receives too small a portion of its own product, and that the evil would be remedied if it received a bigger share, i.e. if its wages rose, we need only note that crises are always prepared by a period in which wages generally rise, and the working class actually does receive a greater share in the part of the annual product destined for consumption. From the standpoint of these advocates of sound and 'simple' (!) common sense, such periods should rather avert the crisis. It thus appears that capitalist production involves certain conditions, independent of people's good or bad intentions, which permit the relative prosperity of the working class only temporarily, and moreover always as a harbinger of crisis.'99 Is there a contradiction between these two explanations? What lies behind the frenetic accusations of 'under-consumptionism', referred to as some grave 'deviation' or shameful disease, and levelled by some of Marx's followers against others?

In our opinion, there is no contradiction whatsoever between the above two sets of comments made by Marx on capitalist crises of overproduction. What he rejects is the common-or-garden reformist or 'liberal' platitude, according to which crises could be avoided if, in the period immediately preceding or coinciding with the onset of overproduction, the purchasing power in the hands of the masses were to be significantly increased. This simplistic view overlooks two facts. Under capitalism, not all commodities are consumer goods; an important fraction of the total 'commodity mountain', namely, all means of production, cannot be, and are not intended to be, bought by workers. Therefore, an increase in sales of consumer goods, in and of itself, tells us nothing of the course of sales of equipment and raw materials. It does not lead automatically to greater productive investment. Indeed, a redistribution of the national income at the expense of profits (which would be the outcome of a sudden large rise in wages) would result in a collapse of investment, i.e. of sales of means of production. If this succeeded a period of actual decline in the rate of profit, then capital accumulation would contract very violently indeed and the crisis would remain unavoidable. Inasmuch as they forget this basic correlation of the trade cycle with medium-term fluctuations of the rate of profit, all economists (whether Marxist or non-Marxist) who explain the crisis exclusively or mainly in terms of the relation between the purchasing power of consumers and the national income are truly guilty of 'under-consumptionism', that is to say, of a one-sided and therefore erroneous theory of over-production and the trade cycle.100

But the same is true of the opposite theory, which concentrates exclusively or mainly on the 'disproportion' between the two departments, explaining crises by the anarchy of production and the difficulty (impossibility) of establishing the 'right proportions' spontaneously (as if 'organized capitalism' or a 'general cartel' could avoid crisis!).101

100. The most noteworthy Marxist author of this type is Nathalia Moszkowska (Zur Kritik moderner Krisentheorien, Prague, 1935), but Fritz Sternburg and Paul Sweezy should also be mentioned in this context. The list of non-Marxist economists is very long indeed, running from Simonde de Sismondi and Malthus to Lederer and Keynes.

101. See note 94 above.
Overlooked in such a thesis is the fact, which Marx himself pointed out, 102 that the 'disproportion' between the tendency of unlimited development of the productive forces and the narrow constraints placed upon consumption by the bourgeois mode of distribution, is itself a specific source of disequilibrium, autonomous from the disturbance of 'equilibrium relations' between the two departments. Supporters of this view also forget, like Tugan-Baranowski, the father of pure 'disproportionism', that unlimited growth of department I leads to ever faster growth of the productive capacity of department II (although not necessarily in the same proportion); in other words, that under capitalist commodity relations production can never fully emancipate itself from sales to the final consumer. 103 Thus theories of 'pure disproportionism' are as wrong as ones of 'pure under-consumptionism'. The basic causes of periodic crises of over-production are, at one and the same time, the inevitable periodic decline of the rate of profit, the capitalist anarchy of production, and the impossibility under capitalism of developing mass consumption in correlation with the growth of the productive forces.

As we have explained elsewhere, 104 the basic curse of capitalism – the fact that surplus-value embodied in commodities can only be realized if they are sold at their value – implies the presence of an insoluble contradiction at a given point of expanded reproduction. Any measure which tries suddenly to reverse the decline of the rate of profit provokes a shrinking of the market of 'final consumers'. And any attempt suddenly to reverse that shrinking accentuates the decline of the rate of profit. Capitalist growth and prosperity require both a rising rate of profit (of currently realized as well as anticipated profits) and an expanding market (as present reality and future trend). But the coincidence of these conditions can never be permanent, for the very forces which bring it into being at a given point in the trade cycle work towards its undoing at a subsequent stage. 105 In that sense, crises of over-production are unavoidable under capitalism. According to even the most optimistic hypothesis, 'anti-cyclical policies' can only reduce their scope temporarily; they cannot prevent the very 'moderation' obtained during one period from leading, in the long run, to more explosive side-effects (such as the cumulative movement of inflation, or the precipitate growth of the burden of company debt). 106

The objective logic of crises of over-production, connected with the operation of the law of value, is clarified by an important remark made by Marx in Capital Volume 2. 107 Equilibrium of the process of expanded reproduction presupposes that commodities are sold at their value, or more precisely, at the value they had at the moment of their production. However, the very dynamic of expanded reproduction involves regular revolutions in technology, unceasing attempts by industrialists to win the competitive struggle by reducing their costs of production and growing substitution of machines for manual labour. All these phenomena, which are translated into regular increases in the average labour productivity of most branches of production, imply a tendency for the value of each commodity to decline. Seen in this light, crises of over-production are nothing other than objective mechanisms through which the adjustment of market prices to declining commodity-values is achieved. 108 Capital thereby incurs important losses (i.e. devalorizations of capital), whether directly, through the reduction in value of commodity capital, or indirectly, through the bankruptcy and closure of the least efficient firms.

Marx further stresses in Capital Volume 2 that there exists a nexus between the trade cycle and the turnover cycle of fixed capital which is distinct from the usually mentioned one of determination *grosso modo* of the length of the former by that of the latter. Fixed capital expenditure is discontinuous in a double sense. Machines are replaced not piecemeal (except, of course, so far as current repairs are concerned) but in toto, say once every seven or ten years. Their replacement tends to occur at the same time in numerous, inter-connected key branches of industry, precisely because the process is not only, or even essentially, a function of physical wear and tear, 109 but rather a response to financial incentives.


103. 'It is quite the same with the demand created by production itself for raw material, semi-finished goods, machinery, means of communication, and for the auxiliary materials consumed in production, such as dyes, coal, grease, soap, etc. This effective, exchange-value-positing demand is adequate and sufficient as long as the producers exchange among themselves. Its inadequacy shows itself as soon as the final product encounters its limit in direct and final consumption' (*Grundrisse*, p. 421).


105. Among these should be included not only 'purely' economic factors, but also the intertwining of the trade cycle with the partially autonomous cycle of the class struggle.

106. On the roots, functions and consequences of permanent inflation in contemporary capitalism, see Chapter 13 of my *Late Capitalism*, op. cit.


108. Declining value expressed in gold prices and not, of course, in inflated paper currency.

109. 'Moral' wearing-out of equipment (obsolescence) generally predates 'physical' breakdown under capitalism, given the pressure of competition and accelerated technical progress.
to introduce more advanced technology. (The principal criteria of profit calculation are here: availability of sufficient money capital reserves; rising rate of profit and profit expectations; and the existence and/or anticipation of a sudden market expansion.) These incentives coincide only at a certain point in the trade cycle; but when this occurs, there follows a massive investment in the renewal of fixed capital. This in turn sets up a dynamic of accelerated capital accumulation and economic growth, together with rapid expansion of markets, which leads finally to an increase in the organic composition of capital, a declining trend of the rate of profit and a tendency to slow down investment and renewal of fixed capital.

Discontinuous renewal of fixed capital is, therefore, one of the key determinants of the trade cycle. The difficulty is compounded by the fact that the productive capacity of the sub-branch of department I which produces means of production for the production of means of production, must normally be geared to the general demand for the renewal of fixed capital (at least in its social average). Thus while this sub-branch may be overtaken by peak demand at the moment of 'overheating', it will suffer from unused capacity during a considerable part of the trade cycle.110

12. MONEY CIRCULATION, MONEY CAPITAL AND MONEY HOARDING

One of the most 'modern' aspects of Marx's analysis is the treatment in Volume 2 of the 'commodity-money' dialectic, and its correlation with problems relating to the reproduction of social capital and the trade cycle. Here, Marx fundamentally anticipates the Keynesian problematic of money hoarding, that is, withdrawal of money from the process of productive circulation (i.e. circulation geared to the realization and reproduction of surplus-value). Marx starts from the assumption that, in order for the process of reproduction to flow smoothly, all income generated in the production process must be spent on the commodities produced. Any additional purchasing power injected into the reproduction process at a given point must be expelled at another point, if the process is to continue in a balanced way.

Now, it so happens that the very functioning of the capitalist mode of production leads to periodic hoarding of money capital. We have already encountered this problem with regard to discontinuous renewal of fixed capital. Marx points out that successive expansions and contractions of the circulation time of commodities – related to phases of the trade cycle – result in periodic expansions and contractions of money capital as compared with productive capital. In the same way, the shortening or lengthening of the production process itself (for instance, increase or reduction of the weight within the total product-mix of commodities requiring a lengthy production time) gives rise to contraction or expansion of the volume of money capital in circulation. The shorter the production time, the quicker will be the turnover of productive capital itself, and the smaller will be the money reserves which the capitalists have to throw into circulation, in order to cover the wages bill and their own consumption needs until the commodities worked upon in their factories are finished and sold. Conversely, a lengthening of the production time will result in a lengthening of the turnover time of capital, and an increase in the reserves of money capital and money revenue that have to be injected into the circulation process to maintain consumption until the production and sale of the commodities is completed.111

More generally, the harmonious flow of expanded reproduction is constantly threatened (not permanently upset, of course), because there are always capitalists who buy without selling, and others who sell without buying. Money is continually being withdrawn from circulation, and additional money is forever being injected. Only if these movements roughly cancel each other out will the partially autonomous character of the money flow not conflict with the need to realize the total value of commodities produced. While the banking system objectively strives to achieve that balance (and thus represents a force of social accounting and centralization far superior to anything private ownership could accomplish in the realm of production), it does not have the means to ensure automatic and continual balancing. Here there appears a further cause of discontinuity or interruption of expanded production – a cause which, though derived from monetary phenomena, is of course essentially rooted in the contradictory nature of the commodity and of the production of value and surplus-value.

It follows that a series of proportions, additional to those which emerge prima facie from the reproduction schemas, play an important role in amplifying, if not triggering off, the trade cycle. The way in which the total money stock is divided between circulating money and hoarded

110. See below, pp. 542–5. Of course, academic economic theory later took over this essentially Marxist contribution to the theory of the trade cycle.

111. See below, pp. 358–9, 364–6.
money; the way in which circulating money is divided between circulating money capital and circulating revenue; the way in which hoarded money is divided between latent (potential) productive capital (i.e. money capital which will tend to contribute to increased production of surplus-value) and capital which is more or less permanently hoarded (i.e. withdrawn from both the sphere of production and the sphere of circulation of commodities) – all these proportions significantly influence the volume and rhythm of capital accumulation.

Keynes was correct when he discarded the assumption of more or less permanent full employment of manpower and capital (or at least, the hypothesis that it could be achieved automatically through the operation of market forces). He was also right to point out that capital or revenue not spent (i.e. hoarded) is an important source of disequilibrium and under-employment of productive resources in an economy based upon generalized commodity production. In fact, Marx had argued as much sixty-five years earlier, in Capital Volume 2. But the latter's understanding of the fundamental mechanisms of the capitalist mode of production proved more profound than that of Keynes. For Marx went a step further by distinguishing between productive investment (i.e. investment leading to increased production of surplus-value) and unproductive 'investment' (which cannot directly augment the total social wealth and real income, but only contribute indirectly to re-allocation and re-deployment of existing resources). After all, building pyramids and digging canals in order to fill them up again does not have the same effect upon economic growth, capital accumulation and expanded reproduction as building new factories and opening up new oil fields. Buying government bonds in order to finance the building of pyramids is evidently not the same kind of activity as the investment of productive capital.

112. See below, pp. 260-61.
113. In his latest book, Emmanuel correctly stresses the role of hoarding in Marx's theory of crises. He uses the expression vouloir d'achat (purchasing desire) as opposed to pouvoir d'achat (purchasing power) (op. cit., pp. 61ff.).
114. Paul Mattick (Marx and Keynes, London, 1969) does not make the matter any clearer by a confused use of the concept 'waste production'. 'Waste', in the sense of products not entering into the reproduction process, and 'waste' in the sense of unsellable products, are not at all identical concepts. Luxury products are - like arms - commodities, and they find buyers. Public works and other infrastructural outlays are not carried out for the purpose of sale, but in order to accelerate the turnover of capital and thereby indirectly to increase the production of surplus-value. However, pyramids or canals which are dug and then filled up again are pure waste - they are neither commodities to be sold nor means of hastening the turnover of capital.

From the elements of monetary analysis dispersed throughout Volume 2, it is possible to identify, within the framework of Marxist economic theory, four distinct causes of rising commodity prices. These causes are the following.

(a) A fall in the average productivity of labour in a given branch of output (for example, in certain agricultural or mining branches, where a decline in natural fertility is not completely offset by technological progress); prices would then rise as the result of an increase in value of particular commodities (i.e. in the quantity of social labour necessary for their production).

(b) A sudden increase of labour productivity in the gold-mining industry (and thus a decline in the value of gold); all other things remaining equal, the same mass of commodities would then be exchanged for a greater amount of gold (produced by the same quantity of labour as before). In other words, the gold price of commodities would rise.

(c) An upward trend of market price-fluctuations around an unchanged axis of values. This may occur, even when the gold currency remains stable and when there is no paper money inflation, at that precise stage of the trade cycle marked by the periodic contraction of the hoarded part of money as compared to the circulating part.

(d) An inflationary movement of money signs. In this case, a constant amount of gold, which exchanges against the same amount of commodities as before on the basis of an unaltered quantity of socially necessary labour, becomes represented by a greater sum of paper money signs (or of bank money, credit money).

alienation of workers and all human beings, and a growing threat that the forces of production will be transformed into forces of destruction. Paradoxically, mankind increasingly loses control over its own products and productive endeavour at the very moment when its mastery of nature and natural forces seems to be developing by leaps and bounds.\textsuperscript{116}

In Volume 2 of \textit{Capital}, we follow the commodities, containing the surplus-value produced by the workers, on their travels outside the factory. A `spiralling movement' of growth is unleashed—a veritable avalanche.\textsuperscript{117} The sale of commodities at their value enables profit to be realized and additional capital to be accumulated. More capital begets more surplus-value, which in turn begets more capital. Obstacles on the road of self-expansion—such as the enforced lingering of commodities in the sphere of circulation, or the protracted character of the production process itself—are swept away by the avalanche, thanks to social division of labour within the capitalist class; the appearance of commercial and banking capital; and the constant striving to accelerate the transport of commodities, build up a world-wide system of communications and reduce the length of the circulation process to a minimum. An immense mountain of commodities is distributed with lightning speed around the globe, so that a steadily growing stream of value (money capital) may be concentrated in the hands of an ever smaller percentage (if not necessarily a shrinking absolute number) of the world's active population. Today's real masters are to be found in probably no more than 1,000 or 2,000 firms the world over.\textsuperscript{118}

\textsuperscript{116} This domination of nature increasingly takes the form of the destruction (\textit{Raubbau}) of nature, as is shown by the threats to ecological equilibrium.

\textsuperscript{117} Marx and Luxemburg borrowed the image of the spiral as an expression of the form of capitalist development from Simonde de Sismondi.

\textsuperscript{118} This does not mean, of course, that the hundreds of thousands of smaller capitalist entrepreneurs, and the several million capitalist \textit{rentier} families, are not part of the world bourgeoisie, but simply that they no longer command the decisive means of production or take the key investment decisions. Bourgeois society has the form of a pyramid in which the summit of monopolists could not survive without the support of different strata of large and medium bourgeoisie and their retainers (as well as the, at least partial, support of sections of the petty bourgeoisie). The notion that capitalism could be abolished by eliminating the monopolists alone does not take account of the fact that capitalism inevitably grows out of even petty commodity production where conditions of money circulation and widespread private ownership of the means of production prevail. If a significant sector of medium-sized capitalist firms is retained (and some of the `non-monopolist' capitalists are rather large-scale ones!) then capitalism would not only survive, but flourish and open up the road leading to the formation of new monopolies.

This frenetic search for additional wealth in order to create even more wealth becomes increasingly divorced from basic human needs and interests, increasingly opposed to the `production of a rich individuality' and the `rich development of social relations' encompassing all human beings. But the process cannot continue smoothly and uninterruptedly: capital is powerless to overcome the basic contradictions of the commodity and private property. From both sides, the contradictions of production for its own sake (i.e. production in order to augment the profits of those who own the major means of production) must lead to periodic discharge in huge social and economic convulsions.

Following the social explosion initiated in the Western world by May '68 in France, the severe generalized recession of 1974–5\textsuperscript{119} has confirmed Marx's basic analysis. Capitalist growth cannot but be uneven, disproportionate and unharmonious. Expanded reproduction necessarily gives rise to contracted reproduction. Prosperity inexorably leads to over-production. The search for the philosopher's stone which would enable market economy (i.e. private property, i.e. competition) to coincide with balanced growth, and mass consumption to develop space with productive capacity (despite the capitalists' drive to force up the rate of exploitation) — this search will go on as long as the system survives. But it will be no more crowned with success than that which has already been conducted for more than 150 years. The only possible remedy for economic crises of over-production and social crises of class struggle is the elimination of capitalism and class society. No other solution will be found, either in theory or in practice. This awe-inspiring prediction made by Marx has been borne out by empirical evidence ever since \textit{Capital} was written. There is no sign that it will be contradicted by current or future developments.

\textbf{ERNEST MANDEL}

\textsuperscript{119} See the last chapter of \textit{Late Capitalism} (op. cit.), and my articles on the \textbf{generalized} recession of the international capitalist economy in \textit{Inprecor} (16 January 1975, 5 June 1975, 18 December 1975 and 15 September 1976).
The three volumes of *Capital* form a single integral work. As Ernest Mandel explains in his introduction, the later volumes extend, if they do not wholly complete, the theoretical depiction of the capitalist mode of production which Marx embarked upon with Volume 1.

The Pelican Marx Library *Capital* has therefore been planned and executed as a coherent new edition. Though Volumes 2 and 3 have a different translator from Volume 1, Ben Fowkes and myself have each been able to read the other’s work and give advice. On virtually all technical points and matters of terminology, Volumes 2 and 3 follow the lead given in Volume 1.

As far as the style of writing is concerned, the differences to be found between the later volumes and Volume 1, while in some part inevitably reflecting the preferences of the translators, are due to a far greater extent to differences in the original texts. Volume 1 of *Capital*, which Marx himself prepared for the press – and revised after its first publication – is palpably presented to the public as a work of science that is also a work of world literature. Hence not only the splendid rhetoric of many well-known passages, but also the copious references to the works of classical antiquity and Renaissance Europe.

Volumes 2 and 3 follow much more in the wake of the less purple passages of Volume 1. Their content is to a far greater extent technical, even dry; and Volume 2, above all, is renowned for the arid deserts between its oases. From the scientific point of view, this is all quite contingent; but it has caused many a non-specialist reader to turn back in defeat. As translator, I have tried to ease the passage as best I could by rendering Marx’s prose into as straightforward and contemporary an English as possible. Translator’s footnotes and cross-references are designed with the same end in view. But though it is not hard for a new translator to improve on previous editions, I certainly could not claim to have made the later volumes of *Capital* easy reading. Happily, the reader of the present edition also has Ernest Mandel’s introduction as a guide, and this will come to the rescue, I am sure, at many a tricky point.

David Fernbach

Note
In compiling the editorial footnotes, indicated by asterisks etc., the translator has derived much assistance from the *Marx-Engels-Werke* (*MEW*) edition of *Capital*. 
Note

In this edition numbered footnotes are those of the original text. Those marked by asterisks, etc., are the translator's.

Preface

It was not an easy job to prepare the second volume of Capital for publication, and particularly in such a way that it appeared not only as an integrated work, as complete as possible, but also as the exclusive work of its author, and not its editor. The task was made more difficult by the large number of versions, most of them incomplete. Only one of these, Manuscript IV, had been completely prepared for publication, though even here the greater part had been made obsolete by drafts of a later date. The main body of the material, if it was fully worked out in content, in the main, was not so in its language. It was composed in the idiom that Marx customarily used in preparing his summaries: a negligent style, colloquial and often coarsely humorous expressions and usages, English and French technical terms, frequently whole sentences and even pages in English. This is the expression of ideas in the immediate form in which they developed in the author's head. Alongside particular sections that were worked out in detail, there were others, equally important, that were only sketched in outline. The material for factual illustration had been assembled, but hardly arranged, let alone worked up. At the end of a chapter, in his haste to go on to the next, Marx often left a few disconnected sentences to serve as the guidelines for an as yet unfinished analysis. Finally, there was the notorious handwriting, which even the author himself was sometimes unable to read.

I have confined myself to reproducing the manuscripts as literally as possible, altering in the style only what Marx himself would have altered, and only putting in explanatory parentheses and bridging passages where this was absolutely necessary, and the sense quite unambiguous. Whenever there was even the faintest doubt as to the meaning of a sentence, I preferred to print it word for word. The reworkings and interpolations that originate from me amount altogether to less than ten printed pages, and are of a purely formal character.
It is sufficient to enumerate the manuscript material that Marx left for Volume 2 to show the incomparable conscientiousness and severe self-criticism with which he strove to bring his great economic discoveries to the utmost degree of perfection before publishing them. This self-criticism seldom allowed him to adapt his presentation, either in content or in form, to his mental horizon, which was constantly expanding as the result of new studies. The material, then, consists of the following manuscripts.

Firstly a manuscript entitled 'Zur Kritik der politischen Ökonomie', 1,472 pages in twenty-three notebooks, written between August 1861 and June 1863. This is the continuation of the volume of the same title published in Berlin in 1859. The themes investigated in Volume 1 of *Capital* are dealt with in pp. 1–220 (notebooks I–V) and again in pp. 1159–1472 (notebooks XIX–XXIII), from the transformation of money into capital through to the conclusion. This is the first existing draft for Volume 1. Pages 973–1158 (notebooks XVI–XVIII) deal with capital and profit, rate of profit, merchant’s capital and money capital, i.e. themes that were later developed in the manuscript for Volume 3. The themes treated in Volume 2, however, as well as many treated later in Volume 3, are not yet grouped together. They are dealt with in passing in the section that forms the main body of the manuscript, pp. 220–972 (notebooks VI–XV): *Theorien über den Mehrwert*. This section contains a detailed critical history of the crucial question in political economy, the theory of surplus-value, while at the same time most of the points that were specifically investigated later in the manuscript for Volumes 2 and 3, in their logical context, are developed here in polemical opposition to Marx’s predecessors. My intention is to publish the critical portion of this manuscript, leaving aside the passages already covered in Volumes 2 and 3, as Volume 4 of *Capital*. But valuable though this manuscript is, it was of little use for the present edition of Volume 2.

The next manuscript in chronological order is that of Volume 3. The bulk of this, at least, was written in 1864 and 1865. Only after this was essentially complete did Marx proceed to finish off Volume 1, which appeared in 1867. This manuscript of Volume 3 I am now preparing for publication.

From the next period – after the appearance of Volume 1 – we have a collection of four folio manuscripts for Volume 2, numbered I–IV by Marx himself. Manuscript I (150 pages), which appears to date from 1865 or 1867, is the first independent version of Volume 2 in its present arrangement, but a more or less incomplete one. Here, too, nothing could be used. Manuscript III consists partly of a compilation of quotations and references to Marx’s extract-books (mostly related to the first part of Volume 2), partly of elaborations of individual points, in particular criticisms of Adam Smith’s ideas on fixed and circulating capital, and on the source of profit; there is also a presentation of the relation between rate of surplus-value and rate of profit, which belongs to Volume 3. The references provided little that was new, while the elaborations were superseded by later versions, both for Volume 2 and Volume 3, and so also had to be mostly set aside. Manuscript IV is a version of Part One of Volume 2, and the first chapter of Part Two, which Marx left ready for publication, and it has been used in its due place. Even though it was evidently composed earlier than No. II, it is more complete in form, and could thus be used to advantage for the appropriate portion of the book. It only needed some additions from Manuscript II. This last manuscript is the only version of Volume 2 we possess which has been even approximately finished, and it dates from 1870. The notes for the final draft, which I shall discuss in a moment, say expressly that ‘the second version must be used as a basis’.

After 1870 there is a further pause, principally occasioned by illness. As usual, Marx filled this timewith study: agronomy, American and particularly Russian rural conditions, the money market and banking, as well as natural science – geology and physiology, and in particular independent mathematical work – form the content of numerous extract-books of this period. Early in 1877 Marx felt sufficiently restored


† *Theorien über den Mehrwert* was first published in 1905–10, edited by Karl Kautsky, who took on the work after Engels’s death. This edition, however, was far from accurate, and is now generally neglected in favour of that published by the Institute for Marxism–Leninism, Berlin, 1956–62. The remaining part of Marx’s gigantic ‘Zur Kritik…’ of 1861–3, approximately half its total 1½ million words, has yet to be published.

*Adam Smith, author of The Wealth of Nations (1776), gave bourgeois political economy its classical form, in a work that was both scientifically important and a major ideological weapon for the developing industrial capitalist class. For both these reasons, Smith’s work forms a constant reference point for Marx throughout Capital. In Theories of Surplus-Value, in particular (Part 1, Chapter III), Marx develops his fullest critique of Smith’s fundamental theoretical conceptions. See also Chapters 10 and 19 in the present volume.*
to health to be able to proceed again with his own proper work. References and notes dating from the end of March 1877, taken from the above four manuscripts, form the basis for a new version of Volume 2, begun in Manuscript V (fifty-six folio pages). This covers the first four chapters, but is not very thoroughly elaborated. Essential points are treated in notes below the text; the material is collected rather than sifted, but this is the last complete presentation of the most important portion of Part One. A first attempt to derive a publishable manuscript from this was made in Manuscript VII (between October 1877 and July 1878): only seventeen quarto pages, covering the bulk of the first chapter. A second, final attempt, Manuscript VII, dated ‘2 July 1878’, is only seven folio pages.

By this time Marx seems to have realized that, save for a complete transformation in the state of his health, he would never manage to complete a version of the second and third volumes that he would himself be satisfied with. Indeed, Manuscripts V–VIII bear only too frequently the traces of violent struggle against the oppression of illness. The most difficult bit of the first part was worked over afresh in Manuscript V; the remainder of the first part and the whole of the second part presented no significant theoretical difficulties (with the exception of Chapter 17), but the third part, on the reproduction and circulation of the social capital, seemed to him strongly in need of revision. In Manuscript II, for example, reproduction was treated firstly without regard to the money circulation that mediates it, and then once again taking this into account. This was to be jettisoned, and the whole part completely revised so as to correspond to the author’s expanded horizon. This is how Manuscript VIII came into being, a notebook of only seventy quarto pages; but what Marx managed to compress into this space can be seen from Part Three in its published form, subtracting the pieces interposed from Manuscript II.

This manuscript too is only a provisional treatment of the subject, the main point being to set down and develop the new perspectives arrived at since Manuscript II, ignoring those points on which there was nothing new to say. An important section of Chapter 17 in Part Two, which overlaps somewhat into the third part, was also considered again and expanded. The logical sequence is frequently interrupted, and the treatment in places punctuated and especially at the end quite incomplete. And yet what Marx intended to say is said there, in one way or another.

That is the material for Volume 2, from which I was to ‘make some-

thing’, as Marx put it to his daughter Eleanor shortly before his death. I interpreted this commission in the narrowest sense. Wherever possible, I have confined my activity to mere selection between the various drafts, and indeed always used the last existing draft as the basis, comparison being made with the earlier ones. Real difficulties, i.e. those other than merely technical, arose only in the first and third parts, although they were in no way slight. I have sought to resolve them exclusively in the spirit of the author.

I have mostly translated [into German] the quotations in the text, where evidence of a factual nature was involved or where, as with passages from Adam Smith, the original is available to anyone who wants to go more deeply into the matter. Only in Chapter 10 was this not possible, as here the English text is criticized directly. The quotations from Volume I carry page references to the second edition, the last to appear in Marx’s lifetime.*

For Volume 3, besides the first version contained in the manuscript ‘Zur Kritik’, the pieces in Manuscript III already mentioned, and short notes occasionally interspersed in extract-books, we have just the folio manuscript of 1864–5 as mentioned, elaborated to approximately the same degree of completeness as Manuscript II for Volume 2, and finally a notebook of 1875, entitled ‘The Relation of the Rate of Surplus-Value to the Rate of Profit’, which is a mathematical treatment (in equations). Rapid progress is being made in preparing this volume for publication. As far as I can judge at this moment, it will chiefly involve only technical difficulties, with the exception of a few, though very important sections.†

It is a suitable place here to rebut a certain accusation made against Marx, first only cautiously and sporadically, but now, after his death, proclaimed by German academic and state socialists and their hangers-on as an established fact – the accusation that Marx plagiarized the

* In the present volume, these references have been replaced throughout by corresponding references to the Pelican Marx Library edition. The reader is also reminded that the division there into chapters and parts follows that made by Engels for the original English edition of 1886, and is different from that of the various German editions. The table on p. 110 of Volume 1 shows the relationship between English and German divisions.

† In fact, nine years were to elapse before the publication of Volume 3. See Engels’s Preface to that volume.
work of Rodbertus. I have already said elsewhere what it was most urgent to say on this matter, but only here can I introduce for the first time the decisive evidence.

As far as I know, the accusation was first made by R. Meyer in his Emancipationskampf des vierten Standes, p. 43: 'It can be demonstrated that Marx borrowed the greater part of his critique from these publications' (i.e. the works of Rodbertus dating back to the latter half of the 1830s).

I might well take it, until evidence to the contrary is forthcoming, that the entire 'demonstration' of this statement consists in the fact that Rodbertus assured this Herr Meyer of it. In 1879, Rodbertus himself appeared on the scene,† and wrote to J. Zeller (Zeitschrift für die gesamte Staatswissenschaft, Tübingen, 1879, p. 219) with reference to his text, Zur Erkenntnis unserer staatswirtschaftlichen Zustände (1842), 'You will find that the same thing' (the line of thought there developed) 'has already been nicely used by Marx, of course without acknowledgement to me.'

This was then echoed in so many words by his posthumous editor T. Kozak ('Das Kapital' von Rodbertus, Berlin, 1884, Introduction, p. xv). Finally, in the Briefe und socialpolitische Aufsätze von Dr Rodbertus-Jagetzwon published by R. Meyer in 1881, Rodbertus says straight out, 'Today I find myself robbed by Schäffle and Marx, without my name.'

1. In the Preface to Marx's The Poverty of Philosophy, translated [into German] by E. Bernstein and K. Kautsky, Stuttgart, 1885. [This work of Marx's, first published in 1847 as a reply to Proudhon's book The Philosophy of Poverty, was written in French.]

*The academic socialists (Kathedersozialisten) mentioned here, who flirted with socialism from the safety of their university chairs, first made their appearance in the 1870s. Prominent among them were Gustav Schmoller, Lujo Brentano, Adolph Wagner, Karl Bücher and Werner Sombart. They were outside and generally opposed to the Social-Democratic Party. 'State socialism', the ideology that presents state intervention in the capitalist economy as ipso facto 'socialist', was a constant object of attack by Marx and Engels (as in the Communist Manifesto, ch. III, 2, and the Critique of the Gotha Programme). In Germany in the 1880s it was Bismarck's nationalization of the railways, in particular, that was dressed up as 'socialist' in this way, mainly by the 'academic socialists'. Johann Karl Rodbertus-Jagetzow, a Prussian landowner, was the doyen of state socialism in Germany, in practice seeking state support for the development of large-scale capitalist agriculture.

†Rodbertus had in fact died in 1875. The letter published in the Tübinger Zeitschrift was written on 14 March 1875.

‡Albert Eberhard Schäffle, a vulgar economist (see p. 101, note) and bourgeois sociologist. Marx refers to him in his 'Notes on Wagner'.

being mentioned’ (Letter no. 60, p. 134). In a further passage Rodbertus's claim assumes more specific form: 'I showed in the third of my Social Letters* how the capitalist's surplus-value is derived, essentially the same way as Marx, only clearer and more briefly' (Letter no. 48, p. 111).

Marx never came across these accusations of plagiarism. In his copy of the Emancipationskampf the only pages cut were those of the part relating to the International, until I myself cut the remainder after his death. He never saw the Tübingen Zeitschrift. The Briefe, etc. to R. Meyer remained equally unknown to him, and I came to know of the passage about the 'robbery' only in 1884, through the good offices of Herr Dr Meyer himself. But Marx was familiar with letter no. 48; Herr Meyer had been kind enough to send the original to Marx's youngest daughter. After some furtive gossip that the secret sources of his critique were to be found in Rodbertus had reached his ears, Marx showed me the note in question. Here he finally had authentic information as to what Rodbertus himself claimed. If this was all Rodbertus was saying, then Marx was not worried; and if Rodbertus held his own presentation to be briefer and clearer, Marx could also allow him this indulgence. Indeed, Marx believed that the whole matter started and finished with this letter of Rodbertus.

Marx was particularly inclined to let the matter lie because, as I know for a fact, he had been quite unaware of Rodbertus's literary activity up till around 1859, by which time his own Critique of Political Economy was finished not only in outline, but even in the most important details. Marx began his economic studies in Paris in 1843 with the great English and French writers; of the Germans, he was familiar only with Rau and List,‡ and that was enough. Neither Marx nor I had any word of Rodbertus's existence until 1848, when we had to criticize his speeches as a Berlin deputy, and his actions as a minister, in the Neue Rheinische Zeitung. We were so ignorant that we had to ask the Rhineland deputies who this Rodbertus was, who had suddenly become a minister. But that Marx already knew very well, even without Rodbertus's help, 'how the

*The third of Rodbertus's Soziale Briefe an von Kirkmann, in which he put forward his theory of rent against Ricardo's, was published in Berlin in 1851.
‡Karl Heinrich Rau was a German economist who vulgarized the theories of Smith and Ricardo, and supported the doctrine of the factors of production put forward by Say (see p. 227, note). Friedrich List, the most important German economist of the first half of the nineteenth century, accurately expressed the demands of the embryonic industrial bourgeoisie in Germany, and is particularly remembered for his forceful arguments for protective tariffs.
capitalist's surplus-value is derived', is shown by The Poverty of Philosophy, 1847, and by his lectures on Wage-Labour and Capital, delivered in Brussels in 1847 and published in 1849 in the Neue Rheinische Zeitung, nos. 264–269. It was only around 1859, via Lassalle, that Marx discovered there was also an economist Rodbertus, and he then found the latter's Third Social Letter in the British Museum.

These are the facts of the case. What then about the material of which Marx is supposed to have 'robbed' Rodbertus?

'I showed in the third of my Social Letters how the capitalist's surplus-value is derived, essentially the same way as Marx, only clearer and more briefly.'

This then is the decisive point, the theory of surplus-value, and it is hard to say what else there is in Marx that Rodbertus could have claimed as his property. Rodbertus here declares that he was the true founder of the theory of surplus-value, and that Marx 'robbed' him of it.

Now what does the Third Social Letter tell us as to the origin of surplus-value? Simply that 'rent' (which is how he lumps together ground-rent and profit) does not arise as an 'addition' to the value of a commodity, but rather 'as a result of a deduction of value suffered by wages, in other words because wages only amount to a part of the value of the product', and if labour is sufficiently productive, 'they do not need to be equal to the natural exchange-value of the product, so that some of this still remains over for capital replacement (!) and rent'. We are not told what 'natural exchange-value of the product' it is which does not leave anything over for 'capital replacement', i.e. for the replacement of raw material and the wear and tear of tools.

Fortunately we are able to confirm the impression Rodbertus's epoch-making discovery made on Marx. In the manuscript 'Zur Kritik', we find in notebook X, pp. 445ff., 'Herr Rodbertus. New Theory of Rent. (Digression)'. It is only from this point of view that the Third Social Letter is considered here. Rodbertus's theory of surplus-value in general is dismissed here with the ironic remark, 'Herr Rodbertus first investigates the situation in a country where there is no separation between land ownership and ownership of capital. And here

he comes to the important conclusion that rent (by which he means the entire surplus-value) is simply equal to the unpaid labour or the quantity of products which it represents.*

The capitalist world has been producing surplus-value for several centuries, and has gradually come to develop ideas about its origin. The first view was that arising directly, from commercial practice, that surplus-value is derived from an addition to the value of the product. This was the prevailing view among the mercantilists, but James Steuart† already saw that if this were the case, what one man gained, the other would necessarily lose. All the same, this view continued to haunt men's minds for a long time, particularly the minds of socialists, though it was expelled from classical [economic] science by Adam Smith.

Smith wrote in The Wealth of Nations, Book One, Chapter VI:

'As soon as stock has accumulated in the hands of particular persons, some of them will naturally employ it in setting to work industrious people, whom they will supply with materials and subsistence, in order to make a profit by the sale of their work, or by what their labour adds to the value of the materials... The value which the workmen add to the materials, therefore, resolves itself into two parts, of which the one pays their wages, the other the profits of their employer upon the whole stock of materials and wages which he advanced' [Pelican edn, p. 151].‡

And a little further on,

'As soon as the land of any country has all become private property, the landlords, like all other men, love to reap where they never sowed, and demand a rent even for its natural produce... the labourer... must give up to the landlord a portion of what his labour either collects or produces. This portion, or, what comes to the same thing, the price of this portion, constitutes the rent of land.'

In the above-mentioned manuscript 'Zur Kritik', p. 253, Marx remarks on this passage:

† Sir James Steuart's Inquiry into the Principles of Political Economy was first published in 1767. Steuart was the last representative of the Mercantilist school (see below, p. 139, note), and his work already represenst a transition towards the classical bourgeois analysis of capitalist production by Adam Smith. It is with a short chapter on Steuart, therefore, that Marx opens his Theories of Surplus-Value.
‡ This passage and those following are quoted by Marx in the manuscript of Theories of Surplus-Value (Part I, Chapter III, 2; pp. 78–85 of the English translation), interspersed with Marx's comments, as cited below by Engels. Marx's emphases in his quotations from Smith, however, differ somewhat in the published version – and thus presumably in the manuscript as well – from those made by Engels here.

* Ferdinand Lassalle, who at this time professed to be a disciple of Marx, one of only a small handful who had been able to remain in Germany after the failure of the 1848 revolution, became in the early 1860s the inspirer and chief organizer of the first mass movement of the modern German working class. Politically, however, he played an ambiguous role in relation to the Bismarck regime; see The First International and After, Pelican Marx Library, pp. 20ff.
`Thus Adam Smith conceives surplus-value – that is, surplus labour, the excess of labour performed and objectified in the commodity over and above the paid labour, the labour which has received its equivalent in wages – as the general category, of which profit in the strict sense and rent of land are merely branches.**

Adam Smith says further (Book One, Chapter VIII):
`As soon as land becomes private property, the landlord demands a share of almost all the produce which the labourer can either raise, or collect from it. His rent makes the first deduction from the produce of the labour which is employed upon land. It seldom happens that the person who tills the ground has wherewithal to maintain himself till he reaps the harvest. His maintenance is generally advanced to him from the stock of a master, the farmer who employs him, and who would have no interest to employ him, unless he was to share in the produce of his labour, or unless his stock was to be replaced to him with a profit. This profit makes a second deduction from the [produce of the] labour which is employed upon land.

`The produce of almost all other labour is liable to the like deduction of profit. In all arts and manufactures the greater part of the workmen stand in need of a master to advance them the materials of their work, and their wages and maintenance till it be completed. He shares in the produce of their labour, or in the value which it adds to the materials upon which it is bestowed; and in this share consists his profit` [Pelican edn, p. 168].

Marx comments (p. 256 of the manuscript):
`Here therefore Adam Smith in plain terms describes rent and profit on capital as mere deductions from the workman's product or the value of his product, which is equal to the quantity of labour added by him to the material. This deduction, however, as Adam Smith has himself previously explained, can only consist of that part of the labour which the workman adds to the materials, over and above the quantity of labour which only pays his wages, or which only provides an equivalent for his wages; that is, the surplus labour, the unpaid part of his labour.†

Adam Smith was thus already aware `how the capitalist's surplus-value is derived', and that of the landlord into the bargain. Marx recognized this quite frankly back in 1861, while Rodbertus and his crowd of admirers, springing up like mushrooms under the warm summer rain of state socialism, seem to have totally forgotten it.

*op. cit., p. 82. †ibid., p. 85.

`Nevertheless,' Marx continues, `he does not distinguish surplus-value as such as a category on its own, distinct from the specific forms it assumes in profit and rent. This is the source of much error and inadequacy in his inquiry, and of even more in the work of Ricardo.**

This statement applies word for word to Rodbertus. His `rent' is simply the sum of ground-rent and profit; he makes up a totally false theory of ground-rent, and takes over profit just as he finds it in his predecessors. Marx's surplus-value, however, is the general form of the sum of value appropriated without equivalent by the owners of the means of production, which is decomposed into the particular, transformed forms of profit and ground-rent according to quite specific laws that were first discovered by Marx. These laws are developed in Volume 3, where it will be seen how many intermediate terms are necessary in order to proceed from understanding surplus-value in general to understanding its transformation into profit and ground-rent, and thus to understanding the laws of distribution of surplus-value within the capitalist class.

Ricardo already went significantly further than Adam Smith. He founded his conception of surplus-value on a new theory of value, which although it was present in embryo in Smith, was time and again forgotten in the latter's exposition, a theory that became the starting-point of all subsequent economic science. In Ricardo's view, the value of a commodity is determined by the amount of labour realized in it. From this Ricardo derived the distribution between worker and capitalist of the quantum of value added by labour to the raw materials, its division into wages and profit (i.e. surplus-value). He showed that the value of commodities remains the same, however the ratio of these two parts may change, a law to which he admits only a few exceptions. He even established some basic laws on the changing ratio between wages and surplus-value (conceived in the form of profit), even if in too general a sense (Marx, Capital Volume 1, Chapter 17, 1), and showed ground-rent to be an excess over profit that in certain circumstances does not arise. In none of these points has Rodbertus gone beyond

*p. 81. David Ricardo's main work, On the Principles of Political Economy, and Taxation, first appeared in 1817. Ricardo marked the high point of classical political economy, as after 1830 the irrepressible fact of the class struggle of the industrial workers led bourgeois economics to retreat from its own previous scientific discoveries, and to the rise of vulgar economics (see p. 101, note). Like that of Adam Smith, Ricardo's work forms a constant reference point throughout Capital, and the bulk of Part II of Theories of Surplus-Value, in particular, is devoted to a critique of Ricardo's ideas.
Ricardo. Either he remained quite unaware of the internal contradictions of Ricardo's theory, which led to the collapse of the Ricardian school, or these led him to utopian demands instead of economic solutions (Zur Erkenntnis... p. 130).

Ricardo's doctrine of value and surplus-value did not have to wait for Rodbertus's Zur Erkenntnis... to be turned to a socialist purpose. In Volume I of Capital, p. 734, Marx refers to a pamphlet entitled The Source and Remedy of the National Difficulties. A Letter to Lord John Russell, London, 1821, containing the phrase 'the possessors of surplus-produce or capital'. The significance of this pamphlet of forty pages, which Marx rescued from its oblivion, is already indicated by the expression 'surplus-produce or capital'. It goes on to say:

'Whatever may be due to the capitalist' (from the capitalist's standpoint), 'he can only receive the surplus-labour of the labourer; for the labourer must live' (p. 23).

But the manner in which the worker lives, and hence the magnitude of the surplus labour appropriated by the capitalist, are subject to considerable variation:

'If capital does not decrease in value as it increases in amount, the capitalists will exact from the labourers the produce of every hour's labour beyond what it is possible for the labourer to subsist on... the capitalist may... eventually say to the labourers, "You shan't eat bread, because... it is possible to subsist on beet root and potatoes." And to this point we have come!' (pp. 23-4). '... if the labourer can be brought to feed on potatoes instead of bread, it is indisputably true that more can be exacted from his labour; that is to say, if when he fed on bread he was obliged to retain for the maintenance of himself and family the labour of Monday and Tuesday, he will, on potatoes, require only the half of Monday; and the remaining half of Monday and the whole of Tuesday are available either for the service of the state or the capitalist' (p. 26). 'It is admitted that the interest paid to the capitalists, whether in the nature of rents, interests of money, or profits of trade, is paid out of the labour of others' (p. 23).

Here then we have precisely Rodbertus's 'rent', only instead of rent it is called 'interest'. Marx notes on this ('Zur Kritik', p. 852), 'This scarcely known pamphlet (about forty pages) [which appeared] at a time when McCulloch, “this incredible cobbler”,* began to make a stir, contains an important advance on Ricardo. It bluntly describes surplus-value – or "profit", as Ricardo calls it (often also "surplus produce"), or "interest", as the author of the pamphlet terms it – as "surplus labour"; the labour which the worker performs gratis, the labour he performs over and above the quantity of labour by which the value of his labour-power is replaced, i.e., by which he produces an equivalent for his wages. Important as it was to reduce value to labour, it was equally important to present surplus-value, which manifests itself in surplus product, as surplus labour. This was in fact already stated by Adam Smith and constitutes one of the main elements in Ricardo's argumentation. But nowhere did he clearly express it and record it in an absolute form'.

Marx goes on to say:

'For the rest, the author remains a captive of the economic categories as he finds them. Just as in the case of Ricardo the confusion of surplus-value with profit leads to undesirable contradictions, so in his case the fact that he christens surplus-value the interest of capital.

'To be sure, he is in advance of Ricardo in that he first of all reduces all surplus-value to surplus labour, and when he calls surplus-value interest of capital, he at the same time emphasizes that by this he understands the general form of surplus labour in contrast to its special forms – rent, interest of money and industrial profit... But on the other hand, he applies the name of one of these particular forms – interest – to the general form. And this suffices to make him relapse into economic slang.†

This last passage fits our Rodbertus like a glove. He too remains a captive of the economic categories as he finds them. He too christens surplus-value with the name of one of its particular subordinate forms, rent, which for him, moreover, is something quite indefinite. As a result of these two blunders, he again relapses into economic slang, fails to make any further critical development of his advance over Ricardo, and instead lets himself be diverted into making his unfinished theory, before it has even fully emerged from its shell, the basis of a utopia – which like everything else, he produces too late. The pamphlet quoted above appeared in 1821, and is already a complete anticipation of the Rodbertian 'rent' of 1842.

This pamphlet is only the most advanced outpost of a whole group of writings of the 1820s, which turned the Ricardian theory of value and

* John Ramsay McCulloch vulgarized Ricardo's doctrines; the description was applied to him by a critic, Mordecai Mullion (pseudonym of John Wilson), in Some Illustrations of Mr McCulloch's Principles of Political Economy, Edinburgh, 1826.

†ibid., p. 254.
surplus-value against capitalist production in the interest of the proletariat, and fought the bourgeoisie with its own weapons. The whole of Owen’s communism,\footnote{Robert Owen was the great English representative of utopian communism in the early nineteenth century. See in particular Engels’s *Anti-Dühring*, Part III ‘Socialism’, Chapter I ‘Historical’.} in so far as it engaged in economic polemics, was based on Ricardo. But besides Owen there was a whole series of writers, of whom Marx mentioned just a few in 1847 in his book against Proudhon, *Misère de la Philosophie*, p. 49\footnote{The Poverty of Philosophy, London, 1966, p. 60.}: Edmonds, Thompson, Hodgskin, etc. ‘and four pages more of etc.’\footnote{Besides Marx’s brief reference in *The Poverty of Philosophy*, a chapter of *Theories of Surplus-Value* is devoted to ‘Opposition to the Economists (Based on the Ricardian Theory)’ (Part III, Chapter XXI). This deals principally with the works of William Thompson, Piercy Ravenstone and Thomas Hodgskin. Thomas Edmonds, however, the author of *Practical Moral and Political Economy* (1828), does not reappear in *Theories of Surplus-Value*.} From this plethora of writings, I take just one at random, *An Inquiry into the Principles of the Distribution of Wealth, most conducive to Human Happiness*, by William Thompson, a new edition, London, 1850. This text, written in 1822, first appeared in 1824. Here, too, the wealth appropriated by the non-producing classes is described throughout as a deduction from the product of labour, and this in fairly strong terms.

‘The constant effort of what has been called society, has been to deceive and induce, to terrify and compel, the productive labourer to work for the smallest possible portion of the produce of his own labour’ (p. 28). ‘Why not give him the whole absolute produce of his own labour?’ (p. 32). ‘This amount of compensation, exacted by capitalists from the productive labourers, under the name of rent or profits, is claimed for the use of land or other articles . . . For all the physical materials on which, or by means of which, his productive powers can be made available, and their consent being a necessary preliminary to any exertion on his part, is he not, and must he not always remain, at the mercy of these capitalists for whatever portion of the fruits of his own labour they may think proper to leave at his disposal in compensation for his toils?’ (p. 125). ‘. . . in proportion to the amount of products withheld, whether called profits, or taxes, or theft’ (p. 126), etc.

I admit that I am somewhat ashamed to have to write these lines. The fact that the English anti-capitalist literature of the 1820s and 1830s is so completely unknown in Germany, despite the fact that Marx directly referred to it in *The Poverty of Philosophy*, and quoted a good deal of it, in several places, in *Volume I of Capital* – this in itself may pass muster. But that not only the *litteratus vulgaris,*\footnote{Common *litterateur*. Here an allusion to R. Meyer.} desperately clinging on to Rodbertus’s coat-tails, ‘who really has learnt nothing’, but also the professor in high office, who ‘brags of his learning’,\footnote{This is an allusion to Adolph Wagner (see above, p. 88, note). Wagner specifically attacked Marx’s economic theory in his book *The General or Theoretical Doctrine of Political Economy* (1879). Marx’s manuscript ‘Marginal Notes’ dealing with Wagner’s critique, written in 1881–2, form his final economic writing.} have forgotten their classical economics to such an extent as to seriously reproach Marx for purloining from Rodbertus things that can already be read in Smith and Ricardo – this indicates the depths to which official economics has sunk today.

But what then did Marx say about surplus-value that was new? How did it happen that Marx’s theory of surplus-value burst like a bolt from the blue, in all civilized countries, while the theories of all his socialist precursors, Rodbertus included, petered out ineffectually?

The history of chemistry offers us a parallel.

Towards the end of the last century, as is well known, the phlogiston theory still prevailed. According to this theory, the essence of all combustion consisted in a hypothetical substance detaching itself from the burning body, an absolute combustible that was given the name phlogiston. This theory was sufficient to explain the greater part of chemical phenomena known at that time, even if the explanation was rather strained in some cases. Now in 1774 Priestley prepared a kind of air ‘which he found so free of phlogiston that even ordinary air seemed adulterated by comparison’. He named this ‘de-phlogisticated air’. Shortly afterwards, Scheele prepared the same kind of air in Sweden, and demonstrated its presence in the atmosphere. He also found that it vanished if a body was burned in it or in ordinary air, and therefore called it ‘fire-air’.

‘From these results, he [Priestley] now drew the conclusion that the combination produced by the union of phlogiston with one of the components of air’ (i.e. by combustion) ‘was nothing more than fire or heat, which escaped through the glass.’\footnote{2. Roscoe and Schorlemmer, *Ausführliches Lehrbuch der Chemie*, Braunschweig, 1877, I, pp. 13, 18.}


* Karl Schorlemmer, a German exile and Professor of Organic Chemistry at Manchester University from 1874, was a personal friend of Marx and Engels, and accompanied Engels on his visit to the United States in 1888. He was one of the first natural scientists to adhere to the philosophy of dialectical materialism, as well as a member of the German Social-Democratic Party.

* Robert Owen was the great English representative of utopian communism in the early nineteenth century. See in particular Engels’s *Anti-Dühring*, Part III ‘Socialism’, Chapter I ‘Historical’.
Both Priestley and Scheele had produced oxygen, but they were unaware of what they had laid their hands on. They remained captives of the phlogistic categories they had inherited. The element that was to overthrow the whole phlogistic conception and revolutionize chemistry was stricken with barrenness in their hands. However, Priestley had immediately informed Lavoisier in Paris of his discovery, and Lavoisier now investigated the whole of phlogistic chemistry with the aid of this new fact. He was the first to discover that the new type of air was a new chemical element, that what happened in combustion was not that a mysterious phlogiston escaped from the burning body, but that this new element combined with the body, and he thus put the whole of chemistry, which in its phlogistic form was standing on its head, onto its feet for the first time. Even if Lavoisier did not himself produce oxygen at the same time as the others, as he later claimed, he remains none the less the real discoverer of oxygen, as opposed to Priestley and Scheele, who merely produced it, without having the slightest inkling of what they had produced.

Marx is related to his predecessors in the theory of surplus-value as Lavoisier is to Priestley and Scheele. The existence of the part of the value produced that we now call surplus-value was established long before Marx; what it consists of, i.e. the product of labour, for which the appropriator has paid no equivalent, was also formulated with a greater or lesser degree of clarity. But this was as far as it went. Some people – the classical bourgeois economists – investigated primarily the ratio in which the product of labour was distributed between the worker and the proprietor of the means of production. Others – the socialists – found this distribution unjust and sought to remove the injustice by utopian means. Both remained captive of the economic categories as they had found them.

Then Marx appeared. And he stood in direct opposition to all his predecessors. Where they had seen a solution, he saw only a problem. He saw that what was involved here was neither dephlogisticated air nor fire-air, but rather oxygen; that it was neither a matter of simply recording an economic fact, nor of a conflict between this fact and eternal justice or true morality, but rather of a fact which was destined to revolutionize economics, and which provided the key to the understanding of the whole of capitalist production – for the person who knew how to use it, that is. With the aid of this fact Marx investigated all the existing categories of economics, as Lavoisier had investigated the existing categories of phlogistic chemistry with the aid of oxygen. In order to know what surplus-value was, he had to know what value was. First and foremost, Ricardo's theory of value itself had to be subjected to criticism. Marx therefore investigated labour from the point of view of its value-forming quality, and established for the first time what labour, why, how it formed value, and that value in general is nothing more than congealed labour of this kind – a point Rodbertus never grasped to the end of his days. Marx then investigated the relation between commodities and money, and demonstrated how and why, by virtue of their inherent value property, commodities and commodity exchange must give rise to the antithesis of commodities and money; the theory of money which Marx founded on this basis is the first comprehensive theory of money, and it is now everywhere tacitly accepted. He investigated the transformation of money into capital, and proved that this rested on the sale and purchase of labour-power for labour as the value-creating property, Marx solved at a single stroke one of the difficulties which had caused the Ricardian school to founder: the impossibility of bringing the mutual exchange of capital and labour into accordance with the Ricardian law of the determination of value by labour. By distinguishing between constant and variable capital, Marx was able for the first time to depict the process of surplus-value formation in its true course, even in the minutest details, and thus to explain it – which none of his predecessors were able to do. He thereby established a distinction within capital itself, which neither Rodbertus nor the bourgeois economists was in a position even to approach, but which provides the key for solving the most intricate economic problems; the present Volume 2, and still more so, as we shall see, Volume 3, offer the most striking proof of this. In the further investigation of surplus-value itself, Marx discovered its two forms, absolute and relative surplus-value, and demonstrated the different, but in both cases decisive, roles that these have played in the historical development of capitalist production. On the basis of surplus-value Marx developed the first rational theory of wages that we have, and presented for the first time the basic elements of the history of capitalist accumulation, as well as depicting its historical tendency.

And Rodbertus? After he had read all this, he found in it, true to the partisan economist he invariably was, an 'assault on society',* took the view that he himself had already described the origin of surplus-value more clearly and briefly and, finally, asserted that, while all this does apply to 'the present form of capital', as it historically exists, it

*Briefe und Sozialpolitische Aufsätze, op. cit., p. 111.
does not apply to 'the concept of capital', i.e. the utopian idea that Herr Rodbertus has of capital. Just like old Priestley, who swore by phlogiston to the end, and would hear nothing of oxygen. Only Priestley really was the first to produce oxygen, whereas Rodbertus with his surplus-value, or rather 'rent', simply rediscovered a commonplace, while Marx, in contrast to Lavoisier, disdained to claim that he was the first to have discovered the fact of the existence of surplus-value.

Everything else that Rodbertus accomplished as an economist is on the same level. His elaboration of surplus-value into a utopia was already criticized by Marx, unknowingly, in The Poverty of Philosophy; everything else that there is to say, I have already said in the Preface to the German translation of that work.* His explanation of trade crises as a result of under-consumption on the part of the working class is to be found already in Sismondi’s Nouveaux Principes de l'économie politique, Book iv, Chapter iv.† The only difference is that Sismondi constantly had in mind here the world market, while Rodbertus’s horizon stretches no further than the Prussian frontier. His speculations as to whether wages stem from capital or revenue pertain to scholasticism and are finally laid to rest in the third part of this second volume of Capital. His theory of rent remains his very own property, and can sleep on until Marx’s manuscript criticizing it is published.‡ Finally, his proposals to emancipate landed property in the old Prussian provinces from the pressure of capital are again thoroughly utopian; they avoid the only practical question which is involved, i.e. how can the Prussian Junker receive, say, 20,000 marks and spend 30,000 marks, year after year, without running into debt?

Around 1830, the Ricardian school foundered on surplus-value. What

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*English translation, pp. 5–19.
‡See above, p. 87, and Engels’s Preface to Volume 3.
§See Theories of Surplus-Value, Part II, Chapter VIII, 3a and 6, and Chapter X.
¶Parts One and Two.
\‡See above, p. 87, and Engels’s Preface to Volume 3.
bertus, as well as his superior predecessor, have here an opportunity to show what Rodbertus's economics can accomplish. If they show how an average rate of profit can and must come about, not only without violating the law of value, but precisely on the basis of this law, then we shall have to continue our discussion. In the meantime, they had better hurry. The brilliant investigations of this Volume 2, and its entirely new results in areas that up to now have been almost untrodden, are simply premises for the material of Volume 3, in which the final results of Marx's presentation of the process of social reproduction on the capitalist basis are developed. When this Volume 3 appears, little more will be heard of an economist named Rodbertus.

The second and third volumes of *Capital* were to be dedicated, as Marx frequently told me, to his wife.

Frederick Engels

London, on Marx's birthday, 5 May 1884

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**Preface to the Second Edition**

The present second edition is in essentials a word-for-word reprint of the first. Printers' errors have been corrected, a few stylistic faults eliminated, and a few short paragraphs that contain only repetitions have been taken out.

Volume 3, which has presented quite unexpected difficulties, is now also nearly ready in manuscript. If I remain in good health, it will be able to go to press this autumn.

F. Engels

London, 15 July 1893

*For the sake of convenience, a brief summary is given here of the various manuscripts (II–VIII) from which this volume is compiled:

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Volume Two

Capital
Part One

The Metamorphoses of Capital and their Circuit
Chapter 1: The Circuit of Money Capital

The circuit of capital comprises three stages. As we have depicted them in Volume 1, these form the following series:

**First stage:** The capitalist appears on the commodity and labour markets as a buyer; his money is transformed into commodities, it goes through the act of circulation $M-C$.

**Second stage:** Productive consumption by the capitalist of the commodities purchased. He functions as capitalist producer of commodities; his capital passes through the production process. The result: commodities of greater value than their elements of production.

**Third stage:** The capitalist returns to the market as a seller; his commodities are transformed into money, they pass through the act of circulation $C-M$.

Thus the formula for the circuit of money capital is

$$M-C \ldots P \ldots C'-M'$$

The dots indicate that the circulation process is interrupted, while $C'$ and $M'$ denote an increase in $C$ and $M$ as the result of surplus-value.

In Volume 1, the first and third stages were discussed only in so far as this was necessary for the understanding of the second stage, the capitalist production process. Thus the different forms with which capital clothes itself in its different stages, alternately assuming them and casting them aside, remained uninvestigated. These will now be the immediate object of our inquiry.

In order to grasp these forms in their pure state, we must first of all abstract from all aspects that have nothing to do with the change and constitution of the forms as such. We shall therefore assume here, both that commodities are sold at their values, and that the circumstances in which this takes place do not change. We shall also ignore any changes of value that may occur in the course of the cyclical process.¹

¹. This introductory section is taken from Manuscript II.
M–C represents the conversion of a sum of money into a sum of commodities; the buyer transforms his money into commodities, the sellers their commodities into money. What makes this particular act of commodity circulation a part of the whole process with a well-defined function in the independent circuit of an individual capital is not primarily the form of the act, but rather its material content, the specific use character of the commodities that change place with money. These are on the one hand means of production, on the other, labour-power, the material and the personal factors of commodity production; their precise nature must of course depend on the type of article to be produced. If we call labour-power L, means of production mp, and the sum of commodities to be purchased C, then we have \( C = L + mp \). To abbreviate, \( C \triangleleft mp \). The act \( M–C \), considered in respect of its content, is thus represented by \( M–C \triangleright mp \); \( M–C \) breaks up into \( M–L \) and \( M–mp \).

The money \( M \) divides into two portions, one for the purchase of labour-power, the other for means of production. The two sets of purchases pertain to completely different markets: one to the commodity market proper, the other to the labour market.

But apart from this qualitative division of the commodities into which \( M \) is transformed, \( M–C \triangleright mp \) also exhibits a most characteristic quantitative relationship.

We know that the value or price of labour-power is paid to its proprietor, who offers it for sale as a commodity, in the form of wages, i.e. as the price of a sum of labour that contains surplus labour. Thus, if the value of a day's labour-power is 3 shillings, the product of five hours' labour, this sum may figure in the contract between buyer and seller as the price or wage for perhaps ten hours' labour. If a contract of this kind is made with fifty workers, they have to provide the buyer with a total of 500 hours' labour each day, half of this – 250 hours, or twenty-five ten-hour working-days – consisting simply of surplus labour. The means of production to be purchased must be sufficient in quantity and volume to employ this amount of labour.

Thus \( M–C \triangleright mp \) does not simply express the qualitative relationship in which a certain sum of money, e.g. £422, is transformed into means of production and labour-power of a corresponding sum, but also a quantitative ratio between the portions of the money spent on labour-power \( L \) and on means of production \( mp \), this ratio being conditioned from the start by the excess or surplus labour that the number of workers involved have to expend.

If the weekly wages of fifty workers in a spinning mill come to £50, for example, then it will be necessary to spend £372 on means of production, if this is the value of the means of production that a working week of 3,000 man-hours, 1,500 of these being surplus labour, transforms into yarn.

The degree to which the expenditure of excess labour requires an excess value in the form of means of production is quite unimportant here. The point is simply that under all circumstances the part of the money that is spent on means of production – the means of production bought in \( M–mp \) – must be sufficient, i.e. must be reckoned up from the start and be provided in appropriate proportions. To put it another way, the means of production must be sufficient in mass to absorb the mass of labour which is to be turned into products through them. If sufficient means of production are not present, then the surplus labour which the purchaser has at his disposal cannot be made use of; his right to dispose of it will lead to nothing. If more means of production are available than disposable labour, then these remain unsaturated with labour, and are not transformed into products.

Once the movement \( M–C \triangleright mp \) is completed, the purchaser does not merely have at his disposal the means of production and labour-power needed to produce a useful article. He has also a greater capacity to set labour-power in motion, or a greater quantity of labour, than is needed to replace the value of the labour-power, as well as the means of production that are required to realize or objectify this amount of labour. He thus controls the factors of production for articles of a greater value than their elements of production, for a mass of commodities containing surplus-value. The value that he has advanced in the form of money thus now exists in a natural form in which it can be realized as value which breeds surplus-value (in the shape of commodities). In other words, it exists in the state or form of productive capital, with the ability to function as creator of value and surplus-value. We call capital in this form \( P \).

The value of \( P \), however, equals the value of \( L + mp \), that of the money \( M \) transformed into \( L + mp \). \( M \) is the same capital value as \( P \).
only in a different mode of existence, i.e. capital value in the state or form of money - money capital.

\[ M \rightarrow C \leftarrow L_{mp}, \text{ or } M \rightarrow C \]

in its general form, a sum of commodity purchases – this act of general commodity circulation is thus at the same time, as a stage in the independent circuit of capital, the transformation of capital value from its money form into its productive form, or more briefly the transformation of money capital into productive capital. In the first figure of the circuit to be considered here, money appears as the original bearer of the capital value, and hence money capital appears as the form in which capital is advanced.

As money capital, it exists in a state in which it can perform monetary functions, in the present case the functions of general means of purchase and payment. (The latter, in that although labour-power is bought beforehand, it is paid for only after it has done its work. In so far as the means of production are not readily available on the market, but have to be ordered, money also functions as means of payment in \( M \rightarrow mp \).) Money capital does not possess this capacity because it is capital, but because it is money.

On the other hand, the capital value in its monetary state can perform only monetary functions, and no others. What makes these into functions of capital is their specific role in the movement of capital, hence also the relationship between the stage in which they appear and the other stages of the capital circuit. In the present case, for instance, money is converted into commodities which in their combination constitute the natural form of productive capital; this form therefore already bears latently within it, as its possibility, the result of the capitalist production process.

A part of the money that performs the function of money capital in \( M \rightarrow C \leftarrow L_{mp} \) passes over, by accomplishing this very circulation, into a function in which its capital character vanishes though its money character remains. The circulation of money capital \( M \) breaks up into \( M \rightarrow mp \) and \( M \rightarrow L \), purchase of means of production and purchase of labour-power. Let us consider the latter process by itself. \( M \rightarrow L \), on the capitalist's part, is the purchase of labour-power; it is the sale of labour-power on the part of the worker, the owner of labour-power (we can say 'labour' here, as the wage form is presupposed). What is \( M \rightarrow C(M \rightarrow L) \) for the purchaser, is here, as in every sale, \( L \rightarrow M(C \rightarrow M) \) for the seller (the worker), in this case the sale of his labour-power. The latter is for the

seller of labour the first stage of circulation, or the first metamorphosis of the commodity (Volume I, Chapter 3, 2, a); it is the transformation of his commodity into its money form. The worker spends the money thus received bit by bit on a sum of commodities that satisfy his needs, on articles of consumption. The overall circulation of his commodity thus presents itself as \( L \rightarrow M \rightarrow C \), i.e. firstly \( L \rightarrow M(C \rightarrow M) \) and secondly \( M \rightarrow C \), i.e. in the general form of simple commodity circulation \( C \rightarrow M \rightarrow C \), where money figures simply as an evanescent means of circulation, as merely mediating the conversion of one commodity into another.

\( M \rightarrow L \) is the characteristic moment of the transformation of money capital into productive capital, for it is the essential condition without which the value advanced in the money form cannot really be transformed into capital, into value-producing surplus-value. \( M \rightarrow mp \) is necessary only in order to realize the mass of labour bought by way of \( M \rightarrow L \). This is why \( M \rightarrow L \) was presented from this point of view in Volume 1, Part Two, 'The Transformation of Money into Capital'. Here we have to consider the matter from a further aspect, with special reference to money capital as a form of appearance of capital.

\( M \rightarrow L \) is generally regarded as characteristic of the capitalist mode of production. But this is in no way for the reason just given, i.e. because the purchase of labour-power is a contract of sale which determines that a greater quantity of labour is provided than is necessary to replace the price of the labour-power, the wage; i.e. because surplus labour is provided, which is the basic condition for the capitalization of the value advanced, or, what comes to the same thing, for the production of surplus-value. It is rather on account of its form, because in the form of wages labour is bought with money, and this is taken as the characteristic feature of a 'money economy'.

Here again, it is not the irrationality of the form that is taken as characteristic. This irrationality is rather overlooked. The irrationality consists in the fact that labour as the value-forming element cannot itself possess any value, and so a certain quantity of labour cannot have a value that is expressed in its price, in its equivalence with a certain definite quantity of money. We know, however, that wages are simply a disguised form, a form in which the price of a day's labour-power, for example, presents itself as the price of the labour set in motion in the course of a day by this labour-power, so that the value produced by this labour-power in six hours' labour, say, is expressed as the value of its twelve-hour functioning or labour.

\( M \rightarrow L \) is taken as the characteristic feature or hallmark of the so-called
money economy because labour appears here as the commodity of its possessor, and hence money as its buyer – in other words because of the money relation (sale and purchase of human activity). But money appears very early on as a buyer of so-called services, without its being transformed into money capital, and without any revolution in the general character of the economy.

It is quite immaterial, as far as the money is concerned, what sort of commodities it is transformed into. Money is the universal equivalent form of all commodities, which already show in their prices that they ideally represent a specific sum of money, expect to be transformed into money, and only receive the form in which they can be converted into use-values for their possessor by changing places with money. Thus once labour-power is found on the market as a commodity, its sale taking place in the form of a payment for labour, in the wage form, then its sale and purchase is no more striking than the sale and purchase of any other commodity. What is characteristic is not that the commodity labour-power can be bought, but the fact that labour-power appears as a commodity.

By way of $M\rightarrow C_{L}^{m}$, the transformation of money capital into productive capital, the capitalist effects a connection between the objective and the personal factors of production, in so far as these factors consist of commodities. If money is to be transformed for the first time into productive capital, or to function as money capital for the first time for its possessor, then he must first buy the means of production, i.e. buildings, machines, etc. before he buys labour-power; for when the labour-power passes into his control, the means of production must also be present before it can be applied as labour-power.

This is how the matter presents itself from the capitalist's side.

From the worker's side, the productive application of his labour-power is possible only when this has been associated with the means of production, as the result of its sale. Before the sale, this labour-power exists in a state of separation from the means of production, from the objective conditions of its application. In this state of separation, it can be directly used neither for the production of use-values for its possessor, nor for the production of commodities which he could live from selling. But as soon as it is associated with the means of production, by being sold it forms a component of the productive capital of its buyer just as much as the means of production do.

Hence, although in the act $M-L$ the possessor of money and the possessor of labour-power relate to each other only as buyer and seller, confront each other as possessor of money and possessor of a commodity, and are thus from this point of view simply in a money relationship with each other, the buyer appears right from the start as the possessor of the means of production which form the objective conditions for the productive expenditure of labour-power by its possessor. In other words, these means of production confront the possessor of labour-power as someone else's property. The buyer, conversely, is confronted by the seller of labour as another's labour-power which must pass into his control, and has to be incorporated into his capital in order for this really to function as productive capital. The class relation between capitalist and wage-labourer is thus already present, already presupposed, the moment that the two confront each other in the act $M-L$ ($L-M$ from the side of the worker). This is a sale and purchase, a money relation, but a sale and purchase in which it is presupposed that the buyer is a capitalist and the seller a wage-labourer; and this relation does in fact exist, because the conditions for the realization of labour-power, i.e. means of subsistence and means of production, are separated, as the property of another, from the possessor of labour-power.

We are not concerned here with how this separation arises. If $M-L$ takes place, it already exists. What is important here is that, if $M-L$ appears as a function of money capital, or money appears here as a form of existence of capital, then this is in no way simply because money is involved here as the means of payment for a human activity with a useful effect, for a service; thus in no way because of money's function as means of payment. Money can be spent in this form only because labour-power is found in a state of separation from its means of production (including the means of subsistence as means of production of labour-power itself); and because this separation is abolished only through the sale of labour-power to the owner of the means of production, a sale which signifies that the buyer is now in control of the continuous flow of labour-power, a flow which by no means has to stop when the amount of labour necessary to reproduce the price of labour-power has been performed. The capital relation arises only in the production process because it exists implicitly in the act of circulation, in the basically different economic conditions in which buyer and seller confront one another, in their class relation. It is not the nature of money that gives rise to this relation; it is rather the existence of the relation that can transform a mere function of money into a function of capital.

In the conception of money capital we customarily find two inter-
connected errors (for the time being we only deal with money capital in connection with the specific function in which it confronts us here). Firstly, the functions that capital value performs as money capital, and which it is able to perform because it happens to be in the money form, are erroneously ascribed to its character as capital, whereas they are simply due to the money state of the capital value, its form of appearance as money. Secondly, and inversely, the specific content of the money function that makes it simultaneously a function of capital is deduced from the nature of money (money is here confused with capital), whereas this function presupposes social conditions, as here in the act $M-L$, that are in no way given simply by commodity circulation and the money circulation corresponding to it.

The purchase and sale of slaves is also in its form a purchase and sale of commodities. Without the existence of slaves, however, money cannot fulfil this function. If there is slavery, then money can be spent on the acquisition of slaves. But money in the hand of the buyer is in no way a sufficient condition for the existence of slavery.

If the sale of one's own labour-power (in the form of the sale of one's own labour, or the wage form) is not an isolated phenomenon, but the socially decisive precondition for the production of commodities, i.e. if money capital performs the function here considered, $M-C_{mp}^L$, throughout society, this fact implies the occurrence of historic processes through which the original connection between means of production and labour-power was dissolved; processes as a result of which the mass of the people, the workers, come face to face with the non-workers, the former as non-owners, the latter as the owners, of these means of production. It is quite irrelevant whether the original connection, before it was destroyed, took the form that the worker belonged together with the other means of production as a means of production himself, or whether he was their owner.

Thus the situation that underlies the act $M-C_{mp}^L$ is one of distribution; not distribution in the customary sense of distribution of the means of consumption, but rather the distribution of the elements of production themselves, with the objective factors concentrated on one side, and labour-power isolated from them on the other.

The means of production, the objective portion of productive capital, must thus already face the worker as such, as capital, before the act $M-L$ can become general throughout society.

We have already seen* how capitalist production, once it is established, not only reproduces this separation in the course of its development, but also expands on an ever greater scale until it has become the generally prevailing social condition. But this also has another side to it. For capital to be formed and to take hold of production, trade must have developed to a certain level, hence also commodity circulation and, with that, commodity production; for articles cannot go into circulation as commodities except in so far as they are produced for sale, i.e. as commodities. It is only on the basis of capitalist production that commodity production appears as the normal, prevailing character of production.

The Russian landowners, who in consequence of the so-called emancipation of the peasants now conduct their farming with wage-labourers instead of with the forced labour of serfs, have two complaints. Firstly, they complain of the lack of money capital. They say for example that before the harvest is sold, the wage-labourers have to be paid a considerable amount, and the basic condition for this, a supply of ready cash, is lacking. Capital in the form of money must constantly be available, precisely for the payment of wages, in order that production may be conducted on a capitalist basis. But the landlords need not worry. Everything comes to those who wait, and in time the industrial capitalist will have at his disposal not only his own money, but also l'argent des autres.†

The second complaint is more typical, namely that, even when they have money, the labour-power to be bought is not available in sufficient quantity and at the right time. This is because the Russian agricultural worker, owing to the common ownership of the soil by the village community, is not yet fully separated from his means of production, and is thus still not a 'free wage-labourer' in the full sense of the term. But the presence of such 'free wage-labourers' throughout society is the indispensable condition without which $M-C$, the transformation of money into commodities, cannot take the form of the transfer of money capital into productive capital.

It goes without saying, therefore, that the formula for the circuit of money capital: $M-C-P-C-M'$, is the self-evident form of the circuit of capital only on the basis of already developed capitalist production, because it presupposes the availability of the class of wage-

*See Capital Volume 1, Parts Seven and Eight, particularly Chapter 32.
†Other people's money. For Marx's definition of 'industrial capital' in this sense see below, p. 133.
labourers in sufficient numbers throughout society. As we have seen, capitalist production produces not only commodities and surplus-value; it reproduces, and on an ever extended scale, the class of wage-labourers, and transforms the immense majority of direct producers into wage-labourers. Since the first precondition of $M-C\ldots P\ldots C-M'$ is the continuous availability of the class of wage-labourers, it already implies the existence of capital in the form of productive capital, and hence the form of the circuit of productive capital.

2. SECOND STAGE. THE FUNCTION OF PRODUCTIVE CAPITAL

The circuit of capital being considered here begins with the act of circulation $M-C$, the transformation of money into commodities, i.e. purchase. This circulation must therefore be supplemented by the opposite metamorphosis $C-M$, the transformation of commodities into money, i.e. sale. But the direct result of $M-C \overset{L}{\underset{mp}{\ldots}} P$ is an interruption in the circulation of the capital value advanced in the money form. By the transformation of money capital into productive capital, the capital value has received a natural form in which it cannot circulate any further, but has to go into consumption, that is into productive consumption. The use of labour-power, labour, can be realized only in the labour process. The capitalist cannot sell the worker again as a commodity, for he is not his slave, and the capitalist has bought nothing more than the utilization of his labour-power for a certain time. He can make use of this labour-power only in so far as it enables him to make use of the means of production to fashion commodities. The result of the first stage is thus capital's entry into the second stage, its productive stage.

The movement presents itself as $M-C \overset{L}{\underset{mp}{\ldots}} P$, the dots indicating that the circulation of capital is interrupted; but its circuit continues, with its passage from the sphere of commodity circulation into that of production. The first stage, the transformation of money capital into productive capital, thus appears as no more than the prelude and introduction to the second stage, the function of productive capital.

$M-C \overset{L}{\underset{mp}{\ldots}} P$ presupposes that the individual who performs this act does not just have at his disposal values in some useful form or other, but that he possesses these values in money form, that he is the possessor of money. The act, however, consists precisely in letting go of money, and the possessor of money can only remain so in so far as the money will implicitly flow back to him as a result of the very act of letting go of it. This act thus presupposes that he is a commodity producer.

$M-L$. The wage-labourer lives only from the sale of his labour-power. Its maintenance – his own maintenance – requires daily consumption. His payment must therefore be constantly repeated at short intervals, to enable him to repeat the purchases – the act $L-M-C$ or $C-M-C$ – that are needed for this self-maintenance. Hence the capitalist must constantly confront him as money capitalist, and his capital as money capital. On the other hand, however, in order that the mass of direct producers, the wage-labourers, may perform the act $L-M-C$, they must constantly encounter the necessary means of subsistence in purchasable form, i.e. in the form of commodities. Thus this situation in itself demands a high degree of circulation of products as commodities, i.e. commodity production on a large scale. As soon as production by way of wage-labour becomes general, commodity production must be the general form of production. Assuming this to be the case, commodity production in turn brings about an ever growing division of social labour, i.e. an ever greater specialization of the products produced as commodities by particular capitalists, an ever greater division of complementary production processes into independent ones. $M-mp$ therefore develops to the same degree as $M-L$, i.e. the production of means of production is separated to the same extent from the production of the commodities whose means of production they are; these too confront each commodity producer as commodities which he does not himself produce, but buys for the purpose of his particular production process. They come from branches of production that are pursued in complete separation and independence from his own, and enter his branch of production as commodities, which must therefore be bought. The material conditions of commodity production confront him to an ever greater extent as the products of other commodity producers, as commodities. The capitalist must appear to the same extent as a money capitalist, i.e. his capital must function in a greater measure as money capital.

On the other hand, the same circumstance that produces the basic condition for capitalist production, the existence of a class of wage-labourers, encourages the transition of all commodity production to capitalist commodity production. To the extent that the latter develops,
it has a destroying and dissolving effect on all earlier forms of production, which, being pre-eminently aimed at satisfying the direct needs of the producers, only transform their excess products into commodities. It makes the sale of the product the main interest, at first without apparently attacking the mode of production itself; this was for example the first effect of capitalist world trade on such peoples as the Chinese, Indians, Arabs, etc. Once it has taken root, however, it destroys all forms of commodity production that are based either on the producers' own labour, or simply on the sale of the excess product as a commodity. It firstly makes commodity production universal, and then gradually transforms all commodity production into capitalist production.3

Whatever the social form of production, workers and means of production always remain its factors. But if they are in a state of mutual separation, they are only potentially factors of production. For any production to take place, they must be connected. The particular form and mode in which this connection is effected is what distinguishes the various economic epochs of the social structure. In the present case, the separation of the free worker from his means of production is the given starting point, and we have seen how and under what conditions the two come to be united in the hands of the capitalist – i.e. as his capital in its productive mode of existence. The actual process which the personal and material elements of commodity formation, brought together in this way, enter into with each other, the process of production, therefore itself becomes a function of capital – the capitalist production process, whose nature we have gone into in detail in the first volume of this book.

By the different roles that they play during the production process in connection with the formation of value, and thus in the creation of surplus-value, means of production and labour-power, in so far as they are forms of existence of the capital value advanced, are distinguished as constant and variable capital. They are further distinguished, as different components of productive capital, by the fact that the means of production, once in the possession of the capitalist, remain his capital even outside the production process, whereas labour-power becomes the form of existence of an individual capital only within this process. If labour-power is only a commodity in the hands of its seller, the wage-labourer, it only becomes capital in the hands of its buyer, the capitalist, to whom falls its temporary use. The means of production, for their part, become objective forms of productive capital, or productive capital proper, only from the moment that labour-power, as the personal form of existence of productive capital, can be incorporated into them. The means of production are no more capital by nature than is human labour-power. They receive this specific social character only under certain particular conditions that have historically developed, just as it is only under such conditions that precious metals are stamped with the character of money, or money with that of money capital.

In the course of its functioning, productive capital consumes its own components, to convert them into a mass of products of a higher value. Since labour-power operates only as an organ of capital, the excess value with which surplus labour endows the product, over and above that of its constituent elements, is also the fruit of capital. Labour-power's surplus labour is labour performed gratis for capital, and hence forms surplus-value for the capitalist, a value that costs him no equivalent. The product is therefore not only a commodity, but a commodity impregnated with surplus-value. Its value is $P + s$, the value of the productive capital $P$ consumed in its production plus that of the surplus-value $s$ it engenders. Let us suppose that this commodity consists of 10,000 lb of yarn, with means of production to the value of £372 and labour-power to the value of £50 used up in its production. During the spinning process, the spinners transferred to the yarn the value of the means of production consumed in the process by means of their labour, £372, while they simultaneously produced a new value of, say, £128, corresponding to their expenditure of labour. The 10,000 lb. of yarn is therefore the bearer of a value of £500.

3. THIRD STAGE. C′M′

Commodities become commodity capital as the functional form of existence of the already valorized capital value that has arisen directly from the production process itself. If commodity production were carried out on a capitalist basis throughout the whole society, then

3. Up to here Manuscript VII. From here Manuscript VI.
every commodity would be from the start the element of a commodity capital, whether it consisted of pig-iron or Brussels lace, sulphuric acid or cigars. The problem as to which varieties out of the host of commodities are destined by their properties for the rank of capital, and which others for common commodity service, is one of the charming vexations that scholastic economics inflicts on itself.

In commodity form, capital must perform commodity functions. The articles it consists of, which are produced from the start for the market, must be sold, transformed into money, and thus pass through the movement \( C-M \). The capitalist's commodity consists of 10,000 lb. of cotton yarn. If means of production to a value of £372 were consumed in the spinning process, and a new value of £128 created, then the yarn has a value of £500, expressed in its corresponding price. This price is to be realized by the sale \( C-M \). What is it that makes this simple act of all commodity circulation simultaneously a function of capital? It cannot be a change undergone in the act itself, neither with respect to its useful character, for it is as an object of use that the commodity passes to the buyer, nor with respect to its value, for this does not suffer a change of magnitude, but only one of form. It first existed in yarn, and now exists in money. There is thus an essential distinction between the first stage \( M-C \) and the final stage \( C-M \). Formerly the money advanced functioned as money capital because it was converted through circulation into commodities with a specific use-value. Now the commodity can function as capital only in so far as it actually brings this character with it from the production process, before its circulation begins. During the spinning process the spinners created yarn to the value of £128, of which £50, say, was simply an equivalent to the capitalist for his outlay on labour-power, and £78 formed surplus-value — a rate of exploitation of labour-power of 156 per cent. The value of the 10,000 lb. of yarn thus contains, firstly, the value of the consumed productive capital \( P \), its constant part being £372, its variable part £50 and their sum £422 = 8,440 lb. of yarn. The value of the productive capital \( P \) is equal to \( C \), the value of its formative elements, which in the stage \( M-C \) confronted the capitalist as commodities in the hands of their sellers. Secondly, however, the value of the yarn contains a surplus-value of £78 = 1,560 lb. of yarn. Thus as the value expression of the 10,000 lb. of yarn, \( C = C+\Delta C \), \( C \) plus an increment (£78) which we shall call \( c \), as it exists in the same commodity form as the original value now does.*

*We have chosen to adhere here to the traditional English symbolism for Marx's categories, even at the risk of perpetuating a possible source of confusion. Since

The value of 10,000 lb. of yarn, £500, is thus \( C+c = C' \). What makes \( C \), as the value expression of the 10,000 lb. of yarn, into \( C' \) is not the absolute amount of its value (£500), for this is determined, like the value expression of any other sum of commodities, by the amount of labour objectified in it. It is rather the relative magnitude of its value, its value compared with the value of the capital \( P \) consumed in its production. The value contained in it is this value plus the surplus-value provided by the productive capital. Its value is greater, i.e. it exceeds the capital value \( P \), by the surplus-value \( c \). The 10,000 lb. of yarn is the bearer of a capital value which has been valorized, enriched with a surplus-value, and this is because it is the product of the capitalist production process. \( C' \) expresses a value ratio, the ratio of the value of the commodity product to that of the capital consumed in its production, i.e. it expresses the composition of its value out of capital value and surplus-value. The 10,000 lb. of yarn are commodity capital, \( C' \), only as the transformed form of the productive capital \( P \), thus in a relationship that exists at first only in the circuit of this individual capital, or for the capitalist who has produced yarn with his capital. It is so to speak only an internal relation, not an external one, that makes the 10,000 lb. of yarn, as bearer of value, into commodity capital. The yarn bears its capitalist birth-mark not in the absolute magnitude of its value, but in its relative magnitude, in the magnitude of its value compared with the value of the productive capital contained in it before it was transformed into commodities. If the 10,000 lb. of yarn is sold at its value of £500, this act of circulation, considered in itself, is \( C-M \), the simple transformation of a value that remains the same from the commodity form into the money form. However, as a particular stage in the circuit of an individual capital, this same act is the realization of a capital value of £422 plus a surplus-value of £78, both borne by the commodity, i.e. \( C'-M' \), the transformation of the capital value from its commodity form into the money form.4

The function of \( C' \) is now that of every commodity product, to be transformed into money and sold, to pass through the phase of circulation \( C-M \). As long as the now valorized capital persists in the form of commodity capital, it is tied up on the market, the production process

\( C, M, P \) are used for the three forms of industrial capital in its circuit, \( 'c' \) has to be used for the increment to \( C \), i.e. the surplus-value in its commodity form. However, \( c, s, d \) are conventionally used in English for constant capital, variable capital and surplus-value, and this trio reappears later in Volume 2.

4. Up to here Manuscript VI. From here Manuscript V.
stands still. The capital operates neither to fashion products nor to form value. According to the varying speed with which the capital sheds its commodity form and assumes its money form, i.e., according to the briskness of the sale, the same capital value will serve to a very uneven degree in the formation of products and value, and the scale of the reproduction will expand or contract. It was shown in the first volume that the degree of effectiveness of a given capital is conditioned by forces in the production process that are to a certain extent independent of its own magnitude. Now we see that the circulation process sets in motion new forces independent of the magnitude of value, which affect the degree of effectiveness of the capital, its expansion and its contraction.

The mass of commodities $C'$, as bearer of the valorized capital, must fully undergo the metamorphosis $C'-M'$. The quantity sold is here the essential determinant. The individual commodity figures only as an integral part of the total quantity. The value of £500 exists in 10,000 lb. of yarn. If the capitalist succeeds in selling only 7,440 lb., at its value of £372, then he has only replaced the value of his constant capital, the value of the means of production consumed; if he sells 8,440 lb., then he still replaces only the value of the total capital advanced. He must sell more, if he is to realize surplus-value, and he must sell the entire 10,000 lb. of yarn if he is to realize the whole surplus-value of £78 (= 1,560 lb. of yarn). He receives in the £500 only an equal value for the commodities sold; his transaction within the circulation sphere is simply $C-M$. If he had paid his workers £64 instead of £50, then his surplus-value would be only £64, instead of £78, and the rate of exploitation only 100 per cent instead of 156 per cent. But the value of his yarn would be unchanged; only the ratio of its various component portions would be different; the circulation act $M-C$ would still be the sale of 10,000 lb. of yarn for £500, its value.

$C' = C + c (= £422 + £78)$. $C$ is equal in value to $P$ or the productive capital, and this is also equal in value to the $M$ advanced in $M-C$, the purchase of the elements of production: in our example, £422. If the mass of commodities is sold at its value, then $C = £422$, and $c = £78$, the value of the surplus product of 1,560 lb. of yarn. If we call $c$, expressed in monetary terms, $m$, we have $C'-M'$, or $(C+c)-(M+m)$, and the circuit $M-C\ldots P\ldots C'-M'$ in its expanded form is thus

$M-C<_{mp}\ldots P\ldots (C+c)-(M+m)$.

*See Capital Volume 1, Chapter 24, 4, pp. 747 ff.

In the first stage, the capitalist withdraws articles of use, both from the commodity market proper and from the labour market; in the third stage he puts commodities back, though only into one market, the commodity market proper. But if he withdraws more value from the market by way of his commodities than he originally put into it, this is only because he puts in a greater value of commodities than he originally withdrew. He puts in the value $M$ and withdraws the same value $C$; he puts in $C + c$, and withdraws the same value $M + m$. In our example, $M$ was equal in value to 8,440 lb. of yarn; the capitalist, however, puts 10,000 lb. of yarn into the market, i.e. gives back a greater value than he took from it. On the other hand, he has only put in this increased value because he produced surplus-value (as an aliquot part of the product, expressed in surplus product) in the production process, by the exploitation of labour-power. It is only as the product of this process that the mass of commodities is commodity capital, the bearer of the valorized capital value. By accomplishing $C'-M'$, the capital value advanced is realized together with the surplus-value. The two are realized together in the sale, either by stages or at one stroke, of the total mass of commodities, expressed as $C'-M'$. However, the same circulation process $C'-M'$ differs for the capital value and for the surplus-value in so far as it expresses in each case a different stage of their circulation, a different section in the series of metamorphoses that they have to pass through within the circulation sphere. The surplus-value, $c$, first came into the world within the production process. It is thus now entering the commodity market for the first time, and moreover in the commodity form; this is its first form of circulation, and hence the act $c-m$ is its first act of circulation or its first metamorphism, which thus still has to be supplemented by the opposite circulation act, the converse metamorphosis $m-c$.

It is a different matter with the circulation accomplished by the capital value $C$ in the same circulation act $C'-M'$, which for it is the circulation act $C-M$, where $C = P$, equal to the originally advanced $M$. This started its first act of circulation as $M$, money capital, and it now returns to the same form, i.e. the act $C-M$; it has thus passed through the two opposing phases of circulation (1) $M-C$ and (2) $C-M$, and exists once again in the form in which it can begin the same cyclical process afresh. The transformation from the commodity form to the money form after the capital value has undergone the metamorphosis $C'-M'$.

5. This holds irrespective of the manner in which we divide up capital value and surplus-value. 10,000 lb. of yarn contain 1,560 lb. = £78 surplus-value, but 1 lb. of yarn = 1 shilling also contains 2·496 oz. = 1·872 d. surplus-value.
form, which is for the surplus-value its first transformation, is for the capital value its return or transformation back into its original money form.

The money capital was converted into a sum of commodities of equal value, $L$ and $mp$, by way of $M-C_{mp}$. These commodities now no longer function as commodities, as articles for sale. Their value now exists in the hands of their buyer, the capitalist, as the value of his productive capital $P$. And in the function of $P$, productive consumption, they are transformed into a kind of commodity materially different from the means of production, into yarn, with the value not only being maintained, but increased, from £422 to £500. Through this real metamorphosis, the commodities withdrawn from the market in the first stage $M-C$ are replaced by materially different commodities of different value, which must now function as commodities, be transformed into money and sold. Hence the production process appears simply as an interruption in the circulation of capital value, which up till then has only passed through the first phase $M-C$. It passes through the second and final phase, $C-M'$, with $C$ altered both materially and in value. But as far as the capital value taken by itself is concerned, all it has undergone in the production process is a change in its use form [Gebrauchsform]. It existed as £422 of value in $L$ and $mp$, and it now exists as £422, the value of 8,440 lb. of yarn. Thus if we simply consider the two phases of the circulation process of the capital value, separately from its surplus-value, it passes through (1) $M-C$ and (2) $C-M'$, where the second $C$ has a changed form, but the same value, as the first $C$; we thus have $M-C-M'$, a form of circulation which, by way of a two-fold displacement in opposite directions, the transformation of money into commodities and commodities into money, necessarily determines the return of the value advanced as money to its money form: its transformation back into money.

The same act of circulation $C-M'$, which is the second and concluding metamorphosis for the capital value advanced in money, its return to the money form, is, for the surplus-value that is simultaneously borne along by the commodity capital, and realized together with it when it is converted into the money form, its first metamorphosis, the transformation from the commodity form into the money form, $C-M'$, the first phase of circulation.

Two things should be noted here. Firstly, the ultimate transformation of capital value back into its original money form is a function of commodity capital. Secondly, this function includes the first formal transformation of the surplus-value from its original commodity form into the money form. The money form plays a double role here; on the one hand it is the returning form of a value originally advanced in money, i.e. the money returns to the form of value that opened the process; on the other hand it is the first transformed form of a value that originally enters into circulation in the commodity form. If the commodities of which the commodity capital consists are sold at their value, as we assume here, then $C+c$ is transformed into $M+m$ with the same value; it is in this last form, $M+m$ (£422 + £78 = £500), that the realized commodity capital now exists in the hands of the capitalist. Capital value and surplus-value now exist as money, i.e. in the form of the universal equivalent.

At the end of the process, the capital value is thus once again in the same form in which it entered it, and can therefore open the process afresh and pass through it as money capital. And indeed because the initial and concluding form of the process is that of money capital ($M$), we call this form of the circuit the circuit of money capital. It is not the form of the value advanced, but only its magnitude, that is changed at the end.

$M+m$ is nothing more than a sum of money of a certain magnitude, in our case £500. But as the result of the circuit of capital, as realized commodity capital, this sum of money contains the capital value and the surplus-value; moreover, these are no longer inextricably entwined, as in the yarn; they are now simply juxtaposed. Their realization has given each of the two an independent money form. 211/250 of the money is the capital value, £422, and 39/250 the surplus-value of £78. This separation effected by the realization of the commodity capital does not only have the formal content we shall speak of in a moment; it is important in the reproduction process of capital, according to whether $m$ is added on to $M$ in its entirety, in part, or not at all, thus according to whether or not it continues to function as a component of the capital value advanced. $M$ and $m$ can even pass through quite different circulations.

In $M'$, the capital returns once more to its original form $M$, its money form, but in a form in which it has been realized as capital.

Firstly, there is a quantitative difference. It was $M$, £422; it is now $M'$, £500, and this difference is expressed in $M \ldots M'$, the quantitatively different extremities of the circuit, the actual movement of which is indicated simply by the dots. $M'$ is greater than $M$; $M'$ minus $M = s$, ...
the surplus-value. But all that exists as the result of the cycle \( M \ldots M' \) is \( M' \); the process of formation has been obliterated in the product. \( M' \) now exists independently in its own right, it is independent of the movement that produced it. The movement is past, and \( M' \) is there in its place.

But as \( M+m, £422 \) advanced capital plus an increment of £78 on the same, \( M' \) or £500 also exhibits a qualitative relation, although this qualitative relation itself exists only as a relation between the parts of a corresponding sum, i.e. as a quantitative ratio. \( M \), the capital advanced, which is once again present in its original form (£422), exists now as realized capital. It has not only maintained itself, but it has also realized itself as capital, in so far as it has differentiated itself from \( m \) (£78), which is related to it as its increase, its fruit, an increment that it itself has bred. It is realized as capital, because it is value that has bred value. \( M' \) exists as a capital relation; \( M \) no longer appears as mere money, but is expressly postulated as money capital, expressed as value which has valorized itself, i.e. thus also possesses the property of valorizing itself, of breeding more value than it itself has. \( M' \) is posited as capital by its relation to another part of \( M' \) as to something posited by itself, as to the effect of which it is the cause, as to the consequence of which it is the ground. \( M' \) thus appears as a sum of values which is internally differentiated, undergoes a functional (conceptual) self-differentiation, and expresses the capital-relation.

But this is expressed simply as a result, without the mediation of the process whose result it is.

Portions of value are not qualitatively distinguished from each other as such, save in so far as they appear as the values of different articles, concrete things, thus in various different useful forms, as values of different bodies of commodities — a distinction that does not arise from their existence as mere portions of value. In money, every difference between commodities is obliterated, because money is precisely the equivalent form common to all of them. A sum of money of £500 consists of nothing but isomorphous elements of £1. Since the mediating effect of its history is obliterated in the simple existence of this sum of money, and every trace of the specific difference which the various component parts of capital possess in the production process has vanished, the only remaining distinction is the crude, non-conceptual* distinction between a ‘principal’, as it is called in English, i.e. the capital of £422 which was advanced, and an additional sum of value of £78. Let \( M' \) be £110, of which £100 is \( M \), the principal, and £10 is \( s \), surplus-value. There is absolute homogeneity, a complete absence of conceptual distinction, between the two constituent parts of the sum of £110. Any £10 is always one eleventh of the total sum of £110, whether it is a tenth of the principal advanced, or the additional £10 over and above this. Principal and increment, capital and surplus, can therefore both be expressed as fractions of the total sum; in our example ten elevenths is the principal or capital, and one eleventh the surplus. At the conclusion of its process the realized capital therefore appears as a sum of money, within which the distinction between principal and surplus expresses, in a naive, non-conceptual manner, the capital-relation.

This is also true, moreover, for \( C' (= C+c) \). But with the difference that \( C' \), in which \( C \) and \( c \) are simply proportional value portions of the same homogeneous mass of commodities, indicates its origin in \( P \), whose direct product it is, whereas in \( M' \), a form arising directly from the circulation sphere, the direct connection with \( P \) has vanished.

The superficial distinction between principal and increment that is contained in \( M' \), in so far as this expresses the result of the movement \( M \ldots M' \), vanishes immediately, as soon as \( M' \) functions actively once more as money capital, rather than being fixed as the money expression of the valorized industrial capital. The circuit of money capital can never begin with \( M' \), but only with \( M \) (even though it is \( M' \) that now functions as \( M \)); i.e. never as an expression of the capital relation, but only as the form in which the capital value is advanced. As soon as the £500 is advanced afresh as capital, in order to be valorized once more, it is the starting-point rather than the point of return. Instead of a capital of £422, one of £500 has now been advanced; more money than before, more capital value, but the relation between the two components has gone. The sum of £500 now functions as capital, rather than £422, just as, originally, a sum of £500 might have functioned, rather than a sum of £422.

It is not the active function of money capital to present itself as \( M' \); its own presentation as \( M' \) is rather a function of \( C' \). Already in simple commodity circulation, \((1) C_1-M, (2) M-C_2, \) \( M \) functions actively only in the second act \( M-C_2 \); its presentation as \( M \) is only the result of the first act, by virtue of which it first appears as the transformed form of \( C_1 \). The capital relation contained in \( M' \), the connection between one of its parts as a part of capital value and the other as the value increment

* The word begrifflich, which appears here in the original, is clearly inappropriate, in view of the general sense of the passage. We have therefore assumed that Marx intended to write begrifflos.
to this, does receive a functional significance, however, in so far as $M'$ divides into two circulations, the circulation of capital and the circulation of surplus-value, when the circuit $M \ldots M'$ is constantly repeated. The two parts $M$ and $m$ then fulfil functions that differ not just quantitatively, but also qualitatively. Considered in itself, however, the form $M \ldots M'$ does not include the consumption of the capitalist, but expressly only capital's self-valorization and accumulation, in so far as the latter is first expressed in the periodic growth of the money capital that is constantly advanced afresh.

Although it is a crude and conceptually undifferentiated form of capital, $M' = M + m$ is at the same time money capital in its first realized form, money that has bred money. This must be distinguished from the function of money capital in the first stage $M - C_{mp}$. In this first stage, $M$ circulates as money. It functions as money capital simply because it is only in its monetary state that it performs a monetary function, and can be converted into the elements of $P$ that face it as commodities; $L$ and $mp$. In this act of circulation, it functions only as money; but because this act is the first stage of capital value in process, it is simultaneously a function of money capital, by virtue of the specific useful form of the commodities $L$ and $mp$ that are bought. $M'$ on the other hand, composed of $M$, the capital value, and $m$, the surplus-value created by it, expresses valorized capital value, the purpose and the result, the function of the total process of the circuit of capital. If it expresses this result in money form, as realized money capital, this is not because it is the money form of capital, money capital, but rather the reverse, because it is money capital, capital in the money form, and that it was in this form that capital opened the process, was advanced in its money form. The transformation back into the money form is a function of the commodity capital $C'$, as we saw, not of money capital. And as far as the difference $m$ between $M'$ and $M$ is concerned, this is only the money form of c, the increment to $C$; $M'$ is only equal to $M + m$ because $C'$ equals $C + c$. In $C'$, therefore, this difference, and the relation between the capital value and the surplus-value bred by it, is present and is expressed before they are both transformed into $M'$, into a sum of money in which the two portions of value confront each other from a position of independence and can therefore also be applied to independent and different functions.

$M'$ is only the result of the realization of $C'$. Both of these, $C'$ as well as $M'$, are only different forms, the commodity form and the money form, of the valorized capital value; both have it in common that they are valorized capital value. Both are realized capital, because here capital value exists as such together with surplus-value as the fruit that is separate from it but produced by it, although this relation is expressed only in the naïve form of the ratio between two parts of a sum of money or a commodity value. As expressions of capital, however, both related to and distinct from the surplus-value created by it, i.e. as expressions of valorized value, $M'$ and $C'$ are the same, and express the same thing, only in different forms; they are not distinguished from each other as money capital and commodity capital, but rather as money and commodity. In so far as they represent valorized value, capital active as capital, they simply express the result of the function of productive capital, the only function in which capital value breeds value. What they have in common is that both of them, money capital and commodity capital, are modes of existence of capital. The one is capital in its money form, the other in its commodity form. The specific functions that distinguish them can thus be nothing other than distinctions between the money function and the commodity function. The commodity capital, as the direct product of the capitalist production process, recalls its origin and is therefore more rational in its form, less lacking in conceptual differentiation, than the money capital, in which every trace of this process has been effaced, just as all the particular useful forms of commodities are generally effaced in money. Hence it is only when $M'$ itself functions as commodity capital, when it is the direct product of a production process and not the transformed form of this product, that its bizarre form disappears – i.e. in the production of the money material itself. The formula for the production of gold, for example, would be $M - C_{mp} \ldots L \ldots M' (M + m)$, where $M'$ figures as the commodity product in so far as $P$ provides more gold than was advanced for the elements of production of gold in the first $M$, the money capital. The expression $M \ldots M' (M + m)$ is irrational, in that, within it, part of a sum of money appears as the mother of another part of the same sum of money. But here this irrationality disappears.

4. THE CIRCUIT AS A WHOLE

We have seen how the circulation process, after its first phase $M - C_{mp}$ has elapsed, is interrupted by $P$, in which the commodities bought on
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The market, \( L \) and \( mp \), are consumed as material and value components of the productive capital; the product of this consumption is a new commodity, \( M' \), altered both materially and in value. The interrupted circulation process, \( M-C \), must be supplemented by \( C-M' \). But it is \( C' \) that appears as the bearer of this second and concluding phase, a commodity different materially and in value from the original \( C \). The circulation series thus presents itself as (1) \( M-C_1 \); (2) \( C'_2-M' \), in which the first commodity \( C_1 \) has been replaced in the second phase by one of higher value and a different useful form, \( C'_2 \), during the interruption that is occasioned by the function of \( P \), i.e. the production of \( C' \) from the elements of \( C \), the forms of existence of the productive capital \( P \). The first form of appearance in which we met with capital, on the other hand (Volume 1, Chapter 4), \( M-C-M' \) (broken down: (1) \( M-C_1 \); (2) \( C_1-M' \)), exhibits the same commodity twice over. It is the same commodity into which money is transformed in the first phase and which is transformed back into money in the second phase. Despite this essential difference, both circulations have in common that in their first phase money is transformed into commodities and in their second phase commodities into money, that the money that is spent in the first phase flows back again in the second. On the one hand they have in common this stream of money back to its starting-point, on the other hand the excess of the money that flows back over that advanced. In this respect, \( M-C \ldots C'-M' \) too appears to be contained in the general formula \( M-C-M' \).

It further results here that in both metamorphoses pertaining to the circulation sphere, \( M-C \) and \( C'-M' \), equally large and simultaneously present values always confront and replace each other. The change in value belongs solely to the metamorphosis \( P \), the production process, which thus appears as the real metamorphosis of capital, as opposed to the merely formal metamorphoses of the circulation sphere.

Let us now consider the total movement \( M-C \ldots P \ldots C'-M' \), or its expanded form \( M-C \ldots C'(C_2+c-A)-M'(M+m) \). Here capital appears as a value that passes through a sequence of connected and mutually determined transformations, a series of metamorphoses that form so many phases or stages of a total process. Two of these phases belong to the circulation sphere, one to the sphere of production. In each of these phases the capital value is to be found in a different form, corresponding to a different and special function. Within this movement the value advanced not only maintains itself, but it grows, increases its magnitude. Finally, in the concluding stage, it returns to the same form in which it appeared at the outset of the total process. This total process is therefore a circuit.

The two forms that the capital value assumes within its circulation stages are those of money capital and commodity capital; the form pertaining to the production stage is that of productive capital. The capital that assumes these forms in the course of its total circuit, discards them again and fulfils in each of them its appropriate function, is industrial capital – industrial here in the sense that it encompasses every branch of production that is pursued on a capitalist basis.

Money capital, commodity capital and productive capital thus do not denote independent varieties of capital, whose functions constitute the content of branches of business that are independent and separate from one another. They are simply particular functional forms of industrial capital, which takes on all three forms in turn.

The circuit of capital proceeds normally only as long as its various phases pass into each other without delay. If capital comes to a standstill in the first phase, \( M-C \), money capital forms into a hoard; if this happens in the production phase, the means of production cease to function, and labour-power remains unoccupied; if in the last phase, \( C'-M' \), unsaleable stocks of commodities obstruct the flow of circulation.

It lies in the nature of the case, however, that the circuit itself determines that capital is tied up for certain intervals in the particular sections of the cycle. In each of its phases industrial capital is tied to a specific form, as money capital, productive capital or commodity capital. Only after it has fulfilled the function corresponding to the particular form it is in does it receive the form in which it can enter a new phase of transformation. In order to make this clear, we have assumed in our example that the capital value of the mass of commodities created in the production stage is equal to the total value originally advanced as money, in other words that the whole capital value advanced as money moves all at once from one stage into the subsequent one. We have already seen, however (Volume 1, Chapter 8), that a part of the constant capital, the actual instruments of labour (e.g. machines), serve continuously throughout a greater or smaller number of repetitions of the same production process, and for this reason give up their value to the product only bit by bit. We shall show later on how far this circumstance modifies the circuit of capital. The following will suffice for the time being. In our example, the value of the productive capital, £422,
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contained only the average calculated wear and tear of factory buildings, machinery, etc., thus only the portion of value that they carry over in the course of transforming 10,000 lb. of raw cotton into 10,000 lb. of yarn, the product of a weekly spinning process of sixty hours. The instruments of labour – buildings, machinery, etc. – therefore figured in the means of production into which the constant capital advanced was transformed, as if they were simply hired on the market in return for a weekly payment. This however alters absolutely nothing as far as the substance of the matter is concerned. We need only multiply the weekly output of yarn, 10,000 lb., by the number of weeks contained in a given series of years, and the entire value of the instruments of labour bought and used up in this period will have been carried over. It is clear then that the money capital advanced must first be transformed into these means of production, and must therefore have made its exit from the first phase \( M-C \), before it can function as productive capital \( P \). It is just as clear in our example that the capital value of £422, which is incorporated into the yarn during the production process, cannot enter into the circulation phase \( C'-M' \) as a component of the 10,000 lb. of yarn before the process is finished. The yarn cannot be sold until it has been spun.

In the general formula, the product of \( P \) is considered as a material thing different from the elements of the productive capital, an object that has an existence of its own, apart from the production process, possessing a useful form different from that of the elements of production. In so far as the result of the production process does appear as a thing, this is always the case, even when a part of the product enters once more as an element into the renewed production process. Thus grain serves as seed-corn for its own production, but the product consists only of grain, and thus has a different physical shape from the elements applied together with it: labour-power, instruments of labour, fertilizer. There are however particular branches of industry in which the product of the production process is not a new objective product, a commodity. The only one of these that is economically important is the communication industry, both the transport industry proper, for moving commodities and people, and the transmission of mere information – letters, telegrams, etc.

A. Chuprov says on this point:

'The manufacturer can produce articles first and look for customers afterwards.' (His product, after it is ejected in finished form from the production process, passes into circulation as a commodity separate from this process.) Production and consumption thus appear as two acts separated in time and space. In the transport industry, however, which does not create new products, but only displaces people and things, these two acts coincide; the services' (the change of place) 'are necessarily consumed the moment they are produced. This is why the area within which railways can seek their customers is at most 50 versts' (53 km.) 'on either side.'

The result in each case, whether it is people or commodities that are transported, is a change in their spatial location, e.g. that the yarn finds itself in India instead of in England, where it was produced.

But what the transport industry sells is the actual change of place itself. The useful effect produced is inseparably connected with the transport process, i.e. the production process specific to the transport industry. People and commodities travel together with the means of transport, and this journeying, the spatial movement of the means of transport, is precisely the production process accomplished by the transport industry. The useful effect can only be consumed during the production process; it does not exist as a thing of use distinct from this process, a thing which functions as an article of commerce and circulates as a commodity only after its production. However the exchange-value of this useful effect is still determined, like that of any other commodity, by the value of the elements of production used up in it (labour-power and means of production), plus the surplus-value created by the surplus labour of the workers occupied in the transport industry. In respect of its consumption, too, this useful effect behaves just like other commodities. If it is consumed individually, then its value vanishes with its consumption; if it is consumed productively, so that it is itself a stage of production of the commodity that finds itself transported, then its value is carried over to the commodity as an addition to it. The formula for the transport industry is thus \( M-C_L \ldots P \ldots M' \), for it is the production process itself, and not a product separable from it, that is paid for and consumed. This therefore has almost exactly the same form as that for the production of precious metals, except that \( M' \) is here the transformed form of the useful effect produced in the course of the production process, and not the natural form of the gold and silver that is produced during this process and ejected from it.

Industrial capital is the only mode of existence of capital in which not

6. A. Chuprov, Zhelyeznodorozhnoye Khozyaistvo [The Railway Industry], Moscow, 1875, pp. 69, 70.
only the appropriation of surplus-value or surplus product, but also its creation, is a function of capital. It thus requires production to be capitalist in character; its existence includes that of the class antagonism between capitalists and wage-labourers. To the degree that it takes hold of production, the technique and social organization of the labour process are revolutionized, and the economic-historical type of society along with this. The other varieties of capital which appeared previously, within past or declining conditions of social production, are not only subordinated to it and correspondingly altered in the mechanism of their functioning, but they now move only on its basis, thus live and die, stand and fall together with this basis. Money capital and commodity capital, in so far as they appear and function as bearers of their own peculiar branches of business alongside industrial capital, are now only modes of existence of the various functional forms that industrial capital constantly assumes and discards within the circulation sphere, forms which have been rendered independent and one-sidedly extended through the social division of labour.

On the one hand, the circuit $M \ldots M'$ is inextricably linked with the general circulation of commodities, issues from it and flows back into it, forming a part of it. On the other hand, it forms for the individual capitalist an independent movement peculiar to his capital value, a movement which proceeds in part within the general circulation of commodities, in part outside it, but which always retains its independent character. It does so firstly because both of the phases that it goes through in the circulation sphere, $M-C$ and $C-M'$, possess a functionally specific character as phases of the movement of capital; in $M-C$, $C$ is determined in its material content as labour-power and means of production; in $C'-M'$ the capital value is realized together with the surplus-value. In the second place, $P$, the production process, includes productive consumption. Thirdly, the return of money to its starting-point makes the movement $M \ldots M'$ a cyclical movement complete in itself.

On the one hand, therefore, each individual capital, in the two halves of its circulation $M-C$ and $C'-M'$, is an agent of the general circulation of commodities, in which it functions and of which it forms a link, either as money or as commodity. Hence it is a member of the general series of metamorphoses of the commodity world. On the other hand, it describes its own independent circuit within the general circulation, one in which the sphere of production forms a transitional stage, and in which it returns to its starting-point in the same form in which it left it. Within its own circuit, which includes its real metamorphosis in the production process, the magnitude of its value also changes. It returns not only as money value, but as increased and expanded money value.

If we finally consider $M-C \ldots P \ldots C'-M'$ as a special form of the circuit of capital, alongside the other forms that will be investigated later on, it is marked by the following features.

1. It appears as the circuit of money capital because industrial capital in its money form, as money capital, forms the starting-point and the point of return of the whole process. The formula itself expresses that the money is not spent here as money, but is only advanced, and is thus simply the money form of capital, money capital. It further expresses the fact that it is the exchange-value, not the use-value, that is the decisive inherent purpose of the movement. It is precisely because the money form of value is its independent and palpable form of appearance that the circulation form $M \ldots M'$, which starts and finishes with actual money, expresses money-making, the driving motive of capitalist production, most palpably. The production process appears simply as an unavoidable middle term, a necessary evil for the purpose of money-making. (This explains why all nations characterized by the capitalist mode of production are periodically seized by fits of giddiness in which they try to accomplish the money-making without the mediation of the production process.)*

2. In this circuit, the stage of production, the function of $P$, forms an interruption in the circulation process $M-C \ldots C'-M'$, whose two phases are in turn only a mediation of simple circulation $M-C-M'$. The production process here appears formally and explicitly, in the actual form of the circuit itself, for what it actually is in the capitalist mode of production, a mere means for the valorization of the value advanced; i.e. enrichment as such appears as the inherent purpose of production.

3. Because the sequence of phases is opened by $M-C$, $C'-M'$ is the second term in the circulation; the starting-point is $M$, the money capital to be valorized, the conclusion $M'$, the valorized money capital $M+m$, in which $M$ figures alongside its offspring $m$ as realized capital. This distinguishes the circuit of money capital from the two other circuits $P$ and $C'$, and in two ways. On the one hand, through the money form of the two extremes; money is the independent and palpable form of existence of value, the value of the product in its independent value form, in which all trace of the commodities' use-value has been effaced. On the other hand, the form $P \ldots P$ does not necessarily become $P \ldots P$.

*The sentence in parentheses was introduced by Engels in the second (1893) edition.
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$P'(P+p)$, while in the form $C' \ldots C'$, no value difference at all is visible between the two extremes. It is thus characteristic of the formula $M \ldots M'$, on the one hand, that the capital value forms the starting-point and the valorized capital the point of return, so that the advancing of the capital value appears as the means, the valorized capital value as the goal of the whole operation; on the other hand, that this relation is expressed in the money form, the independent value form, hence money capital as money breeding money. The creation by value of surplus-value is not only expressed as the alpha and omega of the process, but explicitly presented in the glittering money form.

4. Since $M'$, the money capital realized as the result of $C' \rightarrow M'$, the complementary and concluding phase of $M-C$, exists in absolutely the same form as that in which it opened its first circuit, it can, as it emerges from this, reopen the same circuit as augmented (accumulated) money capital, $M' = M + m$; at least it is in no way expressed in the form of $M \ldots M'$ that the circulation of $m$ separates itself from that of $M$ when the circuit is repeated. Considered by itself in isolation, from the formal standpoint, the circuit of money capital thus expresses only the process of valorization and accumulation. Consumption, therefore, is expressed in it only as productive consumption, $M-C \leftarrow \frac{L}{mp}$; this is all that is accounted for in this circuit of the individual capital. $M-L$ is $L-M$ or $C-M$ from the point of view of the worker, i.e. the first phase of the circulation that mediates his individual consumption: $L-M-C$ (means of subsistence). The second phase, $M-C$, no longer falls within the circuit of the individual capital; but it is introduced by it and presupposed by it, for the worker, in order to continue to exist on the market as exploitable material for the capitalist, must before all else keep alive, and therefore maintain himself by individual consumption. This consumption itself, however, is assumed here only as a precondition for the productive consumption of labour-power by capital, thus only in so far as the worker maintains and reproduces himself as labour-power by his individual consumption. The means of production ($mp$), however, the actual commodities that are involved in the circuit, are simply the means of nourishment for productive consumption. The act $L-M$ mediates the individual consumption of the worker, the transformation of means of subsistence into his flesh and blood. But the capitalist must also exist, thus also live and consume, in order to function as capitalist. In actual fact, he needs to consume only as a worker, and hence no more than this is assumed in this form of the circulation process. But even this is not expressed formally, since the formula closes with $M'$, i.e. a result that can function again immediately as increased money capital.

$C' \rightarrow M'$ directly contains the sale of $C'$; but $C' \rightarrow M'$, which is from one side a sale, is $M-C$, a purchase, from the other side, and in the last instance commodities are bought only for the sake of their use-value (we ignore intermediate transactions here), in order to enter the process of consumption, either individual or productive, according to the nature of the article bought. This consumption, however, does not enter the circuit of the individual capital of which $C'$ is the product; the product $C'$ is precisely ejected from the circuit as a commodity to be sold. It is expressly destined for the consumption of others. We therefore find among the exponents of the Mercantile System* (which is based on the formula $M-C \ldots P \ldots C' \rightarrow M'$) long sermons to the effect that the individual capitalist should consume only in his capacity as a worker, and that a capitalist nation should leave the consumption of its commodities and the consumption process in general to other more stupid nations, while making productive consumption into its own life's work. These sermons are often reminiscent in both form and content of analogous ascetic exhortations by the Fathers of the Church.

The circuit of capital is thus a unified process of circulation and production, it includes both. In so far as the two phases $M-C$ and $C' \rightarrow M'$ are processes of circulation, the circulation of capital forms part of the general circulation of commodities. But by taking part in functionally determined sections or stages in the circuit of capital, which do not just pertain to the sphere of circulation, but also to that of production, capital performs its own circuit within the general circulation of commodities. This general circulation enables it, in the first stage, to assume the form in which it can function as productive capital; in the second stage, to cast off the commodity function in which it cannot renew its circuit; it equally gives it the possibility of separating its own capital circuit from the circulation of the surplus-value that has adhered to it.

* Marx did not leave a systematic examination of the Mercantile System as he conceived it, although he devotes a few paragraphs to it in A Contribution to the Critique of Political Economy, London, 1971, pp. 157-9. The view he attributes to the Mercantilists is expressed clearly by D'Avenant in An Essay on the East-India Trade, London, 1697, quoted by Marx in Theories of Surplus-Value, Part I, p. 179:

'By what is consum'd at Home, one loseth only what another gets, and the Nation in General is not at all the Richer; but all Foreign Consumption is a clear and certain Profit.'
The circuit of money capital is thus the most one-sided, hence most striking and characteristic form of appearance of the circuit of industrial capital, in which its aim and driving motive – the valorization of value, money-making and accumulation – appears in a form that leaps to the eye (buying in order to sell dearer). The fact that the first phase is \( M \to C \) displays the provenance of the components of productive capital on the commodity market. It also shows that the capitalist production process is conditioned by circulation, trade. The circuit of money capital is not just commodity production; it only comes into being by way of circulation, and presupposes this. This is already shown by the fact that the form \( M \) pertaining to circulation appears as the first and pure form of the capital value advanced, which is not the case with the two other forms of the circuit.

The circuit of money capital remains the permanent general expression of industrial capital, in so far as it always includes the valorization of the value advanced. In \( P \to P \), the money expression of the capital emerges only as the price of the elements of production, thus only as value expressed in money of account, the form in which it is found in book-keeping.

\( M \to M' \) becomes a particular form of the circuit of industrial capital in so far as newly appearing capital is first advanced as money and is withdrawn in the same form, whether on its transfer from one branch of business to another, or when industrial capital is withdrawn from business altogether. This includes the capital function of the surplus-value first advanced in the money form, and emerges most strikingly when this functions in a business other than that from which it originates. \( M \to M' \) can be the first circuit of a capital, it can be its last; it can be taken as the form of the total social capital; it is the form of capital that is newly invested, whether as newly accumulated capital in the money form, or old capital that is completely transformed into money in order to be transferred from one branch of production to another.

As a form that is comprised in all circuits, money capital performs this circuit precisely for that part of the capital that creates surplus-value, the variable capital. The normal form of advance for wages is payment in money; this process must be steadily repeated at short intervals, as the worker lives from hand to mouth. Hence the worker must constantly come face to face with the capitalist as money capitalist, and with his capital as money capital. Here there can be no question, as in the purchase of means of production and the sale of productive commodities, of a direct or indirect balancing of accounts (so that the greater part of money capital actually figures only in the form of commodities, money only in the form of money of account, and finally cash only for the settlement of the balances). On the other hand, a part of the surplus-value arising from the variable capital is spent by the capitalist for his personal consumption; this pertains to the retail trade, and, after however roundabout a journey, is ultimately spent as cash, in the money form of the surplus-value. Whether this part of the surplus-value is great or small in no way affects the matter. The variable capital constantly appears anew as money capital invested in wages \((M \to L)\), and \( m \) as surplus-value that is spent to defray the personal needs of the capitalist. Thus both \( M \), as the variable capital value advanced, and \( m \), as its increment, are necessarily retained in the money form, to be spent as such.

The formula \( M \to C \to P \to \ldots \to C' \to M' \), with the result \( M' = M + m \), contains in its form a certain deception; it bears an illusory character that derives from the existence of the advanced and valorized value in its equivalent form, in money. What is emphasized is not the valorization of the value, but the money form of this process, the fact that more value in the money form is finally withdrawn from the circulation sphere than was originally advanced to it, i.e. the increase in the mass of gold and silver belonging to the capitalist. The so-called Monetary System* is simply the expression of the superficial form \( M \to C \to M' \), a movement that proceeds exclusively in the circulation sphere, and hence can only explain the two acts \( (1) M \to C \) and \( (2) C \to M' \) by saying that \( C \) in the second act is sold above its value, and therefore withdraws more money from the circulation sphere than was cast into it by its purchase. On the other hand, however, \( M \to C \to P \to \ldots \to C' \to M' \), when regarded as the exclusive form, is the basis for the more developed Mercantile System, in which it is not simply the circulation of commodities but also their production that appears as a necessary element.

The illusory character of \( M \to C \to P \to \ldots \to C' \to M' \), and the corresponding

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* The Monetary System (sometimes called bullionism) preceded the Mercantile System or mercantilism. Marx describes the Mercantile System as a 'variant' of the Monetary System. He distinguishes the two most clearly in the Grundrisse (Pelican edition, p. 327): 'The Monetary System had understood the autonomy of value only in the form in which it arose from simple circulation – money ... Then came the Mercantile System, an epoch where industrial capital and hence wage labour arose in manufactures ... The Mercantilists already have faint notions of money as capital, but actually again only in the form of money, the circulation of mercantile capital.'
illusory significance it is given, is there as soon as this form is regarded as the sole form, not as one that flows and is constantly repeated; i.e. as soon as it is taken not just as one of the forms of the circuit, but rather as its exclusive form. In itself, however, it refers to other forms.

Firstly, this whole circuit presupposes the capitalist character of the production process, and hence this production process itself as a basis, as well as the specific social relations determined by it. $M - C = M - C <_{\text{mp}}$, but $M - L$ implies that the wage-labourer, and therefore the means of production too, are a part of the productive capital; hence the labour and valorization process, the production process is already a function of capital.

Secondly, if $M \ldots M'$ is repeated, the return to the money form appears just as evanescent as the money form in the first stage. $M - C$ vanishes, in order to make way for $P$. The permanently repeated advance in money, as well as its permanent return in money, themselves appear simply as evanescent moments in the circuit.

Thirdly,

$$\underline{M - C \ldots P \ldots C' - M' \ldots M - C \ldots P \ldots C' - M' \ldots M - C \ldots P \ldots \text{etc.}}$$

With the second repetition of the circuit, we already have the circuit $P \ldots C' - M' \ldots M - C \ldots P$, before the second circuit of $M$ is even complete, and thus all further circuits can be considered in the form $P \ldots C' - M \ldots C \ldots P$; $M - C$, therefore, as the first phase of the first circuit, simply forms an evanescent prelude to the constantly repeated circuit of productive capital, as is in fact the case when industrial capital is invested for the first time, in the form of money capital.

Furthermore, before the second circuit is complete, the first circuit $C' - M' \ldots M - C \ldots P \ldots C'$ (abbreviated $C' \ldots C'$) has been described, the circuit of commodity capital. Thus the first form already contains the two others, and the money form vanishes, in so far as it is not just an expression of value, but an expression of value in the equivalent form, in money.

Finally, if we take a newly appearing individual capital, which describes the circuit $M - C \ldots P \ldots C' - M'$ for the first time, then $M - C$ is a preparatory phase, the precursor of the first production process performed by this individual capital. This phase $M - C$ is therefore not the presupposition, but is rather posited or conditioned by the production process. However, this holds only for this individual capital. The general form of the circuit of industrial capital is the circuit of money capital, in so far as the capitalist mode of production is presupposed, i.e. within a specific state of society determined by capitalist production. Hence the capitalist production process is the basic pre-condition, it is prior to all else, if not within the first circuit of the money capital of a newly invested industrial capital, then outside it; the continued existence of this production process assumes the constantly repeated circuit of $P \ldots P$. This assumption is already made within the first stage $M - C <_{\text{mp}}$ in so far as this stage presupposes on the one hand the existence of the class of wage-labourers, and on the other hand what is the first stage $M - C$ for the purchaser of the means of production, and $C' - M'$ for their seller. It presupposes, therefore, that $C'$ is commodity capital, and therefore that the commodity itself is the result of capitalist production; with this we must also presuppose the function of productive capital.
Chapter 2: The Circuit of Productive Capital

The circuit of productive capital has the general formula:

\[ P \ldots C' \ldots M' \ldots C \ldots P. \]

It signifies the periodically repeated function of the productive capital, i.e. reproduction. In other words it signifies that its production process is a reproduction process in respect of valorization; not only does production occur, but also the periodic reproduction of surplus-value. It signifies that the function of the industrial capital that exists in its productive form does not take place once and for all, but is periodically repeated, so that the new beginning is given by the point of departure itself. A part of \( C' \) (in certain cases, in the investment branches of industrial capital) may directly re-enter, as means of production, the same labour process from which it emerged as a commodity; all this does is circumvent the need to transform its value into real money or money tokens; in other words the only independent expression it receives is as money of account. This part of the value does not enter the circulation process. The same holds for the part of \( C' \) that the capitalist consumes in kind, as part of the surplus product. This is however insignificant for capitalist production; at most it comes into consideration in agriculture.

Two things about this form immediately catch the eye.

Firstly, while in the first form, \( M \ldots M' \), the production process, the function of \( P \), interrupts the circulation of money capital and appears only as mediator between its two phases \( M-C \) and \( C'-M' \), here the entire circulation process of industrial capital, its whole movement within the circulation phase, merely forms an interruption, and hence a mediation, between the productive capital that opens the circuit as the first extreme and closes it in the same form as the last extreme, i.e. in the form of its new beginning. Circulation proper appears only as the mediator of the reproduction that is periodically repeated and made continuous through this repetition.

Secondly, the entire circulation presents itself in the opposite form from that which it possessed in the circuit of money capital. There it was \( M-C-M \ (M-C, C-M) \), disregarding the value determination; here, again disregarding the value determination, it is \( C-M-C \ (C-M, M-C) \), i.e. the form of simple commodity circulation.

I. SIMPLE REPRODUCTION

Let us consider first of all the process \( C'-M'-C \) that runs its course between the extremes \( P \ldots P \) in the sphere of circulation.

The starting-point of this circulation is the commodity capital: \( C' = C+c = P+c \). The function of the commodity capital \( C'-M' \) (the realization of the capital value \( P \) contained in it, which now exists as a commodity component \( C \), as well as of the surplus-value it contains, which exists as a component of the same commodity mass with the value \( c \) was treated in the first form of the circuit. There, however, it formed the second phase of the interrupted circulation, and the concluding phase of the entire circuit. Here it forms the second phase of the circuit, but only the first phase of circulation. The first circuit ends with \( M' \), and since \( M' \) just as much as the original \( M \), can reopen the second circuit as money capital, it was at first unnecessary to see whether the \( M \) and \( m \) (surplus-value) contained in \( M' \) continue their paths together, or whether they describe different paths. This would only have been necessary if we had pursued the first circuit further, in its repetition. But in the circuit of productive capital this point must be decided, since the very definition of the first circuit depends on it, and because \( C'-M' \) appears in it as the first phase of circulation, which is to be supplemented by \( M-C \). It depends on this decision whether the formula depicts simple reproduction or reproduction on an expanded scale. The character of the circuit is altered according to this decision.

Let us therefore start by taking the simple reproduction of the productive capital, in which connection we assume, as in the first chapter, that other circumstances remain the same and that commodities are bought and sold at their values. On this assumption, the entire surplus-value goes into the personal consumption of the capitalist. As soon as the commodity capital \( C \) has been transformed into money, the part of the money that represents the capital value goes on circulating in the circuit of industrial capital; the other part, which is surplus-value turned into gold, goes into the general circulation of commodities; it is
money circulation proceeding from the capitalist, but it takes place outside the circulation of his individual capital.

In our example, we had a commodity capital $C'$ of 10,000 lb. of yarn to the value of £500. £422 of this was the value of the productive capital, and continues the capital circulation begun with $C'$ as the money form of 8,440 lb. of yarn, while the surplus-value of £78, the money form of 1,560 lb. of yarn, the excess portion of the commodity product, makes its exit from this circulation and describes a separate path within the general circulation of commodities.

$$C'(c + (M' + m') - c - m) - \frac{L}{M_p}$$

$m-c$ is a series of purchases made with the money that the capitalist spends, whether on commodities as such or on services, for his esteemed self and family. These purchases are fragmented, and take place at different times. The money thus exists temporarily in the form of a money reserve or hoard destined for current consumption, since it is in the form of a hoard that any money whose circulation is interrupted exists. In its function as a means of circulation, which also includes its temporary form of a hoard it does not enter into the circulation of the capital in its money form $M$. The money is not advanced, but spent.

We have assumed that the total capital advanced is constantly passing from one of its phases into another, and that here, therefore, the commodity product of $P$ carries the total value of the productive capital $P$, £422, plus the surplus-value created during the production process, £78. In our example, where we are concerned with a discrete commodity product, the surplus-value exists in the form of 1,560 lb. of yarn; just as it exists as 2,496 ounces in each lb. of yarn. If however the commodity product was a machine worth £500, for example, and with the same value composition, then there would certainly still be a portion of the machine's value that equalled the £78 surplus-value, but this £78 would exist only in the total machine; this could not be divided into capital value and surplus-value without being broken into pieces and thus destroying its value together with its use-value. The two value components could thus be depicted only ideally as components of the physical body of the commodity, not as independent elements of the commodity $C'$, in the way that each lb. of yarn can be depicted as a separate, independent commodity element of the 10,000 lb. In the one case, the total commodity or commodity capital, the machine, must be sold in its entirety before $m$ can embark on its own particular circulation. But if the capitalist sells 8,440 lb. of yarn, in the other case, then the sale of the remaining 1,560 lb. exhibits a completely separate circulation of the surplus-value in the form $c (1,560 \text{ lb. of yarn}) - m (\£78) - c$ (articles of consumption). The value elements of each individual portion of the yarn product of 10,000 lb., moreover, can be depicted as parts of the product just as much as the total product can. Just as the 10,000 lb. of yarn can be partitioned into constant capital value ($c$), 7,440 lb. of yarn with a value of £372, variable capital value ($v$), 1,000 lb. of yarn with a value of £50, and surplus-value ($s$), 1,560 lb. of yarn with a value of £78, so each lb. of yarn can be partitioned into $c$, 11.904 ounces with a value of 8.298 d., $v$, 1,600 ounces with a value of 1.200 d., and $s$, 2,496 ounces of yarn with a value of 1.872 d.* The capitalist can therefore successively consume the elements of surplus-value contained in the 10,000 lb. of yarn by its successive sale in successive portions, and also successively realize the sum of $c + v$ in this way. But this operation similarly presupposes that the entire 10,000 lb. is sold, and that the value of $c$ and $v$ is therefore replaced by the sale of 8,440 lb. (Volume I, Chapter 9, 2).

However this might be, by way of $C' - M'$ both the capital value and the surplus-value contained in $C'$ acquire a separable existence, the existence of different sums of money; both $M$ and $m$ are in each case actually the transformed form of the value that originally possessed its own expression merely as the price of the commodity, i.e. a merely ideal expression.

$c-m-c$ is simple commodity circulation, the first phase of which, $c-m$, is included in the circulation of the commodity capital $C'-M'$, and therefore in the circuit of capital; its complementary phase $m-c$, on the other hand, falls outside this circuit, as a separate process of general commodity circulation. The circulation of $C$ and $c$, capital value and surplus-value, divides after the transformation of $C'$ into $M'$. It follows from this:

Firstly, that when the commodity capital is realized by way of $C' - M'$, i.e. $C' - (M + m)$, the movement of capital value and surplus-value which, in $C' - M'$, was still common to both, and was borne by the same mass of commodities, becomes divisible, as the two now possess independent forms as sums of money.

Secondly, if this division takes place, with $m$ being spent by the

* See above, p. 122, note.
capitalist as revenue, while \( M \) continues the path prescribed for it by the circuit as the functional form of capital value, the first act \( C' - M' \), together with the subsequent acts \( M - C \) and \( m - c \), can be depicted as two different circulations: \( C - M - C \) and \( c - m - c \); both of these, in their general form, are series that belong to the ordinary commodity circulation.

Moreover, it happens in practice that where commodities are continuous in their physical composition, and hence indivisible, the value components are isolated ideally. In the London building trade, for example, which is conducted for the most part on credit, the contractor receives advances in various stages as the building of the house progresses. None of these stages is a house; each of them is rather a really existing component of a future house that is coming into being; despite its reality, it is thus only an ideal fraction of the whole house, but it is sufficiently real, all the same, to serve as security for an additional advance. (For more on this subject see Chapter 12 below.)

Thirdly, if the common movement of capital value and surplus-value in \( C \) and \( M \) only divides in part (so that a part of the surplus-value is not spent as revenue), or not at all, then a change in capital value takes place within the circuit of the capital value itself, before the circuit is completed. In our example, the value of the productive capital was £422. If \( M - C \) continues as £480, for example, or £500, then it traverses the final stages of the circuit as a value £58 or £78 greater than it originally was. This can also occur in combination with a change in its value composition.

\( C' - M' \), the second stage of circulation and the concluding stage of circuit I \((M \ldots M')\), is the second stage of the present circuit and the first stage of commodity circulation in it. In so far as circulation comes into consideration, it must thus be supplemented by \( M' - C' \). However \( M' - C' \) does not just have the process of valorization already behind it (in this case the function of \( P \), the first stage), but its result, the commodity product \( C' \), has already been realized. The valorization of capital, as well as the realization of the commodity product in which the valorized capital value is represented, thus ends with \( C' - M' \).

We have assumed simple reproduction, i.e. that \( m - c \) completely separates off from \( M - C \). Since both circulations, \( c - m - c \) and \( C - M - C \), belong in their general form to commodity circulation (and thus do not exhibit any difference in value between their extremes), it is quite easy to conceive the capitalist production process, as the vulgar economists* do, as the simple production of commodities, use-values destined for consumption of some kind or other, which the capitalist produced only in order to replace them with commodities of a different use-value, or to exchange them with these, as vulgar economics incorrectly puts it.

\( C' \) appears from the start as commodity capital, and the aim of the entire process, enrichment (valorization), by no means excludes a growth in the capitalist’s consumption in line with the increase in the magnitude of surplus-value. In fact it absolutely includes it.

In the circulation of the capitalist’s revenue, the commodity which has been produced, \( C \) (or the corresponding ideal fraction of the commodity product \( C' \)), serves in point of fact only to convert this revenue into money and from money into a series of other commodities for the purpose of private consumption. But in this connection one should not overlook the little fact that \( c \) is a commodity value which has not cost the capitalist anything; it is the embodiment of surplus labour, which originally stepped forth onto the stage as a component of the commodity capital \( C' \). This \( c \) is thus itself already linked in its existence to the circuit of the capital value in process, and if this comes to a halt or is disturbed in some way, it is not only the consumption of \( c \) that is restricted, or completely ceases, but in addition the market for the set of commodities that form the replacement for \( c \). This is similarly the case if \( C' - M' \) goes awry or only a portion of \( C' \) can be sold.

We have seen that \( c - m - c \), as the circulation of the capitalist’s revenue, enters into the capital circulation only in so far as \( c \) is a value portion of \( C' \), capital in its functional form as commodity capital. But as soon as it becomes independent through \( m - c \), thus in the form as a whole, \( c - m - c \), it does not enter into the movement of the capital advanced by the capitalist, even though it proceeds from this. It is related to it in so far as the existence of capital presupposes the existence of the capitalist, and this latter is conditional on his consumption of surplus-value.

Within the general circulation, \( C' \) functions for example as yarn, simply as a commodity; but as a moment of the circulation of capital it functions as commodity capital, a form that the capital value alternately assumes and discards. When the yarn is sold to the merchant it is removed from the circuit of that capital whose product it is, but still continues as a commodity in the orbit of general circulation. The circulation of this mass of commodities continues, even though it has ceased to form a moment in the independent circuit of the capital of the spinner. The really definitive metamorphosis of the mass of commodities thrown into circulation by the capitalist, \( C - M \), its final abandonment to con-

*See above, p. 101, note.
The Metamorphoses of Capital and their Circuit

... can thus be completely separated in time and space from the metamorphosis in which this mass of commodities functions as his commodity capital. The same metamorphosis that has already been accomplished in the circulation of this capital remains still to be completed in the sphere of the general circulation.

Nothing is changed if the yarn now enters the circuit of another industrial capital. The general circulation includes the intertwining of the circuits of the various independent fractions of the social capital, i.e. the totality of individual capitals, as well as the circulation of those values that are not placed on the market as capital, in other words those going into individual consumption.

The relation between the circuit of capital as it forms part of general circulation, and as it provides the links in an independent circuit, is further displayed if we consider the circulation of \( M' = M + m \), as money capital, continues the circuit of capital. \( m \), spent as revenue \((m-c)\), goes into the general circulation, but is cast out of the circuit of capital. Only that part of it enters the latter circuit that functions as additional money capital. In \( c-m-c \), money functions simply as coin; the purpose of this circulation is the individual consumption of the capitalist. Vulgar economics shows its characteristic cretinism by the way that it depicts this circulation, which does not enter into the circuit of capital — the circulation of the portion of the value product that is consumed as revenue — as the characteristic circuit of capital.

In the second phase, \( M-C \), the capital value \( M = P \) (the value of the productive capital that opens this circuit of industrial capital) is again present, having rid itself of the surplus-value, i.e. with the same value magnitude as in the first stage of the circuit of money capital \( M-C \). Despite the different position, the function of the money capital into which the commodity capital has now been changed remains the same: its transformation into \( mp \) and \( L \), means of production and labour-power.

The capital value in the function of the commodity capital \( C' \) has thus passed through the phase \( C-M \), at the same time as \( C-M \), and it now moves into the complementary phase \( M-C \); its overall circulation is thus \( C-M \).

Firstly, the money capital \( M \) appeared in form I (circuit \( M' \)) as the original form in which the capital value was advanced; now it appears from the start as a part of the sum of money into which the commodity capital has been transformed in the first phase of circulation \( C'-M' \), thus from the start as a transformation, mediated by the sale of the commodity product, of \( P \), the productive capital, into the money form. Here the money capital exists from the outset neither as the original nor as the concluding form of the capital value, since it is only through repeatedly stripping off the money form that the phase \( M-C \) that complements the phase \( C-M \) can be completed. Hence the portion of \( M-C \) that is simultaneously \( M-L \) also appears no longer as a mere advance of money for acquiring labour-power, but as an advance in which the same, 1,000 lb. of yarn with a value of £50 is advanced for the labour-power in the money form, and this forms a portion of the commodity value produced by the labour-power. The money that is here advanced to the worker is only the transformed equivalent form of a portion of the commodity value that he himself produces. And for this reason alone, the act \( M-C \), in so far as it is \( M-L \), is in no way simply the substitution of commodities in use form for commodities in money form, but includes other elements that are independent of the general circulation of commodities as such.

\( M' \) appears as the transformed form of \( C' \), which is itself the product of the past function of \( P \), the production process; the entire sum of \( M' \) thus appears as the monetary expression of past labour. In our example, 10,000 lb. of yarn = £500, the product of the spinning process; 7,440 lb. of this equals the constant capital advanced, \( c = £372 \); 1,000 lb. equals the variable capital advanced, \( v = £50 \); and 1,560 lb. of yarn equals the surplus-value, \( s = £78 \). If, out of \( M' \), it is only the original capital of £422 that is advanced afresh, other circumstances remaining the same, then the worker merely receives as the next week's advance in \( M-L \) a portion of the 10,000 lb. of yarn produced in this week (the money value of 1,000 lb. of yarn). As the result of \( C-M \), the money is throughout the expression of past labour. In so far as the complementary act \( M-C \) is immediately performed on the commodity market, and \( M \) is thus converted into existing commodities found on the market, there is again a conversion of past labour from one form (money) into another (commodity). But \( M-C \) is separate from \( C-M \) in time. It can in exceptional cases be simultaneous, if for example the capitalist who performs \( M-C \) and the capitalist for whom this act is \( C-M \) transfer their respective commodities to each other at the same time, and \( M \) simply settles the balance. The difference in time between the execution of \( C-M \) and that of \( M-C \) may be more or less considerable. Although, as the result of the act \( C-M \), \( M \) represents past labour, \( M \) can represent...
for the act $M\rightarrow C$ the transformed form of commodities that are not yet present on the market at all, but will be there only in the future, since $M\rightarrow C$ does not need to take place until $C$ has been produced afresh. In the same way, $M$ may represent commodities that are produced simultaneously with the $C$ whose monetary expression it is. In the conversion $M\rightarrow C$, for example (acquisition of means of production), coal may be purchased before it is extracted from the mine. Insofar as $m$ figures as accumulation of money, and is not spent as revenue, it can represent cotton that will only be produced next year. The same applies to the expenditure of the capitalist’s revenue, $m\rightarrow c$, and holds even for the wages of labour = £50; this money is not only the monetary form of the workers’ past labour, but also a draft on simultaneous or future labour that will only be realized, or is supposed to be realized, in the future. The worker may use it to buy a coat that will only be made one week later. This is in particular the case with the very large number of necessary means of subsistence that must be consumed almost immediately, the moment they are produced, if they are not to spoil. In the money with which his wage is paid, therefore, the worker receives the transformed form of his own future labour or that of other workers. With one part of his past labour the capitalist gives him a draft on his own future labour. It is his own simultaneous or future labour which forms the as yet non-existent reserve stock with which his past labour is paid for. Here the idea that a stock has to be formed is completely demolished.

Secondly, in the circulation $C\rightarrow M\rightarrow C\sim L_{mp}$, the same money changes its position twice; the capitalist first receives it as a seller, and then gives it out again as buyer. The transformation of the commodity into the money form only serves to transform it from the money form into the commodity form again, and so the money form of capital, its existence as money capital, is thus only an evanescent moment in this movement. Alternatively, the money capital, in so far as the movement is fluid, appears as a means of circulation only when it serves as a means of purchase; it appears as an actual means of payment only when capitalists buy from each other, hence when there is simply a balance of payments to be settled.

Thirdly, the function of money capital, whether it serves as mere means of circulation or as means of payment, is simply to mediate the replacement of $C$ by $L$ and $mp$, i.e. to replace the yarn, the commodity product which is the result of the activity of the productive capital (after deduction of the surplus-value spent as revenue), with its own elements of production, i.e. to transform capital value back from its form as commodity into the elements of formation of this commodity; it thus mediates, in the last instance, only the transformation of commodity capital back into productive capital.

In order for the circuit to run its normal course, $C'$ must be sold at its value and as a whole. Furthermore, $C\rightarrow M\rightarrow C$ does not just include the replacement of one commodity by another, but its replacement in the same value relations. We have made the assumption that this is what happens here. In fact, however, the value of the means of production varies; capitalist production is precisely marked by a continuous change in value relations, if only because of the constant change in the productivity of labour that characterizes it. We shall deal with this change in the value of the factors of production later,* and for the moment we merely indicate it. The transformation of the elements of production into the commodity product, $P$ into $C'$, proceeds in the sphere of production, while the transformation of $C'$ back into $P$ takes place in the circulation sphere. It is mediated by the simple metamorphosis of commodities. Its content, however, is a moment of the reproduction process considered as a whole. $C\rightarrow M\rightarrow C$, as a form of circulation of capital, includes a functionally specific interchange of material. The conversion $C\rightarrow M\rightarrow C$ further requires that $C$ be equal to the elements of production of the commodity quantum $C'$, and that these maintain their original value relations to each other; thus it is not only assumed that the commodities are bought at their values, but also that they do not suffer any change of value during the circuit; if this is not the case, then the process cannot run its normal course.

In $M\ldots M'$, $M$ is the original form of the capital value, and is cast aside only in order to be re-assumed later. In $P\ldots C'\rightarrow M'\rightarrow C'\ldots P$, $M$ is only a form assumed in the process, and is already cast aside again within this. Here the money form appears simply as an evanescent form of value of the capital; the capital as $C'$ is anxious to assume the money form but the capital as $M'$ is equally anxious to get rid of it, as soon as it has pupated into it, in order to convert itself once more into the form of productive capital. As long as it persists in the shape of money, it does not function as capital, and thus is not valorized; the capital remains idle. $M$ functions here as a means of circulation, even though a means of circulation of capital.† The appearance of inde-

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*See below, Chapter 15, 5, pp. 360–68.
†Marx’s manuscript here carries the note: ‘Against Tooke’. Thomas Tooke was
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The dependence that the money form of the capital value possesses in the first form of the circuit (that of money capital), vanishes in this second form, which thus constitutes a critique of form I, and reduces this to a mere particular form. If the second metamorphosis $M-C$ comes up against obstacles (e.g. if the means of production are unobtainable on the market), then the circular flow of the reproduction process is interrupted, just as if the capital was tied up in the form of commodity capital. The difference, however, is that it can last out longer in the money form than in its previous commodity form. It does not cease to be money when it functions as capital; but it does cease to be a commodity, and in fact a use-value in general, if it is detained too long in its function as commodity capital. Secondly, in the money form it is able to assume a form other than its original one of productive capital, while as $C$ it can move no further.

In its form, $C'-M'-C$ includes for $C'$ only acts of circulation which are moments of its reproduction; but the real reproduction of the $C$ into which $C'$ is converted is necessary to the performance of $C'-M'-C$; this is however conditional on reproduction processes outside the reproduction process of the individual capital depicted in $C'$.

In form I, $M-C_L^L$ simply prepared the first transformation of money capital into productive capital; in form II it prepares the transformation of commodity capital back into productive capital; thus, in so far as industrial capital remains invested in the same business, it prepares the transformation of commodity capital back into the same elements of production from which it emerged. It therefore appears here, as in form I, as a preparatory phase for the production process, but as a return to this process, a repetition of it, hence as a forerunner to the reproduction process, and so also to the repetition of the valorization process.

We again have to note here that $M-L$ is not simple commodity exchange, but the purchase of a commodity $L$ that is to serve for the production of surplus-value, while $M-mp$ is only a procedure that is materially indispensable to the accomplishment of this end.

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With the completion of $M-C_L^L$, $M$ has been transformed back into productive capital, and begins the circuit afresh.

The form $P\ldots C'-M'-C\ldots P$ can therefore be expanded as follows:

$$ P\ldots C' \begin{cases} (C-m') \quad (M-C_L^L) \quad P \\ (c-m) \quad c \end{cases}$$

The transformation of money capital into productive capital is the purchase of commodities for the purpose of commodity production. It is only in so far as consumption is productive consumption of this kind that it falls within the actual circuit of capital; the condition for consumption to occur is that surplus-value is made by means of the commodities thus consumed. And this is something very different from production, even commodity production, whose purpose is the existence of the producers; such a replacement of commodity by commodity conditioned by surplus-value production is something quite other than an exchange of products that is simply mediated by money. But this is how the matter is presented by the economists, as proof that no overproduction is possible.

Besides the productive consumption of $M$, transformed into $L$ and $mp$, the circuit contains the first link of $M-L$, which for the worker is $L-M$ and $M-C$. Of the worker's circulation $L-M-C$, which includes his consumption, only the first link falls into the circuit of capital, as the result of $M-L$. The second act, i.e. $M-C$, does not fall into the circulation of the individual capital, although it proceeds from it. The constant existence of the working class, however, is necessary for the capitalist class, and so, therefore, is the consumption of the worker mediated by $M-C$.

The act $C'-M'$ merely assumes that $C'$ is transformed into money, is sold, so that the circuit of the capital value can continue, and the surplus-value can be consumed by the capitalist. The commodity is of course bought only because it is a use-value, i.e. is suitable for some kind of consumption, productive or individual. But if $C'$ circulates further, e.g. in the hands of the merchant who has bought the yarn, this in no way disturbs — initially at least — the continuation of the circuit of the individual capital that has produced the yarn and sold it to the merchant. The whole process follows its course, and with it also the individual consumption of the capitalist and the worker that is conditional on it. This point is an important one in considering crises.
As soon as $C'$ is sold, it is transformed into money, it can be transformed back into the real factors of the labour process, and hence of the reproduction process. Hence whether $C'$ is bought by the final consumer or by the merchant who intends to sell it again does not directly alter the matter in any way. The volume of the mass of commodities brought into being by capitalist production is determined by the scale of this production and its needs for constant expansion, and not by a pre-determined ambit of supply and demand, of needs to be satisfied. Besides other industrial capitalists, mass production can have only wholesale merchants as its immediate purchasers. Within certain bounds, the reproduction process may proceed on the same or on an expanded scale, even though the commodities ejected from it do not actually enter either individual or productive consumption. The consumption of commodities is not included in the circuit of the capital from which they emerge. As soon as the yarn is sold, for example, the circuit of the capital value represented in the yarn can begin anew, at first irrespective of what becomes of the yarn when sold. As long as the product is sold, everything follows its regular course, as far as the capitalist producer is concerned. The circuit of the capital value that he represents is not interrupted. And if this process is expanded (which includes an expansion of the productive consumption of the means of production), then this reproduction of capital can be accompanied by a more expanded individual consumption (and thus demand) on the part of the workers, since this is introduced and mediated by productive consumption. The production of surplus-value and with it also the individual consumption of the capitalist can thus grow, and the whole reproduction process find itself in the most flourishing condition, while in fact a great part of the commodities have only apparently gone into consumption, and are actually lying unsold in the hands of retail traders, thus being still on the market. One stream of commodities now follows another, and it finally emerges that the earlier stream had only seemed to be swallowed up by consumption. Commodity capitals now vie with each other for space on the market. The late-comers sell below the price in order to find itself in the most flourishing condition, while in fact a great part of the commodities have only apparently gone into consumption, and are actually lying unsold in the hands of retail traders, thus being still on the market. One stream of commodities now follows another, and it finally emerges that the earlier stream had only seemed to be swallowed up by consumption. Commodity capitals now vie with each other for space on the market. The late-comers sell below the price in order to find itself in the most flourishing condition, while in fact a great part of the commodities have only apparently gone into consumption, and are actually lying unsold in the hands of retail traders, thus being still on the market. One stream of commodities now follows another, and it finally emerges that the earlier stream had only seemed to be swallowed up by consumption. Commodity capitals now vie with each other for space on the market. The late-comers sell below the price in order to demand for payment, with the absolute necessity of transforming commodities into money. At this point the crisis breaks out. It first becomes evident not in the direct reduction of consumer demand, the demand for individual consumption, but rather in a decline in the number of exchanges of capital for capital, in the reproduction process of capital.

In order to fulfil its function as money capital, as a capital value destined to be transformed back into productive capital, $M$ is converted into the commodities $mp$ and $L$. If these commodities are to be purchased or paid for at different dates, $M-C$ then takes the form of a series of successive purchases and payments, so that a part of $M$ performs the act $M-C$, while another part persists in the money state, and only serves for simultaneous or successive acts $M-C$ at a time determined by the conditions of the process itself. It is withdrawn from circulation only temporarily, to step into action and fulfil its function at a definite point in time. This storing of money is then itself a function determined by its circulation and for circulation. Its existence as a fund for purchase and payment, the suspension of its movement, its state of interrupted circulation, is then a situation in which the money fulfils one of its functions as money capital. For, in this case, the money that is temporarily dormant is itself a part of the money capital $M$ (of $M'$ minus $m = M$), of the value portion of the commodity capital equal to $P$, the value of the productive capital, from which the money that is withdrawn originates. Furthermore, all the money that is withdrawn from circulation exists in the form of a hoard. The hoard form thus becomes here a function of the money capital, just as in $M-C$ the function of money as a means of purchase or payment becomes a function of the money capital, and indeed, precisely because the capital value exists here in the form of money, the money state is here a state of industrial capital in one of its stages, prescribed by the circuit as a whole. But it also proves true once again here that, within the circuit of industrial capital, money capital performs no other functions than those of money, and these money functions have the significance of capital functions only through their connection with the other stages of the circuit.

The expression of $M'$ as a relation between $m$ and $M$, as a capital relation, is not a direct function of the money capital, but rather of the commodity capital $C'$, which in turn expresses, as a relation between $c$ and $C$, only the result of the production process, of the self-valorization of the capital value that takes place within it.

If the circulation process comes up against obstacles, so that $M$ has to suspend its function $M-C$ as a result of external circumstances - the state of the market, etc. - and on this account persists for a shorter or
longer time in its money state, then this is again a form of hoarding, which can also arise in simple commodity circulation if the transition from \( C \rightarrow M \) to \( M \rightarrow C \) is interrupted by external circumstances. It is the involuntary formation of a hoard. In our case, the money thus has the form of latent money capital, money capital that lies idle. However, we shall not go into this any further for the moment.

In both cases, the persistence of money capital in its money state appears as the result of interrupted movement, whether this is expedient or inexpedient, voluntary or involuntary, functional or dysfunctional.

2. ACCUMULATION AND REPRODUCTION ON AN EXPANDED SCALE

Since the proportions in which the production process can be expanded are not arbitrary, but are prescribed by technical factors, the surplus-value realized, even if it is destined for capitalization, can often only grow to the volume at which it can actually function as additional capital, or enter the circuit of capital value in process, by repeating a number of circuits. (Until then, therefore, it must be stored up.) The surplus-value thus builds up into a hoard, and in this form it constitutes latent money capital. Latent, because as long as it persists in the money form, it cannot function as capital.¹ Thus the formation of a hoard appears here as a moment that is comprised within the process of capitalist accumulation, accompanies it but is at the same time essentially different from it. For the reproduction process is not itself expanded by the formation of latent money capital. On the contrary. Latent money capital is formed here because the capitalist producer cannot directly expand the scale of his production. If he sells his surplus-product to a gold or silver producer, who thereby throws new gold or silver into circulation — or, what comes to the same thing, if he sells it to a merchant who uses part of the national surplus product to import additional gold or silver from abroad — then his latent money capital forms an increment to the national gold or silver hoard. In all other cases, the £78, say, that was means of circulation in the hands of the purchaser, has assumed in the hands of the capitalist only the form of a hoard; thus all that has taken place is a new distribution of the national gold or silver hoard.

If money functions as means of payment in our capitalist's transactions (so that the commodity only has to be paid for by the purchaser at a later date), then the surplus product destined for capitalization is not transformed into money, but into claims for payment, titles to property equivalent to a sum that the purchaser either already has in his possession or expects to come into. It does not enter into the reproduction of the circuit, any more than the money that is invested in interest-bearing securities, etc., even though it can enter the circuits of other individual industrial capitals.

The whole character of capitalist production is determined by the valorization of the capital value advanced, thus in the first instance by the production of the greatest possible amount of surplus-value; secondly, however (see Volume 1, Chapter 24), by the production of capital, i.e. the transformation of surplus-value into capital. Accumulation, or production on an expanded scale, which first appears as a means towards the constantly extended production of surplus-value, hence the enrichment of the capitalist, as the personal end of the latter, and is part of the general tendency of capitalist production, becomes in the course of its development, as was shown in the first volume, a necessity for each individual capitalist. The constant enlargement of his capital becomes a condition for its preservation. However, it is not necessary here to come back to what was already developed earlier.

We first considered simple reproduction, in which connection it was assumed that the whole of the surplus-value is spent as revenue. In actual fact, a part of the surplus-value must always be spent as revenue in normal circumstances, and another part capitalized, and it is quite immaterial in this connection that at certain periods the surplus-value produced is completely consumed, and at others completely capitalized. If the movement takes its average course, and this is all that the general formula can express, there is a bit of both. In order not to complicate the formula, it is better to assume that the whole of the surplus-value is accumulated. The formula \( P \ldots C' \rightarrow M' \rightarrow C' \rightarrow L_{mp} \ldots P' \) then expresses: productive capital which is to be reproduced on a larger scale and with greater value, and begins its second circuit — or what comes to the same thing, repeats its first circuit — as augmented productive capital. As soon as this second circuit begins, we once again have \( P \) as the point of

¹. The expression ‘latent’ is borrowed from the physical concept of latent heat, which has now been more or less displaced by the theory of the transformation of energy. In Part Three, therefore, which is a later draft, Marx used the expressions ‘potential capital’, borrowed from the concept of potential energy, or by analogy with D'Alembert's virtual velocities, 'virtual capital'. – F. E.
departure; it is simply that $P$ is now a larger productive capital than the first $P$ was. Similarly, in the formula $M \ldots M'$, the second circuit begins with $M'$, and $M'$ functions as $M$, as money capital of a specific magnitude, which has been advanced; it is a larger money capital than that with which the first circuit commenced, but all reference to its augmentation through the capitalization of surplus-value has vanished, once it steps forth in the function of money capital advanced. This origin was obliterated in its form as money capital just beginning its circuit. It is just the same with $P'$, as soon as it functions as the point of departure for a new circuit.

If we compare $P \ldots P'$ with $M \ldots M'$, the first circuit, we see that each has a quite different significance. $M \ldots M'$, taken by itself as an isolated circuit, simply expresses that $M$, the money capital (or industrial capital in its circuit as money capital), is money breeding money, value breeding value, and brings forth surplus-value. In the circuit of $P$, on the contrary, the process of valorization is already complete as soon as the first stage, the production process, has taken place, and once it has passed through the second stage $C' - M'$ (the first of the circulation stages), capital value and surplus-value already exist as realized money capital, as $M'$, which in the first circuit appeared as the final extremity. The fact that surplus-value is produced was depicted in the first form of $P \ldots P$ that was considered (see the expanded formula on p. 79) by $c - m - c$, the second stage of which falls outside the circulation of capital and represents the circulation of surplus-value as revenue. In this form, in which the entire movement is represented by $P \ldots P$, and there is thus no difference in value between the two end points, the valorization of the value advanced, the creation of surplus-value, is depicted as much as it is in $M \ldots M'$; it is simply that the act $C' - M'$ appears as the final stage in $M \ldots M'$, but as the second stage in the circuit, and first of the circulation stages, in $P \ldots P'$.

In $P \ldots P'$, $P'$ does not express the fact that surplus-value is produced, but rather that the produced surplus-value is capitalized, i.e. that capital has been accumulated, and hence $P'$, as opposed to $P$, consists of the original capital value plus the value of the capital accumulated through its movement.

$M'$, as the simple conclusion of $M \ldots M'$, as also $C'$, as it appears within all these circuits, express, taken by themselves, not the movement, but rather its result; the valorization of the capital value realized in the commodity or money form, and hence the capital value as $M + m$ or as $C + c$, as the relation of the capital value to the surplus-value as its derivative. These express this result as different forms of circulation of the capital value that has been valorized. But neither in the form $C'$ nor in the form $M'$ is the valorization that has taken place a function of the money capital or the commodity capital. As a specific and distinct form or mode of existence that corresponds to the particular functions of industrial capital, money capital can perform only money functions, and commodity capital only commodity functions; the distinction between them is simply that between money and commodity. In the same way, industrial capital in its form as productive capital can consist only of the same elements as those of any other labour process that fashions products: on the one hand the objective conditions of labour (means of production), on the other hand productively (purposively) active labour-power. As industrial capital within the sphere of production can exist only in the combination corresponding to the production process in general, and thus also to the non-capitalist production process, so it can exist in the sphere of circulation only in the two forms of commodity and money that correspond to this. Just as the sum of the elements of production proclaims itself from the start to be productive capital, in so far as the labour-power is the labour-power of others which the capitalist has bought from its owners; just as he has bought his means of production from the owners of other commodities, hence just as the production process itself appears as a productive function of industrial capital – so money and commodities appear as forms of circulation of this industrial capital, and thus also their functions as its circulation functions, which either pave the way for the functions of productive capital, or derive from them. It is only through their connection as functional forms which industrial capital has to go through in the various stages of its circuit that the money function and the commodity function are here at the same time functions of money capital and commodity capital. It is wrong, therefore, to seek to ascribe the specific properties and functions that characterize money as money and commodities as commodities to their character as capital, and it is just as wrong; conversely, to derive the properties of productive capital from its mode of existence in the means of production.

When $M'$ or $C'$ are depicted as $M + m$, $C + c$, i.e. as a relation between the capital value and the surplus-value as its offshoot, this relation is expressed in one case in the money form, and the other case in the commodity form, but this does not alter the matter in any way. This relation thus does not arise from properties and functions that can be ascribed either to the money or the commodity as such. In both cases, the charac-
teristic property of capital, that it is money which breeds money, is only
expressed as the result. \(C\) is always the product of the function of \(P\), and
\(M'\) is always simply the form into which \(C\) has been transformed in the
circuit of industrial capital. Hence, as soon as the realized money capital
recommences its particular function as money capital, it ceases to
express the capital-relation contained in \(M' = M + m\). When the move-
ment \(M . . . M'\) has been passed through, and \(M'\) begins the cycle anew,
it does not figure as \(M'\), but rather as \(M\), even if the entire surplus-value
contained in \(M'\) has been capitalized. In our case, the second circuit
begins with a money capital of £500, instead of with £422 as did the first
circuit. The money capital that opens the circuit is £78 greater than
previously and this difference exists when one circuit is compared with
another, but such a comparison is not made within the individual circuit
itself. The £500 now advanced as money capital, of which £78 existed
earlier as surplus-value, does not play a different role from the £500
which another capitalist might use to open his first circuit. The same
applies in the circuit of productive capital. The enlarged \(P'\) appears as \(P\)
when the circuit is begun again, just like \(P\) in the simple reproduction
\(P . . . P\).

At the stage \(M' - C' < L < m_p\), the augmented magnitude is indicated
simply by \(C'\), and not by \(L'\) and \(m_p\). Since \(C\) is the sum of \(L\) and \(m_p\), it
is already indicated by \(C'\) that the sum of the \(L\) and \(m_p\) contained in it is
greater than the original \(P\). Secondly, however, the designations \(L'\) and
\(m_p\) would be false, as we know that the growth of capital involves a
change in its value composition, in the course of which the value of \(m_p\)
constant grows, while that of \(L\) always declines relatively, and often
even absolutely.

3. ACCUMULATION OF MONEY

Whether \(m\), surplus-value in its golden form, is immediately added on
to the capital value in process, and can thus embark on the circuit
together with the capital \(M'\), making a total magnitude of \(M'\), depends
on circumstances that are independent of the mere presence of \(m\). If \(m\)
is to serve as money capital in a second independent business alongside
the first, it is clear that it can be invested in this only if it possesses the
minimal magnitude required for such a business. If it is invested in
extending the original business, then the relationship between the
material factors of \(P\), as well as their value relationship, similarly deter-
mines a certain minimal magnitude for \(m\). Between all means of produc-
tion operating in this business there is not only a qualitative relation,
but also a quantitative ratio, a proportionality. The above-mentioned
material factors and the value relationships, borne by them, between the
factors which enter into the productive capital, determine the minimum
size that \(m\) must possess in order to be convertible either into additional
means of production and labour-power, or into the former alone, as an
increase of productive capital. Thus the mill-owner cannot increase the
number of his spindles without simultaneously purchasing a corre-
sponding number of carding machines and roving-frames, to say nothing
of the increased outlay on cotton and wages that this extension of his
business would demand. For him to extend his business in this way,
therefore, the surplus-value must already amount to a fair sum (£1 per
additional spindle is generally reckoned on). As long as \(m\) has not
reached this minimum size, the capital circuit must be repeated several
times, until the sum of the \(m\)'s successively produced by it can function
together with \(M\) in the form \(M' - C' < L < m_p\). Even detailed changes in the
spinning machinery, for example, that make it more productive, require
greater outlay on raw material, extension of the roving machinery, etc.
In the meantime, therefore, \(m\) is stored up, and its accumulation is not
its own function, but the result of repeated \(P . . . P\). Its own function is
its persistence in the money state until the repeated circuits of valoriza-
tion, i.e. an external factor, have added to it sufficiently for it to have
attained the minimum magnitude required for it to function actively,
the magnitude at which it can really function for the first time as money
capital, i.e. in the given case enter into the function of the money capital
\(M\) as an accumulated portion of the latter. In the meantime it is stored
up, and exists only in the form of a hoard in the process of formation
and growth. Thus the accumulation of money, the formation of a hoard,
appears here as a process that temporarily accompanies an extension
of the scale on which industrial capital operates. Temporarily, because
as long as the hoard persists in its state as a hoard, it does not function
as capital, does not participate in the valorization process, but remains
a sum of money that grows only because money available to it without
any effort on its part is cast into the same coffer.

The form of the hoard is simply the form of money not in circulation,
money that is interrupted in its circulation and is therefore preserved in
its money form. As far as the process of hoard formation itself is con-
cerned, this is common to all commodity production, and it is only in the undeveloped pre-capitalist forms of the latter that it plays a role as an end in itself. In our case, however, the hoard appears as a form of money capital, and hoard formation as a process that temporarily accompanies the accumulation of capital, because and in so far as money figures here as latent money capital; because the formation of a hoard, the hoarded state of the surplus-value present in money form, is a functionally determined preparatory stage that proceeds outside the circuit of capital, and paves the way for the transformation of surplus-value into really functioning capital. This characteristic is what makes it latent money capital, and is also why the scale that it must have attained in order to enter the process is determined by the value composition of the productive capital in each particular case. As long as it persists in the state of a hoard, it does not yet function as money capital, it is still money capital lying fallow; not interrupted in its function, as in the previous case, but rather as yet incapable of performing this function.

Here we take the accumulation of money in its original real form, as a real hoard of money. It can also exist merely in the form of favourable balances, of sums owed to the capitalist who has sold $C'$. As far as concerns the other forms, in which this latent money capital may in the interval exist in the actual shape of money which breeds money, e.g. as interest-bearing deposits in a bank, bills of exchange or securities of one kind or other, these do not belong here. In that case, the surplus-value realized in money performs particular capital functions outside the circuit of the industrial capital from which it arose; functions which have nothing to do with that circuit as such, and assume the existence of functions of capital distinct from the functions of industrial capital, which have not yet been developed here.

### 4. The Reserve Fund

In the form just considered, the hoard in which the surplus-value exists, the money accumulation fund, is the money form which capital accumulation temporarily possesses, and in this respect it is itself a condition for this accumulation. But the accumulation fund can also perform particular ancillary services, i.e. it can enter into the circulation process of capital, without the latter possessing the form $P \ldots P'$, i.e. without capitalist reproduction on an expanded scale.

If the process $C' - M'$ extends beyond its normal duration, then the commodity capital is abnormally delayed in its transformation into the money form; alternatively, if, when the transformation is completed, the price of the means of production into which the money capital must be converted has risen, for example, above the level that it had at the beginning of the circuit, then the hoard that functions as accumulation fund can be used to take the place of money capital, or a part of this. The money accumulation fund then serves as a reserve fund to cope with disturbances in the circuit.

As a reserve fund of this kind, it is different from the fund for purchase and payment considered in the circuit $P \ldots P$. The latter was a part of the functioning money capital (thus the form of existence of a part of the total capital value in process), the parts of which functioned successively at different points in time. It formed a constant reserve of money capital in the continuity of the production process, as one day money is received and no payments have to be made until later, while another day large quantities of commodities are sold, and only at a later date do large quantities of commodities have to be bought; within these intervals, therefore, a part of the circulating capital always exists in the money form. The reserve fund, on the other hand, is not a component part of the functioning capital, or, more precisely, the money capital, but rather capital going through a preliminary stage of its accumulation, surplus-value that has not yet been transformed into active capital. It goes without saying, of course, that when the capitalist is in need, he in no way ponders over the specific functions of the money that he has in his hands, but uses whatever he has in order to get the circulation process of his capital moving again. In our example, for instance, $M = £422, M' = £500$. If part of the capital of £422 exists as a fund for purchase and payment, as a monetary reserve, it is reckoned that, with circumstances remaining the same, it will enter as a whole into the circuit, and will also be sufficient for this purpose. The reserve fund, however, is a part of the £78 surplus-value; it can enter the circuit of the capital of £422 only in so far as this circuit is accomplished in altered circumstances; for it is a part of the accumulation fund, and it figures here without an expansion in the scale of reproduction.

In the money accumulation fund, money already exists as latent money capital, and is thus transformed into money capital.

The general formula for the circuit of productive capital, which comprises both simple reproduction and reproduction on an expanded scale, is:
Chapter 3: The Circuit of Commodity Capital

The general formula for the circuit of commodity capital is:

\[ C'\rightarrow M'\rightarrow C \rightarrow P \rightarrow C' \]

Here \( C' \) does not just appear as the product of the two earlier circuits, but also as their premise, since what is \( M-C \) for one capital already involves \( C'-M' \) for another, at least in so far as a part of the means of production are themselves the commodity product of other individual capitals in their circuits. In our case, for example, coal, machinery, etc. are the commodity capital of the mine-owner, the capitalist engineer, etc. It has already been shown in Chapter 1, 4, moreover, that when \( M... M' \) is being repeated for the first time, even before this second circuit of the money capital is completed, not only is the circuit \( P... P \) presupposed, but also the circuit \( C'... C' \).

If there is reproduction on an expanded scale, then the concluding \( C' \) is greater than the starting \( C' \), and will therefore be designated here as \( C'' \).

The difference between the third form and the two previous ones is first apparent in that here the circuit commences with the entire circulation, in its two opposing phases, whereas in form I the circulation was interrupted by the production process, and in form II the entire circulation and its two complementary phases simply appeared as a mediation for the reproduction process, and hence formed the mediating movement between \( P... P \). With \( M... M' \), the form of circulation is \( M-C... C'-M' \), or \( M-C-M \). With \( P... P \), it is conversely \( C'-M' \), \( M-C \), or \( C-M-C \). In \( C'... C' \) it similarly has this latter form.

Secondly, when the circuits I and II are repeated, even if the final points \( M' \) and \( P' \) form the points of departure for a new circuit, the form in which they were produced vanishes. Both \( M'=M+m \), and \( P'=P+p \), begin the new process once more as \( M \) and \( P \). In form III, however, the starting-point \( C \) must be designated as \( C' \), even when the
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The circuit is renewed on the same scale. The reason for this is as follows. In form I, as soon as $M'$, as such, opens a new circuit, it functions as money capital $M$, the advance in monetary form of the capital value which is to be valorized. The magnitude of the money capital advanced has increased, for it has grown by way of the accumulation accomplished in the first circuit. But whether the magnitude of the money capital advanced is £422 or £500 in no way alters the fact that it appears simply as capital value. $M'$ no longer exists as valorized capital, as capital pregnant with surplus-value, as a capital-relation. It is only in the course of the process that it is to be valorized. The same holds for $P \ldots P'$; $P'$ must always continue to function as $P$, as capital value which should produce surplus-value, and always repeat the circuit. The circuit of commodity capital, on the other hand, does not just open with capital value, but with expanded capital value in the commodity form, and thus it includes from the start not only the circuit of the capital value present in the commodity form, but also that of the surplus-value. Hence if simple reproduction takes place in this form, this involves at the close of the circuit a $C'$ of equal magnitude to the one at its starting-point. If a part of the surplus-value goes into the capital circuit, then what appears at the end is in fact not $C'$ but $C''$, a bigger $C'$; but the following circuit still opens with $C'$, which is simply a greater $C'$ than in the previous circuit and begins its new circuit with a greater accumulated capital value, hence also with relatively more newly produced surplus-value. In all cases, $C'$ always opens the circuit as a commodity capital equal to capital value plus surplus-value.

In the circuit of an individual industrial capital, $C'$ as $C$ appears not as the form of this capital, but as the form of another industrial capital, in so far as the means of production are the product of this other capital. The act $M-C$ (i.e. $M-mp$) of the first capital is for this second capital $C'-M'$.

In the act of circulation $M-C_{mp}L$, $L$ and $mp$ behave identically in so far as they are commodities in the hands of their sellers, in the one case the workers who sell their labour-power, in the other the possessors of the means of production, who sell the latter. For the buyer, whose money functions here as money capital, both these things function merely as commodities, as long as he has not yet bought them, thus as long as they confront his capital, existing in the commodity form, as the commodities of others. $mp$ and $L$ are distinguished here only in so far as $mp$ is $C'$ in the hands of its seller, and can thus be capital if $mp$ is the commodity form of his capital, whereas $L$ is always just a commodity for the worker, and becomes capital only in the hands of the buyer, as a component part of $P$.

$C'$ can therefore never open a circuit as mere $C$, as merely the commodity form of the capital value. As commodity capital, it always has a dual aspect. From the point of view of use-value, it is the product of the function of $P$, here yarn, whose elements $L$ and $mp$, emerging from circulation as commodities, have only functioned to fashion this product. Secondly, from the point of view of value, it is the capital value $P$ plus the surplus-value $m$ produced in the function of $P$.

It is only in the circuit of $C'$ itself that $C = P =$ the capital value can and must separate itself from the portion of $C'$ in which surplus-value exists, from the surplus product in which the surplus-value is hidden, whether the two are actually separable, as in the case of yarn, or not, as in the case of the machine. They become separable in any case, as soon as $C'$ has been transformed into $M'$.

If the total commodity product is divisible into independent and homogeneous partial products, as for example our 10,000 lb. of yarn, and if the act $C'-M'$ can thus be represented as a sum of successively performed sales, then the capital value can function as $C$ in the commodity form and separate itself off from $C'$ before the surplus-value is realized, therefore before $C'$ is realized as a whole.

Of the 10,000 lb. of yarn with a value of £500, the value of 8,440 lb. = £422 = the capital value, separated from the surplus-value. If the capitalist first sells 8,440 lb. for £422, then this 8,440 lb. represents $C$, the capital value in commodity form; the additional surplus product contained in $C'$, which consists of 1,560 lb. of yarn and = a surplus-value of £78, only circulates later; the capitalist could complete $C-M-C_{mp}L$ before the circulation of the surplus product $c-m-c$.

Alternatively, if he firstly sells 7,440 lb. of yarn at its value of £372, and then 1,000 lb. at its value of £50, he could replace the means of production (the constant capital $c$) with the first part of $C$, and the variable capital $v$, i.e. the labour-power, with the second part of $C$, and then proceed as before*.

But if there are successive sales of this kind, and the conditions of the circuit allow it, then the capitalist, instead of dividing $C'$ into $c+v+s$, can undertake this division also for aliquot parts of $C'$.

For example, 7,440 lb. of yarn, = £372, which as a portion of $C'$

* See above, p. 122, note.
The Metamorphoses of Capital and their Circuit

(10,000 lb. of yarn = £500) represents the constant capital, can itself be further broken down into 5,535-360 lb. of yarn with a value of £276·768 which simply replaces the constant part, the value of the means of production used up in the 7,440 lb.; 744 lb. of yarn with a value of £37·200, which replaces the variable capital; and 1,160-640 lb. of yarn with a value of £58·032, which carries the surplus-value in the form of surplus product. Having thus sold 7,440 lb., he can replace the capital value contained in it from the sale of 6,279·360 lb. at a price of £313·968, and spend the value of the surplus product of 1,160-640 lb. = £58·032 as revenue.

He can in the same way break down 1,000 lb. of yarn = £50 = the variable capital, and accordingly sell: 744 lb. of yarn for £37·200, the value of the constant capital in 1,000 lb. of yarn; 100 lb. of yarn for £5, the variable capital value of the same — thus 844 lb. of yarn for £42·200 replace the capital value contained in the 1,000 lb. of yarn; finally, 156 lb. of yarn at its value of £7·800, which represents the surplus product contained in the 1,000 lb. and may be consumed as such.

Finally he can break down the remaining 1,560 lb. of yarn, with its value of £7·800, when he manages to sell it, in such a way that the sale of 1,160-640 lb. for £58·032 replaces the value of the means of production contained in this 1,560 lb., and 156 lb. at its value of £7·800 replaces the variable capital value — together this makes 1,316-640 lb. of yarn = £65·832, the replacement of the total capital value; so that finally the surplus product of 243·360 lb. = £12·168 remains to be spent as revenue.

As each of the elements c, v and s existing in the yarn is divisible into the same component parts, so is each individual lb. of yarn with a value of 1 shilling or 12d.

\[
c = 0·744 \text{ lb. yarn} = 8·928 \text{d.}
\]

\[
v = 0·100 \text{ lb. yarn} = 1·200 \text{d.}
\]

\[
s = 0·156 \text{ lb. yarn} = 1·872 \text{d.}
\]

\[c+v+s = 1 \text{ lb. yarn} = 12 \text{d.}\]

If we add together the results of the three partial sales as above, then we get the same result as if the entire 10,000 lb. of yarn was sold at one stroke.

In constant capital:
1st sale: 5,535·360 lb. yarn = £276·768
2nd sale: 744·000 lb. yarn = £37·200
3rd sale: 1,160·640 lb. yarn = £58·032
together 7,440 lb. yarn = £372

In variable capital:
1st sale: 744·000 lb. yarn = £37·200
2nd sale: 100·000 lb. yarn = £5·000
3rd sale: 156·000 lb. yarn = £7·800
together 1,000 lb. yarn = £50

In surplus-value:
1st sale: 1,160·640 lb. yarn = £58·032
2nd sale: 156·000 lb. yarn = £7·800
3rd sale: 243·360 lb. yarn = £12·168
together 1,560 lb. yarn = £78

Grand total:
constant capital: 7,440 lb. yarn = £372
variable capital: 1,000 lb. yarn = £50
surplus-value 1,560 lb. yarn = £78
together 10,000 lb. yarn = £500

Taken by itself, \(C'-M'\) is nothing more than a sale of 10,000 lb. of yarn. The 10,000 lb. of yarn is a commodity like all other yarn. What interests the buyer is the price of 1 shilling per lb., or £500 for 10,000 lb. If he goes into the value composition in the course of his bargaining, he does so only with the crafty intention of showing that it could be sold below 1 shilling per lb. and the seller would still be doing good business. But the quantity that he buys will depend upon his needs; if he is the owner of a weaving-mill, for example, it will depend on the composition of his own capital functioning in this weaving-mill and not on that of the capital of the spinner from whom he buys it. The ratio in which \(C'\) has to serve, on the one hand to replace the capital utilized in it (or its various components), on the other hand as surplus product, whether the surplus-value is destined to be spent or for capital accumulation, exists only in the circuit of the capital whose commodity form is represented by the 10,000 lb. of yarn. It has nothing to do with the sale as such. It is assumed here, moreover, that \(C'\) is sold at its value, and so all that is involved is its transformation from the commodity form into the money form. It is of course decisive for \(C'\), as a functional form in the circuit of this individual capital, whether and to what extent price and value diverge from one another in the sale, but here, where we are merely considering distinctions of form, this is of no concern.

In form I, \(M...M'\), the production process appears in the middle, between the two complementary and mutually opposed phases of the circulation of capital; it is over with before the concluding phase \(C'-M'\).
begins. Money is advanced as capital, first transformed into the elements of production, then transformed from these into the commodity product, and this commodity product then again converted into money. This is a finished and complete cycle of business, the result being money which can be used by anyone for anything. Thus the recommencement of the cycle is indicated only as a possibility. \( M \ldots P \ldots M' \) may just as well be the final circuit, concluding the functioning of the individual capital, which is then withdrawn from the business, or else the first circuit of a capital that newly enters into its function. Here the general movement is \( M \ldots M' \), from money to more money.

In form II, \( P \ldots C' \ldots M' \ldots C \ldots P'(P') \), the entire circulation process follows the first \( P \) and precedes the second; but it follows in the opposite order to that of form I. The first \( P \) is productive capital, and its function is the production process, as precondition for the subsequent process of circulation. The concluding \( P \), on the contrary, is not the production process; it is only the renewed existence of the industrial capital in its form of productive capital. Furthermore, this is the result of the transformation of the capital value into \( L+mp \) that is accomplished in the final circulation phase, into the objective and subjective factors that constitute, in their union, the form of existence of productive capital. Whether the capital is \( P \) or \( P' \), it is present once more at the conclusion in a form in which it must function once more as productive capital, must again accomplish the production process. The general form of the movement \( P \ldots P' \) is the form of reproduction, and does not indicate, as does \( M \ldots M' \), that valorization is the purpose of the process. For this reason, classical economics found it all the more easy to ignore the specifically capitalist form of the production process, and to present production as such as the purpose of the process – to produce as much and as cheaply as possible, and to exchange the product for as many other products as possible, partly for the repetition of production \( (M-C) \), partly for consumption \( (m-c) \). In this connection, since \( M \) and \( m \) appear here only as evanescent means of circulation, the peculiarities of both money and money capital could be overlooked, the whole process then appearing simple and natural, i.e. possessing the naturalness of superficial rationality. In the case of commodity capital, similarly, profit was occasionally forgotten, and this capital figured, in so far as there was any mention of the production circuit as a whole, simply as a commodity; though as soon as the component parts of value were discussed, it figured as commodity capital. Accumulation, of course, appeared in the same light as production.

In form III, \( C' \ldots M' \ldots C \ldots P \ldots C' \), it is the two phases of the circulation process that open the circuit, and in fact in the same order as in form II, \( P \ldots P \) then follows, together with its function, the production process, as in form I; the circuit closes with the result of this process, \( C' \). Just as in form II the circuit closed with \( P \), the merely renewed existence of the productive capital, so here it closes with \( C' \), the renewed existence of the commodity capital; just as in form II the capital in its concluding form \( P \) had to begin the process again as a production process, so here it must reopen the circuit with the reappearance of the industrial capital in the form of commodity capital, with the circulation phase \( C' \ldots M' \). Both forms of the circuit are incomplete, because they do not conclude with \( M' \), with the valorized capital value transformed back into money. Both must thus be continued further, and hence include reproduction. The overall circuit in form III is \( C' \ldots C' \).

What differentiates the third form from the two earlier ones is that it is only in this circuit that the valorized capital value, and not the original capital value that has still to be valorized, appears as the starting-point of its own valorization. \( C' \), as capital-relation, is here the point of departure, and thus has a determining effect on the whole circuit, in so far as this includes, even in its first phase, both the circuit of the capital value and that of the surplus-value; and surplus-value must on average, even if not in every individual circuit, be partly spent as revenue and pass through the circulation \( c\cdot m\cdot c \), and partly function as an element of capital accumulation.

In the form \( C' \ldots C' \), the consumption of the entire commodity product is presupposed as the condition for the normal course of the circuit of capital itself. The individual consumption of the worker and the individual consumption of the non-accumulated part of the surplus product comprise, taken together, the total individual consumption. Thus consumption in its entirety – both individual and productive consumption – enters into the circuit of \( C' \) as a precondition. Productive consumption (which in the nature of the case includes the individual consumption of the worker, for labour-power is the permanent product, within certain limits, of the worker's individual consumption) is carried on by every individual capital. Individual consumption – other than is necessary for the existence of the individual capitalist – is presupposed only as a social act, in no way as the act of the individual capitalist.

In forms I and II, the overall movement presents itself as a movement of the capital value advanced. In form III, the valorized capital, in the shape of the total commodity product, forms the starting-point, and
possesses the form of capital in movement, commodity capital. It is only after its transformation into money that this movement splits up into movement of capital and movement of revenue. The division of the total social product, as well as the particular division of the product of every individual commodity capital, into an individual consumption fund on the one hand and a reproduction fund on the other, is included in this form of the circuit of capital.

\( M \ldots M' \) allows for the possible expansion of the circuit, according to the scale on which \( m \) enters the new circuit.

In \( P \ldots P \), \( P \) can begin the new circuit with the same value, perhaps even with a lesser value, and yet still represent reproduction on an expanded scale; if for example the commodity elements are cheapened as a result of the increased productivity of labour. Conversely, in the opposite case, a productive capital that has grown in value may represent reproduction on a materially more restricted scale, if for example the elements of production have become dearer. The same applies for \( C' \ldots C' \).

In \( C' \ldots C' \), capital in the commodity form is the premise of production; it reappears as a premise within this circuit in the second \( C \). If this \( C \) is not yet produced or reproduced, then the circuit is inhibited; this \( C \) must be reproduced, for the most part as the \( C' \) of another industrial capital. In this circuit, \( C' \) exists as the point of departure, the point of transit and the conclusion of the movement; in other words it is always there. It is a permanent condition for the reproduction process.

\( C' \ldots C' \) is distinguished from forms I and II by a further characteristic. All three circuits have in common that the form in which the capital opens its circuit is also the form in which it closes it, and it therefore finds itself back once more in the initial form, and in this form recommences the same circuit. The initial forms \( M, P \) and \( C' \) are always the forms in which the capital value is advanced (in form III together with the surplus-value that has adhered to it), i.e. their original forms as far as the circuit is concerned; the concluding forms \( M', P \) and \( C' \) are in each case the transformed form of a preceding functional form in the circuit which is not the original form.

Thus in form I, \( M' \) is the transformed form of \( C' \), while the closing \( P \) in form II is the transformed form of \( M \) (and in forms I and II this transformation is effected by way of a simple process of commodity circulation, by a formal change of position between commodity and money); in form III, \( C' \) is the transformed form of \( P \), the productive capital. But in this form III, the transformation firstly does not just affect the functional form of the capital, but also the magnitude of its value; while secondly, the transformation is not the result of a merely formal change of position belonging to the circulation process, but rather the real transformation which the use form and the value of the commodity components of the productive capital have undergone in the production process.

The form of the first extreme \( M, P \) and \( C' \) is given for each circuit, I, II or III; the returning form at the closing extreme is produced and hence determined by the series of metamorphoses of the circuit itself. \( C' \), as the closing point of the circuit of an individual industrial capital, only presupposes the form \( P \) of the same industrial capital, which does not belong to the circulation sphere, and it is the product of the form \( P \). \( M' \), as the closing point in I, the transformed form of \( C'(C'-M') \), presupposes \( M \) in the hands of the buyer, as existing outside the circuit \( M \ldots M' \), brought into it by the sale of \( C' \) and made into its own closing form. Thus, in form II, the closing \( P \) presupposes \( L \) and \( mp \) (\( C \)) as existing outside it and incorporated into it as the closing form by \( M-C \). But apart from the final extreme, the circuit of the individual money capital does not presuppose the existence of money capital as such, and the circuit of the individual productive capital does not presuppose the existence of productive capital in the circuit itself. In form I, \( M \) may be the only money capital, and in form II \( P \) may be the only productive capital, that appears on the historical scene. In III, however, i.e.

\[
\begin{align*}
C' & \xrightarrow{-M'} \left\{ \begin{array}{l}
\left\{ \begin{array}{l}
M-C<L_{mp} \ldots P \ldots C',
\end{array} \\
c- \end{array} \right.
\end{align*}
\]

\( C \) is twice presupposed outside the circuit. Firstly in the circuit \( C'-M'-C<L_{mp} \). This \( C \), in so far as it consists of means of production, is a commodity in the hands of its seller; it is itself commodity capital, in so far as it is the product of a capitalist production process; and even when this is not the case, it appears as commodity capital in the hands of the merchant. It is further presupposed in the second \( c \) of \( c-m-c \), which must similarly be present as a commodity in order to be bought. In either case, whether commodity capital or not, \( L \) and \( mp \) are commodities as much as \( C' \) is, and act towards one another as commodities. The same holds for the second \( c \) in \( c-m-c \). Thus, in so far as \( C' = C \) (\( L+mp \)), commodities are its own elements of formation, and must be replaced by equivalent commodities in the course of circulation, just as must the second \( c \) in \( c-m-c \).
Moreover, on the basis of the capitalist mode of production, as the prevailing mode, all commodities must be commodity capital in the hands of their sellers. They continue to be so in the hands of the merchant, or they become so if they were not so previously. Alternatively, they can be commodities such as imported articles, which replace original commodity capital, hence simply give it another form of existence.

The commodity elements \( L \) and \( mp \), of which the productive capital, \( P \), consists, do not possess the same shape, as forms of existence of \( P \), as they did on the various commodity markets from which they were brought together. They are now united, and in their combination they can function as productive capital.

If it is only in this form III, within the circuit itself, that \( C \) appears as a premise of \( C \), this is because the starting-point is capital in the commodity form. The circuit is opened by the conversion of \( C' \) (in so far as it functions as capital value, whether or not increased by the addition of surplus-value) into the commodities that form its elements of production. But this conversion comprises the entire circulation process \( C-M-C \) and is its result. \( C \) thus stands here at both extremes, though the second extreme, which receives its form from outside, from the commodity market, by way of \( M-C \), is not the last extreme of the circuit, but only the latter of the first two stages that comprise its circulation process. Its result is \( P \), and then \( P \)'s function begins, the production process. It is only as the result of this, i.e. not as the result of the circulation process, that \( C' \) appears as the close of the circuit and in the same form as the original extreme \( C' \). In \( M \ldots M' \) and \( P \ldots P \), on the other hand, the closing extremes \( M' \) and \( P \) are the direct results of the circulation process. This is why it is only at the close that \( M' \) in the first case, and \( P \) in the second case, are assumed to be in the hands of others. In so far as the circuit takes place between these extremes, neither \( M \) in the one case nor \( P \) in the other – the existence of \( M \) as someone else's money, and of \( P \) as another production process – appears as a precondition for these circuits. \( C' \ldots C' \), on the other hand, presupposes \( C \) (= \( L+mp \)) as other commodities in the hands of others, commodities which are drawn into the circuit and changed into productive capital by way of the opening process of circulation. Then, as the result of productive capital's function, \( C' \) once again becomes the closing form of the circuit.

But precisely because the circuit \( C' \ldots C' \) presupposes in its description the existence of another industrial capital in the form \( C \) (= \( L+mp \)) (and \( mp \) comprises other capitals of various kinds, e.g. in our case machines, coal, oil, etc.), it itself demands to be considered not only as the general form of the circuit, i.e. as a social form in which every individual industrial capital can be considered (except in the case of its first investment), hence not only as a form of motion common to all individual industrial capitals, but at the same time as the form of motion of the sum of individual capitals, i.e. of the total social capital of the capitalist class, a movement in which the movement of any individual industrial capital simply appears as a partial one, intertwined with the others and conditioned by them. If we consider, for example, the total annual commodity product of a country, and analyse the movement in which one part of this replaces the productive capital of all individual businesses, and another part goes into the individual consumption of the different classes, then we are considering \( C' \ldots C' \) as a form of motion of both the social capital and of the surplus-value or surplus product produced by this. The fact that the social capital is equal to the sum of the individual capitals (including joint-stock capital and also state capital, in so far as governments employ productive wage-labour in mines, railways, etc., and function as industrial capitalists), and that the total movement of the social capital is equal to the algebraic sum of the movements of the individual capitals, in no way prevents this motion, as the motion of an isolated individual capital, from displaying phenomena different from those displayed by the same motion, when it is viewed as a part of the total motion of the social capital, i.e. in its connection with the motions of the other parts of this; in this latter aspect, problems can be resolved whose solution must be presupposed in considering the circuit of a single individual capital, instead of resulting from the study of this.

\( C' \ldots C' \) is the only circuit in which the capital value originally advanced forms only a part of the extreme that opens the movement, and in which the movement in this way proclaims itself from the start as a total movement of industrial capital; a movement both of the part of the product that replaces the productive capital and of the part that forms surplus product and is on average partly spent as revenue, and partly has to serve as an element of accumulation. In so far as the expenditure of surplus-value as revenue is included in this circuit, individual consumption is also involved. This latter, however, is also included in so far as the starting-point \( C \), the commodity, exists as some particular kind of useful article; every capitalistically produced article is commodity capital, irrespective of whether its use form destines it...
for productive or individual consumption, or for both. \( M \ldots M' \) indicates only the value aspect, the valorization of the capital value advanced as the purpose of the whole process; \( P \ldots P (P') \) points to the production process of capital as a reproduction process with the productive capital remaining the same or growing in magnitude (accumulation); \( C' \ldots C' \), while it already proclaims itself in its initial extreme as a form of capitalist commodity production, comprises both productive and individual consumption from the start; productive consumption and the valorization included in it appear simply as a branch of its movement. Finally, since \( C' \) can exist in a use form incapable of entering any further production process, it is apparent from the start that the various value components of \( C' \), expressed in portions of the product, must assume a different position, according to whether \( C' \ldots C' \) is taken as a form of motion of the total social capital or as the independent movement of an individual industrial capital. In all these peculiarities, this circuit points beyond its own existence as the isolated circuit of a merely individual capital.

In the figure \( C' \ldots C' \), the movement of the commodity capital, i.e. of the capitalistically produced total product, appears both as premise of the independent circuit of the individual capital, and as conditioned by it in turn. Hence if this figure is conceived in its particularity, it is no longer sufficient to rest content with the fact that the metamorphoses \( C' \ldots M' \) and \( M' \ldots C' \) are on the one hand functionally determined sections of the metamorphosis of the capital, and on the other hand links in the general circulation of commodities. It is necessary to make clear how the metamorphoses of an individual capital are intertwined with those of other individual capitals, and with the part of the total product that is destined for individual consumption. This is why our analysis of the circuit of the individual industrial capital was primarily based on the first two forms.

In agriculture, for example, where they reckon from one harvest to the next, the circuit \( C' \ldots C' \) does appear as the form of a single individual capital. Figure II proceeds from the sowing, and figure III from the harvest, or, as the Physiocrats put it, from avances and reprises respectively.* In figure III the movement of the capital value appears from the start simply as a part of the movement of the general mass of products, while in figures I and II the movement of \( C' \) simply forms a moment in the movement of a single capital.

In figure III the commodities on the market form the permanent premise of the process of production and reproduction. Hence if attention is fixed exclusively on this figure, all the elements of the production process seem to proceed from commodity circulation and to exist only as commodities. This one-sided conception overlooks the elements of the production process that are independent of the commodity elements.

Since in \( C' \ldots C' \) the total product (the total value) is the point of departure, it is evident here that, leaving aside foreign trade, reproduction on an expanded scale, with productivity otherwise remaining the same, can take place only if the material elements of the additional productive capital are already contained in the part of the surplus product to be capitalized. That is to say, in so far as the production of one year serves as precondition for that of the next, or, in so far as production can occur together with the simple reproduction process within a year, surplus product is immediately produced in the form that enables it to function as additional capital. Increased productivity can increase only the material substance of capital, and cannot raise its value; but it still forms additional material for valorization.

\( C' \ldots C' \) is the basis of Quesnay's *Tableau économique*, and it shows great discernment on his part that he selected this form in opposition to \( M \ldots M' \) (the form fixed on and isolated by the Mercantile System), and not \( P \ldots P \).

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*Advances and returns. The French Physiocratic writers of the 1750s and 60s, in particular Quesnay and Turgot, were the first economists to begin to analyse production rather than simply circulation. They believed however that only agricultural labour was truly productive. Marx explains the characteristic doctrines of the Physiocrats and their origins in *Theories of Surplus-Value*, Part I, Chapter II.*
Chapter 4: The Three Figures of the Circuit

Taking $Tc$ to stand for the total circulation process, we can depict the three figures as follows:

(I) $M\cdots C \cdots P \cdots C'\cdots M'$

(II) $P \cdots Tc \cdots P$

(III) $Tc \cdots P \ (C')$

It we take all three forms together, then all the premises of the process appear as its result, as premises produced by the process itself. Each moment appears as a point of departure, of transit, and of return. The total process presents itself as the unity of the process of production and the process of circulation; the production process is the mediator of the circulation process, and vice versa.

Common to all three circuits is the valorization of value as the determining purpose, the driving motive. In figure I, this is actually expressed in the form. Form II begins with $P$, the valorization process itself. In form III, the circuit begins with the valorized value, and closes with the newly valorized value, even when the movement is repeated on the same scale.

In so far as $C-M$ is $M-C$ for the buyer and $M-C$ is $C-M$ for the seller, the circulation of capital simply displays the general metamorphosis of commodities, and the laws developed in connection with this (Volume 1, Chapter 3, 2), governing the amount of money in circulation, apply here too. However, if we do not just dwell on this formal aspect of the matter, but consider the real connection between the metamorphoses of the various individual capitals, in fact the connection between the circuits of individual capitals as partial movements of the reproduction process of the total social capital, then this process cannot be explained in terms of the simple change of form between money and commodity.

In a constantly rotating orbit, every point is simultaneously a starting-point and a point of return. If we interrupt the rotation, then not every starting-point is a point of return. Thus we have seen that not only does every particular circuit (implicitly) presuppose the others, but also that the repetition of the circuit in one form includes the motions which have to take place in the other forms of the circuit. Thus the entire distinction presents itself as merely one of form, a merely subjective distinction that exists only for the observer.

In so far as each of these circuits is considered as a particular form of the movement in which different individual industrial capitals are involved, this difference also exists throughout simply at the individual level. In reality, however, each individual industrial capital is involved in all three at the same time. The three circuits, the forms of reproduction of the three varieties of capital, are continuously executed alongside one another. One part of the capital value, for example, which for the moment functions as commodity capital, is transformed into money capital, while at the same time another part passes out of the production process into circulation as new commodity capital. Thus the circular form of $C'\cdots C'$ is constantly described, and the same is the case with the two other forms. The reproduction of the capital in each of its forms and at each of its stages is just as continuous as is the metamorphosis of these forms and their successive passage through the three stages. Here, therefore, the entire circuit is the real unity of its three forms.

We have assumed in our discussion that the capital value appears either as money capital, productive capital or commodity capital to the full extent of its magnitude. We thus had the £422, for example, first completely as money capital, then transformed fully into productive capital, finally as commodity capital: yarn to the value of £500 (including £78 surplus-value). The various stages here constitute an equal number of interruptions. For example, as long as the £422 persists in its money form, i.e. until the purchases $M-C\cdots L_{mp}$ are completed, the total capital exists and functions simply as money capital. Once it is transformed into productive capital, it functions neither as money capital nor as commodity capital. Its entire circulation process is interrupted, just as on the other hand its entire production process is interrupted as soon as it functions in one of the two stages of circulation, whether as $M$ or as $C'$. Thus the circuit $P\cdots P$ would present itself not only as a periodic renewal of the productive capital, but equally as an interruption in its function, the production process, until the circulation process had been completed; instead of taking place continuously, production would be pursued only in spasms and be repeated only after periods of
The real circuit of industrial capital in its continuity is therefore not only a unified process of circulation and production, but also a unity of all its three circuits. But it can only be such a unity in so far as each different part of the capital runs in succession through the successive phases of the circuit, can pass over from one phase and one functional form into the other; hence industrial capital, as the whole of these parts, exists simultaneously in its various phases and functions, and thus describes all three circuits at once. The succession [Nacheinander] of the various parts is here determined by their coexistence [Nebeneinander], i.e. by the way in which the capital is divided. In the developed factory system, the product is continuously at the various stages of its formation, and in transition from one phase of production to another. Since each individual industrial capital has a definite size, which is dependent on the means of the capitalist and has a definite minimum for each branch of industry, definite numerical ratios must obtain in its division into parts. The size of the capital involved determines the scale of the production process, and this determines the volume of commodity capital and money capital, in so far as these function alongside the production process. The coexistence which determines the continuity of production, however, exists only through the movement in which the portions of capital successively describe the various stages. The coexistence is itself only the result of the succession. If $C' - M'$ comes to a halt in the case of one portion, for example, if the commodity is unsaleable, then the circuit of this part is interrupted and its replacement by its means of production is not accomplished; the successive parts that emerge from the production process as $C'$ find their change of function barred by their predecessors. If this continues for some time, production is restricted and the whole process brought to a standstill. Every delay in the succession brings the coexistence into disarray, every delay in one stage causes a greater or lesser delay in the entire circuit, not only that of the portion of the capital that is delayed, but also that of the entire individual capital.

The immediate form in which the process presents itself is that of a succession of phases, so that the transition of the capital into a new phase is determined by its abandonment of the previous one. Thus every particular circuit has one of the functional forms of the capital as its starting-point and point of return. On the other hand the total process is in fact the unity of the three circuits, which are the different forms in
which the continuity of the process is expressed. The total circuit
presents itself for each functional form of capital as its own specific
circuit, and indeed each of these circuits conditions the continuity
of the overall process; the circular course of one functional form deter-
mines that of the others. It is a necessary condition for the overall pro-
duction process, in other words for the social capital, that this is at
the same time a process of reproduction, and hence the circuit of each of
its moments. Different fractions of the capital successively pass through
the different stages and functional forms. Each functional form thus
passes through its circuit simultaneously with the others, though it is
always a different part of the capital that presents itself in it. A part of
the capital exists as commodity capital that is being transformed into
money, but this is an ever-changing part, and is constantly being repro-
duced; another part exists as money capital that is being transformed
into productive capital; a third part as productive capital being trans-
formed into commodity capital. The constant presence of all three
forms is mediated by the circuit of the total capital through precisely
these three phases.

As a whole, then, the capital is simultaneously present, and spatially
coexistent, in its various phases. But each part is constantly passing from
one phase or functional form into another, and thus functions in all of
them in turn. The forms are therefore fluid forms, and their simultaneity
is mediated by their succession. Each form both follows and precedes the
others, so that the return of one part of the capital to one form is de-
termined by the return of another part to another form. Each part con-
tinuously describes its own course, but it is always another part of
the capital that finds itself in this form, and these particular circuits simply
constitute simultaneous and successive moments of the overall process.

It is only in the unity of the three circuits that the continuity of the
overall process is realized, in place of the interruption we have just
delineated. The total social capital always possesses this continuity, and
its process always contains the unity of the three circuits.

For individual capitals, the continuity of reproduction is at certain
points interrupted, to a greater or lesser degree. Firstly, the quantities of
value are frequently distributed amongst the various stages and func-
tional forms in unequal portions, at different times. Secondly, these
portions may be differently divided, according to the character of the
commodity which has to be produced, thus according to the particular
sphere of production in which the capital has been invested. Thirdly,
the continuity may be more or less interrupted in branches of produc-
tion that depend on the season, either as a result of natural conditions
(agriculture, fishing for herrings, etc.), or as a matter of convention as is
the case with so-called seasonal work, for example. It is in the factory
and in mining that the process occurs most regularly and uniformly.
But this difference between branches of production does not give rise
to any difference in the general forms of the circuit.

Capital, as self-valorizing value, does not just comprise class relations,
a definite social character that depends on the existence of labour as
wage-labour. It is a movement, a circulatory process through different
stages, which itself in turn includes three different forms of the circu-
leratory process. Hence it can only be grasped as a movement, and not as
a static thing. Those who consider the autonomization [Verselbständi-
gung] of value as a mere abstraction forget that the movement of indus-
trial capital is this abstraction in action. Here value passes through
different forms, different movements in which it is both preserved and
increases, is valorized. Since we are firstly dealing here simply with the
forms of movement, we have not considered the revolutions that the
capital value may suffer in its circulatory process; it is clear however
that despite all revolutions in value, capitalist production can exist and
continue to exist only so long as the capital value is valorized, i.e. de-
scribes its circuit as value that has become independent, and therefore so
long as the revolutions in value are somehow or other mastered and
balanced out. The movements of capital appear as actions of the
individual industrial capitalist in so far as he functions as buyer of
commodities and labour, seller of commodities and productive capitalist,
and thus mediates the circuit by his own activity. If the social capital
value suffers a revolution in value, it can come about that his individual
capital succumbs to this and is destroyed, because it cannot meet the
conditions of this movement of value. The more acute and frequent
these revolutions in value become, the more the movement of the
independent value, acting with the force of an elemental natural process,
prevails over the foresight and calculation of the individual capitalist,
the more the course of normal production is subject to abnormal
speculation, and the greater becomes the danger to the existence of the
individual capitals. These periodic revolutions in value thus confirm
what they ostensibly refute: the independence which value acquires as
capital, and which is maintained and intensified through its movement.

This sequence of metamorphoses of capital in process implies the
continuous comparison of the change in value brought about in the
circuit with the original value of the capital. The independence of value
in relation to the value-forming power, labour-power, is introduced by the act $M-L$ (purchase of labour-power), and is realized during the production process as exploitation of labour-power. But this independence does not reappear in the circuit in which money, commodity and elements of production are only alternating forms of the capital value in process, and in which the past magnitude of the value is compared with the present, changed value of the capital.

‘Value,’ says Bailey, opposing the autonomization of value which characterizes the capitalist mode of production, and which he treats as the illusion of certain economists, ‘value is a relation between contemporary commodities, because such only admit of being exchanged with each other.’

He says this in opposition to the comparison of commodity values at different points in time, a comparison which, if the value of money at each period is taken as fixed, is simply a comparison between the expenditure of labour required in different epochs for the production of the same kind of commodities. This derives from his general misunderstanding, according to which exchange-value equals value, the form of value is value itself; thus commodity values cease to be comparable once they no longer actively function as exchange-values, and cannot actually be exchanged for one another. He does not in the least suspect, therefore, that value functions as capital value or capital only in so far as it remains identical with itself and is compared with itself in the different phases of its circuit, which are in no way ‘contemporary’, but rather occur in succession.

In order to consider the formula of the circuit in its pure state, it is not sufficient to assume that commodities are sold at their values; this must also take place in circumstances that in other respects, too, remain the same. If we take the form $P\ldots P$, for example, we must disregard all technical revolutions in the production process which may devalue the productive capital of a particular capitalist; we must also disregard any repercussions that a change in the value elements of the productive capital might have on the value of the existing commodity capital (which may rise or fall if there is a stock of this on hand). Let $C'$, the 10,000 lb. of yarn, be sold at its value of £500; 8,440 lb. = £422 replaces the capital value contained in it. But if the value of cotton, coal etc. rises (here we disregard mere price-fluctuations), then this £422 may not be sufficient to replace completely the elements of the productive capital; additional money capital is then necessary, i.e. money capital is tied up. Conversely, if these prices fall, money capital is set free. The process takes place quite normally only if value relations remain constant; in practice it runs its course as long as disturbances in the repetition of the circuit balance each other out; the greater the disturbances, the greater the money capital that the industrial capitalist must possess in order to ride out the period of readjustment; and since the scale of each individual production process grows with the progress of capitalist production, and with it the minimum size of the capital to be advanced, this circumstance is added to the other circumstances which increasingly turn the function of industrial capitalist into a monopoly of large-scale money capitalists, either individual or associated.

We may remark here, in passing, that when there is a change in the value of the elements of production, a distinction arises between the form $M\ldots M'$ on the one hand, and the forms $P\ldots P$ and $C'\ldots C'$ on the other.

In $M\ldots M'$, as the formula for newly invested capital, which first appears as money capital, a fall in the value of the means of production, e.g. raw materials, ancillaries, etc., means that a smaller outlay of money capital than previously is required in order to open a business of a particular size, since, given that the level of the productive forces remains the same, the scale of the production process depends only on the volume and scale of the means of production that a given quantity of labour-power can cope with, and not on the value of those means of production, or on that of the labour-power (the latter simply has an effect on the magnitude of the valorization). Conversely, if there is an increase in the value of the elements of production of the commodities which form the elements of productive capital, then more money capital is necessary in order to found a business of a given size. In both cases, it is only the amount of the money capital to be newly invested that is affected; in the first case, some money capital becomes superfluous, in the second case, more money capital is tied up, provided that the rate of increase of a new individual industrial capital proceeds as is usual in the given branch of production.

The circuits $P\ldots P$ and $C'\ldots C'$ behave in the same way as $M\ldots M'$ only in so far as the movement of $P$ and $C'$ is at the same time accumulation, i.e. in so far as excess $m$, money, is transformed into money capital.

*This quotation is from Samuel Bailey's *A Critical Dissertation on the Nature, Measures, and Causes of Value; Chiefly in Reference to the Writings of Mr Ricardo and His Followers*, London, 1825, p. 72. Although a vulgar economist who held value to be merely relative, Bailey did expose certain contradictions in the Ricardian theory. See *Theories of Surplus-Value*, Part 111, Chapter XX, pp. 124ff.
Otherwise, they are affected differently from $M \ldots M'$ by a change in the value of the elements of productive capital; here we once again disregard the impact a change in value of this kind has on the components which are already involved in the production process. Here it is not the original outlay that is directly affected, but rather an industrial capital involved not in its first circuit but in its process of reproduction, i.e. $C' \ldots C_\text{mp}'$, the conversion of commodity capital back into its elements of production, in so far as these consist of commodities. With a fall in value (or price), three cases are possible: first, the reproduction process may be continued on the same scale, in which case a part of the former money capital is set free, and money capital is stored up, though neither real accumulation (production on an expanded scale) nor the preliminary and accompanying transformation of $m$ (surplus-value) into an accumulation fund has taken place; second, the reproduction process may be expanded to a larger scale than would have otherwise been the case, if the technical proportions permit this; or third, a larger reserve of raw materials, etc., may be built up.

The opposite happens with a rise in the value of the replacement elements of commodity capital. Reproduction then no longer takes place on its normal scale (e.g. working hours may be cut); or, additional money capital has to be injected, in order to continue the former scale of reproduction (money capital is tied up); or, finally, the monetary accumulation fund, where there is one, has to serve in whole or in part for pursuing the reproduction process on its old scale, instead of expanding it. This also involves the tying up of money capital, although here the additional money capital does not come from an external source, from the money market, but rather from the resources of the industrial capitalist himself.

But there can be modifying circumstances to $P \ldots P$ and $C' \ldots C'$. If our cotton spinner has a large reserve of raw cotton, for example (i.e. a large part of his productive capital is in the form of a cotton stock), then a part of his productive capital will be devalued by a fall in cotton prices; if these rise, then this part of his productive capital conversely rises in value. On the other hand, if he has large quantities tied up in the form of commodity capital, e.g. in cotton yarn, then a fall in cotton prices will devalue a part of his commodity capital, and thus a part of his overall capital in the circuit; conversely with a rise in cotton prices.

In the process $C' - M - C_{\text{mp}}$, finally, if $C' - M$, the realization of commodity capital, has taken place before the change in value of the elements of $C$, then the capital is affected only in the way considered in the first case, i.e. in the second act of circulation $M - C < L_{\text{mp}}$; but if the change in value occurs before the completion of $C' - M$, then, with other circumstances remaining the same, the fall in the price of cotton leads to a corresponding fall in the price of yarn, and a rise in the price of cotton to a rise in the price of yarn. The effect on the various individual capitals invested in the same branch of production can be very different according to the different circumstances in which they are found. Money capital may also be set free or tied up as the result of differences in the duration of the circulation process, i.e. in the speed of circulation. This however belongs to the discussion of turnover. What interests us here is simply the real distinction which emerges between $M \ldots M'$ and the two other forms of the circuit with respect to changes in value of the elements of productive capital.

In the section of circulation $M - C < L_{\text{mp}}$, in the epoch when the capitalist mode of production is already developed, and hence dominant, a large part of the commodities which the means of production ($mp$) consist of are themselves the functioning commodity capital of others. From the standpoint of the seller, therefore, what takes place is $C' - M'$, the transformation of commodity capital into money capital. But this does not hold good absolutely. On the contrary. Within its circulation process, in which industrial capital functions either as money or as commodity, the circuit of industrial capital, whether in the form of money capital or commodity capital, cuts across the commodity circulation of the most varied modes of social production, in so far as this commodity circulation simultaneously reflects commodity production. Whether the commodities are the product of production based on slavery, the product of peasants (Chinese, Indian ryots), of a community (Dutch East Indies), of state production (such as existed in earlier epochs of Russian history, based on serfdom) or of half-savage hunting peoples, etc. – as commodities and money they confront the money and commodities in which industrial capital presents itself, and enter both into the latter's own circuit and into that of the surplus-value borne by the commodity capital, in so far as the latter is spent as revenue; i.e. in both branches of the circulation of commodity capital. The character of the production process from which they derive is immaterial; they function on the market as commodities, and as commodities they enter
both the circuit of industrial capital and the circulation of the surplus-value borne by it. Thus the circulation process of industrial capital is characterized by the many-sided character of its origins, and the existence of the market as a world market. What holds for foreign commodities holds also for foreign money; as commodity capital functions in relation to money simply as commodity, so this money functions towards commodity capital simply as money; the money functions here as world money.

Now, however, there are two further points to be made.

Firstly. As soon as the act $M\rightarrow mp$ is completed, the commodities ($mp$) cease to be commodities and become one of the modes of existence of industrial capital in its functional form $P$, productive capital. Their provenance is therefore obliterated; they now exist simply as forms of existence of industrial capital, and are incorporated into it. Yet it remains the case that their replacement requires their reproduction, and to this extent the capitalist mode of production is conditioned by modes of production lying outside its own stage of development. Its tendency, however, is to transform all possible production into commodity production; the main means by which it does this is precisely by drawing this production into its circulation process; and developed commodity production is itself capitalist commodity production. The intervention of industrial capital everywhere promotes this transformation, and with it too the transformation of all immediate producers into wage-labourers.

Secondly. Whatever the origin of the commodities that go into the circulation process of industrial capital (and these include the necessary means of subsistence into which variable capital is transformed after being paid to the workers so that they can reproduce their labour-power), whatever therefore may be the social form of the production process from which these commodities derive – they confront industrial capital straight away in its form of commodity capital, they themselves having the form of commodity-dealing or merchant's capital; and this by its very nature embraces commodities from all modes of production.

As the capitalist mode of production presupposes production on a large scale, so it also necessarily presupposes large-scale sale; sale to the merchant, not to the individual consumer. In so far as this consumer is himself a productive consumer, i.e. an industrial capitalist, i.e. in so far as industrial capital in one branch of production supplies means of production to another branch, there is also direct sale by one industrial capitalist to several others (in the form of orders, etc.). Each industrial capitalist is a direct seller in so far as he is himself his own merchant, which he is moreover also when he sells to a merchant.

Commodity trade is presupposed, as a function of merchant’s capital, and this develops ever further with the development of capitalist production. Thus we occasionally take its existence for granted in illustrating particular aspects of the capitalist circulation process; but in this general analysis we assume direct sale without the intervention of the merchant, since this intervention conceals various moments of the movement.

We may quote Sismondi, who presents the matter rather naively:

'Commerce employs a considerable capital, and this appears at first glance not to form part of that whose course we have charted. The value of the cloth accumulated in the stores of the draper seems at first to be completely different from the part of the year's production that the rich man gives to the poor man as a wage to have him work for him. But this capital has simply replaced that of which we have been speaking. In order to grasp clearly the progress of wealth, we started with its creation, and we have followed it through to its consumption. The capital employed in the manufacture of cloth, for example, we regarded as remaining constant. Exchanged against the revenue of the consumer, it divided into only two parts. One of these served as revenue for the manufacturer, in the form of profit, the other served as revenue for the workers in the form of wages, while they were manufacturing more cloth.

'But it was soon found to be to everyone's advantage for the various parts of this capital to replace one another, so that, if 100,000 crowns was sufficient for the whole circulation between the manufacturer and the consumer, this 100,000 crowns would be shared equally between the manufacturer, the wholesale merchant and the retailer. The first of these, who receives only a third of the total, does the same work as he did when he received the whole lot, because the moment its manufacture is completed, he finds the merchant to buy it much sooner than he would have found the consumer. The wholesaler's capital, for its part, is replaced by that of the retailer much sooner... The difference between the sums advanced in wages and the purchase price for the final consumer forms the profit on the capitals. It is divided between the manufacturer, the wholesaler and the retailer, after they have divided their functions between them, and the task accomplished is the same, even though it has employed three persons and three fractions of capital in place of one' (Nouveaux Principes, I, pp. 139, 140). 'All these' (the merchants) 'indirectly participated in production; for as the aim of
production is consumption, it cannot be considered accomplished until it has placed the object produced at the disposal of the consumer' (ibid., p. 137).

In considering the general forms of the circuit, and throughout this second volume in general, we take money to be metal money, excluding symbolic money, mere tokens of value which are specific to particular countries, as well as credit money, which we have not yet developed. Firstly, this is the course taken by history: credit money played no role, or at least not a significant one, in the early period of capitalist production. Secondly, the necessity of this course can be proved theoretically, in so far as everything critical that has so far been said about the circulation of credit money by Tooke and others compelled them time and again to look back at how the matter would present itself on the basis of mere metallic circulation. It should not be forgotten, however, that metallic money can not only function as means of purchase, but also as means of payment. For the sake of simplification, we generally take it, in this second volume, only in the first functional form.

The circulation process of industrial capital, which forms only one part of its individual circuit, is determined, in so far as it represents only a series of acts within the general commodity circulation, by the general laws that have already been developed (Volume I, Chapter 3). The same quantity of money, e.g. £500, puts correspondingly more industrial capitals into circulation (i.e. individual capitals in their form as commodity capitals), the greater the velocity of circulation of the money, thus the faster each individual capital passes through its series of metamorphoses into commodities and money. Capital of the same value accordingly requires less money for its circulation, the more the money functions as means of payment (e.g. the more that it is only balances that have to be settled when a commodity capital is replaced by its means of production), and the shorter the periods of payment (e.g. in the payment of wages). On the other hand, assuming that the velocity of circulation and all other circumstances remain the same, the amount of money needed to circulate as money capital, is determined by the sum of the prices of the commodities (price multiplied by the quantity of commodities), or alternatively, given the quantity and values of the commodities, by the value of the money itself.

But the laws of general commodity circulation apply only in so far as the circulation process of capital is a series of simple acts of circulation, and not in so far as the latter form functionally specific sections of the circuits of individual industrial capitals.

In order to make this clear, it is best to consider the circulation process in its uninterrupted interconnection, as it appears in the two forms:

(II)

\[
\begin{align*}
P \cdots C' & \stackrel{m-c}{\longrightarrow} \cdots M' \stackrel{L}{\longrightarrow} C \cdots P' \\
C \cdots M' & \stackrel{L}{\longrightarrow} \cdots P \stackrel{m-c}{\longrightarrow} C'
\end{align*}
\]

As a series of acts of circulation in general, the circulation process (whether as \( C-M-C \) or as \( M-C-M \)) simply presents two opposing series of commodity metamorphoses, each individual metamorphosis including the opposite metamorphosis on the part of the other person's commodity or money that confronts it.

\( C-M \) on the part of the commodity possessor is \( M-C \) on the part of the purchaser; the first metamorphosis of the commodity in \( C-M \) is the second metamorphosis of the commodity which steps forth as \( M \); conversely with \( M-C \). What was previously demonstrated, concerning the intertwining of the metamorphoses of a commodity at one stage with those of another commodity at another stage, therefore holds good for the circulation of capital, in so far as the capitalist is buyer and seller of commodities, and his capital accordingly functions as money towards others' commodities, or as a commodity towards others' money. This intertwining, however, is not by this token alone an entwining of the metamorphoses of capitals.

Firstly, \( M-C \) (\( mp \)), as we have seen, can depict an entwining of the metamorphoses of various individual capitals. The commodity capital of the cotton-spinner, yarn, for example, is in part replaced by coal. A part of his capital exists in the money form and is converted from this into the commodity form, while the capital of the mine-owner exists in the commodity form and is therefore converted into the money form; the same act of circulation here represents opposite metamorphoses on the part of two industrial capitals (which belong to different branches of production), i.e. an entwining of the series of metamorphoses of these capitals. As we have seen, however, the \( mp \) into which \( M \) is converted need not be commodity capital in the categorical sense, i.e. need not be
a functional form of industrial capital, produced by a capitalist. It is always $M-C$ on the one hand, and $C-M$ on the other, but not always an entwining of metamorphoses of capital. Furthermore, $M-L$, the acquisition of labour-power, is never an entwining of capital metamorphoses, for, while labour-power is certainly a commodity for the worker, it becomes capital only when it is sold to the capitalist. In the process $C-M'$, on the other hand, $M'$ does not need to be converted commodity capital; it can be the expression in money of the commodity labour-power (i.e. wages), or of a product produced by an independent worker, a slave, a serf or a community.

Secondly, it is by no means always the case that the functionally determined role played by every metamorphosis that takes place within the circulation process of an individual capital represents the corresponding opposite metamorphosis in the circuit of the other capital, particularly if we assume that the whole of production for the world market is pursued on a capitalist basis. In the circuit $P . . . P$, for example, the $M'$ that turns $C'$ into cash may be on the side of the buyer simply the monetary expression of his surplus-value (if the commodity is an article of consumption); alternatively, in $M'-C' \leq_{mp}^{L}$ (i.e. where accumulated capital is involved), it may be for the buyer of $mp$ simply a replacement for his capital advance, or it may not re-enter his capital circulation at all, particularly if this branches off into expenditure of revenue.

The way in which the various components of the total social capital, of which the individual capitals are only independently functioning components, alternately replace one another in the circulation process - both with respect to capital and to surplus-value - is thus not the result of the simple intertwining of the metamorphoses that occurs in commodity circulation, and which the acts of capital circulation have in common with all other processes of commodity circulation, but rather requires a different mode of investigation. Up till now, mere phrases have been taken as sufficient in this respect, although, when these are analysed more closely, they contain nothing more than indefinite notions, simply borrowed from the intertwining of metamorphoses that is common to all commodity circulation.

One of the most obvious peculiarities of the circuit of industrial capital, and thus of capitalist production, is the situation that on the one hand the elements from which productive capital is formed stem from the commodity market, and must be continually renewed from it, bought as commodities; and on the other hand the product of the labour process emerges from it as a commodity, and must constantly be sold anew as a commodity. A modern farmer in the lowlands of Scotland might for example be contrasted with an old-fashioned small peasant on the Continent. The former sells his entire product and thus has to replace all its elements, even the seed-corn, on the market, while the latter consumes the greater part of his product directly, buys and sells as little as possible, and as far as possible produces his tools, clothing, etc. himself.

Natural economy, money economy and credit economy have for this reason been counterposed as the three characteristic economic forms of motion of social production.

Firstly, these three forms do not represent phases of development of the same status. The so-called credit economy is itself only a form of the money economy, in so far as both terms express functions or modes of commerce $\text{[Verkehr]}^*$ between the producers themselves. In developed capitalist production, the money economy simply appears as the basis of the credit economy. Thus money economy and credit economy merely correspond to different stages of development of capitalist production; they are in no way different independent forms of commerce as opposed to natural economy. It would be just as valid to counterpose the very varied forms of natural economy as equal in status to the other two.

Secondly, what is emphasized in the categories money economy and credit economy, and stressed as the distinctive feature, is actually not the economy proper, i.e. the production process itself, but rather the mode of commerce between the various agents of production or pro-

*The term Verkehr plays an important role in The German Ideology, where it is conventionally translated as 'intercourse'. The concept this denotes was later to be rejected by Marx and Engels in favour of that of relations of production, as Göran Therborn explains in Science, Class and Society, NL B, 1976, pp. 368ff. The present passage, written in 1877, seems to be the only time that 'Verkehr' reappears in a conceptual sense in any of the volumes of Capital. Its meaning here, however, has clearly little to do with the early concept of The German Ideology. It rather covers what Marx and Engels more usually referred to as 'exchange' (Austausch), in the sense of 'mode of production and exchange'. The reason why Marx uses Verkehr here instead of the more usual Austausch would seem to be that he needs to use the term Tausch (exchange or barter) to refer to a particular form of 'commerce' between producers - the non-monetary exchange corresponding to a 'natural economy' and, since Tausch and Austausch are almost interchangeable in German usage, selects the looser term Verkehr to emphasize the general concept of which barter and monetary exchange (with the latter's sub-type credit) are the variants.
The capitalist casts less value into circulation in the form of money than he draws out of it, because he casts in more value in the form of commodities than he has extracted in the form of commodities. In so far as he functions merely as the personification of capital, as industrial capitalist, his supply of commodity-value is always greater than his demand for it. If his supply and demand matched one another in this respect, this would be equivalent to the non-valorization of his capital; it would not have functioned as productive capital; productive capital would have been transformed into commodity capital that had not been impregnated with surplus-value; it would not have extracted from labour-power during the production process any surplus-value in the commodity form, and thus not functioned as capital at all. The capitalist must indeed 'sell dearer than he has bought', but he manages to do this only because the capitalist production process enables him to transform the cheaper, because less valuable, commodities that he has bought into more valuable and hence dearer ones. He sells dearer, not because he sells above the value of his commodities, but because he sells commodities of a value greater than the sum of values of the ingredients required to produce them.

The greater the difference between the capitalist's supply and his demand, i.e. the greater the additional commodity value that he supplies over the commodity value that he demands, the greater the rate at which he valorizes his capital. His goal is not simply to cover his demand with his supply, but to have the greatest possible excess of supply over demand.

What is true for the individual capitalist, is true also for the capitalist class.

In so far as the capitalist simply personifies industrial capital, his own demand consists simply in the demand for means of production and labour-power. His demand for mp is smaller in value terms than the capital he has advanced; he buys means of production to a smaller value than the value of his capital, and hence to a still smaller value than that of the commodity capital that he supplies.

As far as his demand for labour-power is concerned, it is determined in its value by the ratio between his variable capital and his total capital, i.e. v:C. In capitalist production, therefore, this demand grows at a smaller rate than his demand for means of production. The capitalist buys more of mp than of L, and to a steadily increasing extent.

In so far as the worker converts his wages almost wholly into means of subsistence, and by far the greater part into necessities, the capitalist's demand for labour-power is indirectly also a demand for the means of consumption that enter into the consumption of the working class. But this demand equals v, and not an atom more (if the worker saves something out of his wages — we necessarily leave the matter of credit out of consideration here — this means that he transforms a part of his wage into a hoard and to this extent does not appear as a customer). The maximum limit of the capitalist's demand is \( C = c+v \), but his
supply is $c+v+s$; thus if the composition of his commodity capital is $80c+20v+20s$, then his demand is $80c+20v$, a value one fifth smaller than his supply. The greater the percentage of $s$ produced (the rate of profit), the smaller his demand in relation to his supply. Although, as production advances, the capitalist's demand for labour-power, and hence indirectly for necessary means of subsistence, becomes progressively smaller than his demand for means of production, it should not be forgotten that his demand for $mp$ is always smaller than his capital, considering this day by day. His demand for means of production must thus always be smaller in value than the commodity product of the capitalist who works with the same capital and under otherwise similar conditions, and supplies him with these means of production. That many capitalists are involved here, and not just one, in no way affects the matter. Assume that his capital is £1,000, the constant part of this being £800; then his demand on all these capitalists is £800. Together they supply for each £1,000 (no matter how much of this falls to each one of them and what portion this may constitute in his total capital), assuming the same rate of profit, means of production to a value of £1,200; thus his demand only covers two thirds of their supply, while his own total demand is only four fifths of his own supply, considered in value terms.

We still have to investigate the question of turnover, for the time being only in passing. Assume that his total capital is £5,000, of which £4,000 is fixed and £1,000 circulating; this $1,000 = 800c+200s$, according to the above assumption. His circulating capital must turn over five times in the year in order for his total capital to turn over once. His commodity product is then £6,000, i.e. £1,000 greater than the capital he advanced, which once again gives the same ratio of surplus-value as above: $5,000 C:1,000s = 100(c+v):20s$. Thus this turnover in no way alters the ratio of his total demand to his total supply, the former remaining one fifth smaller than the latter.

Let us assume that his fixed capital has to be renewed in ten years. Each year, then, he amortizes $1/10 = £400$. [After the first year] he has a value of £3,600 in fixed capital and £400 in money. In so far as repairs are necessary, and these do not exceed the average amount, they are simply capital that is invested at a later date. We can consider the matter as if he had allowed for all the repair costs when he assessed the value of his invested capital, in so far as this enters into the annual commodity product, so that these are included in the one tenth amortization. (If his repair needs are lower than average, this is simply a bonus for him, just as it is to his disadvantage if they are higher.) In any case, although (on the assumption that his total capital turns over once in the year) his annual demand remains £5,000, the same as the original capital value he advanced, it increases with respect to the circulating part of the capital, while it steadily declines with respect to the fixed part.

We now come to reproduction. Assume that the capitalist consumes the entire surplus-value $m$ and reconverts only the original capital sum $C$ into productive capital. The capitalist's demand is now equal in value to his supply. But this is not so in respect of the movement of his capital; as capitalist he exerts a demand only on the basis of four fifths of his supply (in value terms). The remaining fifth he consumes as non-capitalist, not in his function as capitalist, but for his private requirements or pleasures.

His account, reckoned in percentages, is then:

<table>
<thead>
<tr>
<th>Demand as capitalist</th>
<th>100, supply 120</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demand as man of the world</td>
<td>20, &quot;</td>
</tr>
<tr>
<td>Total demand</td>
<td>120, supply 120</td>
</tr>
</tbody>
</table>

This assumption is equivalent to assuming the non-existence of capitalist production and therefore the non-existence of the industrial capitalist himself. For capitalism is already essentially abolished once we assume that it is enjoyment that is the driving motive and not enrichment itself.

It is moreover also technically impossible. The capitalist must not only form a reserve capital to guard against price fluctuations, and in order to be able to await the most favourable conjunctures for buying and selling; he must accumulate capital, in order to extend production and incorporate technical advances into his productive organism.

In order to accumulate capital, he must first withdraw from circulation a part of the surplus-value that he obtained from it, and let it grow in the form of a hoard until it has assumed the requisite dimensions for an extension of his old business or the opening of a new line. As long as the hoarding continues, the capitalist's demand is not increased; the money is immobilized and does not withdraw from the commodity market an equivalent in commodities for the money equivalent that it has withdrawn for commodities supplied.

We have ignored credit here, and it pertains to credit if the capitalist deposits the money that he accumulates in a bank, for example, on current account bearing interest.
Chapter 5: Circulation Time

As we have seen, the movements of capital through the production sphere and the two phases of the circulation sphere are accomplished successively in time. The duration of its stay in the production sphere forms its production time, that in the circulation sphere its circulation time. The total amount of time it takes to describe its circuit is therefore equal to the sum of its production time and its circulation time.

The production time includes, of course, the period of the labour process; but this is not all. We should first recall that a part of the constant capital exists in means of labour such as machines, buildings, etc. which serve for constant repetitions of the same labour process until they are worn out. The periodic interruption of the labour process, at night for example, may interrupt the function of these means of labour, but it does not affect their stay in the place of production. They belong to this not only when they function, but also when they do not function. What is more, the capitalist must hold in reserve a certain stock of raw and ancillary materials, so that the production process can keep going for shorter or longer intervals on the previously determined scale, without depending on the accidents of daily supply on the market. This reserve of raw materials etc. is only gradually consumed productively. There is therefore a difference between the capital's production time and its functioning time. The production time of the means of production generally comprises (1) the time during which they function as means of production, and thus serve in the production process; (2) the pauses during which the production process, and thus also the functioning of the means of production incorporated in it, is interrupted; (3) the time during which they are held in reserve as conditions of the production process.

1. From here onwards, Manuscript IV.
2. The expression 'production time' is to be taken here in the active sense: the production time of the means of production is not the time that it takes to produce them, but that for which they participate in the production process of a commodity product. - F.E.

The difference so far considered is in each case a difference between the time that the productive capital remains in the production sphere and its time in the actual production process. But the production process may itself involve interruptions of the labour process and hence of working time, intervals in which the object of labour is exposed to the action of physical processes, without further addition of human labour. The production process, and hence the function of the means of production, continues in this case, even though the labour process, and hence the function of the means of production as means of labour, is interrupted. This is the case for example with corn that is sown, wine that ferments in the cellar, or material of labour that is exposed to chemical processes, as in many industries such as tanning. Here the production time is greater than the working time. The difference between the two consists in an excess of the production time over the working time. This excess is always based on the fact that the productive capital exists in a latent state in the production sphere, without functioning in the production process itself, or that it functions in the production process without being involved in the labour process.

The part of the latent productive capital that is simply held in readiness as a condition for the production process, such as cotton, coal, etc. in the spinning mill, acts neither to form products nor values. It is idle capital, although its idleness forms a condition for the uninterrupted flow of the production process. The buildings, apparatus, etc. that are necessary for storing the productive reserve (the latent capital) are conditions of the production process and hence form components of the productive capital advanced. They fulfill their function by maintaining the productive components in the preliminary stage; they make the raw material, etc. dearer, but since a part of this labour, in the same way as a part of all other wage-labour, is not paid for, it is productive labour and creates surplus-value. The normal interruptions of the overall production process, i.e. the intervals in which the productive capital does not function, produce neither value nor surplus-value. Hence the drive towards night work (Volume I, Chapter 10, 4). The intervals in the working time that the object of labour has itself to undergo during the production process create neither value nor surplus-value; but they further the product, form a part of its life, a process that it must pass through. The value of the apparatus, etc. is carried over to the product in proportion to the entire period during which it functions; the product
is placed in this stage by labour itself, and the use of this apparatus is just as much a condition of production as the reduction to dust of a part of the cotton that does not go into the product, but still carries its value over to it. The other part of the latent capital, such as the buildings, machines, etc., i.e. the means of labour whose function is interrupted only by the regular pauses in the production process – irregular interruptions as a result of a restriction of production, crises, etc. are pure loss – adds value, without entering into the formation of the product. The total value that the means of labour add to the product is determined by the average length of their life; they lose value because they lose use-value, not only in the time during which they are functioning, but also in the time during which they are not.

Finally, the value of that part of the constant capital that continues in the production process even when the labour process is interrupted appears once again in the result of the production process. The means of production are here placed by labour itself in conditions in which they undergo by themselves certain specific natural processes, the result of which is a specific useful effect or a changed form of their use-value. Labour always carries over the value of the means of production to the product, to the extent that it actually consumes these deliberately as means of production. Nothing is altered here by whether the labour must, through the means of labour, act continuously on the object of labour, in order to produce this effect, or whether it need only give the first impulse by placing the means of production in conditions in which they themselves undergo the intended alteration, without labour's further collaboration, as a result of natural processes.

Whatever may be the reason for the excess of production time over working time – whether it is because the means of production form only latent productive capital, i.e. still exist in a stage preliminary to the production process proper, or because their specific function is interrupted within the production process by the pauses in it, or because finally the production process itself requires interruptions in the labour process – in none of these cases do the means of production function to absorb labour. If they absorb no labour, then they absorb no surplus labour. Hence there is no valorization of the productive capital, as long as this finds itself in that part of its production time that is in excess of the working time, no matter how inseparable these pauses may be from the accomplishment of the valorization process. It is clear that the nearer production time and working time approach to equality, the greater the productivity and valorization of a given productive capital in a given space of time. The tendency of capitalist production is therefore to shorten as much as possible the excess of production time over working time. But although the production time of capital may diverge from its working time, it always includes the latter, and the excess itself is a condition of the production process. Thus the production time is always the time that the capital takes to produce use-values and valorize itself, hence to function as productive capital, although it includes time in which it is either latent or produces without being valorized.

Within the circulation sphere, capital exists as commodity capital and money capital. Its two circulation processes consist in transforming itself from the commodity form into the money form and from the money form into the commodity form. The circumstance that the transformation of the commodity into money is here at the same time the realization of the surplus-value embodied in the commodity, and that the transformation of money into commodity is at the same time the transformation of capital value into, or back into, the form of its elements of production, in no way changes the fact that these processes, as processes of circulation, are processes of simple commodity metamorphosis.

Circulation time and production time are mutually exclusive. During its circulation time, capital does not function as productive capital, and therefore produces neither commodities nor surplus-value. If we consider the circuit in its simplest form, so that the entire capital value always moves at one stroke from one phase to the other, then it is obvious that the production process is interrupted, and with it therefore the self-valorization of capital, so long as its circulation time lasts, and that according to the duration of the latter, the production process will be repeated sooner or later. If the various parts of the capital pass through the circuit in succession, so that the circuit of the total capital value is successively accomplished in the circuit of its various portions, then it is clear that the longer its aliquot parts remain in the circulation sphere, the smaller must be the part that functions at any time in the production sphere. The expansion and contraction of the circulation time hence acts as a negative limit on the contraction or expansion of the production time, or of the scale on which a capital of a given magnitude can function. The more that the circulation metamorphoses of capital are only ideal, i.e. the closer the circulation time comes to zero, the more the capital functions, and the greater is its productivity and self-valorization. If a capitalist works to order, receives payment on the delivery of his product, and is paid in his own means of production, then his time of circulation approaches zero.

Capital's circulation time generally restricts its production time, and
hence its valorization process. Moreover, it restricts this in proportion to its duration. This can increase or decrease very considerably, and hence restrict the production time of capital to a very different degree. But what political economy sees is only the appearance, i.e. the effect of the circulation time on the valorization process of capital in general. It conceives this negative effect as positive, because its results are positive. It sticks all the more firmly to this illusion, as it seems to provide it with the proof that capital possesses a mystical source of self-valorization that is independent of its production process and hence of the exploitation of labour, and derives rather from the sphere of circulation. We shall see later how even scientific economics let itself be taken in by this illusion, which, as we shall show, is confirmed by various phenomena: (1) The capitalist way of calculating profit, in which the negative reason appears as positive, in that with capitals in different spheres of investment, in which only the circulation times differ, longer circulation time is the basis for a higher price, in short, is one of the bases in the equalization of profits. (2) The circulation time forms only one moment of the turnover time; but the latter includes the production time or reproduction time. (3) The conversion of commodities into variable capital (wages) is conditioned by their previous transformation into money. In the case of capital accumulation, therefore, the conversion into additional variable capital takes place in the circulation sphere, or during the circulation time. Hence the accumulation arising therefrom appears to be due to the circulation time.

Within the sphere of circulation, capital passes through the two opposing phases $C-M$ and $M-C$, in whichever order. Thus its circulation time breaks down into two parts, the time needed for its transformation from commodity into money, and the time that it needs for its transformation from money into commodities. We already know from the analysis of simple commodity circulation (Volume 1, Chapter 3) that $C-M$, the sale, is the most difficult part of its metamorphosis, and thus forms the greater part of the circulation time in normal circumstances. As money, value exists in its ever convertible form. As commodity, it must first receive this form of direct exchangeability and hence constant readiness for action by being transformed into money. What is involved in the circulation process of capital in its phase $M-C$ is its transformation into those commodities which form the specific elements of productive capital in a given sphere of investment. The means of produc-

* By this Marx means classical political economy; see Volume 1, Chapter 1, 4, pp. 174–5, note 34.
within a certain interval of time, according to their particular characteristics, in other words if they are not sold within a definite time, then they get spoiled, and lose, together with their use-value, the property of being bearers of exchange-value. Both the capital value contained in them and the surplus-value added to it are lost. Use-values remain the bearers of perennial and self-valorizing capital value only in so far as they are constantly renewed, are replaced by new use-values of the same or another kind. Their sale in their finished commodity form, i.e. their entry, mediated through sale, into productive or individual consumption, is however the constantly repeated condition for their reproduction. They must change their old use form within a certain time, and continue their existence in a new one. It is only through this constant renewal of its body that the exchange-value maintains itself. The use-values of different commodities may decay at different speeds; thus a greater or lesser interval may elapse between their production and their consumption, and they may thus persist for a shorter or longer time in the circulation phase $C\to M$ as commodity capital, endure a shorter or longer circulation time as commodities. The limitation of the circulation time of commodity capital imposed by the spoiling of the commodity body itself is the absolute limit of this part of the circulation time, or of the time for which the commodity capital can circulate as commodity capital. The more perishable a commodity, the more directly after its production it must be consumed, and therefore sold, the smaller the distance it can move from its place of production, the narrower therefore is its sphere of spatial circulation, and the more local the character of its market. Hence the more perishable a commodity, the greater are the absolute barriers to its circulation time that its physical properties impose, and the less appropriate it is as an object of capitalist production. Capitalism can only deal in commodities of this kind in populous places, or to the extent that distances are reduced by the development of means of transport. The concentration of the production of an article in a few hands, however, and in a populous place, can create a relatively large market even for an article of this kind, as is the case with the big breweries, dairies, etc.

Chapter 6: The Costs of Circulation

I. PURE CIRCULATION COSTS

(a) Buying and Selling Time

Capital’s changes of form from commodity into money and from money into commodity are at the same time business transactions for the capitalist, acts of buying and selling. The time which these changes of form take for their completion exists subjectively, from the standpoint of the capitalist, as selling time and buying time, the time during which he functions as seller and buyer on the market. Just as the circulation time of capital forms a necessary part of its reproduction time, so the time during which the capitalist buys and sells, prowls around the market, forms a necessary part of the time in which he functions as a capitalist, i.e. as personified capital. It forms a part of his business hours.

Since it was assumed that commodities are bought and sold at their values, all that is involved in these acts is the conversion of the same value from one form into another – from the commodity form into the money form, and from the money form into the commodity form – a change of state. If the commodities are sold at their values, then the amounts of value in the hands of both buyer and seller remain unchanged; it is only the form of existence that has altered. If the commodities are not sold at their values, then the sum of converted values remains unaffected; what is a plus for one side is a minus for the other. But the metamorphoses $C\to M$ and $M\to C$ are business transactions between buyer and seller; they need time to come to terms, the more so in so far as a struggle is involved here, in which each side seeks to get the better of the other. It is businessmen who face each other here, and ‘when Greek meets Greek then comes the tug of war’.* The change of

state costs time and labour-power, not to create value, but rather to bring about the conversion of the value from one form into the other, and so the reciprocal attempt to use this opportunity to appropriate an excess quantity of value does not change anything. This labour, increased by evil intent on either side, no more creates value than the labour that takes place in legal proceedings increases the value of the object in dispute. This labour – which is a necessary moment of the capitalist production process in its totality, and also includes circulation, or is included by it – behaves somewhat like the 'work of combustion' involved in setting light to a material that is used to produce heat. This work does not itself produce any heat, although it is a necessary moment of the combustion process. For example, in order to use coal as a fuel, I must combine it with oxygen, and for this purpose transform it from the solid into the gaseous state (for carbon dioxide, the result of the combustion, is coal in this state: F.E.), i.e. effect a change in its physical form of existence or physical state. The separation of the carbon molecules that were combined into a solid whole, and the breaking down of the carbon molecule itself into its individual atoms, must precede the new combination, and this costs a certain expenditure of energy which it not transformed into heat, but rather detracts from the heat. When the commodity owners are not capitalists, but rather independent direct producers, the time they spend on buying and selling is a deduction from their labour time, and they therefore always seek (in antiquity, as also in the Middle Ages: F.E.) to defer such operations to feast days.

The dimensions assumed by the conversion of commodities in the hands of capitalists can naturally not transform this labour, which does not create value, but only mediates a change in the form of value, into value-creating labour. Just as little can such a miracle of transsubstantiation proceed by a transposition, i.e. if the industrial capitalists, instead of themselves performing the 'work of combustion', make this into the exclusive business of third parties paid by them. These third parties will certainly not put their labour-power at the disposal of the capitalists for the sake of their blue eyes. It is similarly immaterial for the rent collector of a landlord or the porter at a bank that their labour does not add one iota to the magnitude of the value of the rent, nor to the gold pieces carried to another bank by the sackful.

For the capitalist who has others to work for him, buying and selling is a major function. Since he appropriates the product of many people, on a larger social scale, so he has also to sell on such a scale, and later to transform money back again into the elements of production. Now, as before, the time taken up with buying and selling creates no value. An illusion is introduced here by the function of merchant's capital. But, without going into further detail, this much is clear from the start: if we have a function which, although in and for itself unproductive, is nevertheless a necessary moment of reproduction, then when this is transformed, through the division of labour, from the secondary activity of many into the exclusive activity of a few, into their special business, this does not change the character of the function itself. One merchant (considered here merely as the agent of the formal transformation of commodities, as mere buyer and seller) may, by way of his operations, shorten the buying and selling time for many producers. He should then be considered as a machine that reduces the expenditure of useless energy, or helps to set free production time.

In order to simplify the matter (since we shall only be considering the merchant as capitalist, and merchant's capital, later on), let us assume that this buying and selling agent is a man who sells his labour. He expends his labour-power and his labour time in the operations C–M and M–C. And hence he lives off this in the same way as someone else might live from spinning or making pills. He performs a necessary function, because the reproduction process itself includes unproductive functions. He works as well as the next man, but the content of his labour creates neither value nor product. He is himself part of the faux frais* of production. His usefulness does not lie in his transforming an

1. 'The costs of trade, though necessary, must be viewed as a burdensome expenditure' (Quesnay, Analyse du tableau économique, in Daire, Physiocrates, part I, Paris, 1846, p. 71). According to Quesnay, the 'profit' that arises from competition among the merchants, in so far as this compels them 'to reduce their reward or gain... is strictly speaking only a loss avoided for the original seller and for the purchasing consumer. But this prevention of loss on the costs of trade is not a real product or an addition to wealth effected by trade, whether we consider trade in itself, simply as exchange, independently of transport costs, or envisage it in conjunction with these costs' (pp. 145–6). 'The costs of trade are always borne by the sellers of products, who would receive the full price that the buyers pay, if there were no intermediate costs' (p. 163). 'Propriétaires and producteurs sont salariés; merchants are salariés' ['Landlords and capitalist producers are payers of wages, merchants are recipients of wages'] (p. 164, Quesnay, Dialogues sur le commerce et sur les travaux des artisans, in Daire, Physiocrates, part I, Paris, 1846). [Marx's emphasis]

*Overhead costs.
unproductive function into a productive one, or unproductive labour into productive. It would be a miracle if a transformation of this kind could be brought about by such a transference of functions. He is useful rather because a smaller part of society's labour-power and labour time is now tied up in these unproductive functions. Still more. Let us assume that he is simply a wage-labourer, even if one of the better paid. Whatever his payment, as a wage-labourer he works part of the day for nothing. He may receive every day the value product of eight hours' labour, and function for ten. The two hours' surplus labour that he performs no more produce value than do his eight hours of necessary labour, although it is by means of the latter that a part of the social product is transferred to him. In the first place, both before and after, from the social point of view a person's labour-power is used up for ten hours in this mere circulation function. It is not available for anything else, including productive labour. Secondly, however, society does not count these two hours of surplus labour, although they are spent by the individual who performs them. Society does not appropriate by this means any additional product or value. But the costs of circulation that he represents are reduced by a fifth, from ten hours to eight. Society pays no equivalent for a fifth of this active circulation time whose agent he is. If it is the capitalist who employs these agents, then the circulation costs of his capital, which form a deduction from his receipts, are reduced by the non-payment of the two hours. For him, this is a positive profit, because the negative restriction on the valorization of his capital is reduced. As long as small independent commodity producers spend a part of their own time in buying and selling, this simply presents itself as time spent in the intervals between their productive function, or as a loss in their production time.

In all circumstances, the time taken here is a cost of circulation, which does not add anything to the values converted. It is a necessary cost for transferring these from the commodity form into the money form. In so far as the capitalist commodity producer appears as the agent of circulation, he is distinguished from the direct commodity producer only in that he sells and buys on a larger scale, and hence functions as circulation agent to a higher degree. But if the scale of his business forces or enables him to buy (hire) his own circulation agents as wage-labourers, this does not affect the substance of the phenomenon. Labour-power and labour-time must be spent to a certain degree in the circulation process (in so far as this is a mere change of form). But this now appears as an additional outlay of capital; a part of the variable capital must be deployed in acquiring these labour-powers that function only in circulation. This capital advance creates neither products nor value. It proportionately reduces the scale on which the capital advanced functions productively. It is the same as if a part of the product was transformed into a machine that bought and sold the remaining part of the product. This machine means a deduction from the product. It is not involved in the production process, although it can reduce the labour-power, etc. spent on circulation. It simply forms a part of the circulation costs.

(b) Book-keeping

Besides the actual buying and selling, labour-time is spent on book-keeping, which requires pens, ink, paper, desks and other office equipment as well as objectified labour. Thus it is spent in this function both as labour-power and as means of labour. In this connection, the same state of affairs obtains as with buying and selling time.

As a unity within its circuits, as value in process, whether within the production sphere or the two phases of the circulation sphere, it is only ideally that capital exists in the shape of money of account, at first in the head of the commodity producer, capitalist or otherwise. By way of book-keeping, which also includes the determination or reckoning of commodity prices (price calculation), the movement of capital is registered and controlled. The movement of production, and particularly of valorization — in which commodities figure only as bearers of value, as the names of things whose ideal value-existence is set down in money of account — thus receives a symbolic reflection in the imagination. As long as the individual commodity producer either keeps his accounts merely in his head (as the peasant does, for example; only capitalist agriculture produces the book-keeping farmer) or only keeps account of his expenses, receipts, dates of payment, etc. incidentally, outside his production time, it is obvious that this function of his, and the instruments of labour which he may use to perform it, such as paper, etc., represent an additional expenditure of labour-time and instruments of labour, which, although necessary, constitutes a deduction both from the time that he can spend productively, and from the instruments of labour that function in the actual production process and enter into the formation of products and value.

3. In the Middle Ages agricultural book-keeping was found only in the monasteries. We have seen however (Volume I, p. 478) that a book-keeper for agriculture
The division of labour, with one function becoming independent in this way, does not make this into a product- or value-forming function if it is not so in itself, and thus was already so before it became independent. If a capitalist invests his capital for the first time, then he must invest one part in acquiring a book-keeper, clerks, and so on. This part of the capital is withdrawn from the production process and belongs to the costs of circulation, as a deduction from the total yield (including the actual labour-power which is exclusively devoted to this function).

There is nevertheless a certain distinction between the costs arising from book-keeping or unproductive expenditure of labour-time on the one hand, and those of mere buying and selling time on the other. The latter arise simply from the particular social form of the production process, from the fact that it is a process of production of commodities. Book-keeping, however, as the supervision and the ideal recapitulation of the process, becomes ever more necessary the more the process takes place on a social scale and loses its purely individual character; it is thus more necessary in capitalist production than in the fragmented production of handicraftsmen and peasants, more necessary in communal production than in capitalist. The costs of book-keeping are however reduced with the concentration of production and in proportion to its increasing transformation into social book-keeping.

We are concerned here simply with the general character of those circulation costs that arise from the merely formal metamorphosis. It would be superfluous to go into all their detailed forms. But how forms pertaining to the merely formal transformation of value, thus arising from the specific social form of the production process, forms which in the case of the individual commodity producer are only evanescent and scarcely noticeable moments that run alongside his production or are dovetailed in with it – how these may strike the eye as massive circulation costs is seen in the simple case of the receipt and dispensing of money, once this has become independent as an exclusive function of banks, etc., or of cashiers in individual businesses, and is concentrated on a large scale. What must be emphasized is that these circulation costs do not change their character with their altered form.

(c) Money

Whether a product is produced as a commodity or not, it is always a material form of wealth, a use-value, destined for individual or productive consumption. As a commodity, its value exists only ideally in the price, which does not affect its actual use form. But the fact that certain commodities, such as gold and silver, function as money and, as such, dwell exclusively in the circulation process (for they also remain in the circulation sphere as hoard, reserve, etc., even if only latently) is purely a product of the particular social form of the production process, as a process of commodity production. Since, on the basis of capitalist production, the commodity is the general form of the product, the great mass of products are produced as commodities and must hence assume the money form; and since the mass of commodities, the part of the social wealth functioning as commodities, is constantly growing, so the quantity of the gold and silver that functions as a means of circulation, means of payment, reserve, etc. also increases. The commodities that function as money go neither into individual nor into productive consumption. They represent social labour fixed in a form in which it serves merely as a machine for circulation. Apart from the fact that a part of the social wealth is confined to this unproductive form, the wear and tear of money requires its steady replacement, or the transformation of more social labour – in the product form – into more gold and silver. These replacement costs are significant in nations where there is a developed capitalism, because the part of the wealth that is confined to
the form of money is considerable. Gold and silver, as the money commodities, constitute for society costs of circulation that arise simply from the social form of production. They are *faux frais* of commodity production in general, which grow with the development of this production, and with capitalist production in particular. This is a part of the social wealth which has to be sacrificed to the circulation process.4

2. COSTS OF STORAGE

Those circulation costs that proceed from the mere change in form of value, from circulation in its ideal sense, do not enter into the value of commodities. The portions of capital spent on them constitute mere deductions from the capital productively spent, as far as the capitalist is concerned. The circulation costs that we shall deal with now are different in nature. They can arise from production processes that are simply continued in the circulation sphere, and whose productive character is thus merely hidden by the circulation form. They may also be nothing but costs from the social point of view, unproductive expenditure of labour, either living or objectified, but precisely because of this they still have a value-forming effect for the individual capitalist, and form an addition to the selling price of his commodities. This follows from the simple fact that these costs differ between different individual capitals within the same production sphere. The act of adding them to the price of the commodity means that they become distributed in proportion to the degree to which they occur for the individual capitalist. But all labour that adds value can also add surplus-value and will always add surplus-value on the basis of capitalism, since the value that it forms is dependent on its own extent, and the surplus-value that it forms is dependent on the extent to which the capitalist pays for it. Thus while costs that make commodities dearer without increasing their use-value are *faux frais* of production from the social point of view, for the individual capitalist they can constitute sources of enrichment. On the other hand, in so far as what they add to the price of the commodity merely distributes these circulation costs equally, they do not thereby cease to be unproductive in character. Insurance companies, for example, divide the losses of individual capitalists among the capitalist class. But this does not prevent the losses thus adjusted from being losses as before, from the standpoint of the total social capital.

(a) Stock Formation in General

During its existence as commodity capital, or its stay on the market, i.e. as long as it finds itself in the interval between the production process from which it emerges and the consumption process which it enters into, the product forms a commodity stock. As a commodity on the market, and hence in the form of a stock, commodity capital figures twice in each circuit, once as the commodity product of the actual capital in process whose circuit is under consideration; the other time as the commodity product of another capital that must be present on the market in order to be sold and transformed into productive capital. It is possible, of course, that this latter commodity capital is produced only to order. There is then an interruption until it has been produced. The flow of the production and reproduction process, however, requires that a mass of commodities (means of production) is constantly present on the market, i.e. forms a stock. Productive capital similarly includes the purchase of labour-power, and the money form is here only the value form of the means of subsistence that the worker must find for the greater part on the market. In the course of this sub-section we shall go into this in more detail. The point, however, is already established. Let us take up the standpoint of the capital value in process, which has been transformed into commodity product and must now be sold or transformed back into money, and which therefore functions for the time being as commodity capital on the market. The state in which it forms a stock is therefore an inexpedient and involuntary stay on the market. The more quickly it is sold, the more liquid the reproduction process. The delay in the formal transformation hinders the material change that must occur in the circuit of capital, and thus its further functioning as productive capital. On the other hand, the constant presence of commodities on the market, the commodity stock, appears for the flow of the reproduction process and for the investment of new or additional capital.

The persistence of commodity capital as a commodity stock requires buildings, stores, containers, warehouses, i.e. an outlay of constant
capital; it equally requires that payment be made for the labour-power employed in placing the commodities in their containers. Furthermore, commodities decay, and are subject to the damaging influence of the elements. Additional capital must thus be expended to protect them from this, partly in objective form as means of labour, and partly in labour-power.5

The existence of capital in its form as commodity capital, and hence as a commodity stock, gives rise to costs that, since they do not pertain to the production sphere, count as costs of circulation. These circulation costs are distinguished from those mentioned under heading 1 in as much as they do enter into the value of commodities to a certain extent, and thus make the commodities dearer. Under all circumstances, capital and labour-power which serve to maintain and store the commodity stock are withdrawn from the direct production process. On the other hand, the capital employed here, including labour-power as a component of the capital, must be replaced out of the social product. Hence this outlay has the same effect as a reduction in the productivity of labour, so that a greater quantity of capital and labour is required to obtain a specific useful effect. These are simply expenses.

In so far as the costs of circulation made necessary by the formation of the commodity stock arise solely from the time taken to transform existing values from the commodity form into the money form, i.e. only from the specific social form of the production process (only from the fact that the product is produced as a commodity and must therefore also pass through a transformation into money), they share exactly the same character as the circulation costs enumerated under heading 1. On the other hand, however, the value of the commodities is conserved, or increased, only because the use-value, the product itself, is transferred under certain objective conditions that cost an outlay of capital, and subjected to operations in which additional labour works on the use-values. The calculation of the commodity values (the book-keeping for this process) and the buying and selling, on the contrary, do not operate on the use-value in which the commodity value exists. They are

5. Corbet calculated the costs of storing wheat for a nine-month period in 1841 as $\frac{1}{4}$ per cent loss in quantity, 3 per cent interest on the price, 2 per cent warehouse rental, 1 per cent sifting and drayage, $\frac{1}{2}$ per cent delivery, making a total of 7 per cent, or 3s. 6d. per quarter on a wheat price of 50s. (T. Corbet, An Inquiry into the Causes and Modes of the Wealth of Individuals, etc., London, 1841 [p. 140]). According to the evidence given to the Railway Commission by the Liverpool merchants, the (pure) costs of grain storage in 1865 amounted to 2d. per quarter per month, or 9s. 10d. per ton (Royal Commission on Railways, 1867, Evidence, p. 19, no. 331).

only concerned with its form. Thus although in the case assumed here these expenses of stock formation (which is here involuntary) arise purely from a delay in the change of form and from the necessity for this change, they are nevertheless distinguished from the expenses under heading 1 in that their actual object is not the formal transformation of value, but the conservation of the value which exists in the commodity as a product, a use-value, and hence can be conserved only by conserving the product, the use-value itself. The use-value is not increased or raised; on the contrary, it declines. But its decline is restricted, and it itself is conserved. The value that is advanced and exists in the commodity is also not increased here. But new labour, both objectified and living, is added to it.

We must now investigate how far these expenses proceed from the particular character of commodity production in general, and how far from commodity production in its universal, absolute form, i.e. capitalist commodity production; how far, too, they are common to all social production and simply assume a particular shape, a specific form of appearance, within capitalist production.

Adam Smith put forward the incredible opinion that the formation of a stock is a phenomenon peculiar to capitalist production.6 Later economists, e.g. Lalor, stressed on the contrary that with the development of capitalist production, stock formation declines. Sismondi even regarded this as one of the negative features of capitalist production.6

In point of fact, stock exists in three forms: in the form of productive capital, in the form of the individual consumption fund and in the form of the commodity stock or commodity capital. Stock declines relatively in the one form when it increases in the other, although its absolute size may grow simultaneously in all three forms.

It is clear from the start that, where production is oriented directly towards the satisfaction of the producers' own requirements, and only a small portion of goods are produced for exchange or sale, i.e. where the social product does not assume the commodity form, or does so only to a small extent, the stock in the form of commodity, the commodity stock, forms only a small and evanescent part of wealth. Here, however, the consumption fund, i.e. the fund of means of subsistence, is relatively large. One has only to consider the peasant economy of


antiquity. Here an overwhelming part of the product was transformed directly, without forming a commodity stock, into a stock of means of production or means of subsistence, precisely because it remained in the hands of its possessor. Because it did not assume the form of a commodity stock, Adam Smith held that no stock existed in societies based on this mode of production. Adam Smith thus confused the form of stock with the stock itself, and believed that society previously lived from hand to mouth, abandoning itself to the hazards of the next day. This is a childish misunderstanding.

Stock in the form of productive capital exists as means of production that are already engaged in the production process, or at least in the hands of the producer, i.e. latently already in the production process. We have seen above that as the productivity of labour develops, and thus with the development of the capitalist mode of production — which develops the social productivity of labour more than all previous modes of production — the mass of means of production that are incorporated once and for all in the process in the form of means of labour, and function repeatedly in it over a longer or shorter period (buildings, machines, etc.) constantly grows, and that its growth is both premise and effect of the development of the social productive power of labour. The growth of wealth in this form, which is not only absolute but also relative (cf. Volume I, Chapter 25, 2), is particularly characteristic of the capitalist mode of production. The material forms of existence of the constant capital, however, the means of production, do not consist only of such means of labour, but also of material for labour at the most varied stages of elaboration, as well as ancillary materials. As the scale

of production grows, and the productive power of labour grows through cooperation, division of labour, machinery, etc., so does the mass of raw material, ancillaries, etc. that go into the daily reproduction process. These elements must be ready to hand at the place of production. The extent of this stock in the form of productive capital thus grows absolutely. In order for the process to keep flowing — quite apart from whether this stock can be renewed daily or only at definite intervals — there must always be a greater store of raw material, etc. at the place of production than is used up daily or weekly, and can therefore only irregularly be transformed back into its elements of production. But it is clear that the degree to which productive capital is latent or forms a stock can differ very greatly. It makes a great difference, for example, whether the mill-owner has to have sufficient cotton or coal on hand for three months, or only for one. We can see that this stock can decrease relatively even though it increases in absolute terms.

This depends on various conditions which essentially all derive from the greater speed, regularity and certainty with which the necessary mass of raw material can be constantly supplied in such a way that no interruption arises. The less these conditions are fulfilled, and the less therefore the certainty, regularity and speed of the supply, the greater must be the latent part of the productive capital, i.e. the stock of raw materials, etc. in the hands of the producer and still waiting to be worked up. These conditions stand in inverse proportion to the level of development of capitalist production, and thus of the productive power of social labour. And so too, therefore, does the stock in this form.

But what appears here as a decline in the stock (e.g. with Lalor) is in part only a decline of stock in the form of commodity capital or of commodity stock proper; i.e. a mere change of form of the same stock. For example, if a great mass of coal is produced every day in the country in question, i.e. if the scale and intensity of coal production is large, then the mill-owner does not need a great store of coal in order to secure the continuity of his production. The constant and certain renewal of the coal supply makes this superfluous. Secondly, the speed with which the product of one process can be transferred to another process as means of production depends on the development of the means of transport and communication. The cheapness of transport plays a great role in this connection. The constantly repeated transporta-
tion of coal, for example, from the mine to the spinning mill will be
dearer than the storage of a larger amount of coal for a longer period, if
transport is relatively cheap. The two circumstances considered here
proceed from the production process itself. The less dependent the
mill-owner is for the renewal of his stocks of cotton, coal, etc. on the
direct sale of his yarn — and the more developed the credit system, the
smaller this direct dependence — the smaller the relative size of these
stocks need be, in order to secure a continuous production of yarn
independent of the accidents of its sale. Fourthly, however, many
raw materials, semi-finished goods, etc. require lengthy periods of
time for their production, and this holds in particular for all raw
materials provided by agriculture. If there is to be no interruption of
the production process, then a definite stock of these must be present
for the whole period of time in which new products cannot replace old.
If this stock in the hands of the industrial capitalist declines, this only
means that it increases in the form of a commodity stock in the hands of
the merchant. The development of the means of transport, for example,
permits cotton lying in the import docks to be quickly delivered from
Liverpool to Manchester, so that the manufacturer can renew his stocks
of cotton in relatively small portions according to his needs. But then
the same cotton exists in even greater amounts as a commodity stock in
the hands of the Liverpool merchants. There is thus simply a change in
the form of the stock, which Lalor and others have overlooked. If we
consider the social capital, there is the same quantity of products as
before in the form of stock. For an individual country, the scale on
which the quantity needed for the year, for example, must be held
ready, declines with the development of the means of transport. If there
are many steamships and sailing ships plying between America and
Britain, then the opportunities for Britain to renew its cotton stock are
increased, and thus the average volume of the cotton stock that Britain
must keep in store declines. The development of the world market and
the consequent multiplication of sources of supply for the same article
has the same effect. The article is supplied bit by bit from different
countries and at different points in time.

(b) The Commodity Stock Proper

We have already seen how, on the basis of capitalist production, the
commodity becomes the general form of the product, and the more so,
the more this production develops in scale and depth. Thus a far greater
part of the product exists as a commodity, even at the same scale of
production, in comparison either with earlier modes of production, or
with the capitalist mode of production itself at a less developed stage.
But every commodity (and thus also every commodity capital, which
is simply a commodity, even if a commodity as the form of existence
of capital value), in so far as it does not directly pass from the sphere
of its production into productive or individual consumption, and
finds itself on the market during the interval, forms an element of
the commodity stock. In and for itself — assuming the scale of produc-
tion is constant — the commodity stock therefore grows with capitalist
production. We have already seen that this is only a change of form for
the stock, i.e. that the stock increases in commodity form because it
decreases in the form of direct production or consumption stock. There
is simply a changed social form of the stock. If at the same time there
is an increase not only in the relative size of the commodity stock, in
relation to the total social product, but also in its absolute size, this is
because the volume of the total product increases with capitalist pro-
duction.

As capitalist production develops, the scale of production is deter-
mined to an ever lesser degree by the immediate demand for the pro-
duct, and to an ever greater degree by the scale of the capital which the
individual capitalist has at his disposal, by his capital’s drive for valor-
ization and the need of his production process for continuity and exten-
sion. The mass of products from every particular branch of production
that are on the market as commodities, or seek an outlet, necessarily
grows together with this. The mass of capital tied up for a shorter or
longer time in the form of commodity capital grows, and hence the
commodity stock grows as well.

Ultimately, most members of the society are transformed into wage-
labourers, people who live from hand to mouth, who receive their wages
by the week and spend them by the day, and must thus find their means
of subsistence available as a stock. However, rapidly the particular
elements of this stock may flow, a part of them must always stand still
in order for the stock to remain in motion.

All these moments arise out of the form of production, and the
changes of form which are included in it, and which the product must
pass through in the circulation process.

Whatever the social form of the stock of products, its storage involves
costs: buildings, containers, etc. which form receptacles for the product;
similarly means of production and labour, more or less according to the
nature of the product, which must be spent to ward off damaging influences. The more these stocks are socially concentrated, the smaller, relatively speaking, are the costs. These outlays always form part of social labour, whether in objectified or living form – thus in the capitalist form they are outlays of capital – which do not go towards the formation of the product itself, and are thus deductions from it. They are necessary expenditures of social wealth, for they are the costs of conserving the social product, whether its existence as an element of the commodity stock arises merely from the social form of production, i.e. from the commodity form and its necessary transformations, or whether we consider the commodity stock simply as a special form of the stock of products common to all societies, even if not in the form of a commodity stock, this particular form of stock pertaining to the circulation process.

The question now arises as to what extent these expenses enter into the value of commodities.

If the capitalist has transformed the capital he advanced in means of production and labour-power into products, into a certain mass of commodities ready for sale, and these remain in store unsold, then it is not only the valorization process of his capital that is held up during this time. The expenditures that the conservation of this stock requires in buildings, additional labour, etc. form a positive loss. The eventual purchaser would laugh at the capitalist if he said: 'I could not sell my commodity for six months, and it not only cost me so and so much in idle capital to maintain it for these six months, but also caused expenses x.' 'So much the worse for you,' the buyer will say, 'for next to you there is another seller whose commodity was finished only yesterday. Your commodity is evidently a white elephant, and probably more or less damaged by the ravages of time. You must therefore sell cheaper than your rival.' Whether the commodity producer is the real producer of his commodity, or its capitalist producer, and therefore merely the representative of the real producer, in no way affects the conditions of life of the commodity. He has to transform his article into money. The expenses it cost him to maintain it in its commodity form pertain to his own individual experience, and do not interest the buyer of the commodity. The latter does not pay him for the circulation time of his commodity. Even if the capitalist deliberately keeps his commodity off the market, in times of a real or anticipated revolution in values, it depends on whether this revolution actually comes about, on the correctness or incorrectness of his speculation, whether he realizes his additional expenses. The revolution in values is not the result of his expenses. Thus in so far as the formation of a stock is a hold-up in circulation, the expenses occasioned by it add no value to the commodity. On the other hand, there can be no stock without a delay in the circulation sphere, without the capital persisting for a longer or shorter period in its commodity form; thus there can be no stock without a hold-up in circulation, just as no money can circulate without the formation of a money reserve. That is to say, without the commodity stock, no commodity circulation. If the capitalist does not encounter this necessity in $C'-M'$, then he encounters it in $M-C$; not for his own commodity capital, but for the commodity capital of other capitalists, who produce means of production for him and means of subsistence for his workers.

Whether the formation of a stock is voluntary or involuntary, i.e. whether the commodity producer deliberately builds up a stock or whether his commodities form a stock as a result of the resistance that the circumstances of the circulation process itself oppose to their sale, makes no essential difference to the matter. Yet it is useful to know, as a contribution towards solving this question, what it is that distinguishes voluntary from involuntary stock formation. The involuntary formation of a stock arises from, or is identical with, a hold-up in circulation that is independent of the knowledge of the commodity producer and goes against his intentions. What characterizes voluntary stock formation? Here the seller still attempts to get rid of his commodities as fast as possible. He still offers his product for sale as a commodity. If he were to withdraw it from sale, it would form only a potential ($\delta\nu\delta\mu\xi\mu\epsilon\varsigma\upsilon$) element of the commodity stock, and not an actual (epe\i\nu\eta\upsilon\iota\varsigma\omega) one. The commodity as such is still for him simply the bearer of its exchange-value, and as such it can only have its effect by and through shedding its commodity form and assuming the money form.

The commodity stock must have a certain volume in order to satisfy the scale of demand over a given period. The continual extension of the circle of buyers is taken into account in this connection. In order to last for one day, for example, one part of the commodities on the market must persist in the commodity form, while the other part flows and is transformed into money. Of course the part that stands still in this way steadily declines, as the scale of the stock itself declines, until it is finally all sold. This stagnation of commodities is thus taken into account here as a necessary condition for their sale. Moreover, it must be greater in scale than the average sale or the average demand, otherwise excesses
above this average could not be satisfied. On the other hand, the stock must be constantly renewed, because it is constantly disappearing. In the last instance, this renewal can derive only from production, from a supply of the commodity. It is immaterial whether this comes from abroad or not. The renewal depends on the periods that the commodities need for their reproduction. The stock of commodities must be adequate for this length of time. The fact that this stock does not remain in the hands of the original producers, but runs through various reservoirs, from the large-scale merchant to the retail trader, changes only the appearance, and not the thing itself. From the social point of view, a part of the capital still exists in the form of commodity stock, as long as the commodity has not entered into productive or individual consumption. The producer himself attempts to have an inventory adequate for his average demand, in order not to be directly dependent on production, and to secure himself a constant circle of customers. The production periods give rise to dates of purchase, and the commodity forms a stock for a longer or shorter period of time before it can be replaced by new items of the same kind. It is only by way of this stock formation that the permanence and continuity of the circulation process is ensured, and hence that of the reproduction process which includes the circulation process.

We must remember that $C' - M'$ can be completed for the producer of $C$ even though $C$ is still on the market. If the producer himself intended to keep his own commodity in store until it was sold to the final consumer, he would have to set in motion a double capital, once as producer of the commodity, the other time as merchant. As far as the commodity itself is concerned - whether it is considered as an individual commodity or as a component part of the social capital - it makes no difference to the situation whether the expenses of stock formation fall onto its producers or onto a series of merchants from A to Z.

In as much as the commodity stock is nothing more than the commodity form of the stock that would still exist on the given scale of social production either as productive stock (latent production fund) or as a consumption fund (reserve of means of consumption), if it did not exist as a commodity stock, the expenses required to maintain the stock, that is the expenses of stock formation - i.e. the objectified or living labour spent on this - are merely the transposed expenses of maintaining the social production fund and the social consumption fund. The increase in the value of the commodity to which they give rise simply distributes these expenses proportionately between the various commodities, as they are different for different sorts of commodity. The expenses of stock formation continue to be deductions from the social wealth, even though they are a condition of its existence.

It is only in so far as the commodity stock is a condition of commodity circulation and itself a form that has necessarily arisen in commodity circulation, in so far therefore as this apparent stagnation is a form of the flow itself, that it is normal. But once the commodities lingering in their circulation stores fail to make room for the incoming wave of production, and the stores are overfilled, the commodity stock expands as a result of the stagnation of circulation, just as hoards grow if the money circulation stagnates. It is quite immaterial here whether this stagnation takes place in the storeroom of the industrial capitalist or the warehouse of the merchant. The commodity stock is then not a condition of uninterrupted sale, but a consequence of the unsaleability of the commodities. The expenses remain the same, but as they arise purely from the form, i.e. from the necessity of transforming the commodities into money, and the difficulty of this metamorphosis, they do not enter into the value of the commodities, but form deductions, a loss of value in the realization of value. Since the normal and the abnormal forms of the stock are not distinguished in their form, and both are stagnations of circulation, the phenomena can be confused, and may deceive the agents of production themselves all the more, in that it is possible for the producer to feel that the circulation process of his capital is occurring, that it is in flux, even though the circulation of his commodities, which have passed into the hands of the merchants, is stagnating. If the extent of production increases, then, other circumstances remaining the same, so does the volume of the commodity stock. It is then renewed and absorbed just as quickly, but on a greater scale. The rise in the volume of the commodity stock as a result of a stagnation in circulation can thus be mistaken for a symptom of an expansion in the reproduction process, particularly if the real movement is mystified by the development of the credit system.

The expenses of stock formation consist of (1) a quantitative reduction in the mass of the product (e.g. with stocks of flour); (2) a deterioration in quality; (3) the objectified and living labour required to conserve the stock.

3. TRANSPORT COSTS

It is not necessary to go into all the details of the costs of circulation here, such as packing, sorting, etc. The general law is that all circulation costs that arise simply from a change in form of the commodity cannot
add any value to it. They are simply costs involved in realizing the value or transferring it from one form into another. The capital expended in these costs (including the labour it commands) belongs to the faux frais of capitalist production. The replacement of these costs must come from the surplus product, and from the standpoint of the capitalist class as a whole it forms a deduction of surplus-value or surplus product, in just the same way as the time that a worker needs to buy his means of subsistence is lost time for him. Transport costs, however, play too important a role not to be briefly considered here.

Within the circuit of capital and the commodity metamorphoses that form a section of it, the metabolism* of social labour takes place. This metabolism may require a motion of the products in space, their real movement from one location to another. But circulation of commodities can also take place without their physical movement, as can the transport of products without commodity circulation, even without direct exchange of products. A house that is sold by A to B circulates as a commodity, but it does not get up and walk. Movable commodity values, such as cotton or pig-iron, can remain in the same warehouse while they undergo dozens of circulation processes, and are bought and resold by speculators. What actually moves here is the property title to the thing and not the thing itself. In the realm of the Incas, on the other hand, the transport industry played a major role, although the social product neither circulated as a commodity nor was distributed by means of exchange.

If the transport industry therefore appears as a cause of circulation costs on the basis of capitalist production, this particular form of appearance in no way alters the substance of the matter.

The quantity of products is not increased by their transport. The change in their natural properties that may be effected by transport is also, certain exceptions apart, not an intended useful effect, but rather an unavoidable evil. But the use-value of things is realized only in their consumption, and their consumption may make a change of location necessary, and thus also the additional production process of the transport industry. The productive capital invested in this industry thus adds

8. Storch* calls this circulation factice [artificial circulation].

* Henri Storch was a Russian vulgarizer of classical political economy, though he wrote in French and his principal work, the Cours d'économie politique, was published in Paris in 1823.

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9. Ricardo quotes Say,* who saw it as one of the blessings of trade that it increased the transport costs of the products, or raised their value: 'Commerce [says Say] enables us to obtain a commodity in the place where it is to be found, and to convey it to another where it is to be consumed; it therefore gives us the power of increasing the value of the commodity, by the whole difference between its price in the first of these places, and its price in the second.' Ricardo remarks on this: 'True, but how is this additional value given to it? By adding to the cost of production, first, the expenses of conveyance; secondly, the profit on the advances of capital made by the merchant. The commodity is only more valuable, because more labour is expended on its production and conveyance, before it is purchased by the consumer. This must not be mentioned as one of the advantages of commerce' (Ricardo, Principles of Political Economy, third edition, London, 1821, pp. 309, 310 [Pelican edition, p. 270n]).

*Jean-Baptiste Say, the French economist, took advantage of the confusion in Adam Smith's theory of the revenues of the three major classes (see below, pp. 454 ff.) to found the vulgar-economic doctrine of the 'factors of production', presenting land, capital and labour as independent sources of rent, profit and wages. This is referred to by Marx as the 'trinity formula'; cf. Capital Volume 3, Chapter 48, and the important but seldom read Addendum to Theories of Surplus-Value on 'Revenue and its Sources. Vulgar Political Economy' (Part III, pp. 453 ff.). Say's 'law' to the effect that supply creates its own demand, and that there can therefore never be general over-production, reigned supreme in bourgeois economics.
The absolute magnitude of value added by the transport of commodities stands in inverse proportion to the productive power of the transport industry and in direct proportion to the distance to be covered, other circumstances remaining the same.

The relative part of value that transport costs add to the price of the commodity, under otherwise equal circumstances, stands in direct proportion to their size and weight. The modifying circumstances are numerous. Transport requires, for example, greater or lesser measures of precaution, hence more or less expenditure of labour and means of labour, according to the relative fragility, perishability and explosiveness of the article. The railway magnates have shown greater genius in inventing fantastic species than have botanists or zoologists. The classification of goods on the British railways, for example, fills volumes, and rests for its general principle on the tendency to transform the variegated natural properties of goods into an equal number of transportation ailments and pretexts for obligatory impositions:

‘Glass, which was formerly worth £1 1 per crate, is now worth only £2 since the improvements which have taken place in manufactures, and since the abolition of the duty; but the rate for carriage is the same as it was formerly, and higher than it was previously, when carried by canal. Formerly, manufacturers inform me that they had glass and glass wares for the plumbers’ trade carried at about 10s. per ton, within 50 miles of Birmingham. At the present time, the rate to cover risk of breakage, which we can very rarely get allowed, is three times that amount . . . . The companies always resist any claim that is made for breakages.’

Moreover, the fact that the relative share that transport costs add to the value of an article stands in inverse proportion to its value is made by the railway magnates into a special reason for taxing an article in direct proportion to its value. The complaints of the industrialists and merchants on this score are repeated on every page of the evidence in the above-quoted report.

The capitalist mode of production reduces the transport costs for the individual commodity by developing the means of transport and communication, as well as by concentrating transport – i.e. by increasing its scale. It increases the part of social labour, both living and objectified, that is spent on commodity transport, firstly by transforming the great majority of all products into commodities, and then by replacing local by distant markets.

The ‘circulating’ of commodities, i.e. their actual course in space, can be resolved into the transport of commodities. The transport industry forms on the one hand an independent branch of production, and hence a particular sphere for the investment of productive capital. On the other hand it is distinguished by its appearance as the continuation of a production process within the circulation process and for the circulation process.

from its formulation in 1817 through to the ‘Keynesian revolution’ – though even Keynes’s theory is itself simply one of under-consumption, teaching that the problem of over-production (i.e. the inability of the working class to buy sufficient of the goods produced) can be solved by an increase in the supply of money.

10. Royal Commission on Railways [Evidence, op. cit.], p. 31, no. 630.
Part Two

The Turnover of Capital
Chapter 7: Turnover Time and Number of Turnovers

As we have seen, the overall time of circulation of a given capital is the sum of its circulation time proper and its production time. It is the period of time that elapses from the moment that the capital value is advanced in a particular form until the return of the capital value in process in the same form.

The specific purpose of capitalist production is always the valorization of the value advanced, whether this value is advanced in its independent form, i.e. the money form, or in commodities, in which case its value form only possesses an ideal independence in the price of the commodities advanced. In both cases, this capital value passes through different forms of existence in the course of its circuit. Its identity with itself is established in the capitalist's ledger, or in the form of money of account.

Whether we take the form $M \ldots M'$ or the form $P \ldots P$, both these forms include the following facts:

1. The value advanced functions as capital value and is valorized;
2. After describing its process, it returns to the form in which this process began.

In $M \ldots M'$, both the valorization of $M$, the value advanced, and the return of the capital to this form (the money form), are readily apparent. But the same thing also takes place in the second form. For the starting-point of $P$ is the presence of the elements of production, commodities of a given value. This form includes the valorization of this value ($C'$ and $M'$) and its return to its original form, since in the second $P$ the value advanced once again possesses the form of the elements of production in which it was originally advanced.

As we saw in the previous volume:

'If production has a capitalist form, so too will reproduction. Just as in the capitalist mode of production the labour process appears only as a means towards the process of valorization, so in the case of reproduc-
The Turnover of Capital

It appears only as a means of reproducing the value advanced as capital, i.e. as self-valorizing value (Volume I, Chapter 23, p. 711).

The three forms (I) \( M \ldots M' \), (II) \( P \ldots P \), and (III) \( C \ldots C' \) are distinguished in the following ways. In form II \( (P \ldots P) \) the repetition of the process, the process of reproduction, is expressed as a reality, whereas in form I it is only a possibility. Both of these, however, are distinguished from form III in so far as the capital value advanced – whether as money, or in the shape of the material elements of production – forms the starting-point and hence also the point of return. In \( M \ldots M' \) the return is \( M' = M + m \). If the process is repeated on the same scale, then \( M \) again forms the starting-point; \( m \) does not enter into it, but simply shows us that although \( M \) has been valorized as capital and thus created a surplus-value, it has cast this surplus-value off. In the form \( P \ldots P \), the capital value \( P \) advanced in the form of the elements of production forms the point of departure. The form includes its valorization. In the case of simple reproduction, it is the same capital value that begins its process again in the same form. In the case of accumulation, \( P' \) (possessing a value of \( M' \) or \( C' \)) now starts the process as an increased capital value. But the process still begins with capital value advanced in the original form, even if with a greater value than previously. In form III, however, the capital value does not begin the process as capital value advanced, but as capital value already valorized, as the total wealth existing in the form of commodities, of which the capital value advanced forms only a part. This latter form is important for Part Three of the present volume, where the movement of individual capitals will be dealt with in its relationship with the movement of the total social capital. But it cannot be used for the turnover of capital, which always begins with the advance of capital value, in the form either of money or of commodities, and always requires the return of the circling capital value in the form in which it was advanced. Out of circuits I and II, the former will be adhered to in so far as the influence of the turnover on the formation of surplus-value is the main thing under consideration; the latter in so far as its influence on the formation of the product is concerned.

Just as the economists have rarely distinguished between the different forms of the circuit, so too they have rarely considered these separately in connection with the turnover of capital. They have generally concentrated on the form \( M \ldots M' \) because it is this that dominates the individual capitalist and is used by him in his calculations, even if money forms the starting-point only in the shape of money of account. Certain others proceed from outlays in the form of elements of production, finishing with the receipt of returns, without even mentioning the form of these returns, whether they are in commodities or money. For example:

‘The Economic Cycle . . . [is] the whole course of production, from the time that outlays are made till returns are received. In agriculture, seed-time is its commencement, and harvesting its ending’ (S. P. Newman, Elements of Political Economy, Andover and New York, p. 81).

Others begin with \( C' \) (form III):

‘The world of trade may be conceived to revolve in what we shall call an economic cycle, which accomplishes one revolution by business, coming round again, through its successive transactions, to the point from which it set out. Its commencement may be dated from the point at which the capitalist has obtained those returns by which his capital is replaced to him: whence he proceeds anew to engage his workmen; to distribute among them, in wages, their maintenance, or rather, the power of lifting it; to obtain from them, in finished work, the articles in which he specially deals; to bring these articles to market and there terminate the orbit of one set of movements, by effecting a sale, and receiving, in its proceeds, a return for the whole outlays of a sale’ (T. Chalmers, On Political Economy, 2nd edn, Glasgow, 1832, p. 85).

When the entire capital value that the individual capitalist invests in one branch of production or other has described its cyclical movement, it exists once again in its original form and can then repeat the same process. It has to repeat it, if the value is to be perpetuated and valorized as capital value. In the life of the capital, the individual circuit forms only a section that is constantly repeated, i.e. a period. At the close of the period \( M \ldots M' \), the capital exists again in the form of money capital and passes once more through the series of changes of form that constitute its process of reproduction and valorization. At the close of the period \( P \ldots P \), the capital exists again in the form of the elements of production which constitute the premise of its repeated circuit. The circuit of capital, when this is taken not as an isolated act but as a periodic process, is called its turnover. The duration of this turnover is given by the sum of its production time and its circulation time. This period of time forms the capital's turnover time. It thus measures the interval between one cyclical period of the total capital value and the

*Thomas Chalmers (1780–1847) is described by Marx in Theories of Surplus-Value (Part I, p. 290) as 'one of the most fanatical Malthusians'. Like Malthus, he was himself a cleric, and in fact Professor of Divinity at Glasgow University.
next; the periodicity in the capital's life-process, or, if you like, the
time required for the renewal and repetition of the valorization and
production process of the same capital value.

If we disregard the individual occurrences that may accelerate or
shorten the turnover time of an individual capital, the turnover times
of capitals differ according to their different spheres of investment.

As the working day forms the natural measuring unit for the function
of labour-power, so the year forms the natural measuring unit for the
turnovers of capital in process. The natural basis for this measurement is
that the most important food crops in the temperate zone, the native
ground of capitalist production, are annual products.

If we call the year, as measurement unit of the turnover time, \( U \), the
turnover time of a particular capital \( u \), and the number of its turnovers
\( n \), then \( n = \frac{U}{u} \). If the turnover time \( u \) is three months, for example, then
\( n = \frac{3}{1} = 4 \); the capital completes four turnovers in a year, or turns
over four times. If \( u = 18 \) months, then \( n = \frac{18}{1} = 3 \); the capital only
gets through two thirds of its turnover time in one year. If the turnover
time amounts to several years, then it is reckoned in terms of multiples
of a year.

For the capitalist, the turnover time of his capital is the time for
which he has to advance his capital in order for this to be valorized and
for him to receive it back in its original shape.

Before we investigate more closely the influence of turnover on the
production and valorization process, we have to consider two new forms
which capital obtains as a result of the circulation process, and which
affect the form of its turnover.

Chapter 8: Fixed Capital and Circulating Capital

I. THE FORMAL DISTINCTION

We saw in Volume 1, Chapter 8,* that one part of the constant capital
maintains the specific use-form in which it enters the production pro­
cess, over and against the products that it helps to fashion. It continues
to perform the same functions over a shorter or longer period, in a
series of repeated labour processes. Examples of this are factory build­
ings, machines, etc. – in short, everything that we collect together under
the description means of labour. This part of the constant capital gives
up value to the product in proportion to the exchange-value that it loses
together with its use-value. The extent to which the value of such a
means of production is given up or transferred to the product that it
helps to fashion is determined by an average calculation; it is measured
by the average duration of its function, from the time that it enters
the production process as means of production to the time it is completely
used up, is dead, and has to be replaced or reproduced by a new item of
the same kind.

The peculiarity of this part of the constant capital, the means of
labour in the strict sense, is this:

A part of the capital has been advanced in a form of constant capital,
i.e. means of production, which then function as factors of the labour
process so long as they maintain the independent use-shape with which
they entered it. The finished product, and thus also the elements of its
formation, in so far as they are transformed into the product, is ejected
from the production process, and passes as a commodity from the
sphere of production into that of circulation. The means of labour, on
the other hand, never leave the production sphere once they have
stepped into it. Their function confines them firmly within it. A part of
the capital value advanced is fixed in this form, which is determined by
the function of the means of labour in the process. As a means of labour
functions and is used up, one part of its value passes over to the product,

*p. 311.
while another part remains fixed in the means of labour and hence in the production process. The value fixed in this way steadily declines, until the means of labour is worn out and has therefore distributed its value, in a longer or shorter period, over the volume of products that has emerged from a series of continually repeated labour processes. As long as a means of labour still remains effective, and does not yet have to be replaced by a new item of the same kind, some constant capital value remains fixed in it, while another part of the value originally fixed in it passes over to the product and thus circulates as a component of the commodity stock. The longer the means of labour lasts and the more slowly it wears out, the longer the constant capital value remains fixed in this use-form. But whatever its degree of durability, the proportion in which it gives up value is always in inverse ratio to the overall duration of its function. If two machines are of equal value, but one of them wears out in five years and the other in ten, then the first gives up twice as much value in the same space of time as the second does.

The part of the capital value that is fixed in the means of labour circulates, just like any other part. As we have seen, the whole of the capital value is in constant circulation, and in this sense, therefore, all capital is circulating capital. But the circulation of the part of the capital considered here is a peculiar one. In the first place, it does not circulate in its use form. It is rather its value that circulates, and this does so gradually, bit by bit, in the degree to which it is transferred to the product that circulates as a commodity. A part of its value always remains fixed in it as long as it continues to function, and remains distinct from the commodities that it helps to produce. This peculiarity is what gives this part of the constant capital the form of fixed capital. All other material components of the capital advanced in the production process, on the other hand, form, by contrast to it, circulating or fluid capital.

There is a further part of the means of production – those ancillaries that are consumed by the means of labour proper as they function, such as coal by the steam engine, or which only support the action, such as gas for lighting, etc., which also do not enter the product in their material form. It is only their value that constitutes part of the value of the product. The product circulates their value in its own circulation, and they have this in common with fixed capital. But they are completely consumed in every labour process that they enter into, and therefore, with each new labour process, they must be completely replaced by new items of the same kind. They do not preserve their independent use-

shape as they function. And so no part of the capital value, either, remains fixed in their old use-shape, their natural form. The fact that this part of the ancillaries does not materially enter into the product, but enters the value of the product only according to its own value, and the related fact that the function of these materials is confined within the sphere of production, has misled economists such as Ramsay (who at the same time confuses fixed and constant capital) into applying to them the category of fixed capital.*

The part of the means of production that enters the product materially, i.e. raw materials, etc., thereby receives, to some extent, a form in which it can later enter individual consumption as a means of enjoyment. Means of labour, for their part, the material bearers of fixed capital, are consumed only productively, and cannot enter individual consumption, since they do not enter the product or use-value which they help to fashion, but rather maintain their independent shape vis-à-vis it until they are completely worn out. An exception to this is provided by the means of transport. The use-effect that these produce in their productive function, i.e. during their stay in the sphere of production – the change of location – simultaneously enters individual consumption, e.g. that of the traveller. The latter then pays for their use just as he pays for the use of other means of consumption. As we have seen, the distinction between raw material and ancillaries can become blurred, as in the manufacture of chemicals, for example.† The same is true with the distinction between means of labour on the one hand, and ancillaries and raw materials on the other. In agriculture, for instance, the materials added to improve the soil partly enter the plant product as formative elements. Their effect, however, is spread over a fairly long period, e.g. four to five years. One part of these, therefore, enters the product materially, and thus immediately transfers its value to it, while another part remains fixed in its old use-form, so that its value does too. It continues to exist as means of production and hence receives the form of fixed capital. An ox, as a draught animal, is fixed capital. If it is eaten, however, it no longer functions either as a means of labour, or as fixed capital.

The quality that gives a part of the capital value spent on means of production the character of fixed capital, lies exclusively in the specific

* See Theories of Surplus-Value, Part III, pp. 326–8. Marx considered Sir George Ramsay (1800–1871) to be one of the last representatives of classical (bourgeois) political economy. His An Essay on the Distribution of Wealth was published in Edinburgh in 1836.
† See Volume I, p. 288.
manner in which this value circulated. This particular manner of circulation arises from the particular way in which the means of labour gives up its value to the product, or acts to form value during the production process. This in turn arises from the special way in which the means of labour function in the labour process.

We know that the same use-value that emerges from one labour process in the shape of a product can enter another labour process as means of production. It is only the function of a product as a means of labour in the production process that makes it fixed capital. It is in no way fixed capital in itself, just as it emerges from a process. A machine that is the product and thus the commodity of a machine-builder is part of his commodity capital. It only becomes fixed capital in the hands of its buyer, the capitalist who employs it productively.

Assuming that all other circumstances remain the same, the degree of fixedness grows with the durability of the means of labour. On this durability depends the size of the difference between the capital value fixed in means of labour, and the part of this value that is given up to the product in repeated labour processes. The more slowly this value is given up - and the means of labour gives up value with each repetition of the same labour process - the greater is the capital still fixed, and the greater the difference between the capital employed in the production process and the capital consumed in it. Once this difference has disappeared, the means of labour has lived out its time, and lost its value together with its use-value. It has ceased to be a bearer of value. Since the means of labour, like every other material bearer of constant capital, gives up value to the product only to the extent that it loses its value together with its use-value, then the longer it lasts out in the production process, the longer is the period for which constant capital remains fixed in it.

If a means of production which is not a means of labour in the strict sense (e.g. ancillaries, raw material, semi-finished goods, etc.) behaves with respect to the way it gives up value and hence to the mode of circulation of its value in the same way as the means of labour, then it is also a material bearer, a form of existence, of fixed capital. This is the case with the already mentioned improvements to the soil, which put into it chemical components whose effect extends over several periods of production or several years. Here, one part of the value continues to exist alongside the product in its independent shape, or in the shape of fixed capital, while another portion of value is given up to the product and hence circulates with it. In a case like this, it is not only a part of the value of the fixed capital that enters the product, but also the use-value, the substance, in which this portion of value exists.

Besides their basic error, their confusion of the categories of fixed and circulating capital with the categories of constant and variable capital, the confusion in the demarcation of concepts made by previous economists rests primarily on the following points:

Firstly, certain properties that characterize the means of labour materially are made into direct properties of fixed capital, e.g. physical immobility, such as that of a house. But it is always easy to show that other means of labour, which are also as such fixed capital, ships for example, have the opposite property, i.e. physical mobility.

Alternatively, the formal economic characteristic that arises from the circulation of value is confused with a concrete dinglich property; as if things, which are never capital at all in themselves, could already in themselves and by nature be capital in a definite form, fixed or circulating. We saw in Chapter 7 of Volume 1 that the means of production in any labour process, irrespective of the social conditions under which it is pursued, are divisible into means of labour and object of labour. It is only within the capitalist mode of production, however, that the two become capital, in fact ‘productive capital’ as defined in Part One. Here the distinction between means of labour and object of labour which is based in the nature of the labour process itself is reflected in the new form of the distinction between fixed capital and circulating capital. It is only in this way that a thing that functions as means of labour becomes fixed capital. If its material properties also allow it to serve for other functions than that of means of labour, then whether it is fixed capital or not depends on these various functions. Cattle as draught animals are fixed capital; when being fattened for slaughter they are raw material that eventually passes into circulation as a product, and so not fixed but circulating capital.

The mere length of time for which a means of production is fixed in repeated labour processes which are related and continuous, and hence form a production period - i.e. the total production time that is needed in order to complete the product - already involves a longer or shorter advance for the capitalist, just as is the case with fixed capital, but this alone does not make his capital fixed capital. Seed, for example, is not fixed capital, but simply raw material that is fixed in the production process for approximately a year. All capital that functions as productive capital is fixed in the production process, and thus so are all the elements

* pp. 283–8.
of that productive capital, whatever may be their material shape, their function, or the mode of circulation of their value. Whether they are fixed in this way for a longer or shorter time, according to the kind of production process or the intended useful effect, is not what makes the distinction between fixed and circulating capital.  

Some of the means of labour, including the general conditions of labour, are held fast in their place once they enter the production process as means of labour and are made ready for their productive function: machines for example. Other means of labour, however, are produced from the start in this static form, tied to the spot, such as improvements to the soil, factory buildings, blast furnaces, canals, railways, etc. The continued attachment of the means of labour to the production process in which it is to function is here simultaneously conditioned by its sensuous mode of existence. On the other hand, a means of labour may constantly change its physical place, i.e. move, and yet be engaged throughout in the production process, as with a locomotive, a ship, draught cattle, etc. Immobility does not give it the character of fixed capital in the one case, nor does mobility remove this character in the other. But the circumstance that some means of labour are fixed in location, with their roots in the soil, gives this part of the fixed capital a particular role in a nation's economy. They cannot be sent abroad or circulate as commodities on the world market. It is quite possible for the property titles to this fixed capital to change; they can be bought and sold, and in this respect circulate ideally. These property titles can even circulate on foreign markets, in the form of shares, for example. But a change in the persons who are the owners of this kind of fixed capital does not change the relationship between the static and materially fixed part of the wealth of a country and the movable part of it.  

The peculiar circulation of fixed capital gives rise to a peculiar turnover. The portion of value that it loses in its natural form by wear and tear circulates as a value portion of the product. Through its circulation, money accompanies, step by step, the transmutation into money of the part of its value converted into the money form. The remainder elements of productive capital consist in part of the tools and materials of the operation, which the means of labour serves until it has to be replaced by another item of the same kind. If a machine with a value of £10,000, say, lasts for ten years, then the turnover time of the value originally advanced in it is ten years. Until this time has elapsed, it does not need to be renewed, but continues to function in its natural form. In the meantime, its value circulates bit by bit as a portion of the value of the commodities that it steadily serves to produce, and is thus gradually converted into money, until finally, at the end of the ten years, it has been completely transformed into money and from money back into a machine, i.e. has completed its turnover. Until this reproduction time arrives, its value is accumulated gradually, in the first instance in the form of a money reserve fund. 

The remaining elements of productive capital consist in part of the elements of constant capital existing in the ancillaries and raw materials and in part of variable capital, laid out in labour-power. 

In analysing the processes of labour and valorization (Volume 1, Chapter 7), we showed how these different components behave quite differently in the formation of products and value. The value of the part of constant capital that consists of ancillaries and raw materials, just like the value of the part that consists of means of labour, reappears in the value of the product simply as transferred value, while labour-
power, through the labour process, adds to the product an equivalent of its value or actually reproduces its value. Furthermore, one part of the ancillary material – coal for heating, gas for lighting, etc. – is consumed in the labour process without physically entering the product, while another part does enter the product bodily and forms the material of its substance. All these differences are irrelevant, however, as far as circulation and hence the mode of turnover are concerned. In so far as ancillary and raw materials are completely consumed in the formation of their product, they transfer their entire value to the product. This value is thus completely circulated via the product, transformed into money and from money back into the elements of production of the commodity. Its turnover is not interrupted, like that of the fixed capital, but passes continuously through the entire circuit of its forms, so that these elements of the productive capital are constantly renewed in kind.

In so far as the variable capital is concerned, i.e. the component part of the productive capital that is spent on labour-power, this labour-power is bought for a definite period of time. Once the capitalist has bought it and incorporated it into the production process, it forms a component of his capital, and in fact precisely its variable component. It functions daily for a certain space of time in which it adds to the product not only its entire daily value, but also an additional surplus-value, which we shall in the first instance ignore. When the labour-power has been bought for one week, for example, and functioned for this time, the purchase must continually be repeated at the customary intervals. The equivalent of its value, which labour-power adds to the product during its function, and which is transformed into money as the product circulates, must constantly be transformed back from money into labour-power, or constantly describe the complete circuit of its forms, i.e. turn over, if the cycle of continuous production is not to be interrupted.

The part of the value of the productive capital that is advanced for labour-power thus completely passes over to the product (we are still ignoring the surplus-value), describes together with it the two metamorphoses pertaining to the circulation sphere, and remains permanently incorporated in the production process by way of this constant renewal. No matter how differently labour-power acts with respect to value-formation from the components of constant capital that do not form fixed capital, this manner of turnover of its value is something that it has in common with the latter, in contrast to the fixed capital. Because of this common characteristic in their turnover, these components of productive capital – the portions of value spent on labour-power and on means of production that do not form fixed capital – confront fixed capital as circulating or fluid capital.

We saw previously* how the money that the capitalist pays the worker for the use of his labour-power is in fact only the general equivalent form of the worker's necessary means of subsistence. In this respect, the variable capital consists materially of means of subsistence. Here however, in considering the turnover, we are dealing with the form. What the capitalist buys is not the worker's means of subsistence, but his actual labour-power. It is not the worker's means of subsistence that form the variable part of the capitalist's capital, but his active labour-power. What the capitalist consumes productively in the labour process is labour-power and not the worker's means of subsistence. It is the worker himself who converts the money he receives for his labour-power into means of subsistence, so as to transform these back into labour-power and keep alive, just as the capitalist, for example, converts a part of the surplus-value of the commodities that he sells for money into means of subsistence for himself, although no one would be led to say that the buyer of his commodities therefore pays him in means of subsistence. Even if the worker is paid a part of his wages in means of subsistence, in kind, this nowadays forms a second transaction. He sells his labour-power for a definite price, and it is then agreed that he should receive a part of this price in means of subsistence. This only alters the form of the payment, it does not alter the fact that what he actually sells is labour-power. This second transaction is no longer between worker and capitalist as such, but between the worker as buyer of commodities and the capitalist as their seller; whereas in the first transaction it was the worker who was the seller of a commodity (his own labour-power), and the capitalist its buyer. It is just as if the capitalist had had his commodity replaced by another commodity, e.g. as if he replaced the machine that he sells to an iron works by iron. Thus it is not the worker's means of subsistence that acquire the characteristic of fluid capital in contrast to fixed capital. And it is also not his labour-power, but rather the portion of the value of the productive capital that is spent on it, that has this characteristic in the turnover in common with some components of the constant part of the capital, and in contrast with other parts.

The value of the fluid capital – both in labour-power and means of production – is advanced only for the time that it takes to produce the

product, according to the scale of production which is given by the volume of the fixed capital. This value enters in its entirety into the product, and thus returns again completely from circulation with the sale of the product and can be advanced afresh. The labour-power and means of production in which the fluid component of the capital exists are withdrawn from the circulation sphere in the quantity needed for the formation and sale of the finished product, but they must constantly be replaced and renewed by new purchases, by the transformation from the money form back into the elements of production. They are withdrawn from the market at any one time in smaller quantities than are the elements of fixed capital, but they must be withdrawn again all the more frequently, and the advance of the capital spent on them is repeated at shorter intervals. This regular repetition is mediated by the regular conversion of the product, which circulates their entire value. It is not only their value that continuously describes the whole circuit of metamorphoses, but also their material form; they are constantly transformed back from commodities into the elements of production of those commodities.

Together with its own value, labour-power constantly adds to the product surplus-value, i.e. the embodiment of unpaid labour. This surplus-value is then just as constantly circulated by the finished product and transformed into money as are its other value elements. Here, however, where what we are concerned with in the first instance is the turnover of the capital value, and not that of the surplus-value that is turned over together with it, we shall disregard the latter for the time being.

Our argument so far leads to the following conclusions.

(1) The formal characteristics of fixed and fluid capital arise only from the different turnovers of the capital value or productive capital that functions in the production process. This difference in turnover arises for its part from the different ways in which the various components of the productive capital transfer their value to the product, though not from their different share in the production of the product's value or from their characteristic behaviour in the valorization process. The different ways in which value is given up to the product, and hence also the different ways in which this value is circulated by the product and replaced in its original natural form as a result of its metamorphoses, ultimately arise from the different material shapes in which productive capital exists, one part of it being consumed entirely in the course of forming the particular product, while another is used up only gradually. Thus it is only productive capital that can be divided up into fixed and fluid capital. This antithesis does not exist for the two other modes of existence of industrial capital, neither for commodity capital nor for money capital, nor yet as an antithesis between these two and productive capital. It exists only for productive capital and only within it. No matter how much money capital and commodity capital function as capital, and how fluidly they circulate, they can become fluid capital in contrast to fixed capital only when they have been transformed into the fluid components of productive capital. But because these two forms of capital inhabit the circulation sphere, economists have been misled ever since Adam Smith, as we shall see, into classing them together with the fluid part of productive capital under the heading of circulating capital. They are certainly capital of circulation in contrast to productive capital, but they are not circulating capital in contrast to fixed capital.

(2) The turnover of the fixed component of capital, and thus also the turnover time needed by it, encompasses several turnovers of the fluid components of capital. In the same time that it takes for the fixed capital to turn over once, the fluid capital turns over several times. The one component of the value of productive capital receives the formal characteristic of fixed capital only in so far as the means of production in which it exists are not used up in the space of time that it takes to produce the product and eject it from the production process as a commodity. A part of its value must remain tied up in the old and persisting use form, while another part is circulated by the finished product; in its circulation, however, the product circulates at the same time the total value of the fluid components of capital.

(3) That part of the value of productive capital that is laid out on fixed capital is advanced all at once in its entirety, for the whole period of functioning of that part of the means of production of which the fixed capital consists. The capitalist thus casts this value into the circulation sphere all at once; but it is withdrawn from circulation again only gradually and bit by bit, by the realization of the value portions that the fixed capital adds bit by bit to the commodities. The actual means of production themselves, however, in which a part of the productive capital is fixed, are withdrawn from circulation all at once, to be incorporated into the production process for the whole of the period during which they function, though they do not need throughout this time to be replaced by new items of the same kind, i.e. to be reproduced. They continue to contribute for a longer or shorter time to the formation of the commodities thrown into circulation, without withdrawing from

*See below, Chapters 10 and 11.
circulation the elements of their own renewal. During this time, therefore, they do not require for their part any new advance on the part of the capitalist. Finally, while the effective life of the means of production in which it exists continues, the capital value laid out as fixed capital does not pass through the circuit of its forms materially, but only in its value, and this only partially and gradually. That is to say, a part of its value is continually circulated and transformed into money as a part of the value of the commodity, without being transformed back from money into its original natural form. This transformation of money back into the natural form of the instrument of production takes place only at the end of the latter's period of functioning, when the instrument of production has been completely used up.

(4) The elements of fluid capital are just as permanently fixed in the production process — if this is to be continuous — as are the elements of fixed capital. But while the elements of the former that are fixed in this way are steadily renewed in kind (the means of production by new items of the same kind; labour-power by ever-repeated purchases), the elements of fixed capital are neither themselves renewed as long as they last, nor does their purchase have to be repeated. Raw and ancillary materials are constantly present in the production process, but there are always new items of the same kind, the old ones having been consumed in the formation of the finished product. Just as constantly is there labour-power in the production process, but only in association with a constant repetition of its purchase, and often with a change in persons. However the very same buildings, machines, etc. carry on functioning in the same repeated production processes while the fluid capital turns over repeatedly.

2. COMPONENTS, REPLACEMENT, REPAIRS AND ACCUMULATION OF THE FIXED CAPITAL

The various elements of fixed capital in a particular investment have differing lifespans, and hence also different turnover times. In a railway, for example, the rails, sleepers, earthworks, station buildings, bridges, tunnels, locomotives and carriages all function for different periods and have different repetition times, and so the capital advanced in them has different turnover times. The buildings, platforms, water tanks, viaducts, tunnels, cuttings and embankments, in short, all those things which on the English railways are called ‘works of art’, do not need to be renewed for a whole series of years. The things that wear out most quickly are the permanent way and the rolling stock.

When modern railways were first constructed, the general opinion, backed by the most eminent practical engineers, was that a railway would last for centuries, and that the wear and tear of the tracks would be so negligible that it could be ignored for all financial and practical purposes: 100–150 years was considered the lifetime of good rails. It soon transpired, however, that the life of a rail, which of course depends on the speed of the locomotives, the weight and number of trains, the thickness of the rails themselves and a number of secondary circumstances, is no more than twenty years on average. At certain particular stations and centres of heavy traffic, the rails actually wear out each year. Around 1867 steel rails began to be introduced, which, although they cost around twice as much as iron rails, last for more than twice as long. The lifespan of wooden sleepers was between twelve and fifteen years. It also became evident, as far as the rolling stock was concerned, that goods wagons wore out significantly quicker than passenger carriages. In 1867, the life of a locomotive was estimated at between ten and twelve years.

Wear and tear is occasioned in the first place by actual use. As a general rule, the rails wear out in proportion to the number of trains (R. C., no. 17645). The wear and tear also increases by more than the square of the speed; i.e. if the speed of the trains doubles, then the wear and tear increases more than fourfold (R. C., no. 17046).

A further item of wear and tear is that caused by natural forces. Sleepers, for example, do not just deteriorate as a result of actual use, but also suffer from rot:

‘The cost of maintaining the road does not depend so much upon the wear and tear of the traffic passing over it, as upon the quality of wood, iron, bricks, and mortar exposed to the atmosphere. A month of severe winter would do more damage to the road of a railway than a year’s traffic’ (R. P. Williams, On the Maintenance and Renewal of the Permanent Way, paper read at the Institute of Civil Engineers, Autumn, 1866).*

3. The quotations marked ‘R. C.’ are taken from Royal Commission on Railways, Minutes of Evidence taken before the Commissioners. Presented to both Houses of Parliament, London, 1867. The questions and answers are numbered as here indicated.

*This paper was published in the Money Market Review on 2 December 1867, and this is the source of the quotation.
Finally, as is the case throughout large-scale industry, moral deterioration also plays its part. After ten years have elapsed, it is generally possible to buy the same quantity of carriages and locomotives for £30,000 as previously cost £40,000. A depreciation of 25 per cent on the market price must thus be reckoned with on this material, even if there is no depreciation in the use-value (Lardner, *Railway Economy* [p. 120]).

'Tube bridges will not be replaced in their present form.' (Because there are now better forms for such bridges.) 'Ordinary repairs, taking away gradually, and replacing, are not practicable' (W. B. Adams, *Roads and Rails*, London, 1862 [p. 136]).

The means of labour are for the most part constantly revolutionized by the progress of industry. Hence they are not replaced in their original form, but in the revolutionized form. On the one hand, the volume of fixed capital that is invested in a particular natural form, and has to last out for a definite average lifespan within this, is a reason why new machines, etc. are introduced only gradually, and hence forms an obstacle to the rapid general introduction of improved means of labour. On the other hand, competition forces the replacement of old means of labour by new ones before their natural demise, particularly when decisive revolutions have taken place. Catastrophes, crises, etc. are the principal causes that compel such premature renewals of equipment on a broad social scale.

Depreciation (apart from moral depreciation) is the portion of value that the fixed capital gradually gives up to the product as it is used, according to the average degree of its loss of use-value.

This depreciation in part takes the form that the fixed capital has a certain average lifespan; it is completely advanced for this period of time, and after it has elapsed must be completely replaced. In the case of living means of labour, such as horses, for example, the reproduction time is prescribed by nature itself. Their average life as means of labour is determined by natural laws. Once this period has elapsed, the worn-out items must be replaced by new ones. A horse cannot be replaced bit by bit, but only by another horse.

Other elements of the fixed capital permit periodic or partial renewal. This partial or periodic replacement should be distinguished from the gradual extension of a business.

Fixed capital consists in part of components which are similar but do not all last equally long, and are rather renewed bit by bit at different intervals in time. The rails at a station, for example, have to be replaced more often than rails at other parts of the line. The same is the case with sleepers; Lardner states that in the 1850s, on the Belgian railways, these had to be replaced at the rate of 8 per cent per year, the whole of the sleepers thus being replaced in the course of twelve and a half years. Here the situation is as follows: a sum is advanced, for example, for ten years on a particular kind of fixed capital. This outlay is made all at once. But a certain part of this fixed capital, the value of which has gone into the value of the product and has been converted along with this into money, is replaced each year in kind, while the remainder continues to exist in its original natural form. What distinguishes this fixed capital from fluid capital is precisely this outlay all at once and reproduction only bit by bit in the natural form.

Other items of fixed capital consist of different types of component, which wear out and thus have to be replaced at different intervals of time. This is particularly the case with machines. The same applies here, in connection with the life of these different components of one and the same machine forming an item of fixed capital, as we previously noted with respect to the varying life of different components of a total fixed capital.

The following should be noted in connection with the gradual extension of a business in the course of partial renewal. Even though, as we have seen, the fixed capital continues to function in its natural form in the production process, if a part of its value has circulated with the product, according to the average wear and tear, and been transformed into money, then this forms an element of the money reserve fund for the replacement of the capital when its reproduction in kind falls due. This part of the fixed capital value transformed into money can therefore serve to expand the business or to effect improvements in the machines which increase their effectiveness. Reproduction then occurs, in shorter or longer periods, and from the social point of view this is reproduction on an expanded scale; extensively, if the field of production is extended; intensively, if the means of production are made more effective. This reproduction on an expanded scale does not arise from accumulation—the transformation of surplus-value into capital—but from a retransformation of the value, which branches into two parts, and in its money form has separated itself off from the body of the fixed capital, into new fixed capital of the same kind, either additional or more effective. Of course it depends in part on the specific nature of the business how far and in what dimensions it is susceptible to a gradual addition of this kind, and thus also in what dimensions a reserve fund...
has to be built up in order to be reinvested in this way, and in what periods of time this can take place. How far improvements of detail to existing machinery can be brought about, on the other hand, naturally depends on the nature of the improvements and on the construction of the machine itself. Adams shows that this point is borne in mind very strongly, and from the start, in railway investments:

‘The whole structure should be set out on the principle which governs the beehive – capacity for indefinite extension. Any fixed and decided symmetrical structure is to be deprecated, as needing subsequent pulling down in case of enlargement’ (p. 123).

This in turn depends to a large extent on the space available. In some buildings extra floors can be added, while others require horizontal extension, and thus more land. While capitalist production is marked by the waste of much material, there is also much inappropriate horizontal extension of this kind (partly involving a loss of labour-power) in the course of the gradual extension of a business, since nothing is done according to a social plan, but rather depends on the infinitely varied circumstances, means, etc. with which the individual capitalist acts. This gives rise to a major wastage of productive forces.

The progressive reinvestment of the money reserve fund (i.e. of the part of the fixed capital that is transformed back into money) is most easily effected in agriculture. Here a spatially given field of production is capable of the greatest gradual absorption of capital. The same is true when natural reproduction takes place, as in the case of cattle breeding.

Fixed capital gives rise to special costs of maintenance. A part of the maintenance is effected by the labour process itself; fixed capital spoils if it does not function in the labour process. (See Volume 1, Chapter 8, p. 313, and Chapter 15, p. 528: deterioration of machinery that arises from its non-use.) The English law therefore expressly considers it as waste if land that is farmed out is not cultivated according to custom. (W. A. Holdsworth, Barrister at Law, The Law of Landlord and Tenant, London, 1857, p. 96.) This maintenance that results from use in the labour process is a gift of nature provided gratis by living labour. In fact the preserving power of labour is of a dual type. On the one hand it preserves the value of the materials of labour, by transferring it to the product, while on the other hand it preserves the value of the means of labour, without transferring this value to the product, by preserving their use-value through their action in the production process.

But fixed capital also requires positive outlays of labour if it is to be kept in good condition. The machinery must be cleaned from time to time. This involves additional labour, without which it becomes unfit for use; this is merely a defence against the damaging influence of the elements that is inseparable from the production process, and is thus keeping it in working order in the most literal sense. The normal lifespan of fixed capital is naturally reckoned on the assumption that the conditions under which it can function normally during this time are fulfilled, just as it is assumed, if the average life of a man is taken as thirty years, that he washes himself. What is involved here is not the replacement of the labour contained in the machine, but additional labour that is constantly necessary for it to be used. This is not a matter of labour performed by the machine, but of labour performed on the machine; here it is not an agent of production, but rather raw material. The capital spent on this labour is part of the fluid capital, even though it does not properly enter the actual labour process to which the product owes its origin. The labour must be constantly performed in the course of production, and so its value must also be constantly replaced by the value of the product. The capital spent on it belongs to that part of fluid capital that has to cover the general overheads, and is distributed over the value of the product according to an average annual calculation. As we have seen,* in industry proper this work of cleaning is performed by the workers for nothing during breaks, and for this reason it is often actually done during the production process itself, where it is the major source of accidents. This labour does not count in the price of the product. In this respect the consumer receives it gratis. The capitalist, moreover, does not have to pay anything for the maintenance of his machine. The worker pays in his own person, and this forms one of the mysteries of capital’s self-preservation, constituting in point of fact a legal claim of the worker on the machinery, and making him a co-owner of this even from the standpoint of bourgeois right.† But in various branches of production where the machinery has to be removed from the production process for cleaning, and the cleaning can therefore not take place on the quiet, as with locomotives, for example, this maintenance work counts as running costs, i.e. as an element of fluid capital. *A goods engine should not run more than three days without being kept one day in the shed. . . . If,

*Volume 1, p. 552, note 10.
Repairs proper, the work of patching up, require an outlay of capital and labour which is not contained in the capital originally advanced, and thus cannot always be replaced and covered by the gradual replacement of the fixed capital. If the value of the fixed capital is £10,000, and its overall life is ten years, then this £10,000, when after ten years it is completely transformed into money, replaces only the value of the original capital investment, and does not replace the capital or labour newly added in between times for repairs. This is an additional component of value, which is not advanced all at once, but rather according to need, and its various times of advance are by the nature of the case accidental. All fixed capital requires these later doses of additional capital outlay on means of labour and labour-power.

The damage to which particular parts of the machinery, etc. are exposed are by nature accidental, and hence so are also the repairs necessitated by such damage. However, two kinds of repair works can be singled out here, both having a more or less firm character and falling in different periods of the fixed capital's lifetime: childhood infirmities, and the far more numerous ailments of the years beyond middle age. No matter how perfectly constructed a machine may be when it enters the production process, faults become evident with actual use, and they have to be corrected by subsequent work. Moreover, the more it passes beyond its middle years, and thus the more that normal wear and tear mounts up, and the material it is made of becomes worn out and weak with age, the more frequent and serious becomes the repair work needed to keep the machine going until the end of its average life; just as an old man has more medical expenses than a man in the prime of life, if he is not to die before his time. Despite its accidental character, therefore, the work of repair is distributed unevenly over the various periods of the fixed capital's life.

It follows from this, as well as from the otherwise accidental character of the repair work on a machine:

Firstly, that the actual expenditure on labour-power and means of labour for repair work is accidental, as are the circumstances themselves that make these repairs necessary; the extent of the repairs needed is differentially distributed over the various periods of the fixed capital's life. It is however assumed in assessing the average life of the fixed capital that it is constantly maintained in working condition, partly by cleaning (which includes keeping clean its site), partly by repairs, as often as these

are required. The transfer of value through the wear and tear of the fixed capital is calculated over its average period of life, but this average period is itself calculated on the assumption that the additional capital required to keep it in working order is continuously advanced.

Secondly, it is equally clear that the value added by this additional expenditure of capital and labour cannot go into the price of the commodities in step with the actual expenditure itself. A cotton spinner, for instance, cannot sell his yarn dearer this week than last week because he had a wheel broken or a belt snapped. The general costs of spinning are in no way affected by this accident in an individual factory. Experience shows the average extent of such accidents, and the work of maintenance and repair needed during the average life of a fixed capital invested in a certain line of business. This average expenditure is distributed over its average life and added in corresponding aliquot parts to the price of the product, and this is how it is replaced by the product's sale.

The extra capital that is replaced in this way is part of the fluid capital, even though the expenditure is of an irregular kind. Since it is of the utmost importance to treat every ailment of the machinery immediately, every large factory has, in addition to the factory workers proper, a staff of engineer, carpenter, mechanic, fitter, etc. Their wages form part of the variable capital, and the value of their labour is distributed over the product. The expenditure that the means of production require is determined according to this average calculation and always forms a corresponding portion of the value of the product, even though it is in fact advanced at irregular intervals and so also enters the product, i.e. the fixed capital, irregularly. This capital spent on repairs in the strict sense forms in many respects a capital of a peculiar kind; it cannot be properly classed either as fluid or as fixed capital, but, since it is part of the running expenses, it tends more towards the first of the two forms.

The way the books are kept does not of course affect the actual relationships of the things entered in the accounts. But it is important to note that in many lines of business it is customary to calculate the repair costs in conjunction with the actual wear and tear of the fixed capital, in the following way: If the fixed capital advanced is £10,000, its life fifteen years, then the annual depreciation is £666½. If the depreciation is now calculated over ten years only, then instead of £666½, £1,000 is added annually to the price of the goods produced to compensate for the wearing-out of the fixed capital; i.e. £333½ is reserved for repairs, etc. (The figures ten and fifteen are taken only for the sake
The Turnover of Capital

of example.) This, then, is the amount spent on repairs, on an average, so that the fixed capital may last for fifteen years. The calculation does not of course prevent the fixed capital and the additional capital spent on repairs from forming different categories. On the basis of this way of calculating, it has been assumed, for example, that the lowest cost estimate for the maintenance and replacement of steamships would be 15 per cent per year, i.e. a reproduction time of 6\(\frac{1}{2}\) years. In the 1860s, the British government compensated the Peninsular and Oriental Co. at an annual rate of 16 per cent, which assumes a reproduction time of 6\(\frac{1}{2}\) years. In the case of railways, the average life of a locomotive is ten years, but if repairs are included, the depreciation is taken as 12\(\frac{1}{2}\) per cent, which reduces the lifespan to eight years. For passenger coaches and goods wagons, 9 per cent is reckoned, i.e. a life of 11\(\frac{1}{2}\) years.

In connection with contracts of rental for houses and other things that are fixed capital for their proprietors and are rented out as such, legislation has always recognized the distinction between normal deterioration, produced by time, the influence of the elements and normal wear and tear, and the occasional repairs that are necessary from time to time for maintenance in the course of the normal life of a house and its normal use. As a rule, the first fall on the landlord, the second on the tenant. Repairs are further divided into ordinary and substantial. The latter represent in part a renewal of fixed capital in its natural form, and also fall on the landlord, unless the contract expressly states the opposite. Thus in English law for example:

'A tenant from year to year, on the other hand, is not bound to do more than keep the premises wind and water tight, when that can be done without “substantial” repairs; and generally to do repairs coming fairly under the head “ordinary”. Even with respect to those parts of the premises which are the subject of “ordinary” repairs, regard must be had to their age and general state, and condition, when he took possession, for he is not bound to replace old and worn out materials with new ones, nor to make good the inevitable depreciation resulting from time and ordinary wear and tear’ (Holdsworth, Law of Landlord and Tenant, pp. 90 and 91).

Something that is quite different both from the replacement of wear and tear and from the work of repair and maintenance is insurance, which relates to destruction by way of extraordinary natural events, fire, flood, etc. This must be made good out of surplus-value, and forms a deduction from it. Considered from the standpoint of the whole society, there must be a constant over-production, i.e. production on a greater scale than is needed for the simple replacement and reproduction of the existing wealth – quite apart from any increase in population – for the society to have at its disposal the means of production needed to make good unusual destruction caused by accidents and natural forces.

In actual fact, only a very small part of the capital needed for replacement exists in the money reserve fund. The most significant part exists in the extension of the scale of production itself, which is partly an actual expansion, and partly falls within the normal capacity of the branches of production that produce fixed capital. An engineering works, for example, is organized to take account of both an annual expansion of the factories of all its customers, and the need of part of them for reproduction, as a whole or in part.

When wear and tear and repair costs are determined on a social average, great unevenness necessarily arises, even for equally large capital investments in the same branch of production which are under otherwise similar conditions. In practice a machine, etc. will last one capitalist longer than the average period, and another capitalist not so long. The repair costs of the one are above the average, those of the other below it, etc. But the addition to the price determined by wear and tear and by repair costs is the same in both cases and is determined on the average. Thus the increase in price brings the one more than he actually added, and the other less. This circumstance, like all others that lead the profit of different capitalists in the same line of business to differ, given the same exploitation of labour-power, helps to make insight into the true nature of surplus-value more difficult.

The boundary between what is repair and what is replacement, between costs of maintenance and costs of renewal, is a more or less shifting one. This gives rise to a perpetual struggle – in the railways, for example – as to whether certain expenses are repairs or replacement, whether they are to be met from current expenditure or from the original capital. The transfer of repair costs to the capital account instead of the current account is a well-known device through which railway directors artificially rack up their dividends. Here, too, experience has already provided the most fundamental reference points. The subsequent works undertaken during the early life of a railway, for example, ‘ought not to be denominated repairs, but should be considered as an essential part of the construction of the railway, and in the financial accounts should be debited to capital, and not to revenue, not being expenses due to wear and tear, or to the legitimate operation of the traffic, but to the original
and inevitable incompleteness of the construction of the line’ (Lardner, op. cit., p. 40). ‘The only sound way is to charge each year’s revenue with the depreciation necessarily suffered to earn the revenue whether the amount is actually spent or not’ (Captain Fitzmaurice, ‘Committee of Inquiry on Caledonian Railway’, published in Money Market Review, [25 January] 1868).

In agriculture it becomes in practice impossible and meaningless to separate the replacement of the fixed capital from its maintenance, at least in so far as steam power is not yet used.

‘Where there is a full, though not excessive stock of implements’ (of agricultural and other implements and appliances of all kinds), ‘the general rule is to estimate the annual wear and tear together with the maintenance of the implements, according to the different conditions obtaining, at 15–25 per cent of the original capital’ (Kirchhof, Hand­buch der landwirthschaftlichen Betriebslehre, Dessau, 1852, p. 137) [Marx’s emphasis].

In the case of railway rolling stock it is quite impossible to separate repairs from replacement:

‘We maintain our stock by number. Whatever number of engines we have we maintain that. If one is destroyed by age, and it is better to build a new one, we build it at the expense of revenue, of course, taking credit for the materials of the old one as far as they go . . . there is a great deal left; there are the wheels, the axles, the boilers, and in fact a great deal of the old engine is left’ (T. Gooch, Chairman of the Great Western Railway Co., R. C. on Railways, p. 858, nos. 17327–17329).

‘. . . Repairing means renewing; I do not believe in the word replace­ment . . . ; once a railway company has bought a vehicle or an engine, it ought to be repaired, and in that way admit of going on for ever’ (no. 17784). ‘. . . The engines are maintained for ever out of this 8½d. We rebuild our engines. If you purchase an engine entirely it would be spending more money than is necessary . . . yet there is always a pair of wheels or an axle or some portion of the engine which comes in, and hence it cheapens the cost of producing a practically new engine’ (no. 17790). ‘I am at this moment turning out a new engine every week, or practically a new engine, for it has a new boiler, cylinder, or framing’ (no. 17823: Archibald Sturrock, Locomotive Superintendent of the Great Northern Railway, in R. C. 1867).

The same with carriages:

‘In the course of time the stock of engines and vehicles is continually repaired. New wheels are put on at one time, and a new body at

another. The different moving parts most subject to wear are gradually renewed; and the engines and vehicles may be conceived even to be subject to such a succession of repairs, that in many of them not a vestige of the original materials remains . . . Even in this case, however, the old materials of coaches or engines are more or less worked up into other vehicles or engines, and never totally disappear from the road. The movable capital therefore may be considered to be in a state of continual reproduction; and that which, in the case of the permanent way, must take place altogether at a future epoch, when the entire road will have to be relaid, takes place in the rolling stock gradually from year to year. Its existence is perennial, and it is in a constant state of rejuvenescence’ (Lardner, op. cit., pp. 115–16).

The process depicted here by Lardner in the case of the railways does not apply to an individual factory, but it does provide a picture of the constant partial reproduction of the fixed capital, shot through with repairs, that takes place within an entire branch of industry, or generally within production as a whole, considered on the social scale.

Here is some evidence of the broad limits within which clever direc­tors can manipulate the concepts of repairs and replacement in the interest of their dividends. According to the above-quoted paper by R. P. Williams, various English railway companies annually wrote off the following average sums over a number of years for repairs and maintenance of the permanent way and buildings (for each mile of track):

<table>
<thead>
<tr>
<th>Company</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>London and North Western</td>
<td>£370</td>
</tr>
<tr>
<td>Midland</td>
<td>£225</td>
</tr>
<tr>
<td>London and South Western</td>
<td>£257</td>
</tr>
<tr>
<td>Great Northern</td>
<td>£310</td>
</tr>
<tr>
<td>Lancashire and Yorkshire</td>
<td>£377</td>
</tr>
<tr>
<td>South Eastern</td>
<td>£263</td>
</tr>
<tr>
<td>Brighton</td>
<td>£266</td>
</tr>
<tr>
<td>Manchester and Sheffield</td>
<td>£200</td>
</tr>
</tbody>
</table>

These differences arise only to a very slight degree from variations in actual expenditure; they are almost exclusively due to differing modes of calculation, according to whether items are debited to the capital account or the current account. Williams says in so many words that a lesser charge is put down when this is necessary for a good dividend, and a higher figure when there is a greater revenue able to bear it.

In certain cases, the wear and tear, and thus replacement for it, is in
practice of an infinitesimal magnitude, so that it is only repair costs that come into the balance. What Lardner says about ‘works of art’ in the case of the railways holds good generally for all similarly durable works such as canals, docks, iron and stone bridges, etc. [He refers to]

‘that wear and tear which, being due to the slow operation of time acting upon the more solid structures, produces an effect altogether insensible when observed through short periods, but which, after a long interval of time, such, for example, as centuries, must necessitate the reconstruction of some or all even of the most solid structures. These changes may not unaptly be assimilated to the periodical and secular inequalities which take place in the movements of the great bodies of the universe. The operation of time upon the more massive works of art upon the railway, such as the bridges, tunnels, viaducts, etc., afford examples of what may be called the secular wear and tear. The more rapid and visible deterioration, which is made good by repairs or reconstruction effected at shorter intervals, is analogous to the periodic inequalities. In the annual repairs is included the casual damage which the exterior of the more solid and durable works may from time to time sustain; but, independently of these repairs, age produces its effects even on these structures, and an epoch must arrive, however remote it be, at which they would be reduced to a state which will necessitate their reconstruction. For financial and economic purposes such an epoch is perhaps too remote to render it necessary to bring it into practical calculation, and therefore it need here only be noticed in passing’ (Lardner, op. cit., pp. 38, 39).

This applies to all similar works with a long span of life, so that the capital advanced in them does not have to be gradually replaced in accordance with its wear and tear, but it is only the annual average costs of maintenance and repair that are transferred to the price of the product.

Even though, as we have seen, a large part of the money that flows back to replace the wear and tear of the fixed capital is transformed back into its natural form annually, or even more frequently, each individual capitalist still needs an amortization fund for the part of the fixed capital that reaches its term of reproduction only after a period of years, and then has to be replaced entirely. A significant component of the fixed capital excludes piecemeal reproduction by its very nature. Apart from the case where reproduction takes place bit by bit in such a way that new stock is added to the depreciated old stock at short intervals, a prior accumulation of money is necessary, of a greater or lesser amount according to the specific character of the branch of production in question, before this replacement can occur. This cannot be just any sum of money whatever; an amount of a certain size is required.

If we consider this exclusively on the assumption of simple money circulation, without any regard to the credit system (this will be brought in later*), then the mechanism of the movement is as follows. In the first volume (Chapter 3, 3, a) it was shown that although part of the money present in a society always lies fallow in the form of a hoard, while another part functions as means of circulation or as an immediate reserve fund of directly circulating money, the proportion in which the total quantity of money is divided between hoard and means of circulation constantly alters. In our present case, money that has to be accumulated on a large scale as a hoard in the hands of a big capitalist is thrown into circulation all at once on the purchase of fixed capital. It is then divided up again in the society between means of circulation and hoard. By way of the amortization fund in which the value of the fixed capital flows back to its starting-point in proportion to the wear and tear, a part of the money in circulation again forms a hoard – for a longer or shorter period of time – in the hands of the same capitalist whose hoard was transformed into means of circulation and separated from him with his acquisition of fixed capital. There is a constantly changing distribution of the hoard existing in a society, which alternately functions as means of circulation, and is then again divided off from the mass of circulating money as a hoard. With the development of the credit system, which necessarily runs parallel with the development of large-scale industry and capitalist production, this money no longer functions as a hoard but as capital, though not in the hands of its proprietor, but rather of other capitalists at whose disposal it is put.

* See Volume 3, Part Five.
Chapter 9: The Overall Turnover of the Capital Advanced. Turnover Cycles

We have seen already that the fixed and the fluid components of productive capital turn over differently and in different periods, just as the various components of fixed capital in the same business also have different turnover periods according to their different lifespans and reproduction times. (On the actual or apparent variations in the turnover of different components of fluid capital in the same business, see heading 6 at the end of this chapter.)

1. The overall turnover of the capital advanced is the average turnover of its different component parts; the mode of calculation is given below. In so far as only different periods of time are involved, it is of course perfectly simple to take their average. However,

2. There are not only quantitative distinctions involved, but also qualitative ones.

The fluid capital entering the production process transfers its whole value to the product, and must therefore be constantly replaced in kind by the sale of the product, if the production process is to continue without interruption. The fixed capital entering the production process transfers only part of its value (the wear and tear) to the product, and continues to function in the production process despite this wear and tear; hence it only needs to be replaced in kind at shorter or longer intervals, in any case not as often as the fluid capital. This necessity of replacement, the reproduction period, does not just differ quantitatively for the different components of the fixed capital. As we have already seen, one part of the fixed capital, of longer durability and fixed for several years, can be replaced annually or at shorter intervals, and the old fixed capital added to in kind; while with fixed capital of a different sort, the replacement can only be effected all at once at the end of its life.

It is necessary therefore to reduce the separate turnovers of the various parts of the fixed capital to a similar form of turnover, so that these differ only quantitatively, in the duration of their turnover.

A qualitative homogeneity of this kind does not exist if we take as the starting-point $P \ldots P$, the form of the continuous production process. For some elements of $P$ have to be constantly replaced in kind, while others do not. Let us take a machine with a value of £10,000, for example, which lasts for ten years, so that one tenth of it, or £1,000, is transformed back into money every year. In the course of one year, this £1,000 has been transformed from money capital into productive capital and commodity capital, and from this back into money capital. It has returned to its original money form, just like the fluid capital, if we consider the latter in this form, and it is immaterial here whether the money capital of £1,000 is transformed back again into the natural form of a machine at the end of the year, or not. In calculating the overall turnover of the productive capital advanced, we therefore take all its elements in the money form, so that the return to the money form concludes the turnover. We always consider the value as advanced in money, even in the case of a continuous production process, where the money form of the value is only that of money of account. We can then take the average.

3. It follows that even if by far the greater part of the productive capital advanced consists of fixed capital whose reproduction time, and therefore turnover time, makes up a cycle of many years, the capital value turned over during the year by way of repeated turnovers of the fluid capital may be greater than the total value of the capital advanced.

Let the fixed capital be £80,000 and its reproduction time ten years, so that £8,000 of this annually returns to its money form or completes one tenth of its turnover. Let the fluid capital be £20,000, turning over five times in the year. The total capital is then £100,000. The fixed capital turned over is £8,000, and the fluid capital turned over is 5 times £20,000 = £100,000. The capital turned over in the year is then £108,000, £8,000 greater than the capital advanced. One fifth of the capital has turned over.

4. The value turnover of the capital advanced is thus separate from its actual reproduction time, or the real turnover time of its components. Say that a capital of £4,000 turns over five times in the year. The capital turned over is then 5 times £4,000 = £20,000. But what returns at the end of each turnover, to be advanced once again, is the originally advanced capital of £4,000. Its size is not affected by the number of turnover periods in which it functions anew as capital. (We again disregard surplus-value.)

In the example under heading 3, we have assumed that at the end of
the year there returns to the capitalist, (a) a value sum of £20,000, which he lays out once again on the fluid components of capital, and (b) a sum of £8,000, which has separated off from the fixed capital advanced as a result of wear and tear; the same fixed capital still continues to exist in the production process, but with the reduced value of £72,000 instead of £80,000. The production process must thus continue for nine years before the fixed capital advanced has come to the end of its life, no longer functions to form products or value, and has to be replaced. The capital value advanced has thus to describe a cycle of turnovers, in the given case for example a cycle of ten annual turnovers, and this cycle is in fact determined by the lifespan, and hence the reproduction time or turnover time, of the fixed capital applied.

To the same extent as the value and durability of the fixed capital applied develops with the development of the capitalist mode of production, so also does the life of industry and industrial capital in each particular investment develop, extending to several years, say an average of ten years. If the development of fixed capital extends this life, on the one hand, it is cut short on the other by the constant revolutionizing of the means of production, which also increases steadily with the development of the capitalist mode of production. This also leads to changes in the means of production; they constantly have to be replaced, because of their moral depreciation, long before they are physically exhausted. We can assume that, for the most important branches of large-scale industry, this life cycle is now on average a ten-year one. The precise figure is not important here. The result is that the life of his capital is turned being about eighteen months ... Take another case, ... say that one-fourth of the entire capital circulates in ten years, one-fourth in one year, and one half twice in the year. Then the annual expenditure will be

\[
\begin{align*}
\text{Turned over in 1 year} & = 63,750 \\
\text{On the mode of calculation of the turnover we will let an American} & \\
\text{economist have his say:} & \\
\text{In some trades the whole capital embarked is turned or circulated} & \\
\text{several times within the year. In others a part is turned oftener than} & \\
\text{once a year, another part less often. It is the average period which} & \\
\text{his entire capital takes in passing through his hands, or making one} & \\
\text{revolution, from which a capitalist must calculate his profits. Suppose} & \\
\text{for example that a person engaged in a particular business has one half} & \\
\text{of his capital invested in buildings and machinery; so as to be turned only} & \\
\text{once in ten years; that one fourth more, the cost of his tools, etc., is} & \\
\text{turned once in two years; and the remaining fourth, employed in paying} & \\
\text{wages and purchasing material, is turned twice in one year. Say that his} & \\
\text{entire capital is $50,000. Then his annual expenditure will be} & \\
\$25,000 \times \frac{1}{10} & = \$2,500 \\
\$12,500 \div 2 & = \$6,250 \\
\$12,500 \times 2 & = \$25,000 \\
\hline
\text{The mean term in which his capital is turned} & = \$33,750
\end{align*}
\]

\[ \text{(Scrope, Political Economy, edited by Alonzo Potter, New York, 1841, pp. 142, 143).} \]

6. Actual and apparent variations in the turnover of the various parts of capital. This Scrope says in the same passage [p. 141]:

"The capital laid out by a manufacturer, farmer, or tradesman in the payment of his labourer's wages, circulates most rapidly, being turned perhaps once a week (if his men are paid weekly), by the weekly receipts on his bills or sales. That invested in his materials and stock in hand circulates less quickly, being turned perhaps twice, perhaps four times in the year, according to the time consumed between his purchases of the one and sales of the other, supposing him to buy and sell on equal credits. The capital invested in his implements and machinery circulates
still more slowly, being turned, that is, consumed and renewed, on the average, perhaps but once in five or ten years; though there are many tools that are worn out in one set of operations. The capital which is embarked in buildings, as mills, shops, warehouses, barns, in roads, irrigation, etc., may appear scarcely to circulate at all. But, in truth, these things are, to the full, as much as those we have enumerated, consumed in contributing to production, and must be reproduced in order to enable the producer to continue his operations; with this only difference, that they are consumed and reproduced by slower degrees than the rest . . . and the capital invested in them may be turned perhaps every twenty or fifty years.'

Here Scrope confuses the difference in the flow of particular parts of the fluid capital brought about by payment periods and credit conditions, with turnovers arising from the nature of the capital. He says that wages must be paid weekly out of the weekly receipts from payment for sales or bills. The first thing to note here is that differences arise with respect to wages themselves, according to the length of the period of payment, i.e. the length of time for which the worker has to give the capitalist credit; thus according to whether the payment of wages is weekly, monthly, three-monthly, half-yearly, etc. Here the law put forward earlier applies, that 'the quantity of the means of payment required' (and thus the quantity of money capital that has to be advanced at one go) 'is in direct proportion to the length of the [payment] periods' (Volume 1, Chapter 3, 3, b, p. 240).

In the second place, it is not only the entire new value added in its production by the week's labour that enters into the weekly product, but also the value of the raw material and ancillaries consumed in it. The value contained in the product circulates together with the product itself. It receives the money form by the sale of the product, and has to be converted once again into the same elements of production. This holds good just as much for labour-power as for raw and ancillary materials. But as we have already seen (Chapter 6, 2, a), the continuity of production requires a stock of means of production, which differs for various lines of business, and in the same line of business differs once again for different components of this element of fluid capital, e.g. for coal and cotton. Hence although these materials must constantly be replaced in kind, they do not always need to be bought afresh. How often the purchase is repeated depends on the size of the stock invested in, how long it will last until it is exhausted. In the case of labour-power, there is no such storage process. For the portion of the capital that is laid out on labour, the transformation back into money goes hand in hand with that laid out on ancillary and raw materials. But the transformation of the money back into labour-power, on the one hand, and raw materials, on the other, proceeds separately, on account of the particular purchase and payment periods of these two components, one of them being bought at longer intervals, as a productive stock, the other, labour-power, at shorter intervals, e.g. weekly. Besides his production stock, the capitalist must also keep a stock of finished commodities. One way of disregarding the difficulties of sale, etc., is to assume that a certain quantity of goods must be produced to order. Even so, while the latter part of these are being produced, those items already finished lie in store until the time when the others can be completed. Other distinctions in the turnover of the fluid capital arise if particular elements of this have to persist longer than others at a preliminary stage of the production process (drying of wood, etc.).

The credit system, which Scrope refers to here, modifies the turnover of the individual capitalist, and so does commercial capital. At the level of society, however, it modifies this only in so far as it speeds up both consumption and production.
Chapter 10: Theories of Fixed and Circulating Capital. The Physiocrats and Adam Smith

In Quesnay's work, the distinction between fixed and circulating capital appears as one between avances primitives and avances annuelles.* He is correct in presenting this distinction as one within productive capital, capital incorporated into the immediate production process. Since he considers capital applied in agriculture, i.e. the capital of the farmer, as the only really productive capital, these distinctions in fact only arise for the farmer's capital. What also results from this is the annual turnover time of one part of the capital, and the more than annual (decennial) turnover time of the other. In the course of development, the Physiocrats incidentally transferred these distinctions to other kinds of capital as well, to industrial capital in general. For society as a whole, the distinction between advances for one year and advances for several years remains so important that many economists, even after Adam Smith, have returned to this definition.

The distinction between the two kinds of advance arises only when money advanced has been transformed into the elements of productive capital. It is simply and solely a distinction within productive capital. Thus it did not occur to Quesnay to count money as part of the original advances or the annual advances. As advances for production, i.e. as productive capital, the two contrast both with money and with commodities on the market. Moreover, Quesnay correctly reduced the distinction between these two elements of productive capital to the different ways in which they enter the value of the finished product, hence the different ways in which their value is circulated together with the value of the product, and the different ways in which they are replaced or reproduced, the value of one being completely replaced each year, that of the other bit by bit over a longer period.¹

¹ Cf. for Quesnay the Analyse du tableau économique (Physiocrates, ed. Daire, part I, Paris, 1846). Quesnay says there for example: 'The annual advances consist of the expenditures annually made for the work of cultivation; these advances must be distinguished from the original advances which form the fund for the commencement of cultivation' (p. 59). Later Physiocrats were already describing these avances much more directly as capital: 'capital or avances', Dupont de Nemours, Maximes du Docteur Quesnay, ou résumé de ses principes d'économie sociale (Daire, I, p. 391). Also Le Trosne: 'As a consequence of the longer or shorter lifespan of the instruments of labour, a nation possesses a considerable stock of riches independent of its yearly reproduction; this represents a capital accumulated over a long period and originally paid for with products, and it is continually maintained and increased' ([De l'intérêt Social,] Daire, II, pp. 928–9) [Marx's emphasis]. Turgot already uses the term 'capital' for the avances more regularly, and more closely identifies the avances of the manufacturiers with those of the farmers (Turgot, Réflexions sur la formation et la distribution des richesses, 1766).

*Original and yearly advances.

The only step forward taken by Adam Smith was to generalize these categories. In his work, they no longer relate just to one special form of capital, farmer's capital, but to every form of productive capital. It follows automatically that in place of the distinction, taken from agriculture, between annual and more than annual turnovers, we have a general distinction between turnovers of varying times, so that a turnover of fixed capital always comprises more than one turnover of circulating capital, whatever the length of turnover of this circulating capital may be – a year, greater than a year, or less than a year. In Smith, therefore, avances annuelles are transformed into circulating capital, avances primitives into fixed capital. But the progress he made was confined to this generalization of categories. In the development of his presentation, he falls far behind Quesnay.

The cruelly empirical way in which Smith opens his investigation immediately introduces an ambiguity:

'There are two different ways in which a capital may be employed so as to yield a revenue or profit to its employer' (Wealth of Nations, Book Two, Chapter I, p. 185, edit. Aberdeen, 1848).*

The ways in which value may be employed to function as capital, to yield a surplus-value to its owner, are as varied and manifold as the spheres of investment of capital. This is a question of the various branches of production in which capital can be invested. The question, formulated in this way, goes still further. It includes the problem of how value, even if it is not invested as productive capital, can function as capital for its owner, e.g. as interest-bearing capital, merchant's capital, etc. Here we are already a world away from the real object of the

*From here on Marx's page references are replaced by references to the Pelican edition, Harmondsworth, 1974, in which this passage appears on p. 374.
analysis, i.e. the question how the division of *productive* capital into its various elements affects the turnover, irrespective of its different spheres of investment.

Adam Smith immediately goes on to say:

‘First, it may be employed in raising, manufacturing, or purchasing goods, and selling them again with a profit.’

Here Smith tells us no more than that capital can be applied in agriculture, manufacture or trade. Thus he speaks only of the different spheres of investment of capital, as well as of some in which, as in trade, capital is not incorporated into the immediate production process, and thus does not function as productive capital. He thus already abandons the basis on which the Physiocrats depicted the distinctions within productive capital and their influence on the turnover. In fact he immediately takes merchant’s capital as an example in a question where what is at issue is exclusively the differences within *productive* capital in the process of forming products and value, differences which in turn produce differences in its turnover and reproduction.

He continues:

‘The capital employed in this manner yields no revenue or profit to its employer, while it either remains in his possession, or continues in the same shape.’

‘The capital employed in this manner’! But Smith speaks of capital that is invested in agriculture and industry, and later tells us that the capital thus invested can be divided into fixed and circulating capital! The employment of capital in this manner can thus make the capital neither fixed nor circulating.

Perhaps what Smith has in mind is that capital employed to produce commodities and to sell these commodities at a profit must, after its transformation into commodities, be sold; by way of sale it firstly passes from the possession of the seller into that of the buyer, and, secondly, is converted from its natural form as a commodity into its money form, hence is useless to the possessor ‘while it either remains in his possession, or continues in the same shape’ – for him. But what emerges then is this: the same capital value that functioned previously in the form of productive capital, in a form pertaining to the production process, now functions as commodity capital and money capital, in the forms pertaining to the circulation process, and thus is no longer either fixed or fluid capital. And this holds just as much for the elements of value that are added by way of raw and ancillary materials, thus by fluid capital, as for those added by the use of means of labour, i.e. by fixed capital. Thus we do not get a step nearer to the distinction between fixed and fluid capital.

Further:

‘The goods of the merchant yield him no revenue or profit till he sells them for money, and the money yields him as little till it is again exchanged for goods. His capital is continually going from him in one shape, and returning to him in another, and it is only by means of such circulation, or successive exchanges, that it can yield him any profit. Such capitals, therefore, may very properly be called circulating capitals’ [ibid.].

What Adam Smith here calls circulating capital is what I intend to call *capital of circulation*, capital in the form pertaining to the circulation process, pertaining to the change of form mediated by exchange (material change and change of hands), i.e. commodity capital and money capital, in contrast to the form pertaining to the production process, that of productive capital. These are not particular ways in which the industrial capitalist divides his capital, but rather different forms that the same capital value, once advanced, successively assumes and discards throughout its *curriculum vitae*. Adam Smith lumps these together with the distinctions of form that arise within the circulation of the capital value, in its circuit through its successive forms, while the capital value exists in the form of *productive* capital, and this is a great step backward in relation to the Physiocrats. These distinctions arise in fact from the various ways in which the different elements of productive capital participate in the process of value-formation and transfer their value to the product. We shall see more below of the consequences of this basic confusion between productive capital and capital in the circulation sphere (commodity capital and money capital), on the one hand, and fixed capital and fluid capital on the other. The capital value advanced in fixed capital is circulated via the product just as much as that advanced in fluid capital, and it is transformed into money capital through the circulation of the commodity capital every bit as much as the other. The distinction simply arises from the fact that its value circulates bit by bit, and must thus also be replaced bit by bit, in shorter or longer periods, and so be reproduced in this way in its natural form.

The particularly unfortunate example selected by Adam Smith demonstrates that by circulating capital he understands here nothing other than capital of circulation, i.e. capital value in its forms pertaining to the circulation process (commodity capital and money capital). He takes as his example a kind of capital that does not belong
to the production process at all, but exclusively inhabits the circulation sphere and consists solely of capital of circulation—merchant's capital.

The absurdity of beginning with an example in which capital does not figure as productive capital at all is immediately indicated by Smith himself:

'The capital of a merchant... is altogether a circulating capital.'

The distinction between circulating and fixed capital, however, is supposedly, as we are later told, one arising from basic distinctions within productive capital itself. Adam Smith has in mind, on the one hand, the Physiocratic distinction, on the other hand, the distinctions of form which the capital value undergoes in its circuit. The two are completely jumbled up.

There is no way of seeing how a profit is supposed to arise through the change of form between money and commodity, through a mere transformation of value from one of these forms to the other. Explanation of this is even made absolutely impossible in so far as Smith begins with merchant's capital, which moves solely within the circulation sphere. We shall return to this point; let us first see what he says about fixed capital:

'Secondly, it' (capital) 'may be employed in the improvement of land, in the purchase of useful machines and instruments of trade, or in such-like things as yield a revenue or profit without changing masters, or circulating any further. Such capitals, therefore, may very properly be called fixed capitals. Different occupations require very different proportions between the fixed and circulating capitals employed in them... Some part of the capital of every master artificer or manufacturer must be fixed in the instruments of his trade. This part, however, is very small in some, and very great in others... The far greater part of the capital of all such master artificers' (such as tailors, shoemakers, weavers), 'however, is circulated, either in the wages of their workmen, or in the price of their materials, and repaid with a profit by the price of the work' [ibid.].

Quite apart from the childish definition of the source of profit, the weakness and confusion are immediately apparent. For a machine-builder, for example, the machine is the product that circulates as his commodity capital, i.e. in Smith's words, 'is parted with, changes masters, circulates further'. The machine would thus not be fixed but circulating capital, even according to his own definition. This confusion also arises from the way that Smith mixes up the distinction between fixed and fluid capital which arises from the different kinds of circula-

Theories of Fixed and Circulating Capital. Smith

of the different elements of productive capital, with the distinctions of form that the same capital undergoes in so far as it functions as productive capital within the production process, but as capital of circulation, i.e. as commodity capital or money capital, in the circulation sphere. According to the position they assume in the life process of capital, therefore, the same things can function for Adam Smith as fixed capital (as means of labour, elements of productive capital), and as 'circulating' capital, commodity capital (as the product that is ejected from the sphere of production into that of circulation).

But then he suddenly changes the whole basis of his distinction and contradicts what he started the whole investigation with a few lines earlier. Previously he said: 'There are two different ways in which a capital may be employed so as to yield a revenue or profit to its employer', i.e. as circulating or as fixed capital. These were different modes of employment of distinct and independent capitals, so that capital might be employed either in industry or in agriculture, for example. Now, however, he says:

'Different occupations require very different proportions between the fixed and circulating capitals employed in them.'

Fixed and circulating capital are now no longer distinct and independent capital investments, but rather different portions of the same productive capital, which form different shares of the total value in different spheres of investment. They are thus distinctions that arise from the division of productive capital itself, as it lies in the facts, and they therefore apply only in relation to this. This is again contradicted, however, when commercial capital is counterposed to fixed capital as simply circulating capital, for Smith himself says:

'The capital of a merchant... is altogether a circulating capital.'

What it is in fact is a capital functioning within the circulation sphere; as such it contrasts with productive capital in general, capital incorporated into the production process, and for this very reason it can never be counterposed to the fixed component of productive capital as a fluid (circulating) component of productive capital.

In the examples he provides, Smith defines fixed capital as 'instruments of trade', and circulating capital as the share of capital laid out on wages and raw materials, including ancillaries, which is 'repaid with a profit by the price of the work'. At first, therefore, the starting-point is simply the various components of the labour process, labour-power (labour) and raw materials on the one hand, instruments of labour on the other. But these are components of capital, because a sum of value
that is to function as capital is laid out on them. In this respect they are
the material elements, modes of existence, of productive capital, i.e.
capital functioning in the production process. Why then is one part
called ‘fixed’? Because ‘some part of the capital must be fixed in the
instruments of trade’. The other part, however, is also fixed, in wages
and raw materials. However, machines and
‘instruments of trade ... such-like things ... yield a revenue or profit without changing masters, or circulating any further. Such capitals, therefore, may very properly be called fixed capitals’.

Let us take for example mining. Here there is no raw material in­
volved, since the object of labour, e.g. copper, is a natural product that
has first to be appropriated by labour. The as yet unappropriated cop­
pper, the product of the process that will later circulate as a commodity,
as commodity capital, does not form an element of the productive
capital. No part of the value is laid out on it. Neither do the other
elements of the production process, labour-power and ancillaries such
as coal, water, etc., for their part, enter materially into the product.
The coal is entirely consumed, and only its value enters the product,
just as a part of the value of the machine, etc. enters the product. The
worker, finally, still exists just as independently vis-à-vis the product as
does the machine. It is only the value that he produces through his
labour that is now a component of the value of the copper. In this ex­
ample, therefore, not a single component of the productive capital
changes hands (‘masters’): none of these components is circulated
further, because none of them materially enters the product. Where then
is the circulating capital in this case? According to Smith’s own defini­tion,
the whole of the capital employed in a copper mine consists solely
of fixed capital.

Let us take on the other hand a different industry, which uses raw
materials that form the substance of the product, as well as ancillaries
that enter the product bodily, and not just in respect of their value, as
does coal for heating, for example. Here, when the product, yarn for
instance, changes hands, so does the raw material, the cotton, of which
it consists, passing from the production process into that of circulation.* But as long as cotton functions as an element of productive
capital, its owner does not sell it but works on it, makes yarn out of it. He
does not let it go. Or, to use Smith’s crudely false and trivial ex­
pression, he does not make a profit ‘by parting with it, by its changing
masters, or by circulating it’. He no more has his materials circulate

* The German text has ‘consumption’, but this would appear to be a slip of
Marx’s pen that, unlike several others, has so far escaped correction.
change within the circulation sphere has for functioning industrial capital is that the commodities which money is transformed back into are elements of production (means of labour and labour-power), and so the change of form therefore mediates the continuity of the capital's function, mediates the production process as a continuous one, as a process of reproduction. This entire change of form proceeds in the circulation sphere; it is this that mediates the actual transition of commodities from one hand to another. The metamorphoses that productive capital undergoes within its productive process, on the other hand, are metamorphoses pertaining to the labour process, which are necessary in order to transform the elements of production into the intended product. Adam Smith confines himself to saying that one part of the means of production (the means of labour proper) serve in the labour process (which he wrongly expresses as 'yield a profit to their master') not by changing their natural form, but simply by being gradually worn out; whereas another part, the materials, are changed, and fulfill their function as means of production precisely through their alteration. This differing behaviour of the elements of productive capital in the labour process, however, forms only the starting-point of the distinction between fixed and non-fixed capital, and not the distinction itself, as is already shown by the fact that it obtains equally for all modes of production, non-capitalist as well as capitalist. Corresponding to this different material role is the way in which value is surrendered to the product, to which further corresponds the way in which value is replaced by the sale of the product; and it is only this that constitutes the distinction in question. Thus capital is not fixed capital simply because it is fixed in the means of labour, but rather because a part of the value laid out on means of labour remains fixed in these, while another part circulates as a value component of the product.

'If it' (the stock) 'is employed in procuring further profit, it must procure this profit either by staying with him' (the employer), 'or by going from him. In the one case it is a fixed, in the other it is a circulating capital' (p. 380).

The first thing that strikes one here is the crudely empirical conception of profit, taken from the manner in which it appears to the ordinary capitalist, something that stands in complete contradiction to Smith's own better and esoteric insight*. In the price of the product, the price of both materials and labour-power is replaced, but so, too, is the portion of value transferred from the instruments of labour to the product by wear and tear. Profit can in no case flow from this replacement. Whether a value advanced for the production of the product is replaced completely or bit by bit can alter only the manner and time of the replacement; in no case however can it transform what is common to both - the replacement of value - into a creation of surplus-value. What lies at the bottom of this is the everyday idea that, because surplus-value is only realized by the sale of the product, by its circulation, it therefore arises simply from sale, from circulation. In point of fact, saying that profit arises in 'different ways' is here only an incorrect way of saying that the various elements of productive capital serve or function differently in the labour process as productive elements. Finally, the distinction is not derived from the labour and valorization process itself, from the function of productive capital, but is rather one that simply obtains subjectively for the individual capitalist, to whom one part of capital is useful in this way, another in that.

Quesnay, on the other hand, derived the distinctions from the actual reproduction process and its exigencies. In order for this process to be continuous, the value of the annual advances has to be completely replaced each year out of the value of the annual product, whereas the value of the original investment capital need only be replaced bit by bit, so that it is only completely replaced over a series of e.g. ten years, and only in this way is it entirely reproduced (replaced by new items of the same kind). Thus Adam Smith falls a long way behind Quesnay.

Nothing more remains for Adam Smith to use in defining fixed capital than the fact that it consists of means of labour that do not change their shape in the production process, and continue to serve in production until they are worn out, as opposed to the products which they help to form. He forgets that all elements of productive capital are always distinct from the product, and the product circulating as a commodity, in their natural form (as means of labour, materials and labour-power), and that the distinction between the part consisting of materials and labour-power and the part consisting of means of labour simply lies, in the case of labour-power, in that it is always bought anew (not bought for its duration as with means of labour), and, in the case of the materials, in that it is not the very same ones, but ever new items of the same kind, that function in the labour process. At the same time, the illusion is generated that the value of the fixed capital does not also circulate, although Adam Smith has of course earlier explained that the wear and tear of the fixed capital forms part of the price of products.

*Marx frequently counterposes the falsely superficial or 'exoteric' elements in Adam Smith's writings with the deeper 'esoteric' insights that occasionally emerge.
When Smith distinguishes circulating capital from fixed capital, what he emphasizes is not that this circulating capital is simply that component of the productive capital that must be completely replaced out of the value of the product, and must therefore go through all its metamorphoses together with the latter, whereas this is not the case with fixed capital. Circulating capital is rather lumped together with the shapes that the capital assumes on its transition from the sphere of production to that of circulation, as commodity capital and money capital. These two forms, however, commodity capital and money capital, are bearers of both the fixed and the fluid components of the value of productive capital. Both are capital of circulation, in contrast to productive capital, but not circulating (fluid) capital in contrast to fixed.

Finally, the wholly erroneous explanation that fixed capital makes a profit by remaining in the production process, while circulating capital makes a profit by leaving this and circulating, permits the similarity of form that variable capital and the fluid component of constant capital have in the turnover to conceal the basic difference that they have in the valorization process and the formation of surplus-value, and in this way the whole secret of capitalist production is still further obscured. The inclusive characterization of both forms as circulating capital abolishes this fundamental distinction, and this was carried still further by later economists, who took the contrast between fixed and circulating capital as the basic and sole distinction, instead of distinguishing between variable and constant capital.

After Adam Smith has firstly described fixed and circulating capital as two specific ways of investing capital, each of which independently yields a profit, he goes on to say:

'No fixed capital can yield any revenue but by means of a circulating capital. The most useful machines and instruments of trade will produce nothing without the circulating capital which affords the materials they are employed upon, and the maintenance of the workmen who employ them' (pp. 378–9).

Here we see what the earlier expressions 'yield a revenue', 'make a profit', etc. really mean, i.e. that both parts of capital serve in the formation of products.

But Smith offers the following as an example:

'That part of the capital of the farmer which is employed in the implements of agriculture is a fixed, that which is employed in the wages and maintenance of his labouring servants is a circulating capital' [p. 375].

(Here the distinction between fixed and circulating capital is correctly related simply to the difference in circulation, to the turnover of different components of the productive capital.)

'He makes a profit of the one by keeping it in his own possession, and of the other by parting with it. The price or value of his labouring cattle is a fixed capital' (here we have the further correct assertion that it is value to which the distinction refers, and not the material element) 'in the same manner as that of the instruments of husbandry. Their maintenance' (that of the labouring cattle) 'is a circulating capital, in the same manner as that of the labouring servants. The farmer makes his profit by keeping the labouring cattle, and by parting with their maintenance.'

(The farmer keeps the cattle's fodder, he doesn't sell it. He needs it as cattle-fodder while he uses the cattle themselves as instruments of labour. The distinction is simply that the cattle-fodder that enters the maintenance of the draught cattle is completely consumed and must be constantly replaced by new cattle-fodder from the agricultural product or its sale, while the cattle themselves are replaced only to the extent that each animal in succession becomes incapable of further work.)

'Both the price and the maintenance of the cattle which are brought in and fattened, not for labour, but for sale, are a circulating capital. The farmer makes his profit by parting with them.'

(Every commodity producer, and thus the capitalist producer as well, sells his product, the result of his production process, but this does not make the product either a fixed or a fluid component of his productive capital. It now exists rather in a form in which it has been ejected from the production process and must function as commodity capital. Fattening cattle function in the production process as raw material, not as an instrument like draught cattle. They therefore enter the product as substance, and their entire value enters the product, just as that of the ancillary materials – their fodder. This is why they are a fluid part of the productive capital, and not because the product sold, the fattened cattle, has here the same natural form as the raw material, the not yet fattened cattle. That is a mere accident. At the same time, Smith should have been able to see from this example that it is not the material shape of the element of production that makes the value contained in it fixed or fluid, but rather its function within the production process.)

'The whole value of the seed, too, is properly a fixed capital. Though it goes backwards and forwards between the ground and the granary, it never changes masters, and therefore does not properly circulate. The farmer makes his profit not by its sale, but by its increase' [ibid.].
Here the utter shallowness of Smith's distinction comes into the open. In his conception, the seed is fixed capital because there is no 'change of masters', i.e. the seed is directly replaced out of the annual product, subtracted from it. It would be circulating capital, however, if the entire product were sold and new seed-corn were bought with one part of the product's value. In the one case there is a 'change of masters', in the other case not. Here Smith confuses fluid capital with commodity capital. The product is the material bearer of the commodity capital, but of course only of that part of it that actually enters circulation, and does not directly re-enter the production process from which it emerged as a product.

Whether the seed is directly subtracted from the product, or whether the whole product is sold and a part of its value is replaced by the acquisition of new seed, what occurs in both cases is no more than a replacement, and no profit is made by this replacement. In the one case the seed passes into circulation as a commodity along with the rest of the product, while in the other case it figures only in the book-keeping as a component of the value of the capital advanced. In both cases, however, it remains a fluid component of the productive capital. It is completely consumed in preparing the product, and it must be completely replaced out of this if reproduction is to be made possible.

Hence raw material and auxiliary substances lose the independent form with which they entered into the labour process. It is otherwise with the actual instruments of labour. Tools, machines, factory buildings and containers are only of use in the labour process as long as they keep their original shape, and are ready each morning to enter into it in the same form. And just as during their lifetime, that is to say during the labour process, they retain their shape independently of the product, so too after their death. The mortal remains of machines, tools, workshops, etc., always continue to lead an existence distinct from that of the product they helped to turn out' (Capital Volume 1, Chapter 8, p. 311).

These different ways in which the means of production are used in the formation of the product, some of them maintaining their independent shape vis-à-vis the product, others changing it or even losing it entirely — this distinction, which pertains to the labour process as such, and therefore applies just as much to labour processes oriented simply to the needs of the producers themselves, e.g. the patriarchal family, and devoid of any exchange or commodity production, is falsified by Adam Smith, in that he (1) introduces what is here the quite inapposite characteristic that some means of production bring their owner profit by maintaining their shape, others by losing it; (2) lumps the alterations suffered by one part of the elements of production in the labour process together with the change of form pertaining to the exchange of products, to commodity circulation (buying and selling), which at the same time includes the change of ownership of the commodities in circulation.

Turnover implies that reproduction is mediated by circulation, i.e. by the sale of the product, by its transformation into money and transformation back from money into its own elements of production. But in so far as a part of his product again directly serves the same capitalist producer as means of production, the producer appears as selling this to himself; this is how the matter figures in his book-keeping. This part of reproduction is then not mediated by circulation, but directly. The part of the product that serves again in this way as means of production replaces fluid capital, not fixed, in so far as (1) its value goes completely into the product and (2) it is itself replaced completely in kind by a new item from the new product.

Adam Smith then tells us what circulating and fixed capital consist of. He lists the things, the material elements, that constitute fixed capital, and those that constitute circulating capital, as if this characteristic belonged to these things materially, by nature, and did not rather derive from their specific function within the capitalist production process. And yet he notes in the same chapter (Book Two, Chapter 1) that although a certain thing, a house for example, which is reserved for direct consumption, 'may yield a revenue to its proprietor, and thereby serve in the function of a capital to him, it cannot yield any to the public, nor serve in the function of a capital to it, and the revenue of the whole body of the people can never be in the smallest degree increased by it' (p. 376) [Marx's emphasis].

Here Adam Smith clearly asserts that the property of being capital cannot be attributed to things as such and under all circumstances, but is rather a function with which they are or are not endowed according to the given conditions. But what is true of capital in general is also true of its subdivisions.

The same things may form components of fluid or of fixed capital, according to the different functions they perform in the labour process. Cattle used as draught-cattle (means of labour), for example, form a material mode of existence of fixed capital, while as fattening cattle...
The Turnover of Capital

(raw material) they are a component part of the farmer's circulating capital. The same thing, moreover, can function at one time as a component of productive capital, and at another time form part of the direct consumption fund. A house, for example, when it functions as a place of work, is a fixed component of productive capital; when it functions as a dwelling, it is in no way a form of capital in this capacity. The same means of labour can in many cases function at one time as means of production, at another time as means of consumption.

One of the errors that followed from Smith's conception was that of taking fixed and circulating capital as characteristics attributable to things. Our analysis of the labour process (Volume 1, Chapter 7) has already shown how the determinations of means of labour, material of labour and product change according to the various roles that one and the same thing assumes in the process. The characteristics of fixed and non-fixed capital are in their turn, however, built on the particular roles that these elements play in the labour process and hence in the process of value-formation.

Secondly, however, in enumerating the things which fixed and circulating capital consist of, it becomes evident that Smith lumps together the distinction between fixed and fluid components, which is only valid, and only has any meaning, in relation to productive capital (capital in its productive form), with the distinction between productive capital and the forms pertaining to capital in its circulation process: commodity capital and money capital. He says in the same passage (p. 378):

'The circulating capital consists ... of the provisions, materials, and finished work of all kinds that are in the hands of their respective dealers, and of the money that is necessary for circulating and distributing them ...'

When we look more closely, in fact, we find that, in contrast to his earlier assertions, circulating capital is here again equated with commodity capital and money capital, i.e. with two forms of capital that do not belong to the production process at all, which are not circulating (fluid) capital in opposition to fixed, but rather circulation capital in opposition to productive capital. It is only alongside these that the components of productive capital advanced in materials (raw material or semi-manufactured goods) and actually incorporated into the production process again figure. He says:

'The third and last of the three portions into which the general stock of the society naturally divides itself, is the circulating capital; of which the characteristic is, that it affords a revenue only by circulating or changing masters. It is composed likewise of four parts: First, of the money ...'

(But money is never a form of productive capital, capital functioning in the production process. It is never more than one of the forms which capital assumes within its process of circulation.)

'Secondly, of the stock and provisions which are in the possession of the butcher, the grazier, the farmer ... and from the sale of which they expect to derive a profit ... Fourthly, and lastly, of the work which is made up and completed, but which is still in the hands of the merchant or manufacturer.' And 'thirdly, of the materials, whether altogether rude, or more or less manufactured, of clothes, furniture, and building, which are not yet made up into any of those three shapes, but which remain in the hands of the growers, the manufacturers, the mercers and drapers, the timber merchants, the carpenters and joiners, the brick-makers etc.' [pp. 377-8].

The second and fourth parts simply contain products that have been ejected from the production process as such and have to be sold; in short, products that now function as commodities and hence as commodity capital, i.e. possess a form and assume a position in the process in which they do not constitute an element of productive capital, whatever may be their eventual destination, i.e. whether their purpose (use-value) finally fits them for individual or for productive consumption. The products in the second part are foodstuffs, those in the fourth part all other finished products, which thus themselves consist only of finished means of labour or articles of consumption (other than the foodstuffs comprised under the second part).

Smith also demonstrates his confusion on this point by the way that he speaks of the merchant. If the producer has sold his product to the merchant, this no longer constitutes capital of his in any form. From the social point of view, however, it is still just as much commodity capital, even if in other hands than those of its producer. But precisely because it is commodity capital, it is neither fixed nor fluid capital.

In every production not directed towards satisfying the producer's own immediate needs, the product must circulate as a commodity, i.e. be sold, not so that a profit may be made on it, but simply so that the producer may live. In the case of capitalist production, the sale of the commodity also realizes the surplus-value contained in it. The product passes out of the production process as a commodity, and is therefore no longer either a fixed or a fluid element of this process.

Here, by the way, Smith actually refutes his own argument. The
finished products, whatever may be their material shape or use-value, 
their useful effect, are all commodity capital, i.e. capital in a form per-
taining to the circulation process. Because they exist in this form, they 
cannot constitute a component of their owner's productive capital; but 
this in no way prevents them, once they are sold, from becoming com-
ponents of productive capital, whether fluid or fixed, in the hands of 
their buyer. It is evident here that the same things that enter the market 
at one time as commodity capital in opposition to productive capital 
may function as either fluid or fixed components of productive capital, 
or as neither, once they are withdrawn from the market.

The product of the cotton spinner - yarn - is the commodity form of 
his capital, commodity capital for him. It cannot function again as a 
component of his productive capital, either as material of labour or as 
means of labour. The weaver who buys it, however, incorporates it into 
his productive capital, as a fluid part of this. For the spinner, on the 
other hand, the yarn is the bearer of the value of a part of both his fluid 
and his fixed capital (we ignore surplus-value). Similarly a machine, as 
the product of the machine-builder, is commodity capital for him, and 
as long as it persists in this form, it is neither fluid nor fixed capital. 
When sold to a manufacturer who puts it to use, it becomes a fixed 
component of a productive capital. Even when the use-form of the product enables it in part to re-enter, as means of production, the pro-
cess from which it emerged, as when coal re-enters the production of 
coal, the part of the coal product destined for sale still represents neither 
fluid nor fixed capital, but rather commodity capital.

The use-form of the product may however render it completely in-
capable of forming any element of productive capital, either material or 
means of labour. Any kind of means of subsistence, for example. It is 
none the less commodity capital for its producer, the bearer of value of 
both the fixed and the fluid capital; and in the proportion that the capital 
bestowed on its production must be completely or partially replaced, 
its value has been transferred wholly or partly to it.

In Smith's third case the raw materials (including semi-finished goods 
and ancillaries) figure in the first place not as a component already in-
corporated into productive capital, but in fact only as a special kind of 
those use-values, the mass of commodities, which the social product 
consists of in general, alongside the other material components, means 
of subsistence, etc. listed in the second and fourth cases. Secondly, 
however, they are also presented as incorporated into productive capital, 
and hence as elements of the latter in the hands of the producer. The 
confusion shows itself in the way that they are conceived as function-
ing both in the hands of the producer ('in the hands of the growers, the 
manufacturers, etc.') and in the hands of merchants ('mercers, drapers, 
timber merchants'), where they are mere commodity capital, not com-
ponents of productive capital.

In listing the elements of circulating capital, in fact, Adam Smith 
completely forgets the distinction between fixed and fluid capital, which 
is applicable only to productive capital. Instead he counterposes com-
modity capital and money capital, i.e. the two forms of capital pertaining 
to the circulation process, to productive capital, although even this 
he does unconsciously.

A final striking thing is that Adam Smith forgets labour-power in his 
list of the components of circulating capital. There are two reasons for this.

We have already seen that, leaving aside money capital, circulating 
capital is [for Smith] only another name for commodity capital. But in 
so far as labour-power circulates on the market, it is not capital, and 
so not a form of commodity capital. It is not capital at all; the worker 
is not a capitalist, even though he brings a commodity to market, i.e. 
his own skin. It is only when labour-power has been sold and incorpor-
ated into the production process - i.e. after it has ceased to circulate as 
a commodity - that it becomes a component of productive capital:
variable capital as the source of surplus-value, a fluid component of the 
productive capital in relation to the turnover of the capital value laid 
out on this. Because Smith confuses fluid capital with commodity 
capital, he cannot bring labour-power under his heading of circulating 
capital. Variable capital thus appears here in the form of the com-
modities that the worker buys with his wages, the means of subsistence.
It is in this form that the capital value laid out on wages is supposed to 
form part of the circulating capital. But what is incorporated into the 
production process is labour-power, the actual worker, and not the 
means of subsistence with which the worker maintains himself. We have 
certainly seen (Volume I, Chapter 23) that, considered from the society's 
standpoint, the reproduction of the worker himself by his individual 
consumption forms part of the reproduction process of the social 
capital. But this does not hold for the individual production process 
taken by itself, which is what we are considering here. The 'acquired 
and useful abilities' (p. 377), which Smith introduces under the head-
ing of fixed capital, form on the contrary components of fluid capital 
before they are 'abilities' of the wage-labourer, who has sold his abilities 
together with his labour.
It is a great error on Smith's part that he divides up the whole social wealth into (1) immediate consumption fund, (2) fixed capital and (3) circulating capital. According to this, wealth would be divided into a consumption fund that does not form a part of the functioning social capital, although parts of it may always function as capital, and capital. One part of the wealth accordingly functions as capital, the other part as non-capital or a consumption fund. And it appears here as an indispensable necessity for all capital to be either fixed or fluid, just as a mammal is by natural necessity either male or female. We have seen however that the opposition of fixed and fluid is only applicable to the elements of productive capital, and that alongside this there is still a very significant amount of capital—commodity capital and money capital—which exists in a form in which it cannot be either fixed or fluid.

Since, with the exception of the part of the product that is directly used in its natural form as means of production by the individual capitalist producer himself, without sale or purchase, the entire mass of social production—on the capitalist basis—circulates on the market as commodity capital, it is clear that both fixed and fluid elements of productive capital, and, in addition, all elements of the consumption fund, are drawn from the commodity capital; this is saying no more than that both means of production and means of consumption first appear, on the basis of capitalist production, as commodity capital, even if they are also destined later to serve as means of consumption or production; just as labour-power itself is found on the market as a commodity, even if not as commodity capital.

This leads Adam Smith to a further misunderstanding. He says that 'of these four parts' (of the 'circulating capital', i.e. of capital in its forms of commodity capital and money capital, which pertain to the circulation process—two parts which are transformed into four by Smith when he makes a further distinction, on a material basis, within the components of commodity capital),

'three—provisions, materials, and finished work—are, either annually, or in a longer or shorter period, regularly withdrawn from it, and placed either in the fixed capital or in the stock reserved for immediate consumption. Every fixed capital is both originally derived from, and requires to be continually supported by a circulating capital. All useful machines and instruments of trade are originally derived from a circulating capital, which furnishes the materials of which they are made and the maintenance of the workmen who make them. They require, too, a capital of the same kind to keep them in constant repair' (p. 378).

Always excepting that part of the product directly used again by its producers as means of production, we can make the general statement about capitalist production that all products come onto the market as commodities, and hence circulate for the capitalist as the commodity form of his capital, as commodity capital, whether the natural or use-form of these products means that they can or must function as means of production, and hence as fixed or fluid elements of productive capital, or whether they can serve only as means of individual rather than productive consumption. All products are thrown onto the market as commodities; all means of production and consumption, all elements of productive and individual consumption, must therefore be withdrawn again from the market as commodities, by purchase. This truism is manifestly correct. It therefore holds good equally for the fixed and for the fluid elements of productive capital, for means of labour as well as material of labour in all forms. (It is still overlooked here that there are elements of productive capital which are given by nature, and are not products.) The machine is bought on the market as much as the cotton is. But it in no way follows from this—it follows only from Smith's confusion of circulation capital with circulating or fluid, i.e. non-fixed capital—that every fixed capital originally derives from a fluid one. Moreover, Smith actually refutes his own argument. According to him, machines, as commodities, belong to the fourth part of the circulating capital. That they derive from the circulating capital thus only means that they functioned as commodity capital before they functioned as machines, although materially they derive from themselves; just as cotton as a fluid element of the spinner's capital derives from cotton on the market. But if in his further elaboration Smith derives fixed capital from fluid capital on the ground that labour and raw material are necessary in order to make machines, it is still the case, firstly, that means of labour, i.e. fixed capital, are necessary to make machines, and secondly, too, that fixed capital—machinery, etc.—is necessary in order to make raw materials, since productive capital always includes means of labour, but not always material of labour. He himself goes on to say on this point:

'Lands, mines, and fisheries, require all both a fixed and a circulating capital to cultivate them;' (he thus concedes that fixed capital is needed to produce raw material, as well as circulating capital) 'and' (here a new muddle) 'their produce replaces with a profit, not only those capitals, but all the others in society' [p. 379, Marx's emphasis].

This is totally confused. Their product supplies the raw material,
ancillaries, etc. for all other branches of industry. But their value does not replace the value of all other social capitals; it replaces only its own capital value (plus surplus-value). Here again Smith is looking back to the Physiocrats.

From the society's standpoint, it is true that the part of commodity capital that consists of products that can only serve as means of labour, also functions sooner or later as means of labour - otherwise the products will have been produced to no avail, will be unsaleable. On the basis of capitalist production, in other words, once they have ceased to be commodities, they must form actual elements of the fixed part of the social productive capital, which they already were prospectively.

There is a distinction here which arises from the natural form of the product.

A spinning machine, for instance, has no use-value if it is not used for spinning, i.e. does not function as an element of production, and thus, from the capitalist standpoint, as a fixed component of a productive capital. But the spinning machine is mobile. It can be exported from the country where it is produced and be sold, directly or indirectly, to a foreign country, whether in exchange for raw materials, etc. or for champagne. In the country where it was produced it then functions only as commodity capital, but never, not even after its sale, as fixed capital.

However, products that have been localized by being incorporated into the earth, and hence can only be used locally, e.g. factory buildings, railways, bridges, tunnels, docks etc., soil improvements, and so on, cannot be exported body and soul. They are immobile. If they are not to be useless, they must function after their sale as fixed capital in the country in which they were produced. For the capitalist producer who builds factories speculatively or improves estates in order to sell them, these things are the form of his commodity capital, and so according to Smith the form of his circulating capital. But from the society's standpoint, they must ultimately function as fixed capital, if they are not to be useless, in the country in question, in a production process fixed by their own location. It in no way follows from this that immobile objects as such are automatically fixed capital; they may be dwelling-houses, etc. that belong to the consumption fund and thus do not form part of the social capital at all, even though they form an element of the social wealth, of which capital is only one part. The producer of these things, to express ourselves in Smith's terms, makes a profit by their sale. So they are circulating capital! The person who puts them to use,

their ultimate buyer, can use them only by employing them in the production process. So they are fixed capital!

Property titles to a railway, for instance, can change hands daily, and their owners can even make a profit by selling them abroad. The property titles are thus exportable, but the railway itself is not. It is no less the case, however, that these things must either function as the fixed component of a productive capital in the actual country where they are located, or else lie idle. Similarly, manufacturer A can make a profit by selling his factory to manufacturer B, but this does not prevent the factory from functioning now as before as fixed capital.

The locally fixed means of labour, those inseparable from the soil, even though they may function for their producer as commodity capital, and do not form any element of his fixed capital (which consists for him of the means of labour that he needs to build buildings, railways, etc.), must necessarily function prospectively as fixed capital in the country in question. But it in no way follows, conversely, that fixed capital necessarily consists of immovable objects. A ship and a locomotive operate only by moving, yet they function as fixed capital for their users, even if not for their producers. Things on the other hand that are most fully fixed in the production process, live and die in it, and never leave it after they have once entered it, can be fluid components of productive capital. For example, the coal that drives the machine in the production process, the gas consumed in lighting a factory building, etc. These are fluid not because they physically leave the production process along with the product, and circulate as commodities, but rather because their value enters completely into the value of the commodity that they help to produce, and must thus be entirely replaced from the sale of the commodity.

In the passage last quoted, one phrase of Smith's should still be noted: 'A circulating capital, which furnishes . . . the maintenance of the workmen who make them' (machines, etc.).

With the Physiocrats, the portion of capital advanced in wages figured correctly under the heading 'avances annuelles', as contrasted with 'avances primitives'. On the other hand, what appears with them as a component of the productive capital applied by the farmer is not labour-power itself, but rather the means of subsistence given to the agricultural workers ('the maintenance of the workmen', as Smith puts it). This is directly related to their specific doctrine. The portion of value which labour adds to the product (like the portion of value added by raw materials, instruments of labour, etc. – in short by the material
components of the constant capital) is equal only to the value of the means of subsistence paid to the workers and necessarily consumed by them to maintain their function as labour-powers. The very doctrine of the Physiocrats prohibited them from discovering the distinction between constant capital and variable capital. If it is labour that produces surplus-value (as well as reproducing its own price), then it produces this in industry just as much as in agriculture. But since in the Physiocratic system labour produces surplus-value only in one branch of production, agriculture, surplus-value was not seen as arising from labour, but rather from the special activity (collaboration) of nature in this branch. It was for this reason that they saw agricultural labour as productive labour, in distinction from other kinds of labour.

Adam Smith defines the workers' means of subsistence as circulating capital in opposition to fixed,

(1) because he confuses fluid capital, as opposed to fixed, with the forms of capital pertaining to the circulation sphere, with circulation capital; a confusion which has been uncritically taken over by his successors. He therefore confuses commodity capital with the fluid component of productive capital, and it is then self-evident that, where the social product takes the form of a commodity, the workers' means of subsistence, just like those of the non-workers - not to mention the materials and means of labour themselves - have to be supplied out of commodity capital.

(2) But the Physiocratic conception also creeps in with Smith, although it contradicts the esoteric - genuinely scientific - part of his own theoretical presentation.

All capital advanced is converted into productive capital, i.e. it assumes the shape of elements of production which are themselves the product of earlier labour. (Including labour-power.) Only in this form can it function in the production process. If now we substitute the worker's means of subsistence for the actual labour-power into which the variable part of capital has been transformed, then it is clear that these means of subsistence as such are not different from the other elements of productive capital as far as the formation of value is concerned, not different for example from raw materials and from the means of subsistence of draught cattle, which is why Smith, following the example of the Physiocrats, puts these all on the same level in one of the passages quoted above.* The means of subsistence cannot themselves valorize their value or add to it a surplus-value. Their value, like that of the other elements of productive capital, can reappear only in the value of the product. They cannot add more value to it than they themselves possess. They are only distinguished from the fixed capital, which consists of means of labour, in the same way as are raw material, semi-finished goods, etc., namely in that they are completely consumed in the product that they help to form (at least as far as the capitalist who pays for them is concerned), and their value must thus be completely replaced, whereas replacement occurs only gradually, bit by bit, in the case of fixed capital. The part of productive capital advanced in labour-power (or the means of subsistence of the worker) is thus distinguished here only materially, and not with regard to the labour and valorization process, from the remaining material elements of the productive capital. It is only distinguished in that it falls into the category of circulating capital, along with one part of the objective elements of product formation ('materials' is Smith's general term for them), in opposition to another part of the objective elements that falls into the category of fixed capital.

Although the part of capital spent on wages belongs to the fluid part of productive capital, and has this fluidity in common with a portion of the objective elements of product formation, the raw materials, etc., as opposed to the fixed component of productive capital, this has absolutely nothing to do with the role that this variable part of capital plays in the valorization process as opposed to the constant part. It is simply related to how this part of the capital value advanced has to be replaced, renewed, and thus reproduced out of the value of the product, by way of circulation. The purchase and re-purchase of labour-power pertains to the circulation process. But it is only within the production process that the value laid out on labour-power is transformed (not for the worker, but for the capitalist) from a definite, constant quantity into a variable one, and the value advanced in capital value, in capital, is thereby transformed for the first time into self-valorizing value. But because it is not the value laid out on labour-power that Smith defines as a fluid component of the productive capital, but rather the value laid out on the worker's means of subsistence, it is impossible for him to understand the distinction between variable and constant capital, and thus the capitalist production process in general. The characteristic of this part of capital as variable capital in opposition to the constant capital laid out on the objective elements of product formation is buried underneath the characteristic that the part of capital laid out on labour-power belongs to the fluid part of the productive capital with respect to the turnover. This burial is made complete in so far as in place of labour-power it is

* p. 279 above.
the worker's means of subsistence that are counted as an element of productive capital. Whether the value of the labour-power is advanced in money or in means of subsistence is immaterial, even though the latter can of course only be the exception on the basis of capitalist production.2

Because Adam Smith fixed in this way upon the characteristic of circulating capital as the decisive one for capital value laid out on labour-power – the Physiocratic definition without the premises of the Physiocrats – he managed to make it impossible for his successors to perceive that the part of capital laid out on labour-power was variable capital. The profound and correct explanation that he himself offered elsewhere did not prevail, whereas this blunder did. Indeed, later writers went even further, and not only made it the decisive characteristic of the part of capital laid out on labour-power to be circulating capital in opposition to fixed, but also made it the fundamental characteristic of circulating capital to be laid out on means of subsistence for the worker. This naturally linked up with the doctrine of the labour fund* of necessary means of subsistence as a given magnitude, which on the one hand physically restricts the share of the workers in the social product, but on the other hand has to be spent to its full extent on the acquisition of labour-power.

2. How much Adam Smith barred his own way to an understanding of the role of labour-power in the valorization process is shown by the following sentence, which puts the labour of the worker on the same level as that of draught cattle, in the Physiocratic manner: 'Not only his' (the farmer's) 'labouring servants, but his labouring cattle, are productive labourers' (Book Two, Chapter V, p. 462).

Ricardo introduces the distinction between fixed and circulating capital only in order to present the exceptions to the law of value, i.e. those cases in which the rate of wages affects prices. We shall only come to speak of these in Volume 3.*

The basic confusion is however evident from the start in the following juxtaposition:

'This difference in the degree of durability of fixed capital, and this variety in the proportions in which the two sorts of capital may be combined...'.1

If we now ask what the two sorts of capital are, we are told: 'The proportions, too, in which the capital that is to support labour, and the capital that is invested in tools, machinery, and buildings, may be variously combined.'2

Fixed capital thus = means of labour, and circulation capital = capital laid out on labour. 'Capital that is to support labour' is itself an absurd expression taken over from Adam Smith. Here circulation capital is on the one hand lumped together with variable capital, i.e. with the part of productive capital laid out on labour. On the other hand, however, because the opposition is not derived from the valorization process – constant and variable capital – but rather from the circulation process (the old Smithian confusion), two misconceptions arise.

Firstly, the differences in the degree of durability of the fixed capital, and the variations in the composition of capital in terms of constant and variable, are taken as equivalent. The latter distinction, however, deter-

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1. *Principles*, p. 25. [All Marx's quotations from Ricardo in this chapter are to be found on pp. 72–3 of the Pelican edition of Ricardo's *Principles*, Harmondsworth, 1971. The emphasis here is Marx's.]

2. [ibid.].

* Chapter 11 of that volume.
mines the variation in the production of surplus-value; the former, on the other hand, in so far as the valorization process is concerned, is simply related to the manner in which a given value of means of production is transferred to the product. As far as the circulation process is concerned, it affects only the period of renewal of the capital laid out, in other words the time for which this is advanced. If, instead of penetrating through to the inner mechanism of the capitalist production process, you adopt the standpoint of the phenomena in their finished form, these distinctions do in fact coincide. When the social surplus-value is distributed between the capitals invested in different branches of industry, differences in the various times for which the capital is advanced (for example, varying lifespans in the case of fixed capital) and different organic compositions of capital (thus also the different circulations of constant and variable capital) have similar effects in the equalization of the general rate of profit and the transformation of values into prices of production.*

Secondly, from the standpoint of the circulation process, we have on the one hand the means of labour: fixed capital, on the other hand material of labour and wages: fluid capital. From the standpoint of the labour and valorization process, however, we have on the one hand means of production (means and material of labour): constant capital, on the other hand labour-power: variable capital. As far as the organic composition of capital is concerned (Volume 1, Chapter 25, 2, p. 772), it is quite immaterial whether the same value of constant capital consists of more means of labour and less material of labour, or of more material of labour and less means of labour, whereas everything depends on the relation between the capital laid out on means of production and that laid out on labour-power. Conversely, from the standpoint of the circulation process, the distinction between fixed and circulating capital, it is just as immaterial in what proportion a given value of circulating capital is divided between material of labour and wages. From the one standpoint, the material of labour is ranked in the same category as the means of labour, as opposed to the capital value laid out on labour-power. From the other standpoint, the part of capital laid out on labour-power is ranked together with that laid out on material of labour, as opposed to the part of capital laid out on means of labour.

In Ricardo, therefore, the part of capital value laid out on material of labour (raw materials and ancillaries) is not found on either side. It

*These themes are covered in Volume 3, Part Two of Capital.

completely vanishes. It does not fit on the side of fixed capital, because it completely coincides in its mode of circulation with the part of capital laid out on labour-power. And it cannot be put on the side of circulating capital, because this would be a self-refutation of the equation taken over from Adam Smith and still silently running through Ricardo's writings between the antithesis: fixed and circulating capital, and the antithesis: constant and variable capital. Ricardo has far too great an instinct for logic not to be sensitive to this, and he therefore just lets this part of the capital disappear.

It should be noted here that the capitalist 'advances' the capital laid out on wages, to use the mode of speech peculiar to political economy, for different periods, according to whether he pays wages by the week, by the month or every three months. In point of fact, the opposite happens. The worker advances the capitalist his labour for a week, a month or three months, according to the intervals at which he is paid. If the capitalist did actually buy labour, instead of simply paying for it later, i.e. if he paid the worker his wages for the day, week, month or three months in advance, then we could speak of an advance for these periods. But since he pays only after the labour has lasted for days, weeks or months, instead of buying it and paying for the time that it is to last, the whole thing is a capitalist quid pro quo, and the advance that the worker makes to the capitalist in the form of labour is transformed into an advance that the capitalist makes to the worker in money. This in no way alters the fact that the capitalist gets the product back from circulation, or realizes its value (together with the surplus-value incorporated into it), only after a shorter or longer period of time – according to the varying time that its production requires, or alternatively according to the varying time needed for its circulation. What the buyer of a commodity might want to do with it is completely immaterial to the seller. The capitalist does not get a machine any cheaper because he has to advance its entire value all at once, while the same value flows back to him from the circulation sphere only gradually and bit by bit; nor does he pay more for cotton because its value enters completely into the value of the product made from it, and is thus completely replaced at one stroke when this is sold on the market.

Let us then return to Ricardo.

1. The characteristic feature of variable capital is that a definite, given (i.e. in this sense constant) part of capital, a given sum of value (assumed to be equal to the value of the labour-power, although it is immaterial here whether the wage is the same as, or more or less than,
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the value of the labour-power, is exchanged for a force that valorizes
itself and creates value—labour-power, which not only reproduces the
value paid to it by the capitalist, but also produces a surplus-value, a
value that did not previously exist and is not bought for an equivalent.
This characteristic property of the portion of value laid out on wages, which
distinguishes it fundamentally from constant capital as variable
capital, disappears as soon as this portion of capital laid out on wages is
considered simply from the standpoint of the circulation process and
thus appears as circulation capital as against the fixed capital laid out
on means of labour. This happens as soon as it is placed together under
a single heading (that of circulating capital) with a component of the
constant capital, that laid out on material of labour, and counterposed
to another component of the constant capital laid out on means of
labour. Here surplus-value, i.e. the very circumstance which transforms
the sum of value laid out into capital, is completely ignored. It is
similarly ignored that the portion of value that the capital laid out on
wages adds to the product is freshly produced (and thus actually repro-
duced), while the portion of value that the raw material adds to the
product is not freshly produced, and not really reproduced, but is
simply maintained and conserved in the value of the product, and hence
merely reappears as a component of the product’s value. As the distinc-
tion is presented from the standpoint of the antithesis between fluid and
fixed capital, it simply consists in the fact that the value of the means of
labour applied in the production of a commodity goes only partly into
the value of the commodity, and hence is only partly replaced by the
product, and their replacement when the product is sold. The sole
distinction here is whether the transfer of value, and therefore the
replacement of value, proceeds bit by bit and gradually, or all at once.
The all-important distinction between variable and constant capital is
thereby obliterated, and with it the whole secret of surplus-value for-
tion and of capitalist production, namely the circumstances that trans-
form certain values and the things in which they are represented into
capital. The components of capital are distinguished from one another
simply by the mode of circulation (and the circulation of commodities
has of course only to do with already existing, given values); the capital
laid out on wages has a particular mode of circulation in common with
the portion of capital laid out on raw materials, semi-finished goods and
ancillaries, in contrast to that laid out on means of labour.

We can thus understand why bourgeois political economy held
instinctively to Adam Smith’s confusion of the categories ‘fixed and
circulating capital’ with the categories ‘constant and variable capital’,
and uncritically echoed it from one generation down to the next for a
whole century. It no longer distinguished at all between the portion of
capital laid out on wages and the portion of capital laid out on raw
material, and only formally distinguished the former from constant
capital in terms of whether it was circulated bit by bit or all at once
through the product. The basis for understanding the real movement of
capitalist production, and thus of capitalist exploitation, was thus
submerged at one blow. All that was involved, on this view, was the
reappearance of values advanced.

Ricardo’s uncritical reception of Smith’s confusion is more sur-
prising, not only than that of the later apologists, among whom the
confusion of concepts is rather something unsurprising, but also than
that of Adam Smith himself, since Ricardo, in contrast to Smith, pre-
sented value and surplus-value consistently and clearly, and in point of
fact upheld the esoteric Adam Smith against the exoteric.

Among the Physiocrats, there is none of this confusion. The distinc-
tion between avances annuelles and avances primitives is related solely
to the different reproduction periods of the different components of
capital, agricultural capital in particular; while their views on the pro-
duction of surplus-value constitute a part of their theory which is
independent of these distinctions, a part in fact that they held up as its
culminating point. The formation of surplus-value is not explained in
terms of capital as such, but ascribed simply to one specific sphere of
capitalist production, agriculture.

2. The essential feature of the definition of variable capital—and
hence of the transformation of any sum of values at all into capital—is
that the capitalist exchanges a definite, given (and in this sense con-
stant) value for value-creating power; a magnitude of value for the
production of value, for self-valorization. Whether the capitalist pays
the worker in money or in means of subsistence does not affect this
fundamental characteristic. It affects only the mode of existence of the
value advanced by him, which exists in one case in the form of money,
with which the worker himself buys his means of subsistence on the market, in the other case in the form of means of subsistence that he consumes directly. Developed capitalist production in fact assumes that the worker is paid in money, just as it assumes in general that the production process is mediated by the circulation process, i.e. a money economy. But the creation of surplus-value, and hence the capitalization of the sum of value advanced, arises neither from the money form nor from the natural form of wages, i.e. of the capital laid out on the acquisition of labour-power. It arises from the exchange of value for value-creating power, from the conversion of a constant quantity into a variable one.

The more or less fixed character of the means of labour is a function of their degree of durability, i.e. of a physical property. According to their durability, they are worn out more quickly or more slowly, conditions remaining otherwise the same, and thus function for a longer or shorter time as fixed capital. But it is in no way simply this physical property of durability which leads them to function as fixed capital. In metal works, the raw material is just as durable as the machines with which it is processed, and more durable in fact than many components of these machines – leather, wood, etc. But the metal serving as raw material does not form any the less a part of the circulating capital, while the functioning means of labour that may be constructed of the same metal form part of fixed capital. Thus it is not its material, physical nature, its greater or lesser propensity to perish, which makes the same metal in one case fixed capital and in the other case circulating capital. This distinction rather arises from the role that it plays in the production process, in one case as object of labour, in the other case as means of labour.

The function of a means of labour in the production process generally requires it to serve over and over again in repeated labour processes for a longer or shorter period of time. Its function thus prescribes a greater or lesser degree of durability for its material. But the durability of the material from which it is made does not make it in and for itself fixed capital. The same material becomes circulating capital if it is used as raw material, and for those economists who confuse the distinction between commodity capital and productive capital with the distinction between circulating and fixed capital, the same material or the same machine is circulating capital as a product, and fixed capital as a means of labour.

Even though it is not the durable material of which the means of labour is made that makes it fixed capital, its role as means of labour does require it to consist of a more or less durable material. The durability of its material is thus a condition for its function as means of labour, hence also a material basis of the mode of circulation that makes it fixed capital. Other things being equal, the greater or lesser perishability of its material imprints it to a lower or higher degree with the stamp of fixedness, and is thus very fundamentally bound up with its quality as fixed capital.

If the portion of capital laid out on labour-power is considered exclusively from the standpoint of circulating capital, i.e. in contrast to fixed capital, and if the distinction between constant and variable capital is therefore lumped together with the distinction between fixed and circulating capital, it is then natural, as the material reality of the means of labour is an essential basis for its character as fixed capital, also to derive the opposite character of the capital laid out on labour-power as circulating capital from the material reality of this capital, and then to define circulating capital in terms of the material reality of variable capital.

The real material of the capital laid out on wages is labour itself, self-acting, value-creating labour-power, living labour, which the capitalist has exchanged for dead, objectified labour, and incorporated into his capital, this being the way that the value existing in his hands is first transformed into a self-valorizing value. But the capitalist does not sell this power of self-valorization. It forms throughout simply a component of his productive capital, just like his means of labour, and is never a component of his commodity capital, like the finished product that he sells, for instance. Within the production process, the means of labour, as components of productive capital, are not distinguished from labour-power as fixed capital, any more than the material of labour and ancillaries coincide with it as circulating capital. From the standpoint of the labour process, both of these confront labour-power as the personal factor, they themselves being the objective factors. From the standpoint of the valorization process, both are distinct from labour-power, variable capital, as constant capital. Alternatively, if we are to speak of a material difference that affects the circulation process, this is simply that it follows from the nature of value, which is nothing other than objectified labour, and from the nature of self-acting labour-power, which is nothing other than self-objectifying labour, that labour-power constantly creates value and surplus-value as long as it continues to function; that what presents itself on its side as movement, as the creation of value, presents itself on the side of its product in a motion-
The Turnover of Capital

According as capital is rapidly perishable, and requires to be frequently reproduced, or is of slow consumption, it is classed under the heads of circulating, or of fixed capital. 4

He notes below this:

'A division not essential, and in which the line of demarcation cannot be accurately drawn.' 5

Thus we have happily ended up once again back with the Physiocrats, where the distinction between avances annuelles and avances primitives was a distinction in the times of consumption, and hence also in the varying reproduction times, of the capital applied. It is simply that what in their case expressed a phenomenon of importance for social production, and is depicted in [Quesnay's] Tableau économique in connection with the circulation process, here becomes a subjective distinction, and one that Ricardo himself says is superfluous.

As soon as the part of capital laid out on labour is distinguished from that laid out on means of labour only by its reproduction period and thus its term of circulation, as soon as the one part consists of means of subsistence, the other of means of labour, so that the former is distinguished from the latter only by its more transient character, then every pertinent difference between the capital laid out on labour-power and that laid out on means of production is obviously destroyed.

This completely contradicts Ricardo's doctrine of value, as well as his theory of profit, which is in point of fact a theory of surplus-value. He only ever considers the distinction between fixed and circulating capital in so far as different proportions of the two, in the case of capitals of equal size in different branches of industry, influence the law of value, and particularly the degree to which a rise or fall in wages affects prices as a result of these circumstances. Yet even within this restricted investigation, he commits very great errors, as a result of confusing fixed and circulating with constant and variable capital, and in fact he starts his investigation on a completely false basis. Thus (1) in so far as the portion of capital value laid out on labour-power is subsumed under the heading of circulating capital, the characteristics of circulating capital are themselves falsely presented, and so in particular are the circumstances which subsume the portion of capital laid out on labour under this heading. (2) There is a confusion between the quality that makes the part of capital laid out on labour variable, and the quality that makes it circulating in contrast to fixed.

3. op. cit., p. 26 [Pelican edn, p. 72].

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4. ibid. [Pelican edn, pp. 72–3].

5. ibid.
It is clear from the start that the definition of the capital laid out on labour-power as circulating or fluid is a secondary one, which glosses over its specific difference in the production process. Firstly, in this definition the capitals laid out on labour and on raw materials, etc. are equivalent; and a classification that identifies one part of the constant capital with the variable capital does not come to grips with the specific difference of variable capital as opposed to constant. Secondly, although the portions of capital laid out on labour and on means of labour are counterposed to one another, this is in no way with respect to the fact that they are involved in the production of value in completely different ways, but simply with respect to the different periods of time during which the given value of both is transferred to the product.

What is at issue in all these cases is how a given value which is invested in the production process of a commodity, whether as wages, the price of raw materials or the price of means of labour, is transferred to the product, hence circulated by the product and brought back to its starting-point or replaced by its sale. The only distinction here consists in the 'how', in the particular way in which this value is transferred and thus circulates.

Whether the price of labour-power, which in any case is previously determined by contract, is paid in money or in means of subsistence, in no way changes its character of being a definite and given price. However, in the case of wages paid in money, it is obvious that it is not the money itself that enters the production process, in the same way that it is not just the value but also the material of the means of production that enters this process. But if the means of subsistence that the worker buys with his wage are directly placed under one heading together with the raw materials, etc., as the material shape of circulating capital, and the means of labour counterposed to them, then this gives the matter a different appearance. If the value of one lot of things, the means of production, is transferred to the product in the labour process, then the value of the other lot of things, the means of subsistence, reappears in the labour-power that consumes them, and is similarly transferred to the product by the labour-power's activity. What is involved in all these cases is similarly the mere reappearance in the product of the values advanced during production. (The Physiocrats took this seriously and denied that industrial labour created surplus-value.) Thus, in the passage from Wayland already quoted:

'It matters not in what form capital reappears ... The various kinds of food, clothing, and shelter, necessary for the existence and comfort of the human being, are also changed. They are consumed from time to time, and their value reappears ...' (*Elements of Political Economy*, pp. 31, 32.)*

The capital values advanced to production in the shape of means of production and means of subsistence here both equally reappear in the value of the product. The capitalist production process is thus successfully transformed into a complete mystery, and the origin of the surplus-value present in the product completely withdrawn from view.

What is also brought to fulfilment here is the fetishism peculiar to bourgeois economics, which transforms the social, economic character that things are stamped with in the process of social production into a natural character arising from the material nature of these things.† Means of labour, for instance, are fixed capital — a scholastic definition which leads to contradictions and confusion. Just as we have shown how, in the labour process (Volume 1, Chapter 7), it depends entirely on the role which the objective components play at the time in a particular labour process, on their function, whether they function as means of labour, material of labour or product, so, in precisely the same way, means of labour are fixed capital only where the production process is in fact a capitalist production process and the means of production are thus actually capital, i.e. possess the economic determination, the social character, of capital; secondly, they are fixed capital only if they transfer their value to the product in a particular way. If this is not the case, then they remain means of labour without being fixed capital. In the same way, ancillaries such as fertilizer, if they give up their value in the same particular way as do the greater part of means of labour, are fixed capital, although they are not means of labour. What is at issue here is not a set of definitions under which things are to be subsumed. It is rather definite functions that are expressed in specific categories.

If it is the destiny of the means of subsistence in themselves, a property devolving on them under all circumstances, to be capital laid out on wages, then it also becomes the character of this 'circulating' capital 'to support labour' (Ricardo, p. 25 [Pelican edn, p. 72]). If the means of subsistence were not 'capital', then they would not support labour-

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*See Volume 1, p. 316. Francis Wayland (1796–1865) was an American economist, and the author of a popular manual *The Elements of Political Economy*, Boston, 1843. Like the Britons Malthus and Chalmers, Wayland, too, combined the professions of economist and parson.

†See Volume 1, Chapter 1, 4.
power; though it is in fact precisely their character as capital that gives them the property of supporting capital by the labour of others.

If means of subsistence are inherently circulating capital – after this has been transformed into wages – then it further results that the size of the wage depends on the ratio between the number of workers and the given mass of circulating capital – a favourite proposition of the economists – whereas in point of fact the quantity of means of subsistence that the worker withdraws from the market, and the quantity which the capitalist has at his disposal for his own consumption, depend rather on the ratio between surplus-value and the price of labour.

Ricardo, like Barton, constantly confuses the ratio between variable and constant capital with the ratio between circulating and fixed capital. We shall see later on how this vitiates his investigation of the rate of profit.*

Ricardo further equates the distinctions that arise in the turnover for reasons other than the distinction between fixed and circulating capital, with the latter distinction itself:

'It is also to be observed that the circulating capital may circulate, or be returned to its employer, in very unequal times. The wheat bought by a farmer to sow is comparatively a fixed capital to the wheat purchased by a baker to make into loaves. One leaves it in the ground, and can obtain no return for a year; the other can get it ground into flour, sell it as bread to his customers, and have his capital free to renew the same, or commence any other employment in a week' (pp. 26, 27 [Pelican edn., p. 73]).

It is characteristic here that wheat, although as seed-corn it serves not as means of subsistence but as raw material, is firstly circulating capital, because it is inherently means of subsistence, and secondly fixed capital, because its return stretches over a year. But it is not just the slower or more rapid return that makes a means of production into fixed capital, but rather the specific manner in which it gives up value to the product.

The confusion created by Adam Smith has led to the following results:

1. The distinction between fixed and fluid capital is confused with the distinction between productive capital and commodity capital. Thus the same machine is circulating capital, for example, when it exists on


* See Volume 3, Chapters 1 to 3.